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<td>Voluntary Testing and Counselling</td>
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<td>XDR</td>
<td>Extensive Drug Resistant</td>
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Foreword

Defining knowledge and knowledge gaps relevant to health, helping establish health policy, issuing technical guidance and recommendations, and monitoring health trends are all core functions of WHO. Since the early 1980s, WHO has been active in translating the evolving science of HIV/AIDS into practical advice for countries as they mounted a response to this most severe, heterogeneous and complex epidemic.

WHO coordinated the early global response to HIV/AIDS through its Special (later Global) Programme on AIDS that worked closely with Ministries of Health in low and middle income countries to mount evidence-based programmes to combat this new disease. Following the establishment of UNAIDS in 1996 and the later agreed upon division of labour between UNAIDS cosponsoring organizations, WHO remained the lead agency for the health sector response to HIV/AIDS.

The rapidity of change in scientific understanding and the breadth of the response mounted meant that technical advice concerning prevention, diagnosis, treatment or care for HIV/AIDS could quickly become obsolete. However, no mechanism was in place at WHO to update earlier guidance, discard it, or confirm on an on-going basis that it was still relevant. In addition, the range of technical guidance was diverse, and no single place existed where it could be easily accessed in a “one stop shopping” approach.

2003 was an important year in the global AIDS response with the Global Fund to Fight AIDS, Tuberculosis and Malaria becoming operational, the President’s Emergency Plan for AIDS Relief being announced, and WHO’s “3x5” initiative being launched. The substantial programmatic scale-up that these events signified highlighted the need for sound, evidence-based, impartial guidance for public health action.

Building on the achievements of “3x5” and other initiatives, in 2005 leaders of the G8 countries meeting in Glenneagles, Scotland, committed to working with international organizations to develop and implement a “package” of interventions to try to achieve universal access, a goal later endorsed by member states at the United Nations General Assembly. The nature of such an essential package remained to be defined.

Following the “3x5” initiative, WHO has been acutely aware of the increasing importance of the health sector in the quest for universal access to HIV prevention, treatment, care and support, and in tracking the epidemic and monitoring the response. The original call by the G8 for a package of interventions, combined with the need to update technical guidance on an ongoing basis and to make such advice more user-friendly, led WHO to develop this umbrella document that brings together in one place key WHO guidance and references for the health sector’s response to HIV/AIDS.

Priority interventions: HIV/AIDS prevention, treatment and care in the health sector defines the essential interventions the health sector should deliver and provides key references as well as links to web-based resources. This initial version of the document will be further adapted and finalized in coming weeks, and will be published in print format as well as electronically, to be then updated on a regular basis as a “living document”. The document provides WHO’s best attempt to assemble and package normative advice for the health sector concerning the essential response to HIV/AIDS. We hope it will prove useful for all those who work in the health sector, whatever their capacity, as they confront the realities of HIV/AIDS throughout the world.

Teguest Guerma
Associate Director

Kevin M. De Cock
Director

21 July, 2008

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Geneva, Switzerland
Introduction

TOWARDS UNIVERSAL ACCESS

Every day, more than 6,800 people become infected with HIV and more than 5,700 die, mostly because they have no access to HIV prevention, treatment and care services. Despite progress made in scaling up the response over the last decade, the HIV pandemic remains the most serious infectious disease challenge to global public health. Of eight key areas covered by the Millennium Development Goals (MDGs), six — reduced poverty and child mortality, increased access to education, gender equality, improved maternal health and efforts to combat major infectious diseases — are being undermined by continuing transmission of HIV and its progression to AIDS.

International mobilization to combat HIV has increased substantially since the MDGs were established in 2000. The 2001 Declaration of Commitment on HIV/AIDS marked the beginning of a sea change in the response to AIDS. It was followed, in subsequent years, by ever increasing political and financial commitment. The WHO and UNAIDS-led ‘3 by 5’ initiative, major donors such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, the World Bank’s Multi-country AIDS Programme, the US President’s Emergency Plan for AIDS Relief and other partners’ programmes have all contributed to a dramatic scale up of antiretroviral treatment (ART) in many developing countries.

By December 2007, an estimated 3 million people living with HIV were receiving ART in low- and middle-income countries and they represented 31% of the estimated 9 million people in need of ART. However, the number of new HIV infections remains high — an estimated 2.5 million in 2007 — because too many people are unable to access HIV prevention services. Prevention efforts have often been late in starting, under-resourced and poorly supported, even though it is now well recognized that a comprehensive approach comprising HIV prevention, treatment and care is essential for reducing new infections and AIDS deaths.

The achievements of the ‘3 by 5’ initiative inspired the current commitment to universal access. In 2005, G8 leaders announced their intention to “…work with WHO and UNAIDS and other international organisations to develop and implement a package of HIV prevention, treatment and care, with the aim of coming as close as possible to universal access to treatment for all those who need it by 2010.”

In September 2005, 191 United Nations Member States endorsed the universal access goal at the High-Level Plenary Meeting of the 60th Session of the United Nations General Assembly. In June 2006, a United Nations General Assembly High-Level Meeting on AIDS reaffirmed both the 2001 Declaration of Commitment on HIV/AIDS and the universal access goal. In July 2008 at their Hokkaido Toyko Summit, G8 leaders reaffirmed their commitment to the universal access goal and also called for enhanced efforts to address gender inequalities and stigma and discrimination and to expand access to sexual and reproductive health services, especially for adolescents and most-at-risk populations.

The global partners’ continuing reaffirmation of their commitment to the universal access goal highlights two needs, for the accelerated scaling up of a comprehensive package of HIV prevention, treatment and care for the accelerated strengthening of health care systems.

‘Universal access’ means establishing an environment in which HIV prevention, treatment, care and support interventions are available, accessible and affordable to all who need them. It covers a wide range of interventions that are aimed at individuals, households, communities and countries.

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5 The Global Consultation on HIV Treatment and Prevention: A report of the Global HIV Prevention Working Group May, 2004- working draft
7 United Nations. 60/262. Political Declaration on HIV/AIDS. 2006.
THE HEALTH SECTOR RESPONSE

The scaling up of a comprehensive package of HIV prevention, treatment and care and the strengthening of health care systems will require the mobilization of partners from many sectors and their collaboration with each other. However, partners in the health sector have special responsibilities for providing leadership and coordination given that their sector provides so many of the critical opportunities for scaling up HIV-related services.

As the UNAIDS cosponsor primarily responsible for promoting and supporting health sector initiatives, WHO has established priorities under five strategies for action in critical areas where the health sector in each country must invest if it is to make significant progress towards achieving the universal access goal:9

1. Enabling people to know their HIV status
2. Maximizing the health sector’s contribution to HIV prevention
3. Accelerating the scale-up of HIV/AIDS treatment and care
4. Strengthening and expanding health systems
5. Investing in strategic information to guide a more effective response.

As defined by WHO, the health sector is “…wide ranging and encompasses organized public and private health services (including those for health promotion, disease prevention, diagnosis, treatment and care); health ministries, non-governmental organizations; community groups; and professional associations; as well as institutions which directly input into the health care system (e.g. pharmaceutical industry and teaching institutions).”10 11

THE PUBLIC HEALTH APPROACH

Efforts to scale up HIV programmes have resulted in a wide variety of service delivery models, guidelines and tools. WHO promotes a public health approach to health service delivery.12 13 The foundation of this approach is the identification and implementation of the priority HIV prevention, treatment and care interventions to be delivered by the health sector; standardization and simplification of protocols and tools to allow broad delivery; and optimization of financial and human resources to deliver the most appropriate and effective interventions for the greatest good for the most people.

The principles that should guide the health sector response include:

• ensure the full and proactive involvement of governmental, non-governmental and private sector organizations and of civil society, especially people living with HIV including people with most-at-risk of infection;

• tailor interventions to where the burden of the disease lies, taking into account the nature of the epidemic and the context (e.g., cultural traditions, social attitudes, political, legal and economic constraints) in specific settings;

• create a supportive enabling environment by addressing stigma and discrimination, applying human rights principles and promoting gender equity, as well as by reforming laws and law enforcement to ensure that they adequately respond to the public health issues raised by HIV and AIDS;

• offer a continuum of services from those that can be provided by home and community to those that require health facilities, all in conjunction with outreach to and consultation with community leaders and members and especially with people living with and affected by HIV.

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PRIORITY INTERVENTIONS
The priority interventions described in Chapter 1 are the complete set of interventions recommended by WHO as necessary to mount an effective and comprehensive health sector response to HIV and AIDS.

Universal access in the health sector requires that the priority interventions be delivered in ways that are physically accessible, publicly acceptable, affordable and of satisfactory quality.

The full package of priority interventions is ideal or “aspirational.” The actual package of priority interventions chosen by each country should be based on practical considerations such as the nature of the country’s epidemic, the context (cultural traditions, etc), the country’s unique approach to service delivery (e.g., through some mix of public, non-governmental and private providers), and the availability of financial, human and other resources.

The priority health sector interventions for HIV prevention, treatment and care include:

- Interventions based in health facilities, including information and education and supplies and services for preventing HIV transmission in health care settings, preventing sexual HIV transmission, managing sexually transmitted infections, preventing mother to child HIV transmission, providing harm reduction for injecting drug users (IDUs), HIV testing and counselling, preventing HIV transmission by people living with HIV, preventing the progression of HIV infection to AIDS, and the clinical management of treatment and care for people living with HIV;

- Interventions based in communities, including community based prevention, treatment preparedness and support for HIV and tuberculosis (TB), condom promotion, provision of clean injecting equipment, HIV testing and counselling, home-based care, and psychosocial support including peer support;

- Interventions delivered through outreach to most-at-risk populations, including integrated HIV testing, counselling, treatment and care services in drop-in centres and similar locations, including mobile ones;

- National measures required for supporting service delivery, including leadership, advocacy, strategic planning, programme management, procurement and supply management, laboratory services, human resources, financing and HIV and STI strategic information management systems.

TAILORING PRIORITY INTERVENTIONS TO THE TYPE OF HIV EPIDEMIC
At a global, national and local levels the HIV epidemic comprises a multitude of diverse epidemics. The priority given to different interventions may vary from place to place, according to the particular characteristics of each place’s epidemic and the epidemic’s context (see Box 1).

BOX 1. TYPOLGY OF HIV EPIDEMICS
WHO and UNAIDS define the different types of HIV epidemics as follows:

Low-level HIV epidemics
Although HIV may have existed for many years, it has never spread to substantial levels in any sub-population. Recorded infection is largely confined to individuals with higher risk behaviour: e.g. sex workers, drug injectors, men having sex with other men. Numerical proxy: HIV prevalence has not consistently exceeded 5% in any defined sub-population.

Concentrated HIV epidemics
HIV has spread rapidly in a defined sub-population, but is not well-established in the general population. This epidemic state suggests active networks of risk within the sub-population. The future course of the epidemic is determined by the frequency and nature of links between highly infected sub-populations and the general population. Numerical proxy: HIV prevalence is consistently over 5% in at least one defined subpopulation but is below 1% in pregnant women in urban areas.

Generalised HIV epidemics
In generalised epidemics, HIV is firmly established in the general population. Although sub-populations at high risk may contribute disproportionately to the spread of HIV, sexual networking in the general population is sufficient to sustain an epidemic independent of sub-populations at higher risk of infection. Numerical proxy: HIV prevalence consistently over 1% in pregnant women.

Within generalized epidemics, there is a large range of HIV prevalence, including countries with HIV prevalence greater than 15%. The guidance provided for generalized epidemics in this document would also apply to these epidemics.
The selection of priority interventions and target populations needs to be based on a clear understanding of the epidemiology of HIV in the country — who is being infected, where, how and why — together with a detailed understanding of the most appropriate interventions for the particular setting. To successfully curtail transmission, effective services for prevention must reach those geographic areas and populations where HIV is spreading most rapidly and the interventions must be at sufficient scale and intensity to achieve impact. Similarly, effective services for treatment and care must reach those geographic areas where people with HIV are located.

TAILORING PRIORITY INTERVENTIONS TO THE CONTEXT OF THE EPIDEMIC

Besides taking the unique characteristics of the epidemic into consideration, successful tailoring requires taking context into consideration. This requires assessing the health system's readiness, the unique nature of the health system in a particular geographic area (e.g., who are the service providers, how are they financed, etc), cultural traditions, social attitudes, political will, requirements for additional staff and facilities and equipment and supplies, costs and available sources of financing. Such an assessment is best kept current through a regularly updated situation analysis.

Once the epidemic’s typology and context are well understood, a number of key principles can be used to guide the selection and prioritization of interventions and of appropriate service delivery approaches (see Box 2).

BOX 2. SELECTING AND PRIORITIZING INTERVENTIONS AND SERVICE DELIVERY APPROACHES

**In all epidemics:**
- Place top priority on accelerating prevention
- Select prevention interventions which match current patterns of HIV transmission
- Focus on geographic areas and populations where HIV is spreading most rapidly
- Select HIV testing and counselling approaches that will optimize entry to prevention and care while also testing all pregnant women at risk
- Plan treatment and care services that are accessible and will be used by those affected or targeted (this requires designing/configuring services that are acceptable to IDUs, sex workers and MSM)
- Select the most effective service delivery approaches for implementing the interventions — through households, communities, health centres, hospitals or outreach to most-at-risk populations.
- Ensure HIV testing, counselling, prevention, and treatment and care services include outreach services to most-at-risk populations.

**In low level epidemics:**
- Recognize that affected individuals are often from marginalized populations and subject to stigma and discrimination
- Plan service delivery to match the distribution of people most-at-risk of infection and people living with HIV
- Define an optimal package of services and referral linkages to reach the above people
- Emphasize prevention so HIV incidence remains low

**In concentrated epidemics:**
- Recognize that effective targeted interventions require information on most-at-risk populations and their access to services
- Target interventions to most-at-risk populations, usually sex workers, MSM, transgender people, injecting drug users
- Prioritize special interventions for injecting drug use wherever the practice occurs
- Ensure adequate coverage of prevention interventions for identified most-at-risk populations
- Use outreach by peers or people trusted by the target population, self-help and community groups, and local clinics able to provide friendly services for particular populations

**In generalized epidemics:**
- Select service delivery approaches able to address the high risk of infection, many new infections, multiple affected groups and large numbers of people requiring treatment and care
- Decentralize HIV services to health centres and into the community
- Integrate HIV prevention, treatment and care services within primary care
- Emphasize prevention for PLWH
- Recommend HIV testing to all patients seeking care (PITC), and pregnant or breastfeeding women

See chapter 5 for further detail and resources.
OBJECTIVES OF THIS DOCUMENT

This document aims to:

1. describe the priority health sector interventions that are needed to achieve universal access to HIV prevention, treatment and care;

2. summarize key policy and technical recommendations developed by WHO and related to each of the priority health sector interventions;

3. guide the selection and prioritization of interventions for HIV prevention, treatment and care;

4. direct readers to the key WHO resources and references containing the best available information on the overall health sector response to HIV/AIDS and on the priority health sector interventions, with the aim of promoting and supporting rational decision making in the design and delivery of HIV-related services.

TARGET READERS

This document is intended for a broad readership of public health decision makers, national AIDS programme managers, health care providers and workers (governmental, non-governmental and private), international and national and local donors, and civil society, including people living with and affected by HIV.

The document is structured as follows:

CHAPTER 1: The priority interventions for HIV/AIDS prevention, treatment and care in the health sector

This chapter describes the priority health sector interventions for HIV/AIDS that are recommended by WHO. It summarizes relevant technical recommendations in each intervention area and provides references to the key resources, with links to online versions if they are available.

CHAPTER 2: Strengthening health systems

This chapter discusses specific components of health system strengthening that need to be considered when scaling up the priority health sector interventions for HIV/AIDS. These components include integration and linkage of health services; infrastructure and logistics; human resource development; equitable access to medical products and technologies; health financing; advocacy and leadership; mobilizing partnerships including with people living with HIV (PLHIV); and addressing gender, stigma and discrimination.

CHAPTER 3: Strategic information

This chapter highlights the importance of strategic information about the epidemic to guide planning, decision-making, implementation and accountability of the health sector response to HIV/AIDS.

CHAPTER 4: Operationalizing the health sector response

This chapter discusses HIV programme management and provides guidance on critical issues to consider when selecting and prioritising interventions in different types of HIV epidemics.

CHAPTER 5: Resources to support implementation of the priority health sector interventions for HIV prevention, treatment and care

This chapter is organized by intervention area and provides references to and descriptions of a wide range of tools and other resources for scaling up the health sector response to HIV.

To ensure broad access, this document will be available in hard copy and in electronic version (on the web and on CD-ROM). It is designed to be a living document, making it possible for WHO to continually learn from and contribute to the rapidly evolving experiences of scaling up the health sector response to HIV. This means that WHO will update its content on a regular basis and maintain a current version online.
Chapter 1
The priority interventions for HIV/AIDS prevention, treatment and care in the health sector

BACKGROUND
To achieve a comprehensive response to HIV/AIDS, the health sector has to take responsibility for delivering interventions to prevent new HIV infections and to improve quality of life and avert premature death in adults and children living with HIV. The priority interventions outlined in this chapter, if implemented together and at sufficient scale and intensity, constitute an effective and equitable health sector response to HIV/AIDS.

Based on the best available evidence, these priority interventions are recommended by WHO. They include a wide range of interventions for providing knowledge of HIV status, preventing transmission of HIV and other sexually transmitted infections, and providing treatment and care for HIV/AIDS. Section 1.1 discusses interventions under the first strategy for action, enabling people to know their HIV status. Section 1.2 discusses interventions under the second strategy for action, maximising the health sector’s contribution to HIV prevention. Section 1.3 discusses interventions under the third strategy for action, accelerating the scale-up of HIV/AIDS treatment and care. Chapter 2 and 3 discuss interventions under the final two strategies for action, strengthening and expanding health systems and investing in strategic information to guide a more effective response.

In addition to depending on implementation of the priority interventions described in this chapter, the effectiveness of the HIV response is contingent on the quality and characteristics of service provision and especially on the broad cultural and social context and the level of community commitment to and participation in efforts to counter stigma and discrimination. HIV-related stigma and discrimination are often prevalent within health services, and they are critical obstacles to provision and uptake of health sector interventions. They are also often pervasive at all levels of society and, if so, sustain an environment where it is difficult to for health services to attract the people who most need them. They can be reduced through strong leadership and concrete measures in national strategic planning and programme design and implementation. Such measures can not only help countries to reach key targets for universal access, but can also promote and protect human rights and foster respect for people living with and affected by HIV/AIDS.

Other factors that can undermine or enhance the effectiveness of the HIV response include the weakness or strength of a coordinated and participatory national framework for HIV; the level of commitment to an HIV response that is consistent with human rights and fundamental freedoms; and the level of commitment to informing and consulting with the community during all phases of policy and programme design and implementation. Collaboration with the community should include promoting a supportive and enabling environment for women, should address underlying prejudices and inequalities and should include women’s involvement in the design of social and health services that work for them.

For each priority intervention, there is a brief description and, in some cases, a discussion of the actions required to support its implementation. There is also a summary of relevant recommendations from current technical guidelines, and references to the full guidelines and other key resources.

Chapter 5 provides a more comprehensive list of current tools, guidelines and resources to support implementation of the priority interventions.

1.1 ENABLING PEOPLE TO KNOW THEIR HIV STATUS
Increasing the numbers of people, especially in most-at-risk populations, who know their HIV status through HIV testing and counselling is key to expanding access to HIV prevention, treatment and care.

WHO guidance on HIV testing and counselling aims for synergies between medical ethics, human rights and clinical and public health objectives. The fundamental principle of HIV testing is that it must be accompanied by basic pre-test information to enable the client to make an informed and voluntary decision to be tested. The “Three C’s” - informed Consent, Counselling and Confidentiality - should always be maintained. Additional tools are being developed to address the “Three C’s” as they apply to children and adolescents.

The UNAIDS/WHO policy on HIV testing and counselling defines two main categories:

i) client-initiated HIV testing and counselling

ii) provider-initiated HIV testing and counselling
For both categories the following applies: it is crucial that those who will be tested receive pre-test counselling so they can provide informed consent. After testing, those who found to be HIV-negative should learn how to remain negative and those found to be HIV-positive should learn how to prevent transmission to others and maintain their own good health and, where appropriate, should receive clinical assessment and referral to appropriate services.

Pre-test information can be provided in the form of individual counselling sessions or in group health information talks and should provide information on: the clinical and prevention benefits of testing; the potential risks, including stigma and discrimination, abandonment or violence; the measures that will be taken to guarantee confidentiality of test results; services that are available in the case of either an HIV-negative or an HIV-positive test result; and the fact that individuals have the right to decline the test.

Post-test counselling for HIV-negative persons should provide basic information that includes an explanation of the test result, of the window period for the appearance of HIV-antibodies and a recommendation to re-test, if appropriate. It should also include advice on methods to prevent sexual transmission and provision of male or female condoms and their use. In the case of injecting drug users, it might also include provision or advice on where to obtain substitution therapy and safe injection equipment and how to use it.

Post-test counselling for HIV-positive persons should provide psychosocial support to cope with the emotional impact of the test result, referral to treatment and care services, disclosure to sexual and injecting partners, basic advice on methods to prevent HIV transmission, provision of male and female condoms and guidance on their use and other measures as outlined in section 1.4 for people living with HIV/AIDS.

WHO and UNAIDS recommend “beneficial disclosure” where HIV-positive individuals themselves notify sexual or drug-injecting partners of their HIV status, whenever appropriate. Informing partners is an effective means of reducing HIV transmission. It also facilitates prevention, care, support and adherence to treatment and promotes greater openness about HIV within communities.

Key resources: 1 2 3 4  (The preceeding numbers provide links to the key resources listing at the end of this document)

UNAIDS/WHO Policy Statement on HIV Testing
[LINK](http://www.who.int/rpc/research_ethics/hivtestingpolicy_en_pdf.pdf)

Opening up the HIV/AIDS epidemic: Guidance on encouraging beneficial disclosure, ethical partner counselling and appropriate use of HIV case-reporting
[LINK](http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp_en.pdf)

HIV counselling and testing E-Library
[LINK](http://www.who.int/hiv/topics/vct/elibrary/en/index.html)

Guidelines for implementation of reliable and efficient diagnostic HIV testing - Region of the Americas (PAHO, 2008)
[LINK](http://www.paho.org/English/AD/FCH/AI/LAB_GUIDE_ENG.PDF)

1.1.1 CLIENT-INITIATED HIV TESTING AND COUNSELLING
Client-initiated testing and counselling (CITC), also called voluntary counselling and testing (VCT), occurs when people come to a service to find out their HIV status.

CITC emphasizes individual risk assessment and, also, counselling that addresses the implications of taking an HIV test and the strategies for reducing risk. Counselling covers prevention both prior to and after receiving test results and, if results are positive, referral to care, treatment and support services.

Summary of recommendations:
WHO and UNAIDS recommend that known and innovative approaches be used to scale up and expand access to CITC. These approaches should optimize convenience for clients, decentralize services and provide testing and counselling in a wide variety of settings, including health facilities, community-based locations, in work places and through outreach services that may be stationary or mobile. They should offer services outside normal working hours and remove any financial barriers to testing and related services.
In the case of low or concentrated epidemics, the programmatic focus should be on increasing access and uptake among most-at-risk populations. In the case of generalized epidemics, CITC should be made widely available using a variety of approaches.

**Key resources:** 5 6

WHO “Scaling Up HIV testing and counselling (TC) services” online Toolkit:  
[LINK](http://www.who.int/hiv/topics/vct/toolkit/en/index.html)

[LINK](http://www.iom.int/jahia/webdav/site/myjahiasite/shared/sharedsite/published_docs/brochures_and_info_sheets/HIV%20counselors%20GUIDE%20FINAL_Apr2006%20(4).pdf)

### 1.1.2 PROVIDER-INITIATED HIV TESTING AND COUNSELLING

Provider-initiated testing and counselling (PITC) occurs when HIV testing and counselling is recommended by health care providers as a standard part of medical care to individuals attending health care facilities. The purpose of PITC is to enable specific clinical decisions to be made and/or specific medical services to be offered that would not be possible without knowledge of the person’s HIV status.

PITC includes testing and counselling for adults, children and infants where HIV is suspected; the routine recommendation of testing for all patients or specified groups of patients accessing health facilities; and the recommendation of testing for family members and partners of HIV-positive people.

**Summary of recommendations:**

WHO and UNAIDS recommend that PITC start with basic pre-test information provided either on an individual or group basis. PITC should require informed consent, with the client given all necessary information to make a rational decision and given the opportunity to decline testing. This opportunity should be given in private, in the presence of a health care provider. Post-test counselling should be tailored to the test result and, in the case of a positive result, should be more extensive. As with all HIV testing, confidentiality should be guaranteed and health care providers should take measures to ensure that this guarantee is upheld.

The UNAIDS/WHO guidance on PITC specifies situations in which health care providers should recommend testing and counselling, based on the characteristics of the epidemic in a given setting:

- In all HIV epidemics, HIV testing and counselling is recommended for all patients whose clinical presentation might result from underlying HIV infection, for all HIV-exposed children and prior to HIV post-exposure prophylaxis.

- In low-level or concentrated epidemics, PITC is not recommended for all patients attending health care facilities but should be considered in a range of specific situations (where patients have come for STI services; where services are provided to most-at-risk populations; where patients have come for antenatal, childbirth and postpartum services; and patients have come for TB- or hepatitis-related services).

- In generalized epidemics, PITC is recommended for all patients attending health facilities, regardless of whether they show signs or symptoms of underlying HIV infection or of their reason for coming to a health facility, including for men prior to circumcision.

HIV testing and counselling as early as possible during pregnancy enables pregnant women to benefit from prevention, treatment and care and to access interventions for reducing HIV transmission to their infants and is therefore recommended.

**Key resources:** 7 8 9 10

WHO/UNAIDS Guidance on Provider-Initiated HIV Counselling and Testing in Health Services  
[LINK](http://whqlibdoc.who.int/publications/2007/9789241595568_eng.pdf)

WHO Case Definitions of HIV for Surveillance and revised Clinical Staging and Immunological Classification of HIV-related Disease in Adults and Children  
[LINK](http://www.who.int/hiv/pub/guidelines/HIVstaging150307.pdf)

HIV testing and counselling in TB clinical settings tools.  
[LINK](http://www.who.int/hiv/capacity/IMAisharepoint/en)

IMAI PITC core training course and PITC counselling training video.  
[LINK](http://www.cdc.gov/nchstp/od/gap/pa_hiv_tools.htm)
1.1.2.1 FAMILY AND PARTNER HIV TESTING AND COUNSELLING

It is important that people diagnosed HIV-positive be encouraged to disclose their HIV status to those who need to know (e.g., sexual and needle-sharing partners) and to propose HIV testing and counselling to their sex or needle-sharing partners and that they be supported in these endeavours. The testing and counselling of sexual and needle-sharing partners can be done either in the health facility — for example, following counselling of a couple — or through referral to another facility that welcomes client-initiated HIV testing and counselling.

Since parents generally accompany their children during visits to child health services, opportunities arise to recommend HIV testing and counselling for the parents and siblings of HIV-infected children. This is should be done especially for mothers of HIV-infected children and for women who were not tested while using PMTCT services.

Summary of recommendations:

HIV testing and counselling should be recommended for sex partners, drug-injecting partners, children and other immediate family members of all people living with HIV where horizontal or vertical transmission may have occurred. Identifying these people is often contingent on active support for beneficial disclosure, where HIV-positive individuals notify their partners and encourage them to seek HIV testing and counselling. With a family-centered approach to HIV testing, once a family member is identified as having HIV, health workers should encourage and actively facilitate HIV testing for other family members, where possible and appropriate, through couples or family testing and counselling services.

Key resources: 7 2

Guidance on Provider-Initiated HIV Testing and Counselling in Health Care Facilities

Opening up the HIV/AIDS epidemic: Guidance on encouraging beneficial disclosure, ethical partner counselling and appropriate use of HIV case-reporting

1.1.2.2 INFANT AND CHILDREN HIV TESTING AND COUNSELLING

WHO and UNAIDS PITC guidelines and ART guidelines provide guidance on when health care providers should recommend HIV testing and counselling for infants and children. Infants should have their HIV exposure established at their first contact with the health system, ideally before six weeks of age. Maternal, newborn and child health clinics, where a child receives her or his first set of vaccinations, provide important opportunities for ensuring that the mother’s HIV status is known and that infant’s HIV exposure is determined. Specific guidance on testing and counselling in children is under development.

Summary of recommendations:

PITC should be recommended for all infants and children where HIV is suspected or HIV exposure is recognized, including for all infants and children with malnutrition that do not respond to appropriate nutritional therapy or with suspected TB.

All HIV-exposed infants should have virological testing at or around 4-6 weeks of age, and confirmatory HIV antibody testing at or around 18 months.

WHO recommends that maternal or infant HIV antibody testing and counselling be performed for infants of unknown HIV exposure status in all settings where local or national antenatal HIV prevalence is greater than 1 per cent (or locally determined thresholds). In such settings, infant testing can initially be done using HIV antibody testing, and those with detectable HIV antibodies should then go on to have virological testing.

HIV testing and counselling should be recommended for all immediate family members of infants and children known to be exposed to or infected with HIV.

In children older than 18 months, HIV can be diagnosed based on HIV antibody testing, as in adults.

In infants, virological tests are required to confirm the diagnosis of HIV.

Key resources: 11 12 8

1.1.3 BLOOD DONOR HIV TESTING AND COUNSELLING
Quality-assured screening of all donated blood for transfusion-transmissible infections, in accordance with national protocols and standards, is a critical HIV prevention strategy. Inadequate screening coverage or poor quality control systems compromise the safety of the blood supply, and also hinder the management of blood donors who test HIV positive.

Blood transfusion services (BTSs) have responsibilities to confirm test results and notify donors of any infections identified and thus give donors opportunities to access HIV treatment and care. They also have responsibilities to promote low-risk behaviour that reduces the risk of the spread of infection. Effective blood donor counselling can make significant contributions to national initiatives that aim to prevent the spread of HIV and other transfusion-transmissible infections.

Summary of recommendations:
Develop and implement a national strategy for the screening of all donated blood for HIV and other transfusion-transmissible infections, using the most appropriate and effective technologies.
Maintain good laboratory practice and quality assurance systems that ensure the use of standard operating procedures in all aspects of blood screening and processing.
Include blood donor deferral, confirmatory testing, notification, counselling and referral into the policies of blood transfusion services.
Encourage donors and the general public to avoid using the blood transfusion services as health assessment services or alternatives to HIV testing and counselling services. Defer individuals who wish to donate blood mainly to have an HIV test.
Conduct effective pre-donation discussion and counselling to encourage appropriate donor self-deferral and to promote health maintenance and regular donation by HIV-negative donors.
Provide post-donation counselling by staff with HIV counselling skills for those donors who require this service.
Refer those donors found infected with HIV, hepatitis or other transfusion transmissible infections for long-term follow up and care.

Key resource: 13
WHO Blood Transfusion Safety website
LINK http://www.who.int/bloodsafety/en/

1.1.4 LABORATORY SERVICES FOR HIV DIAGNOSIS
Adequate quantities of high-quality laboratory services, skills and commodities are required to meet increased demand for HIV testing. WHO laboratory recommendations for HIV testing cover:

• Selection of affordable technologies;
• Strategies and algorithms for HIV testing protocols suited to different purposes, e.g. for blood transfusion safety, surveillance or clinical care;
• Quality assurance and good management of testing and laboratory systems.

The WHO recommendations describe different testing strategies appropriate for different HIV testing purposes, such as HIV diagnosis in clinical care settings, research and surveillance, or ensuring ensure blood transfusion safety. These different strategies take into consideration the characteristics of the epidemic and HIV prevalence in the populations to which the people being tested belong. A testing algorithm describes the combination and sequence of specific HIV assays used for a given HIV testing strategy. WHO recommendations for the selection and use of HIV antibody tests are currently being updated.
Summary of recommendations:

National HIV testing guidelines should provide specific testing algorithms for each of the testing purposes and specify which test kits should be used and in what order. Selection of test kits and the order in which they are used are of the utmost importance for good performance of the testing algorithm.

Serial testing is recommended for most HIV testing purposes. For clinical care, serial testing is usually recommended; if the result of the first HIV antibody test is negative, then the test is reported as negative. If the initial test result is positive, the specimen is tested with a second test using different antigens and/or platforms from the first. In populations with an HIV prevalence of 5% or more, a second positive test result is considered to indicate a true positive result. In low prevalence settings where false positive results are more likely, a third test is usually recommended. WHO and UNAIDS recommend serial testing in most settings because it is cheaper, since a second test is required only when the initial test is reactive.

Parallel testing is more costly because of the number of assays and labour required (particularly in low prevalence settings) but it may reduce the time needed to obtain a final test result. Parallel testing strategies can be considered in special circumstances such as, for example, the onset of labour in order to determine a mother’s HIV status and whether or not there is need for antiretroviral prophylaxis to prevent mother-to-child transmission of HIV.

Key resource: 14

Revised recommendations for the selection and use of HIV antibody tests. WHO Weekly Epidemiological Record. 1997, 72, 81–88

Quality management systems should be established in all sites carrying out HIV testing and the systems should include validated standard operating procedures, internal and external quality assessment (e.g. proficiency testing), testing aligned with national algorithms, and use of HIV assays approved and validated by the national reference laboratory. Ongoing quality assurance is required to monitor and evaluate the performance of each test within the national algorithm and to ensure ongoing performance of the testing technology and algorithm.

Key resources: 15 16 17

Guidelines for Assuring the Accuracy and Reliability of HIV Rapid Testing: Applying a Quality System Approach
LINK http://www.who.int/diagnostics_laboratory/publications/HIVRapidsGuide.pdf

Overview of HIV Rapid Test Training Package

HIV Rapid Test Training: Framework for a Systematic Roll-out

Rapid HIV tests are recommended where there are efforts to expand access to HIV testing and counselling services, particularly within community settings or health facilities where laboratory services are weak or absent. They do not require specialized equipment, allow a quick turn-around, usually have internal controls and can be operated by trained non-laboratory personnel, including lay service providers. Increasingly, HIV assays are being produced in countries with less-stringent regulatory systems and the performance of such assays warrants close attention before adoption into national testing algorithms.

Key resource: 18

HIV Assays: Operational Characteristics (Phase 1). Report 14 Simple/Rapid Tests

Enzyme immunoassays (EIA or ELISAs) are very well suited to the needs of blood transfusion services and other high volume testing services such as reference laboratories, busy inpatient facilities and for the purposes of surveillance. These tests, however, require specialized laboratory equipment and staff. Some EIA and rapid tests allow combined detection of HIV antigen and antibody.

Key resources: 19 20

HIV Assays: Operational Characteristics (Phase 1). Report 15 Antigen/Antibody ELISAs

Lab capacity to perform virological testing for HIV in infants should be established by national programmes. Assays suitable to use for early infant diagnosis include HIV DNA nucleic acid tests (NATs) such as polymerase chain reaction (PCR) and HIV
RNA nucleic acid testing technologies (PCR and other methods). For HIV testing in infants, blood samples can be collected on filter paper (dried blood spots or DBSs), which offer advantages over other specimen collection methods, including ease of collection and transport. To date, however, only HIV DNA detection assays can be used to diagnose HIV in infants using specimens collected on DBS. Plasma specimens are required for using HIV RNA methods for diagnosis. While HIV RNA assays also demonstrate the presence of HIV for purposes of diagnosis, and allow quantitative measurement of HIV RNA, there is currently insufficient evidence to recommend these are performed on DBS specimens.

1.2 MAXIMIZING THE HEALTH SECTOR’S CONTRIBUTION TO HIV PREVENTION

Primary prevention of HIV transmission requires implementation of a wide range of activities involving the health and other sectors.

HIV prevention interventions in the health sector should include: interventions aimed at changing individuals’ behaviour; interventions aimed at addressing cultural norms and social attitudes and behaviour that may increase people’s vulnerability to HIV infection; and biomedical interventions such as condoms, clean needles and providing ARVs to women and infants for prophylaxis and safe delivery. These usually require behaviour change to achieve adoption or acceptance. In sub-Saharan African countries with very high HIV prevalence, biomedical interventions including male circumcision may also be important components of HIV prevention when combined with HIV testing and counselling and promotion of condom use.

It is critical to complement HIV prevention for those who are uninfected with prevention for those already living with HIV. For those living with HIV, preventing inadvertent HIV transmission is only one of their needs. Others include preventing illness, receiving care for opportunistic infections (OIs) and accessing antiretroviral treatment. Interventions to address their need to engage in sexual activity without fear of transmitting the virus to their sexual partners is highlighted below (see 1.2.1.5 and 1.2.3), while recommendations for preventing illness and other aspects of care and treatment are outlined in section 1.3.1. Also, since the meaningful involvement of people living with HIV is instrumental in facilitating patient-provider understanding and effective HIV responses, it is described in section 2.5.2.

When prioritizing HIV prevention interventions, there should be emphasis on interventions that are likely to have the greatest impact and can be implemented at sufficient scale to have such impact. Interventions should be tailored to the burden of disease and the nature of the epidemic in specific settings as well as to the capacity and level of health services in those settings (see chapter 4).

The principles described on page 7 and in Box 2 of the introduction to this document are particularly important to apply when selecting and prioritizing prevention interventions.

Key resources: 21 22 23 24

Practical Guidelines for Intensifying HIV Prevention: Towards Universal Access

Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings

1.2.1 PREVENTION OF SEXUAL TRANSMISSION OF HIV

1.2.1.1 PROMOTING AND SUPPORTING CONDOM USE

The correct and consistent use of male condoms reduces the risk of sexual transmission of HIV by 80-90%. Evidence indicates that female condoms may offer similar levels of protection against HIV infection.

Provision of free condoms to those most in need, and ensuring condoms are available to all sexually active people are essential HIV prevention interventions. Social marketing combines marketing strategies that increase the demand and supply of condoms at subsidized cost.

Summary of key recommendations:

Male and female condom use should be scaled up as part of comprehensive HIV prevention programmes. These programmes should ensure that quality condoms are accessible to those who need them, when they need them, and that people have the knowledge and skills to use them correctly and consistently. Male and female condoms should be made available universally, either free or at low cost, and promoted in ways that help overcome social and personal obstacles to their use.
For some high risk populations, such as sex workers and men who have sex with men, providing water-based lubricant is also important. Female and male condoms should be procured according to the standards and quality assurance procedures established by WHO, UNFPA and UNAIDS and should be stored and distributed according to international norms and standards.

The health sector, as part of a multisectoral response, should provide guidance to sex education, school-based HIV education, mass media communications and education messaging, and other behaviour change interventions designed to increase demand and improve use of condoms by young people and high risk groups.

**Key resources:** 25 26 27 28

Position Statement on Condoms and HIV Prevention: July 2004  
[LINK](http://data.unaids.org/una-docs/condom-policy_jul04_en.pdf)

The male latex condom: Specification and guidelines for condom procurement  
[LINK](http://www.who.int/reproductive-health/publications/m_condom/index.html)

The female condom: a guide for planning and programming  
[LINK](http://www.who.int/reproductive-health/publications/RHR_00_8/index.html)

### 1.2.1.2 DETECTION AND MANAGEMENT OF SEXUALLY TRANSMITTED INFECTIONS

Because sexually transmitted infections (STIs) facilitate the acquisition and transmission of HIV, STI services are critical for controlling the HIV epidemic, especially among populations at higher risk for HIV transmission.

Services for STI prevention, case management and partner treatment also contribute to HIV prevention by promoting correct and consistent condom use, and supporting health education and behaviour change. A range of models for delivering STI services are required to ensure most-at-risk and vulnerable populations have access to these services.

**Summary of recommendations:**

WHO recommends that countries expand the provision of good quality STI care into primary health care, sexual and reproductive health services and HIV services. Comprehensive STI services include:

- Correct diagnosis by syndrome or laboratory test;
- Provision of effective treatment at first encounter;
- Reduction in further risk-taking behaviour through age-appropriate education and counselling;
- Promotion and provision of condoms, with clear guidance on correct and consistent use;
- Notification and treatment of STIs in sexual partners, where applicable;
- Screening and treatment for syphilis in pregnant women;
- Provision of hepatitis and human papilloma virus (HPV) vaccines to prevent genital and liver cancers;
- HIV testing and counselling in all settings providing care for STIs.

For primary care settings in low and middle income countries WHO recommends syndromic management of STIs in patients presenting with consistently recognized signs and symptoms. Treatment for each syndrome should be directed against the main organisms responsible for the syndrome within that geographical setting. National guidelines based on identified patterns of infection and disease should be developed and disseminated to all providers of STI care.

Every country should ensure that interventions for prevention and care of STIs are integrated or closely coordinated with national AIDS programmes.

**Key resources:** 29 30 31 32 33 34

Global strategy for the prevention and control of sexually transmitted infections  
[LINK](http://who.int/gb/ebwha/pdf_files/WHA59/A59_11-en.pdf)

Guidelines for the management of sexually transmitted infections  
1.2.1.3 SAFER SEX AND RISK REDUCTION COUNSELLING

Behavioural interventions at an individual, group or community level can generate safer sexual behaviour. It is, however, critically important to sustain interventions for behaviour change together with the provision of prevention tools over long periods of time. Counselling — i.e., a confidential dialogue between a client and a counsellor — can enable clients to take personal decisions related to HIV and to adopt safer sexual behaviours to reduce their risk of transmitting or acquiring HIV. The counselling process should include evaluating the personal risk of HIV transmission, discussing how to prevent infection, and assisting in identifying and overcoming impediments to safer behaviour.

Summary of recommendations:

Individual and small group dialogue between providers and clients in health settings serves as an important opportunity for providing information and counselling on safer sex and risk reduction.

Health care providers should routinely assess if patients are at risk or have symptoms of STIs. Those identified as being at ongoing risk may require more intensive counselling and support to reduce risky behaviour, including reduction in number of partners.

Individual and small group dialogue between providers and clients in health and community settings serves as an important opportunity for providing information and counselling on safer sex and risk reduction. Risk reduction includes, for example, information on delay of sexual debut, abstinence as appropriate, reduction of number of sexual partners, including visits to sex workers and reduction of concurrent partnership, and prevention of STIs and HIV transmission through condom use.

Specific measures may be needed to support and counsel discordant couples and individuals in multiple concurrent partnerships.

Safe sex counselling for prevention of transmission of HIV and other STIs should be integrated into sexual and reproductive health services, especially those for family planning.

Community-based behavioural interventions complement facility-level provider-client interactions. Such interventions should include peer outreach for hard to reach populations with provision of information on HIV and other STIs, risk reduction counselling, and distribution of prevention commodities such as condoms, clean needles and syringes.

Key resources: 35 28 36

SEX-RAR Guide: The Rapid Assessment and Response Guide on Psychoactive Substance Use and Sexual Risk Behaviour

Sexual and reproductive health of women living with HIV/AIDS
LINK http://www.who.int/hiv/pub/guidelines/sexualreproductivehealth.pdf

Youth-centered counseling for HIV/STI prevention and promotion of sexual and reproductive health: a guide for front-line providers

1.2.1.4 MALE CIRCUMCISION

Randomized trials in areas of high HIV prevalence have demonstrated that male circumcision reduces the risk of heterosexually acquired HIV in men by approximately 60 per cent. This evidence supports the findings of numerous observational studies. There is no definitive evidence that male circumcision reduces the risk of HIV transmission from men to women or between men.

Summary of recommendations:

WHO recommends that male circumcision undertaken by appropriately trained health care providers be considered as part of a comprehensive HIV prevention package. Services should be scaled up for defined geographic settings, prioritizing males in areas where HIV prevalence in the general populations exceeds 15%, while considering how to promote neonatal circumcision in a safe and culturally acceptable manner as a means of ensuring sustainability of the circumcision efforts.

Male circumcision does not provide complete protection against HIV, so men and women who consider male circumcision as an HIV preventive method should continue to use other prevention methods such as male and female condoms, delaying sexual debut and reducing the number of sexual partners.

HIV testing and counselling should be recommended for all males seeking circumcision but should not be mandatory. Surgery should be done in an appropriate clinical setting by trained health care providers. Where access to male circumcision services is limited, priority could be given to HIV-negative men who have indications of being at higher risk for HIV, such as men presenting with an STI.
Counselling should stress that resumption of sexual relations before complete wound healing may increase the risk of acquisition of HIV infection among recently circumcised HIV-negative men. Men who undergo circumcision should abstain from sexual activity until surgical wounds are completely healed.

There should be broad community engagement to introduce or expand access to safe male circumcision services. Such engagement also serves as a means of communicating accurate information about the intervention, to both men and women. Careful monitoring and evaluation of the impact of male circumcision for HIV prevention should be conducted to monitor and minimize potential negative gender-related impacts of male circumcision programmes, such as increases in the incidence of unsafe sex and/or sexual violence.

**Key resources:** 37 38 39 40 41 42 43 44 45 46 47

- New Data on Male Circumcision and HIV Prevention: Policy and Programme Implications [LINK](http://www.who.int/hiv/mediacentre/MC_recommendations_en.pdf)
- Male Circumcision: Global trends and determinants of prevalence, safety and acceptability [LINK](http://www.who.int/hiv/topics/malecircumcision/JC1320_Male_Circumcision_Final_UNAIDS.pdf)
- Manual for Male Circumcision under Local Anaesthesia (to be available soon)
- Male Circumcision Quality Assurance: A Guide to enhancing the quality and safety of services (to be available soon)
- Male Circumcision Quality Assurance Toolkit (to be available soon)

**1.2.1.5 PREVENTION AMONG PEOPLE LIVING WITH HIV**

Addressing the prevention needs of people living with HIV is a critical challenge for the health sector. Expanding access to HIV testing and antiretroviral therapy will increase the number of people living with HIV who can benefit from comprehensive HIV prevention, treatment and care services in the health sector.

Most people living with HIV will remain sexually active and health-care providers should respect their right to do so, and support them and their partners in preventing further HIV transmission, including through the provision of condoms. For some, knowledge about their HIV infection may not prompt a change in behaviour to reduce further HIV transmission, and additional support may be needed.

A large proportion of HIV infections occur within HIV discordant, stable partnerships. HIV-negative partners in discordant couples (where one partner is HIV-negative and the other HIV-positive) are at high risk of HIV infection and represent an important group for prevention efforts. Evidence from studies of individual partners and both partners in HIV discordant couples shows that counselling, together with the provision of condoms, is effective in preventing HIV transmission.

Recommendations to prevent HIV-associated illness are described in section 1.3.1.

**Summary of key recommendations:**

People living with HIV should be counselled about safer sex interventions to prevent HIV transmission to others and about how to avoid acquisition of sexually transmitted infections (STIs), and should be provided with condoms.

Ongoing behavioural counselling and psychosocial support should be given to HIV-discordant couples through couples counselling and support groups that cover topics such as HIV-transmission-risk reduction, reproductive health issues, couples communication and condom provision.
1.2.1.6 INTERVENTIONS TARGETING MOST-AT-RISK POPULATIONS

The health sector is responsible for configuring and supporting comprehensive programmes and service delivery models that are able to address the needs of populations most-at-risk for HIV and to ensure that these services are accessible, acceptable and equitable. In many countries, sex workers and men who have sex with men are criminalized and stigmatized, increasing high-risk behaviours and discouraging them from accessing health services. Where these barriers to implementing the priority interventions exist, there is a need to actively create a supportive policy, legal and social environment that facilitates equitable access to prevention, treatment and care.

The interventions listed below are often best delivered through community-based organizations doing outreach, or at special health facilities. New approaches such as internet and mobile phone based interventions for information and education could be considered.

Summary of recommendations:

- Systematic collection of strategic information on HIV and other STIs among sex workers and their clients is required to guide comprehensive programme implementation.
- Programme planning needs to include formative assessments to determine the needs and vulnerabilities of sex workers, and sex workers should be proactively involved in the design and delivery of programmes.
- A comprehensive set of interventions are recommended, aimed at increasing condom use and safe sex, reducing STI burden and maximising sex worker involvement and control over their working and social conditions.
- The health sector should also promote legal and social frameworks that are rights based and consistent with public health and HIV prevention goals.
- Priority interventions targeting sex workers for prevention of sexual transmission of HIV and other STIs include:
  - Promoting and supporting condom use (see 1.2.1.1);
  - Detection and management of sexually transmitted infections (see 1.2.1.2);
  - Behaviour change communication through peer outreach.

Other health sector interventions for HIV prevention, treatment and care in sex workers are described in the following sections:
- Family planning, counselling and contraception (1.2.3.1);
• Enabling people to know their HIV status (1.1);
• HIV treatment and care (1.3);
• Prevention of HIV in infants and young children (1.2.3);
• Prevention and treatment of viral hepatitis (see 1.3.2.2e);
• Prevention of HIV transmission through injecting drug use (1.2.2).

HIV and STI prevention activities for sex workers can be delivered within health facilities, community-based settings and through peer outreach.

**Key resources:** 49 50 51 52

- Toolkit for targeted HIV/AIDS prevention and care in sex work settings
  [LINK](http://www.who.int/hiv/pub/prev_care/sexworktoolkit.pdf)

- Guidelines for the management of sexually transmitted infections in female sex workers
  [LINK](http://www.wpro.who.int/NR/rdonlyres/90F80401-5EA0-4638-95C6-6EFF28213D34/0/Guidelines_for_the_Mgt_of_STI_in_female_sex_workers.pdf)

- Regional strategy for the prevention and control of sexually transmitted infections, 2007–2015 (WHO Regional Office for South-East Asia)
  [LINK](http://www.searo.who.int/LinkFiles/Publications_WHO_Regional_Strategy_STI.pdf)

- 100% condom use programme in entertainment establishments
  [LINK](http://www.wpro.who.int/NR/rdonlyres/5F1C719B-4457-4714-ACB1-192FFCA195B1/0/condom.pdf)

Guidelines on the periodic presumptive treatment of STIs are under development.

### 1.2.1.6B INTERVENTIONS TARGETING MSM AND TRANSGENDER PEOPLE

Although much is known about the HIV epidemic among men who have sex with men (MSM) and transgender people (TGs) in high-income countries, information is limited on the prevalence of HIV among MSM and TGs in low- and middle-income countries and on access to services for HIV prevention, treatment and care among MSM and TGs in those countries. Overall, HIV transmission among MSM in low and middle income countries appears to be greatly underreported. Recent evidence suggests, however, that sexual transmission of HIV and other STIs among MSM is resurfacing as a problem in the major cities of Asia, Europe, Latin America and North America. Unprotected anal sex between men is increasingly recognized in sub-Saharan Africa as well.

Men who have sex with men (MSM) and transgender people (TGs) are still stigmatized or driven underground through laws or policies criminalizing MSM behaviours in many countries.

**Summary of key recommendations:**

The health sector has an important role to play by including services for MSM and TGs in the programming priorities of the national health sector and by advocating for decriminalization of same sex acts and for legislation against discrimination based on sexual orientation.

Programme planning needs to include formative assessments to determine the risks and needs of MSM and TGs and they should be fully engaged in the design and implementation of interventions.

Priority interventions targeting MSM and TGs for prevention of sexual transmission of HIV and other STIs should include:

- Promoting and supporting condom use (see 1.2.1.1);
- Detection and management of sexually transmitted infections (see 1.2.1.2);
- Prevention and treatment of viral hepatitis (1.3.2.2c);
- Enabling people to know their HIV status (see 1.1);
- HIV treatment and care (see 1.3);
- Prevention of HIV transmission through drug use (see 1.2.2).
- Information, education and communication through peer outreach and the internet
- Community-based behaviour change communication (e.g., posters and brochures in venues frequented by MSM and TGs);
• Outreach through fixed or mobile services for MSM and TGs to broaden access to prevention interventions including STI care, condoms, hepatitis B vaccination, and counselling and referral;
• Social welfare and legal services.

*Key resources: 53 54 55 56 57*

Rapid Assessment and Response Adaptation Guide on HIV and Men Who Have Sex with Men
[LINK](http://www.who.int/hiv/pub/prev_care/en/msmrar.pdf)

Policy Brief: HIV and Sex between Men
[LINK](http://data.unaids.org/Publications/IRC-pub07/jc1269-policybrief-msm_en.pdf)

1.2.1.7 SPECIFIC CONSIDERATIONS FOR HIV PREVENTION IN YOUNG PEOPLE

For young people to benefit from HIV prevention, health services must take their unique concerns and needs into consideration. In terms of content, the basic package of interventions to prevent HIV is much the same for young people as it is for adults. However, young people are unlikely to use available services unless:

• staff have been trained to understand young people, and their concerns and to address any needs relating to consent and confidentiality;
• facilities and services have been designed or modified to be adolescent/youth-friendly, with consideration given to appropriate opening times, affordability and privacy;
• attention is paid to fostering parents’ and communities’ support for youth-friendly services and to attracting young people to those services.

While prevention services for adults can be modified so that they are also appropriate for young people, there should also be youth-specific prevention in settings where young people are more likely to access them. These may include schools, universities, youth clubs, popular youth hang-outs, workplaces, and pharmacies.

The health sector should support community outreach to young people by providing guidance and linkages between services in the health sector and other sectors. Some young people belong to most-at-risk groups and services for targeting those groups should also be designed or modified to be youth-friendly or else supplemented with services specifically geared to young members of those most-at-risk groups.

The health sector also has responsibilities to ensure there is serological and behavioural surveillance to provide strategic information on young people and HIV (see section 3.2); which requires data to be disaggregated by age and sex, analysed and used to guide policies and programming; to play a stewardship and advocacy role for young people (see section 2.5); and to ensure a supportive political, and legal and social environment that address the specific needs of young people.

**Summary recommendations:**

Prevention for young people provided by the health sector should include:

• Information and counselling to help young people acquire the knowledge and skills to delay sexual initiation, limit the numbers of sexual partners, use condoms correctly and consistently, avoid substance use or, if injecting drugs, to use sterile equipment;
• Condoms for sexually active young people;
• Harm reduction for young people who are injecting drug users:
• Diagnosis and treatment of STIs;
• In high prevalence settings, male circumcision;
• HIV testing and counselling;
• Access to HIV treatment and care services;
• Consider HPV vaccination for young females.

*Key resources: 58 59 60*

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14 Young people includes adolescents 10–19 years and youth 15–24 years.
1.2.1.8 SPECIFIC CONSIDERATIONS FOR VULNERABLE POPULATIONS

1.2.1.8A DISPLACED, MOBILE AND MIGRANT POPULATIONS

In 2007, of the 67 million people forced to flee their homes, 26 million were internally displaced due to armed conflict and 25 million due to natural disasters while 16 million were refugees. Increased vulnerability to HIV, associated with displacement, disruption of families and social and community structures, and sexual violence have been evident in some complex emergencies. In these situations, access to HIV services is often limited by the breakdown of health systems. However, there is evidence that, in some instances, refugees or populations in conflict situations may be less exposed than surrounding populations to the risk of HIV transmission when protected in camps and supported by international organizations, or when living in isolation.

Millions of people each year migrate within countries or across countries and along borders. Increased vulnerability to HIV, associated with displacement, disruption of families and of social and community structures has been evident in many settings with migrant and mobile populations. Sex workers are among highly mobile populations and labour migrants and truckers constitute large portions of their clientele. Their work is often illegal and their presence is often undocumented and these facts limit their access to HIV care and ART service. All migrant and mobile populations are difficult to reach with behaviour change communications and other prevention interventions, in part due to fact that their movement places them in situations where they are ethnic minorities and face cultural and language barriers.

Since emergencies often occur in remote areas where populations have little access to HIV-related services, emergency situations may be opportunities to extend those services to them and then sustain them after the emergencies are over.

Summary of recommendations:

• Access to health services should be based on the principle of equity, ensuring equal access according to need, without any discrimination that could lead to the exclusion of displaced, migrant or mobile people.

• Displaced, migrant and mobile populations should have access to services and levels of care equivalent to those provided to surrounding populations.

• Interventions to provide information and education about prevention of HIV and other STIs should be made available at points of departure and arrival of migrant and mobile populations, including ethnic minorities who may require information and education in their own languages.

• Universal access to antiretroviral treatment for those who need it is now considered a minimum standard of care; displaced, mobile and migrant populations should receive this treatment as a human right.

Key resources: 61 48 62 63

Providing Antiretroviral Drugs for Prevention and Treatment in Emergency Settings
LINK www.who.int/hac/techguidance/pht/HIV_AIDS_101106_arvemergencies.pdf

Guidelines for HIV/AIDS interventions in emergency settings

Antiretroviral Medication Policy for Refugees (UNHCR, 2007)
1.2.1.8 PRISONERS AND PEOPLE IN OTHER CLOSED SETTINGS

Prisons and other closed settings are key points of contact with millions of people living with or at high risk of HIV infection. It is in the interest of public health that all people in such settings have access to HIV prevention, treatment and care. They, too, are entitled to the same standard of health care as all other members of society.

A wide range of services are required for people in prisons and similar settings and they include condom distribution, clean needle and syringe provision, opioid substitution therapy, HIV testing and counselling, provision of ART, and treatment for sexually transmitted infections.

Prison authorities should work with people in other branches of the criminal justice system and with health authorities and NGOs to ensure continuity of care, including ART, from community to prison and back to community and also between prisons.

Summary recommendations:

Prisons and other closed settings should offer a full range of HIV prevention, treatment and care services and commodities, including HIV testing and counselling and ART.

Key resources: 64 65 66

Effectiveness of Interventions to Address HIV in Prisons

Policy Brief: Reduction of HIV Transmission in Prisons

Status Paper on Prisons, Drugs and Harm reduction
LINK http://www.euro.who.int/document/e85877.pdf

1.2.1.9 NON-OCCUPATIONAL POST-EXPOSURE PROPHYLAXIS

HIV post-exposure prophylaxis involves the short-term use of antiretroviral drugs for preventing HIV infection in individuals who may have been exposed to HIV.

Summary of recommendations:

WHO recommends that HIV post-exposure prophylaxis be included in the management of sexual assault and be made available to all HIV-negative people who may have been exposed to HIV through sexual assault.

Sexual and reproductive health facilities should have up-to-date policies and procedures for managing persons who have experienced significant mucous membrane exposure to HIV through sexual violence.

Whether comprehensive services are provided on-site or through referral, providers should follow clear and consistent protocols for management. The necessary supplies, materials and referral information should be made available to deal confidentially, sensitively and effectively with people who have experienced sexual violence.

WHO recommends that management of non-occupational post-exposure prophylaxis include:

• Evaluation of the person with potential non-occupational exposure to HIV
• Counselling
• Assessing the status of the source (e.g., the assailant), where possible
• Provision of ARVs for prophylaxis based on a defined protocol
• Emergency contraception
• Presumptive treatment of STIs, and
• Follow-up counselling.

Key resource: 67

Joint WHO/ILO guidelines on post-exposure prophylaxis (PEP) to prevent HIV infection
1.2.2 INTERVENTIONS FOR INJECTING DRUG USERS
Wherever injecting drug use occurs, countries should implement a comprehensive set of interventions for HIV prevention, treatment and care for injecting drug users (IDUs). These interventions are also known as harm reduction programmes.

Despite overwhelming public health evidence demonstrating the effectiveness of harm reduction interventions, many decision-makers remain reluctant to implement or scale-up such interventions because of their controversial nature. It often requires intense advocacy, citing public health evidence, to initiate and sustain harm reduction programmes.

Where there are barriers to implementing the harm reduction interventions, there is need to create a supportive policy, legal and social environment that facilitates equitable access to prevention and treatment for all, including injecting users. There are also needs for appropriate models of service delivery, appropriate health systems strengthening and appropriate strategic information to guide harm reduction programmes. For example, procuring and distributing opioid agonist medicines, such as methadone, may require special measures and procedures.

Comprehensive harm reduction programming: A comprehensive package of HIV prevention, treatment and care for injecting drug users includes the following nine interventions:
1. needle and syringe programmes (NSPs) (see 1.2.2.1);
2. drug dependence treatment (see 1.2.2.2);
3. targeted information, education and communication for IDUs (see 1.2.2.3);
4. enabling people to know their HIV status (see 1.1);
5. HIV treatment and care (see 1.3);
6. promoting and supporting condom use (see 1.2.1.1);
7. detection and management of sexually transmitted infections (see 1.2.1.2);
8. prevention and treatment of viral hepatitis (see 1.3.1.3 and 1.3.2.2e);
9. tuberculosis prevention, diagnosis and treatment (see 1.3.2.4).

Community-based outreach is the most effective way of delivering HIV prevention, treatment and care to IDUs and of referring them to other services where they can find, for example, opioid substitution therapy and antiretroviral therapy. Services to IDUs should take into account that the majority are male and have sexual partners, that some sell sex to pay for their habits and that injecting drug use occurs at all levels of society.

Summary of recommendations:
Since stand-alone interventions are known to have little impact, advocates should insist on a comprehensive package of interventions. All key interventions should be scaled up at once until they cover all drugs users and at the necessary intensity. The comprehensive package should be tailored to the drug use patterns known to exist in a country and to other unique elements of the country’s context.

The health sector should play a major role in providing advocacy and the evidence to support that advocacy in order to get the political commitments necessary to initiate and sustain harm reduction programmes for IDUs.

Key resources: 68 69 64 70 71 72 73
Policy and programming guide for HIV/AIDS prevention and care among injecting drug users
LINK http://www.who.int/hiv/pub/prev_care/policyprogrammingguide.pdf
Advocacy guide: HIV/AIDS Prevention among injecting drug users
Evidence for Action series: Policy briefs and technical papers on HIV/AIDS and Injecting Drug Users
Prevention, treatment and care for injecting drug use in prisons
1.2.2.1 NEEDLE AND SYRINGE PROGRAMMES (NSPs)
Access to and use of sterile injecting equipment is highly effective in reducing HIV risk behaviour and transmission. Evidence shows that needle and syringe programmes (NSPs) also provide opportunities for delivering harm reduction information and related services, including referrals for drug dependence treatment. NSPs can reduce the risk of other infections (such as viral hepatitis, septicaemia and abscesses) and do not increase injecting drug frequency or prevalence.

NSPs increase access to sterile injecting equipment and should be diversified to include outreach through community and peers, dedicated needle and syringe exchange and dispensing services, pharmacy programmes, vending machines, and drug dependence treatment services. The full range of injecting equipment should be covered, including needles, syringes, sterile mixing water, alcohol swabs, and containers for mixing, dispensing and transporting drugs. It is also critical that NSPs encompass the safe disposal of used equipment to minimize reuse or accidental needle-stick injuries. Safe disposal can be promoted through education of IDUs, needle exchange programmes and placement of sharps containers in drug-using locations. Decontamination methods for cleaning used injection equipment, such as bleach programmes, are not recommended as a first line of intervention and should be used only if sterile injecting equipment cannot be obtained.

Summary of recommendations:
Access to sterile injecting equipment through NSPs is a key evidence based intervention to reduce transmission of HIV in IDUs.

Key resources: 74 75 76
Guidance to Starting and Managing Needle and Syringe Programmes [LINK http://www.who.int/hiv/idu/Guide_to_Starting_and_Managing_NSP.pdf]

1.2.2.2 DRUG DEPENDENCE TREATMENT
Approaches to drug and alcohol dependence management include pharmacotherapy and psychosocial interventions, which are often delivered in combination.

For individuals with opioid dependence, the most effective treatment is opioid substitution therapy (OST). There is good evidence that OST leads to substantial reductions in illicit opioid use, criminal activity, deaths attributable to overdoses and risk behaviour related to HIV transmission (including injection frequency and sharing of injecting equipment). Studies have also demonstrated that OST improves retention rates in drug dependency treatment, adherence to ART, and overall health and wellbeing. Both buprenorphine and the more widely used methadone are included on the WHO Model List of Essential Medicines.

Psychosocial treatment of drug dependence has limited effectiveness in managing drug dependence, with high relapse rates. There is no evidence that such treatment reduces HIV transmission rates, though it may complement OST. Unlike for opioid users, there are no effective substitution therapies for people with amphetamine-type stimulant, cocaine, hallucinogen or hypnosedative dependence. Though not very effective, psychosocial treatment remains the only option for non-opioid users.

There is no evidence that compulsory treatment programmes are effective for treating drug dependence of any kind or for preventing HIV transmission.

Alcohol dependence and short term abuse is associated with unsafe sexual behaviour. [LINK www.who.int/substance_abuse/publications/en/index.html]

Summary of recommendations:
Opioid substitution therapy (OST) is recommended as the most effective treatment for opioid dependence and requires initial supervised administration, adequate treatment doses and longer-term maintenance regimens (at least six months). Inadequate doses of methadone are a common cause of OST failure and relapse. Average effective methadone doses range from 60mg-120mg, though higher doses may be required.
1.2.2.3 INFORMATION, EDUCATION AND COMMUNICATION FOR IDUS

HIV risk reduction messages for IDUs should address all modes of HIV transmission, including sexual risk taking. Messages on reducing risk from injecting should be based on a harm reduction hierarchy and encourage IDUs to adopt progressively less risky behaviours, moving from indiscriminate sharing of injecting equipment, to reducing the number of sharing partners and frequency, to decontaminating used equipment, to using only sterile equipment, to adopting non-injecting drug use (e.g. smoking or ingesting), through to stopping drug use altogether.

Summary of recommendations:
Community-based and peer-led outreach is an effective strategy for providing information, education and communication to IDUs.

Key resource: 71

Effectiveness of Community-based Outreach in preventing HIV/AIDS among Injecting Drug Users

1.2.3 PREVENTION OF HIV IN INFANTS AND YOUNG CHILDREN

A comprehensive approach to preventing HIV in infants and young children consists of four elements:

- Primary prevention of HIV transmission (also see 1.2.1);
- Prevention of unintended pregnancies among women living with HIV (see 1.2.3.1);
- Prevention of HIV transmission from women living with HIV to their children (see 1.2.3.2 and 1.2.3.4), and
- Provision of treatment, care and support for women living with HIV, their children and families (see 1.2.3.3)

WHO recommends implementation of all four components of the comprehensive approach, and promotes the integration of prevention-of-mother-to-child-transmission (PMTCT) with maternal, newborn and child health care, antiretroviral therapy, family planning and sexually transmitted infection, to ensure the delivery of a package of essential services for quality maternal, newborn and child care. Many elements of the four components are described elsewhere in this document, so attention is paid here to those requiring more information. HIV testing is recommended for all pregnant women is explained in the section on PITC (see section 1.1.2.)

Summary of recommendations:
Health services should provide effective interventions to reduce sexual transmission of HIV, with particular focus on preventing new HIV infections of women during pregnancy or the breastfeeding period.

Health services should ensure women with HIV are provided with the skills, knowledge and commodities necessary to avoid unintended pregnancy or are given support for planning a pregnancy.

All pregnant women with HIV should receive ARV medicines, either ARV treatment for life or combined ARVs for prophylaxis to reduce HIV transmission.

All women with HIV should have access to an essential package of services during childbirth, including assistance from a skilled birth attendant.

Infants exposed in utero to HIV should receive ARV prophylaxis.

Health services should ensure that women with HIV and their infants have access to the skills, knowledge and support needed to make infant feeding safe so as to reduce HIV transmission and to promote child survival.
1.2.3.1 FAMILY PLANNING, COUNSELLING AND CONTRACEPTION

Family planning assists women and men in making informed choices about their sexual and reproductive lives, including the timing and spacing of births which can improve their own health and substantially increase their child’s chances of survival and good health. Most women, men and young people with HIV are sexually active and need information and assistance in making decisions about family planning and reproduction. Preventing unintended pregnancies is an important, though often neglected, component of preventing HIV transmission to infants.

Summary of recommendations:

The consistent and correct use of condoms continues to be the most effective contraceptive method that protects against acquiring and transmitting HIV and other STIs and unintended pregnancy.

Counselling and family planning services for women living with HIV should provide information on:
- Effectiveness and safety of contraceptive methods to prevent pregnancy, if so desired;
- Risks of HIV transmission for HIV-discordant couples;
- Risk of HIV transmission to the infant and the effectiveness of ARV medicines in reducing HIV transmission;
- The benefits and risks of various infant feeding choices.

Women living with HIV can safely and effectively use most contraceptive methods as for women without HIV.

Women living with HIV should not use spermicides without condoms or other barrier methods.

Women living with HIV and taking ART need to consider that several antiretroviral drugs either decrease or increase the bioavailability of steroid hormonal contraceptives.

Key resources: 80 11 81 82 83

Guidance on Global Scale-Up of the Prevention of Mother-To-Child Transmission of HIV


1.2.3.2 ANTIRETROVIRAL MEDICINES TO PREVENT HIV INFECTION IN INFANTS

HIV may be transmitted to the infant during pregnancy, delivery or through breastfeeding. If no interventions are provided, an estimated 20-25% of the infants of HIV-infected women will acquire HIV up to and including during delivery. Transmission is increased in women with more clinically advanced disease, low CD4 cell counts and high HIV viral load. Antiretroviral medicines and optimal infant feeding practices are necessary to reduce HIV transmission to the infant and promote child survival. These recommendations are regularly reviewed and updated.

Summary of recommendations:

WHO recommends that all pregnant women with HIV receive antiretroviral medicines, either ART for life or combined ARV for prophylaxis to reduce vertical transmission.

Women with clinical and/or immunological criteria to start ART must do so as early as possible in pregnancy (also see 1.2.3.3) and should continue it life long.

Pregnant women with HIV and clinical stage 3 and CD4 < 350 should start ART, otherwise recommendations to start ART are as for all adults.

Key resources: 84 28 22 24 85 86

Sexual and reproductive health of women living with HIV/AIDS
LINK http://www.who.int/hiv/pub/guidelines/sexualreproductivehealth.pdf

Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings
Pregnant women in need of ART can be asymptomatic, so CD4 testing should be performed whenever HIV is diagnosed in pregnancy.

Pregnant women with HIV needing ART should be treated with a full combination regimen, and AZT containing regimens are recommended (see Table One).

For HIV-positive women who do not need yet need ART for life, combination ARV regimens for prophylaxis are recommended (see Table Two).

The HIV exposed infant requires ARV prophylaxis (see Table Three).

For HIV-positive women who present to health services late in the pregnancy or at labour and delivery, ARVs are also recommended for the woman and newborn.

### Table One: Recommended First Line Combination Antiretroviral Treatment Regimens for Pregnant Woman

<table>
<thead>
<tr>
<th>Period</th>
<th>Regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antepartum</td>
<td>AZT + 3TC + NVP, <em>twice daily</em></td>
</tr>
<tr>
<td>Intrapartum</td>
<td>AZT + 3TC + NVP, <em>twice daily</em></td>
</tr>
<tr>
<td>Postpartum</td>
<td>AZT + 3TC + NVP, <em>twice daily</em></td>
</tr>
</tbody>
</table>

*Source: WHO 2006. Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants*

### Table Two: Recommended Antiretroviral Regimens for Prophylaxis in Pregnant Women Not Yet Eligible for ART

<table>
<thead>
<tr>
<th>Period</th>
<th>Regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antepartum</td>
<td>AZT starting at 28 weeks of pregnancy or as soon as feasible thereafter</td>
</tr>
<tr>
<td>Intrapartum</td>
<td>Sd-NVP + AZT/3TC</td>
</tr>
<tr>
<td>Postpartum</td>
<td>AZT/3TC x 7 days</td>
</tr>
</tbody>
</table>

### Table Three: Recommended Antiretroviral Regimens for Prophylaxis in Infants

<table>
<thead>
<tr>
<th>Regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 4 weeks Maternal ART or ARV</td>
</tr>
<tr>
<td>Sd-NVP + AZT x 7 days</td>
</tr>
<tr>
<td>&lt; 4 weeks maternal ART or ARV</td>
</tr>
<tr>
<td>Sd-NVP + AZT x 4 weeks</td>
</tr>
</tbody>
</table>

*Source: WHO 2006. Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants*

**Key resource:** 82 48

*Antiretroviral Drugs for Treating Pregnant Women and Preventing HIV Infection in Infants: Towards Universal Access*

*Link:* [http://www.who.int/entity/hiv/pub/guidelines/pmtctguidelines3.pdf](http://www.who.int/entity/hiv/pub/guidelines/pmtctguidelines3.pdf)
1.2.3.3 TREATMENT, CARE AND SUPPORT FOR WOMEN LIVING WITH HIV, THEIR CHILDREN AND FAMILIES

During pregnancy, women living with HIV also need other prevention and care interventions listed in sections 1.3.1 and 1.3.2 of this chapter, including cotrimoxazole prophylaxis, screening for and treatment of TB, counselling and care relating to nutrition, and psychosocial support. Pregnant women already receiving cotrimoxazole should continue prophylaxis throughout pregnancy and postpartum.

HIV exposed infants need a range of interventions to promote child survival, protect them from HIV infection and provide them with early antiretroviral treatment in the event of them having acquired HIV infection.

Summary of recommendations:

Infants known to be exposed to HIV should have a virological test (HIV nucleic acid test NAT) at 4-6 weeks of age or at the earliest opportunity for infants seen after 4-6 weeks.

HIV exposed infants should be regularly followed up.

In settings where local or national antenatal HIV seroprevalence is greater than 1%, infants under 6 weeks of age, of unknown HIV exposure status, should be offered maternal or infant HIV antibody testing and counselling in order to establish exposure status.

Health services should provide a full set of child survival interventions to HIV-exposed and HIV-infected infants.

All HIV-infected infants should start ART.

Key resources: 82 22 12 87 48 88 11

Antiretroviral Drugs for Treating Pregnant Women and Preventing HIV Infection in Infants: Towards Universal Access


Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings


Scale Up Of HIV-Related Prevention, Diagnosis, Care and Treatment For Infants and Children. A Programming Framework.


1.2.3.4 INFANT FEEDING COUNSELLING AND SUPPORT

Breastfeeding reduces child mortality and has health benefits that extend into adulthood. WHO recommends exclusive breastfeeding for the first six months of life, followed by continued breastfeeding with appropriate complementary foods for two years or beyond. However without HIV-related interventions, an estimated 5-20% of infants born to women living with HIV will become infected through breastfeeding, depending on the duration and type of breastfeeding. The risk of transmission of HIV through breastfeeding increases with advanced maternal disease, low CD4 cell count, high viral load and mixed feeding. The risk of transmission also increases with prolonged duration of breastfeeding. A range of interventions are necessary to reduce breastfeeding transmission of HIV in settings where replacement feeds cannot be provided safely.

Summary of recommendations:

The most appropriate infant feeding option for an HIV-infected mother depends on her particular circumstances.

Exclusive breastfeeding is recommended for HIV-infected women for the first 6 months of life unless replacement feeding is Acceptable, Feasible, Affordable, Sustainable and Safe (AFASS) for them and their infants before that time.

When replacement feeding is AFASS, avoidance of all breastfeeding by HIV-infected women is recommended.

Breastfeeding is recommended for all infants with HIV infection.

Health services should help women to make appropriate infant feeding choices and whatever their decisions, should continue to offer infant feeding counselling and support, particularly at key points when feeding decisions may be reconsidered, such as the time of infant testing for HIV and at six months of age.

Health service support is also needed beyond 6 months to ensure optimal feeding of infants when exclusive breastfeeding alone is no longer adequate.

At six months, when complementary feeding needs to be introduced, if replacement feeding is still not AFASS, continuation of breastfeeding with additional complementary foods is recommended. All breastfeeding should stop once a nutritionally adequate and safe diet without breast milk can be provided.
Women who are taking ART can breastfeed their infants if replacement feeding is not AFASS but they should be made aware that some ARV medicines are found in the mother’s milk.

**Key resources:** 89 90 91 92 93

WHO HIV and infant feeding technical consultation - consensus statement

Complementary feeding: Report of the global consultation, and summary of guiding principles for complementary feeding of the breastfed child

Several documents on HIV and infant feeding can be found on the Child and adolescent health website

### 1.2.4 PREVENTION OF HIV TRANSMISSION IN HEALTH CARE SETTINGS

Though estimates vary by region, as much as 5-10% of new HIV infections in developing and transitional countries may be attributable to unsafe health care injections, including unsafe blood and occupational exposures. It is acknowledged, however, that there is substantial uncertainty around this estimate.

In health care settings, transmission of HIV through needle and sharp injuries is preventable through primary prevention measures such as standard precautions, injection safety, blood safety, safe waste disposal, and secondary prevention measures, such as PEP for occupational exposure.

Comprehensive infection control strategies and procedures can dramatically reduce the risk of infection associated with health care. Implementation of infection prevention guidelines does, however, require a permanent HIV prevention and control structure, specific equipment and trained and motivated staff.

**Summary of recommendations:**

All health facilities should:

- have zero tolerance policy on HIV transmission, an infection control (IC) plan, a person or team responsible for IC, and available supplies to ensure the implementation of preventive measures;
- use standard precautions.

Standard precautions minimize the spread of infection associated with health care and avoid direct and indirect contact with blood, body fluids, secretions and non-intact skin. They are the basic infection control precautions in health care and include:

- Attention to hand hygiene before and after any patient contact and after contact with contaminated items, whether or not gloves are worn;
- Wearing personal protective equipment, based on risk assessment, to avoid contact with blood, body fluids, excretions and secretions;
- Appropriate handling of patient-care equipment and soiled linen;
- Safe disposal of sharps immediately after use;
- Not recapping of needles.

**Key resources:** 94 95

Aide-Memoire: Infection control standard precautions in health care
1.2.4.1 SAFE INJECTIONS
Each year at least 16 billion injections are administered in developing and transitional countries.

The Safe Injection Global Network (SIGN) promotes injection safety and provides normative guidance related to injection safety and infection prevention.

Summary of recommendations:
Promote and coordinate the development of strategies, tools and guidelines to ensure rational and safe use of injections.
Develop culturally adapted communication strategies targeting health care workers and the community in order to reduce injection overuse and create consumer demand for safety devices.
Guarantee the safety of injections of all types, in particular by using auto-disable syringes which are now widely available at low cost.

Key resource: 96
Toolbox: Resources to assist in the management of national safe and appropriate use of injection policies

http://www.who.int/injection_safety/toolbox/en/

1.2.4.2 SAFE WASTE DISPOSAL MANAGEMENT
Safe waste disposal is key to preventing the transmission of blood borne pathogens. Sharps waste, although produced in small quantities, is highly infectious. Poorly managed, contaminated needles and syringes represent a particular threat to the staff and patients but also to the community at large when waste ends up in uncontrolled waste areas and dump sites at the health care facility, where needles and syringes may be scavenged and reused.

Summary of recommendations:
Promote environmentally sound management policies for health-care waste.

Key resource: 97 98
Healthcare waste and its safe management

1.2.4.3 OCCUPATIONAL HEALTH OF HEALTHCARE WORKERS
For healthcare workers, exposure to the blood of people receiving care most often occurs via accidental injuries from sharps such as syringe needles, scalpels, lancets, broken glass or other objects contaminated with blood. Poor patient care practices by HIV-infected medical staff may also carry a risk of infection for the patient. Also, when injecting and other equipment is poorly sterilized, HIV may be carried from an HIV-infected to an uninfected patient within the health care setting.

Protecting the occupational health of healthcare workers and ensuring health-care workers know their status and receive HIV treatment as appropriate is an important priority for the health sector.

A good occupational health programme aims to identify, eliminate and control exposure to hazards in the workplace.

Summary of recommendations:
Designate a person to be responsible for the occupational health programme.
Allocate a sufficient budget to the programme and procure the necessary supplies for the personal protection of healthcare workers.
Provide training to health care workers and involve them in the identification and control of hazards.
Promote healthcare worker’s knowledge of their own HIV, hepatitis and TB status through employment/pre-placement screening.
Provide immunization against hepatitis B.
Implement standard precautions.
Provide free access to post exposure prophylaxis for HIV.
Promote reporting of incidents and quality control of services provided.

**Key resources: 95 99**

Joint ILO/WHO guidelines on health services and HIV/AIDS, items 32-53 and, also, Fact Sheet No. 4 in the annex

[LINK](http://www.who.int/hiv/pub/prev_care/ilowhoguidelines.pdf)

Protecting Healthcare Workers: Preventing needlestick injuries toolkit

[LINK](http://www.who.int/occupational_health/activities/pn toolkit/en/index.html)

1.2.4.4 OCCUPATIONAL POST-EXPOSURE PROPHYLAXIS (PEP)

Post-exposure prophylaxis (PEP) is a necessary secondary prevention measure in health care settings, since there will always be rare instances in which primary prevention fail and healthcare workers or patients may be accidentally or through unsafe procedures be exposed to the risk of HIV transmission.

The vast majority of incidents of occupational exposure to blood borne pathogens, including HIV, occur in health care settings. PEP for HIV consists of a comprehensive set of services to prevent infection developing in an exposed person, including: first aid care; counselling and risk assessment; HIV testing and counselling; and, depending on the risk assessment, the short term (28-day) provision of antiretroviral drugs, with support and follow up.

**Summary of recommendations:**

WHO recommends that PEP be provided as part of a comprehensive prevention package that manages potential exposure to HIV and other infectious hazards.

Occupational PEP should also be available not just to healthcare workers but to all other workers who could be exposed while performing their duties (e.g., social workers, police or military personnel, rescue workers, and refuse collectors).

There should be appropriate training for service providers to ensure the effective management and follow up of PEP.

ARVs for PEP should be initiated as soon as possible after exposure within the first few hours and no later than 72 hours.

ARV drugs for PEP should not be prescribed to people already known to have been infected with HIV prior to the exposure incident.

HIV testing is recommended. The administration of ARV drugs for PEP should never be delayed because of testing procedures. If the first test is negative it should be repeated after three and six months.

WHO recommends that the PEP ARV regimen contain two NRTI drugs. If drug resistance is suspected the addition of a protease inhibitor (PI) may be considered.

ARVs for PEP should be administered for a duration of 28 days.

Any occupational exposure to HIV should lead to an evaluation of the working environment and procedures and, when appropriate, improvement of working conditions and safety precautions.

**Key resources: 67 95**

Joint WHO/ILO guidelines on post-exposure prophylaxis (PEP) to prevent HIV infection

[LINK](http://www.who.int/hiv/pub/guidelines/PEP/en/index.html)

Joint ILO/WHO guidelines on health services and HIV/AIDS

[LINK](http://www.who.int/hiv/pub/prev_care/healthservices/en/index.html)
Unsafe blood transfusion is a well-documented mode of transmission of HIV and other infections. Millions of patients requiring transfusion do not have timely access to safe blood. In many countries, even where blood is available, many recipients of blood and blood products remain at risk of transfusion-transmissible infections, including HIV, as a result of poor blood donor recruitment and selection practices and the use of unscreened blood.

Access to safe blood transfusion is an essential part of modern health care. Every national AIDS programme needs to promote the establishment of national blood programmes to ensure the availability of safe blood and blood products through a nationally coordinated blood transfusion service. A well-organized blood transfusion service (BTS) based on voluntary non-remunerated donation, with quality systems in all areas, is a prerequisite for the safe and effective use of blood and blood products. WHO has developed an integrated strategy to promote the provision of safe and adequate supplies of blood and to reduce the risks associated with transfusion.

**Summary of recommendations:**

Establish well-managed and nationally-coordinated blood transfusion services, with country-wide quality systems that can provide adequate and timely supplies of safe blood for all patients who require it.

Collect blood, plasma, platelets and other blood components only from voluntary non-remunerated blood donors from low-risk populations and use stringent donor selection procedures.

Ensure good laboratory practice in all aspects of the provision of safe blood, from donation to testing for transfusion-transmissible infections (HIV, hepatitis viruses, syphilis and other infectious agents) to blood grouping to compatibility testing to the issuing of blood.

Reduce unnecessary transfusions through the appropriate clinical use of blood, including the use of intravenous replacement fluids and other simple alternatives to transfusion, wherever possible.

**Key resources:** 13 100 101

- WHO Blood Transfusion Safety website
  - [LINK](http://www.who.int/bloodsafety/en/)
- Checklist of Aide-memoire for National Blood Programmes
  - [LINK](http://www.who.int/bloodsafety/transfusion_services/en/Blood_Safety_Eng.pdf)
- WHO Recommendations on Screening of Donated Blood for Transfusion Transmissible Infections in Blood
  - [LINK](http://www.who.int/bloodsafety/global_database/en/)

**1.3 ACCELERATING THE SCALE UP OF HIV/AIDS TREATMENT AND CARE**

For infants, children or adults living with HIV, a comprehensive package of prevention, treatment and care interventions should be made available. Early referral after HIV diagnosis is essential and is most urgent for infants, children or adults with signs and symptoms of HIV and, also, for all pregnant women. Interventions to prevent HIV transmission and prevent ill health are often referred to as "positive prevention" or 'prevention for positives'.

Health services should deliver a complete package of interventions for all people with HIV, ideally starting well before the need for ART, with pre-ART care that includes regular assessment of the clinical and immunological stage of infection. Interventions for treatment and care include ART, treatment and management of common infections, co-morbidities and toxicities but the interventions should also address cardiovascular disease, malignancies, palliative care and end of life care.

To optimize and maximize benefit from ART, specific efforts to prepare for and support adherence are required. Nutritional support is critical, particularly for infants, children and pregnant women. Mental health disorders, including alcohol and other substance use, need to be addressed as does the need for psychosocial support. The interventions described here are recommended to improve the quality of life and prevent morbidity and mortality, and the health sector is largely responsible for providing these interventions.

Health services should be configured to provide the complete range of interventions described here, or a so-called “continuum of care”. There should be careful consideration of the special needs of IDUs, sex workers, MSM and young people. There should also be family care, built around the family as a unit needing care even where only one or two members have HIV (see also Chapter 4 on intervention mix and targeting).
Not all interventions will be necessary or equally important in all countries, or for all target populations or settings within those countries. Local and national epidemiology and context will largely determine which interventions are most appropriate. There must also be attention to costs, including the costs of making interventions available and accessible to all who need them, with hidden costs for laboratory testing, transportation and time away from work taken into account. No such costs should be allowed to impede access to services by people who need those services.

Laboratory services required to accelerate the scale up treatment and care are discussed in section 1.4.

### 1.3.1 INTERVENTIONS TO PREVENT ILLNESS

Interventions to prevent illness include chemoprophylaxis against common opportunistic infections (OIs); measures to reduce the incidence of pneumonia, diarrhoea and other conditions which are more common or more serious in children or adults with HIV; screening to detect common malignancies and other co-morbidities; and immunization. Table Four summarizes those and other essential and optional interventions to prevent illness in people living with HIV including prevention of viral hepatitis, TB and other conditions (see 1.3.2).

#### Diagnosis and chemoprophylaxis for TB (section 1.3.2.4)
- Prevention of fungal infections
- Vaccination
- Intermittent preventive treatment for malaria
- Nutrition support
- Safe water
- Environmental interventions (ITNs, IRS, water treatment, NSP)

**TABLE FOUR: INTERVENTIONS TO PREVENT ILLNESS IN PEOPLE LIVING WITH HIV**

<table>
<thead>
<tr>
<th>Recommended</th>
<th>Consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-trimoxazole</td>
<td>Influenza vaccine</td>
</tr>
<tr>
<td>Safe water, water treatment methods</td>
<td>Yellow fever vaccination if no advance or severe disease</td>
</tr>
<tr>
<td>Sanitation, proper disposal of faeces</td>
<td></td>
</tr>
<tr>
<td>Hand washing with soap after defecation or handling faeces</td>
<td></td>
</tr>
<tr>
<td>Hepatitis vaccine for Hep B core antibody negative adults</td>
<td></td>
</tr>
<tr>
<td>TB screening</td>
<td>Optional</td>
</tr>
<tr>
<td>Isoniazid prophylaxis for TB</td>
<td>Chemoprophylaxis for Cryptococcus</td>
</tr>
<tr>
<td>IPT for malaria in pregnant women in areas of malaria transmission</td>
<td>Pneumococcal vaccine for adults (polysaccharide vaccine) if CD4 &gt; 500</td>
</tr>
<tr>
<td>IRS and ITN if living in malarial areas</td>
<td></td>
</tr>
<tr>
<td>Full nutritional assessment</td>
<td></td>
</tr>
</tbody>
</table>

**Key resources:** 22 48

Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings


**1.3.1.1 CO-TRIMOXAZOLE PROPHYLAXIS**

Co-trimoxazole is an effective, well tolerated and inexpensive antibiotic used to prevent Pneumocystis jiroveci pneumonia (PCP) and toxoplasmosis in adults and children with HIV. It is also effective against other infectious and parasitic diseases and should be an essential part of pre-antiretroviral therapy care.

**Summary of recommendations:**

WHO recommends that the criteria for HIV infected adults be adapted, depending on disease burden in different settings. All HIV infected adults with a previous episode of PCP require co-trimoxazole prophylaxis, as do all HIV infected infants and...
Children under 5. In settings where diagnosis of HIV in exposed children may be delayed due to lack of laboratory testing capacity, it is recommended that all children born to HIV positive women should commence co-trimoxazole at around four to six weeks of age or on first contact with health services.

Countries may choose to simplify these recommendations in settings with high prevalence of HIV and limited health infrastructure, and recommend universal cotrimoxazole prophylaxis for everyone living with HIV, no matter their CD4 count or clinical state.

It is generally recommended that, once started, cotrimoxazole prophylaxis for adults living with HIV be continued indefinitely. However, discontinuation may be necessary where adverse drug reactions occur. Due to insufficient data at this time stopping due to a sustained favourable response to ART cannot be recommended either for adults or children in low or middle income settings with limited access to CD4.

**Key resource:** 102

Guidelines on co-trimoxazole prophylaxis for HIV related infections among children, adolescents and adults

[LINK](http://www.who.int/hiv/pub/guidelines/ctx/en/index.html)

**1.3.1.2 PREVENTING FUNGAL INFECTIONS**

Cryptococcus is a significant cause of illness and death in children and adults with HIV. Other fungal infections may be important depending on local epidemiological patterns (e.g. Penicillium marneffei in Asia).

**Summary of recommendations:**

In areas where cryptococcal disease is common, antifungal prophylaxis with azoles should be considered for people with HIV if they have clinically severe disease or very low CD4 cell counts (< 100/mm³), whether or not they are receiving antiretroviral therapy. Prior to beginning primary prophylaxis with azoles, active cryptococcal and other invasive fungal infections should be excluded. People with HIV who are taking azoles, especially those who are taking other hepatotoxic drugs, require monitoring for adverse events. Secondary prophylaxis is recommended for patients after completing treatment for cryptococcal disease.

**Key resources:** 22

Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings


**1.3.1.3 VACCINATIONS**

Recommendations on routine childhood and catch up vaccinations for adults and children with HIV are being reviewed by WHO expert committees in 2008, and readers are encouraged to check for updated guidance.

**Summary of recommendations for children:**

HIV-exposed infants and children should receive all vaccines under the Expanded Programme for Immunization, including Haemophilus influenzae type B and pneumococcal vaccine, as early in life as possible. This should be done according to recommended national immunization schedules. However, the schedules may require some modification for infants and children with HIV.

Because of the increased risk of early and severe measles infection, infants with HIV should receive a dose of standard measles vaccine at six months of age with a second dose as soon after age nine months as possible, unless they are severely immuno-compromised at that time. Similarly, immunization with pneumococcal conjugate vaccine or Haemophilus influenzae type B conjugate vaccine should be delayed if the child is severely immuno-compromised. New findings indicate a high risk of disseminated bacille Calmette-Guérin (BCG) disease developing in infants who have HIV, and BCG vaccine should therefore not be given to children known to have HIV. However, infants cannot usually be identified as being infected with HIV at birth, so BCG vaccination should usually be given to all infants at birth, regardless of HIV exposure in areas with high prevalence of TB and of HIV.

**Summary of recommendations for adults:**

Vaccine preventable diseases, especially hepatitis B and influenza, are among the major causes of illness among adults with HIV. However, the efficacy of hepatitis B vaccine is related to the degree of immuno-suppression induced by HIV. Where
serological testing for hepatitis B virus is available, WHO recommends three doses of standard- or double-strength hepatitis B vaccine for adults with HIV who are susceptible (i.e., antibody to hepatitis B core antigen negative) and have not been vaccinated previously. Vaccine response (titre of hepatitis B surface antibody after three doses of HBV vaccine) can be measured and, if suboptimal, revaccination may be considered. In settings where serologic testing is not available and hepatitis B prevalence is substantial, programme managers may choose to offer three doses of hepatitis B vaccine to all adults with HIV. Where available and feasible, annual influenza vaccination with the inactivated subunit influenza vaccine should be offered to adults with HIV. Moreover, if influenza vaccine is indicated in the context of a large epidemic or pandemic, adults with HIV should receive inactivated influenza vaccine. There is insufficient information to make recommendations about human papilloma virus vaccination for young females with HIV.

**Key resources:** 22 103 104

Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings


Vaccine-preventable diseases, vaccines and vaccination


Revised BCG vaccination guidelines for infants at risk for HIV infection


**1.3.1.4 NUTRITIONAL CARE AND SUPPORT**

Children and adults with HIV have increased energy needs but symptoms of HIV or opportunistic infections may lead to reduced dietary intake, decreased appetite, difficulty swallowing, and malabsorption. This combined with environmental factors such as lack of regular access to a nutritious balanced diet means HIV and nutrition interactions are complex.

Evidence-based nutrition interventions should be part of all national HIV care and treatment programmes. Routine assessment should be made of diet and nutritional status (weight and weight change, height, BMI or mid-upper arm circumference, symptoms and diet) for people living with HIV. Assessment of diet should aim to ensure that protein and micronutrient intake are adequate for the patient’s energy needs and that potential drug-food (including herbal and traditional remedies) interactions are avoided. Individual and household food security should also be evaluated.

**Summary of recommendations:**

WHO recommends that all children and adults should receive one recommended daily allowance (RDA) of micronutrients, regardless of their HIV status. This is best provided by food, including fortified food, but where the micronutrient content of the daily diet is inadequate, a daily multi-micronutrient supplement is required (one RDA is recommended). There is no evidence for increased protein requirements exceeding that of a balanced diet, where protein contributes about 10–15 per cent of the total energy intake.

Whenever feasible, people with HIV and their families without the means to meet their basic dietary needs should be assisted in achieving food security. Assistance might include, for example, supplements to their income or direct provision of some of their food.

**Key resource:** 22 105 106

Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings


Integrating nutrition and food assistance into HIV care and treatment programmes: operational guidance

Nutrition Counselling, Care and Support for HIV-infected women


**1.3.1.5 PROVISION OF SAFE WATER, SANITATION AND HYGIENE**

Simple, accessible and affordable interventions for safe household water and sanitation (i.e., management of human waste) reduce the risk of transmission of waterborne and other enteric pathogens. Where programmes offer replacement feeding
or early weaning from breastfeeding for infants of women with HIV, effective water treatment is essential to protect the infants' health. Interventions for point-of-use water, sanitation and personal hygiene require continued motivation for and reinforcement of behaviour change by individuals and households. In the long-term, governments and development partners should address the larger problem of inadequate access to piped supplies of safe water in homes.

Summary of recommendations:

Household-based water treatment and storage of water in containers that reduce manual contact are recommended for people living with HIV and their households. Steps should be taken to ensure they have a minimum of litres of water per person per day.

To reduce diarrhoeal disease among people living with HIV and their families or households, disposal of faeces in a toilet, latrine, or, at a minimum, burial in the ground is recommended. Hygiene interventions should include hygiene education and promotion of hand washing with soap, along with the provision of soap for people living with HIV and their caregivers and households.

Key resource: 22

Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings

1.3.1.6 PREVENTION OF MALARIA

In malarious areas, infants and children under five and pregnant women with HIV are at high risk of complications resulting from co-infection with malaria, so they should be provided with malaria prevention and treatment.

Summary of recommendations:

Infants, children under five and pregnant women with HIV who live in malarious areas should be provided with insecticide treated mosquito nets and/or residual spraying of their rooms and homes to reduce their exposure to malaria. Pregnant women with HIV who are already receiving co-trimoxazole prophylaxis do not require sulfadoxine-pyrimethamine-based intermittent preventive therapy for malaria. However, in areas of malaria transmission, pregnant women living with HIV who are not taking co-trimoxazole should be given at least three doses of intermittent preventive treatment for malaria as part of their routine antenatal care.

Key resource: 22

Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings

1.3.2 TREATMENT AND CARE INTERVENTIONS

Management of the full range of HIV related conditions should be based on clear guidelines and standardized protocols. Interventions for care and treatment are discussed in the following sections and include, for example:

- Regular periodic clinical assessment, both pre-ART and post-ART (see 1.3.2.1);
- Treatment preparedness and adherence support (see 1.3.2.1a);
- Management of opportunistic infections and co-morbidities (see 1.3.2.2);
- Prevention and treatment of mental health disorders (see 1.3.2.2g);
- Palliative care (1.3.2.3).

1.3.2.1 ANTIRETROVIRAL THERAPY FOR ADULTS, ADOLESCENTS AND CHILDREN

A public health approach to ART facilitates quality HIV treatment for all who need treatment, an essential component of the universal access goal. It promotes simplified and standardized clinical decision making, drug regimens and formularies, and patient data recording systems. It requires that national drug prescription and clinical care guidelines be supported by regular supplies of quality-assured drugs and, also, making these drugs available to patients free at the point of service delivery.

Early referral to ART services and measures to retain patients in care are essential to the achievement of good patient and programme outcomes. To maintain the effectiveness of first- and second-line ARV regimens, WHO recommends that countries
develop a national strategy for HIV drug resistance prevention and assessment (see section 3.3.3). WHO also recommends any expansion or improvement of laboratory services that may be necessary to diagnosis and treatment of HIV, opportunistic infections (OIs) and related conditions and to support monitoring of treatment effectiveness (see 1.4).

Summary of recommendations:

Regular periodic clinical and immunological staging to determine need for treatment is recommended for adults and children with HIV. Where laboratory services are available and affordable, determining viral load may provide additional information. Currently, it is not clear in which situations targeted or routine viral load testing will be of benefit in low and middle income countries.

WHO recommends that criteria for starting ART be defined in national protocols and that these protocols be based on the minimum clinical data and, wherever available, CD4 counts. Eligibility criteria, including any requirements there may be for CD4 or viral load, should not be used to delay starting ART, especially for patients who meet the clinical criteria for starting ART.

Recommendations for initiating ART in adults, adolescents and children are shown in Tables Five, Six and Seven. These recommendations are reviewed and updated regularly and readers are encouraged to check for updates. For pregnant women, ART is also essential to prevent vertical transmission (see section 1.2.3.2). Revised criteria have recently been developed for initiating antiretroviral therapy among infants, and revised recommendations have been made for infants requiring ART who have been exposed to nevirapine pre-delivery, parentally or post delivery. WHO recommends that all infants diagnosed with HIV start immediate ART.

Currently recommended first-line regimens for adults, adolescents and children contain two nucleoside reverse transcriptase inhibitors (NRTIs) plus one non-nucleoside reverse transcriptase inhibitors (NNRTI) drug. WHO recommends the use of fixed-dose combination regimens to support adherence and programme delivery. For adults, AZT or tenofovir combined with 3TC or FTC are the preferred first line NRTI medicines. In children, AZT or ABC combined with 3TC are preferred. First line regimens for those with active hepatitis B should contain tenofovir and lamivudine and avoid nevirapine wherever possible. For people with HIV-2 infection, a triple nucleoside regimen is recommended. Guidelines or protocols produced by WHO regional offices also provide specific recommendations that can be used to guide national technical reference groups developing national recommendations. Regional guidelines for SEARO/EURO/PAHO and WPRO are referenced in chapter 5.

Patients who develop failure of their first-line therapy go on to need second-line therapy. Treatment failure is recognized by using, at a minimum, clinical criteria and CD4 cell thresholds and, where feasible, the results of virological monitoring. WHO recommends changing the entire drug regimen if treatment failure has occurred. The protease inhibitor (PI) class of drugs is usually reserved for second-line treatment, preferably supported by two new NRTIs. Recent technical consultations have addressed which second line drugs are most feasible, affordable and safe and how clinical, immunological and virological criteria are best used to recognize treatment failure.

TABLE FIVE: WHO RECOMMENDATIONS FOR INITIATING ANTIRETROVIRAL THERAPY IN ADULTS AND ADOLESCENTS (2006)

<table>
<thead>
<tr>
<th>WHO CLINICAL STAGE</th>
<th>CD4 TESTING NOT AVAILABLE</th>
<th>CD4 TESTING AVAILABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do not start ART</td>
<td>Start ART if CD4 is &lt; 200 /mm3</td>
</tr>
<tr>
<td>2</td>
<td>Do not start ART</td>
<td>Consider starting ART if cd4&lt; 350/mm3, starting before it drops to &lt; 200 /mm3. Recommended for all HIV+ pregnant women if CD4 &lt; 350 /mm3</td>
</tr>
<tr>
<td>3</td>
<td>Start ART</td>
<td>Start all irrespective if CD4</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE SIX: WHO RECOMMENDATIONS FOR INITIATING ANTIRETROVIRAL TREATMENT IN INFANTS AND CHILDREN

Criteria to start ART in infants and children

<table>
<thead>
<tr>
<th>Age</th>
<th>Infants &lt;12 months</th>
<th>12 months through 35 months</th>
<th>36 months through 59 months</th>
<th>5 years or over</th>
</tr>
</thead>
<tbody>
<tr>
<td>% CD4</td>
<td>All</td>
<td>&lt;20</td>
<td>&lt;20</td>
<td>&lt;15</td>
</tr>
<tr>
<td></td>
<td>Absolute CD4 *</td>
<td>&lt;750mm³</td>
<td>&lt;350mm³</td>
<td>As in adults (&lt;200)</td>
</tr>
</tbody>
</table>

* Absolute CD4 count is naturally less constant and more age-dependent than %CD4; it is not therefore appropriate to define a single threshold.
# Table Seven: Summary of WHO Preferred Antiretroviral Treatment Recommendations for Infants, Children and Adults

<table>
<thead>
<tr>
<th>Patient Group</th>
<th>Preferred First Line Regimen</th>
<th>Preferred Second Line Regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant not exposed to ARV</td>
<td>NVP + 2 NRTI</td>
<td>LPV/r + 2 NRTI</td>
</tr>
<tr>
<td>Infant exposed to NVP</td>
<td>Boosted PI + 2 NRTI</td>
<td>NNRTI + 2 NRTI</td>
</tr>
<tr>
<td>Infant with unknown ARV exposure</td>
<td>NVP + 2 NRTI</td>
<td>LPV/r + 2 NRTI</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children 3 years or over</td>
<td>NNRTI + 2 NRTI</td>
<td>Boosted PI + 2 NRTI</td>
</tr>
<tr>
<td><strong>Adult or Adolescents</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult or adolescent</td>
<td>NVP + 2 NRTI</td>
<td>Boosted PI + 2 NRTI</td>
</tr>
<tr>
<td>Woman starting ART in pregnancy</td>
<td>NVP + 2 NRTI</td>
<td>Doesn’t apply</td>
</tr>
<tr>
<td>Women starting ART within 6 months of single dose NVP</td>
<td>NVP + 2 NRTI or 3 NRTI</td>
<td>Doesn’t apply</td>
</tr>
<tr>
<td><strong>Concomitant Conditions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child, adolescent or adult with severe anaemia</td>
<td>NVP + 2 NRTI (avoid AZT)</td>
<td>Boosted PI + 2 NRTI (avoid AZT)</td>
</tr>
<tr>
<td>Child, adolescent or adult with TB</td>
<td>EFV + 2 NRTI or 3 NRTI</td>
<td>Boosted PI * + 2 NRTI</td>
</tr>
<tr>
<td>Adult or adolescent with Hepatitis B</td>
<td>TDF + 3TC + NNRTI</td>
<td>Boosted PI + 2 NRTI **</td>
</tr>
<tr>
<td>Adult or adolescent with Hepatitis C</td>
<td>EFV + 2 NRTI</td>
<td>Boosted PI + 2 NRTI</td>
</tr>
<tr>
<td>IDU</td>
<td>NNRTI + 2 NRTI</td>
<td>Boosted PI + 2 NRTI</td>
</tr>
<tr>
<td>HIV-2 or dual infection</td>
<td>3 NRTI</td>
<td>Boosted PI + 2 NRTI</td>
</tr>
</tbody>
</table>

* If using RMP in the TB regimen, LPV/r + extra dose of RTV is the recommended PI option, based on pK interactions. If RFB or an alternative TB regimen without RMP is used, any bPI at its conventional dosage can be used.

** If long term anti-HBV therapy is still needed consider maintaining 3TC and/or TDF, in addition to the new 2 NRTI backbone.

**NRTI** = Non nucleoside reverse transcriptase Inhibitor **NRTI** = nucleoside/nucleotide reverse transcriptase inhibitor **PI** = Protease inhibitor, **IDU** = Injecting drug user, **AZT** = Zidovudine, **EFV** = Efavirenz, **NVP** = Nevirapine, **LPV** = Lopinavir **r**= booster dose ritonavir, **RTV** = Ritonavir, **TDF** = Tenofovir, **3TC** = Lamivudine **RMP** = Rifampicin, **RFB** = Rifabutin, **HBV** = Hepatitis B virus.

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**Key resources:** 87 107 48 108 107 109 110 111 112 113 114 63

- WHO Case Definitions of HIV for Surveillance and Revised Clinical Staging and Immunological Classification of HIV-Related Disease in Adults and Children

- Antiretroviral therapy for HIV infection in infants and children: Towards universal access
  LINK [http://www.who.int/hiv/pub/guidelines/paediatric020907.pdf](http://www.who.int/hiv/pub/guidelines/paediatric020907.pdf)

- Antiretroviral therapy for HIV infection in adults and adolescents: Recommendations for a public health approach

- IMAI-IMCI Chronic HIV Care with ARV Therapy and Prevention
  LINK [http://www.who.int/hiv/pub/ima/Chronic_HIV_Care7.05.07.pdf](http://www.who.int/hiv/pub/ima/Chronic_HIV_Care7.05.07.pdf)

- Prioritizing Second-Line Antiretroviral Drugs for Adults and Adolescents: a Public Health Approach
  LINK [http://www.who.int/hiv/pub/meetingreports/Second_Line_Antiretroviral.pdf](http://www.who.int/hiv/pub/meetingreports/Second_Line_Antiretroviral.pdf)

- Prequalification Programme (with a list of WHO-prequalified antiretroviral medicines)
  LINK [http://healthtech.who.int/pq/](http://healthtech.who.int/pq/)

- The report of a 2008 meeting on treatment failure will be published shortly, so readers should check for updates on this document.

1.3.2.1A TREATMENT PREPAREDNESS AND ADHERENCE SUPPORT

Interventions to ensure treatment preparedness and support adherence optimize the effectiveness of ART and minimize the development of drug resistance. The ability of patients to follow treatment plans is frequently compromised by various factors, including stigma and discrimination against them and their families, treatment costs they cannot afford, and the nature and tolerability of available ARV therapies. The level of readiness by patients to follow healthcare worker recommendations is a major factor that can be addressed through information, education and counselling. Practical matters, such as the need for free or affordable transportation to and from treatment centres and the need for those centres to have opening hours convenient for patients, are also important.

Preparedness and adherence support for children requires support from their parents or other primary caregivers. Children on the verge of adolescence and adolescents require special attention, since they are at stages of life where they may be inclined to ignore or rebel against the advice of adults unless adults show respect for their emerging autonomy. Healthcare providers have responsibilities to assess risk of non-adherence by children and adolescents and deliver whatever interventions may be necessary to support adherence. This requires a multidisciplinary approach involving key staff in healthcare centres to ensure convenient opening hours, free or affordable transportation, decreases in the direct or indirect costs of care, provision of meals if appropriate, and so on.

Community and patients’ organizations often play key roles in supporting adherence, through peer monitoring, home visits and other means. Informal or formal social support from family, friends, community, and patients’ organizations has consistently shown to be important for treatment preparedness, adherence and good health outcomes.

Summary of recommendations:

Interventions that target adherence should be tailored to the particular illness-related needs of each patient. Healthcare providers should be prepared to assess their patient’s readiness to adhere, provide advice on how to do it, and monitor the patient’s progress at every contact. For particular patient groups, such as infants and pregnant women, expedited treatment preparedness is often necessary, and more intensive and ongoing adherence support may be required.

Effective adherence support interventions include client-centred behavioural counselling and support and support from peer educators trained as “expert patients” and community treatment supporters. They involve encouraging people to disclose their HIV status and providing them with treatment tools such as pillboxes, diaries and patient reminder aids. There should be site-based assessments to evaluate the extent to which services such as free transport might improve adherence.

Key resources: 115 48

Adherence to Long-Term Therapies: Evidence for Action
LINK http://www.who.int/chp/knowledge/publications/adherence_introduction.pdf

1.3.2.1B PATIENT MONITORING

Infants, children and adults with HIV require clinical and laboratory monitoring at pre-determined intervals. Monitoring may include clinical assessment, CD4 cell count and other tests, depending on the symptoms or signs identified. Regular patient monitoring can identify problems with adherence, toxicity and effectiveness of ART and TB-HIV co-treatment. Nationally standardized patient monitoring tools (patient records, registers, and reports) facilitate high-quality patient monitoring (see section 3.3.2).

1.3.2.2 MANAGEMENT OF OPPORTUNISTIC INFECTIONS AND CMORBIDITIES

Standardized clinical protocols should reflect the burden of HIV and prevalent co-morbidities. Certain conditions are common in infants, children or adults living with HIV and may herald disease progression. Clinical care should manage the common acute and chronic conditions associated with HIV.

Key resources: 48 116 92 22 117 118

IMA/IMCI Chronic HIV Care with ARV Therapy and Prevention

IMA Acute Care
1.3.2.2A MANAGEMENT OF HIV RELATED CONDITIONS

Case management protocols for adults and children with HIV should, at a minimum, include the conditions listed below, and should also include other locally prevalent conditions.

**Infections:**
- Candida (oesophageal and mucosal)
- Cryptococcal meningitis
- Cytomegalovirus infection
- Herpes virus infections (zoster and simplex)
- Hepatitis B and C
- PCP pneumonia
- Septicaemia (including especially Gram negative and Gram positive for IDU)
- Severe bacterial pneumonia
- Malaria
- Toxoplasmosis
- Tuberculosis including MDR/XDR (see 1.3.2.4)
- Atypical mycobacteria

**Neurological conditions:**
- Neuropathy
- Encephalopathy
- Progressive Multifocal Leukoencephalopathy (PML)
- Dementia
- Developmental delay

**Skin disorders:**
- Seborrhoeic dermatitis
- Prurigo
- Infections
- Drug reactions

**Malignancies:**
- AIDS defining malignancies:
  - Kaposi’s sarcoma
  - Non-Hodgkin’s lymphoma, including primary cerebral lymphoma
  - Cervical cancer
- Hepatocellular carcinoma

**Cardiovascular and metabolic conditions:**
- Atherosclerosis
- Dyslipidemia
- Diabetes
- Lipodystrophy
- Cardiomyopathy.

**Mental health disorders:**
- Substance use disorders
- Attempted suicide
- Major depression
- Psychoses
- Anxiety disorders

**Others:**
- Lymphocytic interstitial pneumonia (LIP) in children
1.3.2.2B MANAGEMENT OF PNEUMONIA
Children and adults living with HIV have higher rates of pneumonia and mortality in both resource-constrained and high-income settings. In sub-Saharan Africa, pneumonia is the leading cause of hospital admission and the most common cause of death among children younger than 5 years who have HIV. The case fatality rate for pneumonia in infants and younger children with HIV is very high. In adults, pneumonia is often more serious and may be caused by a range of different aetiologies.

Summary of recommendations:
In patients with presumed pneumonia who fail to respond to standard antibiotics, TB, PCP pneumonia, fungal and other opportunistic pathogens need to be considered. PCP is a common cause of severe pneumonia in HIV infection and should always be considered.

Key resources: 116 92

1.3.2.2C MANAGEMENT OF DIARRHOEA
Chronic persistent diarrhoea is common in infants, children and adults living with HIV and may be more difficult to diagnose and manage.

Summary of recommendations:
Clinical protocols should cover case management for the full range of opportunistic pathogens.

Key resources: 123 121

1.3.2.2D MANAGEMENT OF MALNUTRITION
Weight loss and malnutrition are common symptoms of HIV in infants, children and adults, and may be due to reduced food intake, impaired absorption, increased food needs due to opportunistic infections, or other causes. Evaluation of weight loss should include assessing symptoms and signs that could indicate underlying disease, notably chronic diarrhoea and TB. Successful treatment of the underlying disease may result in weight gain. Usually standard management protocols can be followed but responses may be poor and antiretroviral therapy may be required.
Summary of recommendations:
Specialized therapeutic foods are required for persons with BMI<16 and for infants and children with moderate or severe malnutrition. Supplementary feeding may be required for mild-to-moderately malnourished adults (BMI <18.5) and children.

Key resources: 124
Joint statement on the community-based management of severe malnutrition in children

1.3.2.2E TREATMENT OF VIRAL HEPATITIS
Chronic liver disease caused by either hepatitis B virus (HBV) or hepatitis C virus (HCV) in patients with HIV is common in many areas of the world, and chronic liver disease is now becoming one of the leading causes of morbidity and mortality among PLHIV in many parts of the world. Globally approximately 10% of people with HIV worldwide have chronic hepatitis B. Men who have sex with men (MSM) have higher rates of HBV/HIV co-infection than injecting drug users (IDUs) or heterosexuals. HCV and HIV co-infection is particularly frequent in areas with a high prevalence of intravenous drug users (IDUs), as in some areas up to two-thirds of IDUs have chronic hepatitis C. In Europe, up to 30% of HIV-infected individuals are co-infected with HCV. The course of HBV- and HCV-related liver disease may be accelerated with HIV, and liver toxicity and related morbidity is not uncommon when using ARVs in the presence of underlying chronic hepatitis B and/or C. In HBV/HIV-coinfected patients with cirrhosis, hepatocellular carcinoma (HCC) may appear at an earlier age and be more aggressive in those with HIV-infection.

Summary of recommendations:
WHO recommends that national health authorities establish prevention and treatment strategies for HBV and HCV in HIV co-infected individuals, and activities to prevent HBV and HCV transmission.

Detailed recommendations for clinical management can be found in clinical protocols from the WHO Euro regional office (HIV/AIDS Treatment and Care Clinical Protocols for the WHO European Region, 2007) and other regional resources in chapter 5.

Key resources: 72 125 126 127 128 129 118
WHO EURO Hepatitis website
LINK http://www.euro.who.int/aids/hepatitis/20070621_1
Prevention of Hepatitis A, B and C and Other Hepatotoxic Factors in People Living with HIV
HIV/AIDS Treatment and Care for Injecting Drug Users
LINK http://www.euro.who.int/document/SHA/e90840_chapter_5.pdf
Management of Hepatitis C and HIV Coinfection

1.3.2.2F MANAGEMENT OF MALARIA
Current recommendations on diagnosis and management of malaria in people living with HIV are not different from those for the general population, but are due to be reviewed in late 2008.

Summary of recommendations:
For adults and children with HIV living in malarious areas who have fever, evaluation of the cause of fever and, where possible, laboratory confirmation of malaria infection are preferred, instead of presumptive treatment of fever as malaria. Available malaria tests may include microscopy or rapid diagnostic tests. People with HIV who develop malaria require standard recommended antimalarial treatment. Patients with HIV who are receiving co-trimoxazole prophylaxis should not be given sulfadoxine-pyrimethamine.

Key resources: 130 131
Guidelines for the Treatment of Malaria (due to be reviewed and updated in 2008)
LINK http://www.who.int/malaria/docs/TreatmentGuidelines2006.pdf
1.3.2.2g PREVENTION AND TREATMENT OF MENTAL HEALTH DISORDERS

Prevention and treatment of mental health disorders and the need for psychological and social support are often neglected in people living with HIV, despite the fact that they are critical components of care. HIV infection itself can lead to poor mental health including impaired cognition. In infants and children, it can lead to impaired neurological development and low attainment of developmental milestones. Timely ART effectively prevents HIV related encephalopathy, but other conditions common in people with HIV include depression, anxiety and substance use. These can interfere with treatment adherence. Alcohol use is also a risk factor for unsafe sex and HIV transmission.

Promoting and supporting mental health throughout a chronic illness require a number of interventions including psychosocial support delivered by trained lay providers and clinicians, basic counselling for depression, and psychotherapeutic interventions to address recognized psychiatric disorders. Brief interventions can address harmful and hazardous alcohol use. Mental health-related issues for people living with HIV should be addressed at all levels of the health system and that requires referrals connecting HIV-related services and with mental health services and linkages with psychological and social support resources in community.

Summary of recommendations:

All people with HIV should be offered or provided referral to a comprehensive set of psychosocial interventions (e.g., individual and group counselling, peer support groups, family and couples counselling and adherence support). People living with HIV who have mental health conditions, such as depression and alcohol and other substance dependence, should be provided with specific psychosocial and psychotherapeutic interventions and, when indicated, medication for these conditions. Services should be configured to support families and ensure that the needs of infants, children and adolescents are met. Delirium, dementia, suicide, major depression, psychoses and anxiety disorders all need specific interventions and may require psychotropic medication.

Key resources: 132 119 48 133

Psychiatric Care in Anti-retroviral (ARV) Therapy: for second level care

Psychosocial Support in Anti-retroviral (ARV) Therapy Programmes

1.3.2.2h COUNSELLING

Counselling is an essential component of HIV services, and requires specific skills and competencies for healthcare workers and lay providers.

Summary of recommendations:

Counselling is required in a range of clinical situations in order to:

• Provide emotional support;
• Help patients cope with challenges and fears related to diagnosis of HIV, transmission to infants, sexual partners and other family members;
• Help patients cope with the need for lifelong treatment with ART;
• Help patients prioritize problems and find their own solutions;
• Help patients who are depressed or anxious
• Address other aspects of HIV prevention, care and treatment (post-testing counselling, disclosure of HIV status, safe sex, negotiating condom use, adherence)
• Intervene in crisis situations (e.g., bereavement or to prevent suicide).

Healthcare workers, including counsellors, also require support to prevent and respond to burnout.

Key resources: 134 135 136

Basic counselling guidelines for Anti-retroviral (ARV) Therapy Programmes

IMA/IMCI Chronic HIV Care with ARV Therapy and Prevention
1.3.2.3  PALLIATIVE CARE

Palliative care can improve the quality of life of patients facing life-threatening illness and of their families, through the prevention and relief of suffering by means of early identification, assessment and treatment of pain and of other physical, psychosocial and spiritual needs. It calls for a multidisciplinary team approach which addresses the needs of patients and their families.

Palliative care provides relief from pain and other distressing symptoms; integrates psychological and spiritual aspects of patient care; and provides support systems to help patients and their families live as actively as possible until death and cope during both illness and death.

A central focus of palliative care is pain assessment and treatment, with the use of opioid and non-opioid analgesics according to an analgesic ladder and provided together with non-medical treatments. This requires addressing any limitations in access to opioid analgesics and any reservations some healthcare workers may have about prescribing or administering analgesics.

Summary of recommendations:

Pain requires both specific management of the cause and control of the pain itself. The analgesic ladder involves beginning pain relief with a non-opioid analgesic such as aspirin, paracetamol or ibuprofen. If pain persists or increases, an opioid analgesic such as codeine should be added for mild to moderate pain. If the pain is still not controlled or increases, codeine should be stopped and oral morphine added to the aspirin, paracetamol or ibuprofen. Morphine for home use is available as a liquid.

Quality of life can be significantly improved by treating other physical symptoms with medication and home remedies; ensuring preventive care in the bed-ridden patient, with careful attention to mobility, skin care, and hygiene; providing psychosocial support to patients and families, including support for caregivers and bereavement counselling; and spiritual support.

People living with HIV should be encouraged to self-manage most symptoms and community and peer groups and organizations can provide much of the other support.

Key resources: 137 138 139 140

Palliative care: symptom management and end-of-life care
LINK http://www.who.int/hiv/pub/imai/genericpalliativecare082004.pdf

WHO’s pain ladder

Caregiver Booklet Symptom Management and End of Life Care.

Restoring hope: decent care in the midst of HIV/AIDS
LINK http://www.who.int/hiv/pub/imai/PatientCommune/en

1.3.2.4  TUBERCULOSIS PREVENTION, DIAGNOSIS AND TREATMENT

In many parts of the world, TB is the leading cause of HIV-related morbidity and mortality. It accounts for about 12% of all HIV related deaths. In countries with high HIV prevalence, up to 80% of people with TB test positive for HIV, and HIV positive individuals are more likely to have reactivation and re-infection of TB. This is of increasing concern given the emergence of TB drug resistance including multi-drug and extensively drug resistance disease. Some high risk groups (e.g., IDUs, prisoners and healthcare workers in some settings) are at greater risk of infection and of developing active TB.

Summary of recommendations:

WHO recommends that TB and HIV/AIDS control programmes collaborate through an established coordinating body, undertake joint TB/HIV planning, ensure surveillance of HIV prevalence among TB patients, and also ensures the monitoring and evaluation of activities (see 2.1.1 and Chapter 3).

The burden of HIV in TB patients should be reduced through HIV testing and counselling for TB patients and TB suspects and through provision of condoms and other HIV preventive interventions (see 1.2), co-trimoxazole prophylaxis (see 1.3.1.1) and HIV treatment and care (see 1.3.2).

The burden of TB in people living with HIV should be reduced through what are sometimes called the “Three I’s for HIV/TB”: intensified TB case finding (ICF), isoniazid preventive therapy (IPT) and infection control for TB.
Intensified TB case finding in people living with HIV is essential, since TB is a curable disease. Intensified HIV case finding in people with TB is also essential, since co-trimoxazole prophylaxis can prevent complications.

WHO strongly recommends TB screening for all infants, children and adults with HIV. In addition, the information provided to all patients with HIV and caregivers of infants and children with HIV should address the risk of acquiring TB, ways of reducing exposure, the clinical manifestations of TB, the risks of transmitting TB to others and, where appropriate, TB preventive therapy. Screening for TB is also essential to stop TB from worsening and to determine whether patients are eligible for IPT.

The TB status of HIV-infected patients should be monitored on all visits to healthcare providers and those with symptoms or signs suggestive of TB should undergo further clinical investigation. Most-at-risk populations, including injecting drug users require specific targeting. Approaches to reducing the risk of latent TB infection progressing to TB-disease include treatment of the latent TB itself and, also, improvement in immune function as a result of antiretroviral therapy.

TB infection control measures are essential to prevent the spread of TB through populations. Appropriate infection control measures (for example, developing a TB infection control plan, “fast-tracking” coughing patients, assuring rapid TB diagnosis and improving ventilation) should be implemented and reviewed periodically to minimize the transmission risk.

Isoniazid is an effective, well tolerated and inexpensive antibiotic for TB preventive therapy, and should be provided to all people with HIV once active TB disease has been excluded. Criteria for starting isoniazid for HIV infected adults may be adapted for different country settings but, once it is started, WHO recommends isoniazid daily for six months. Specialist advice should be sought for preventive therapy for people with multidrug-resistant or extensively drug-resistant TB. Previous TB is not a contraindication to TB-preventive therapy.

Key resources: 141 22 142 143 144 145 146

Interim policy on collaborative TB/HIV activities

Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings

Intensified Case Finding (ICF), Isoniazid Preventive Therapy (IPT) and TB Infection Control (IC) for people living with HIV, April 2008,
LINK http://www.who.int/hiv/pub/meetingreports/WHO_3Is_meeting_report.pdf

Isoniazid preventive therapy (IPT) for people living with HIV

1.3.2.4A TREATMENT OF HIV-ASSOCIATED TUBERCULOSIS

The DOTS (Directly Observed Treatment, Short-course) principles are well-recognized as the most effective approach to managing TB among people living with HIV. They may develop TB at any stage in the course of HIV infection but the incidence increases with the severity of immuno-suppression. Among children under five, there is often rapid progression from infection with TB to serious TB disease. Since people living with HIV are more likely to have smear-negative extrapulmonary TB, the reliance on smear microscopy is of concern. So is the fact that chest X-ray patterns may be atypical in people with HIV, particularly where there is severe immuno-suppression, and this can also make diagnosis of TB difficult.

Summary of recommendations:

WHO recommends scaling up access to culture-based diagnosis for people living with HIV. Recommended TB treatment based on a four-drug initial phase and a continuation phase remains the same for adults as for children with HIV. Thioacetazone is contraindicated as it can result in potentially fatal skin hypersensitivity.

Key resources: 147 148 149

Guidance for national tuberculosis programmes on the management of TB in children

TB/HIV: A Clinical manual

IMAI/STB TB Care with TB-HIV Co-Management guideline module
LINK http://www.who.int/hiv/pub/imai/TB_HIVModule23.05.07.pdf
1.4 LABORATORY SERVICES

Strengthening laboratory services is an essential component of the strengthening and expanding health systems. Accurate and reliable clinical laboratory testing is an essential component of a public health approach to disease management. Healthcare workers need laboratory services in order to assess the status of patients’ health, make accurate diagnoses, formulate treatment plans, and monitor and predict the benefits and adverse effects of treatment. Laboratory services should provide accurate, reliable and timely results.

A tiered laboratory network is an integrated system of laboratories organized in alignment with the public health delivery network in a country. In low-income settings, four levels of laboratories are usually recognized within the national network. The primary level is at health posts, clinics, or centers. The secondary level is at district hospitals and other facilities to which people are referred at primary level. The tertiary level is at regional hospitals or other regional health administrative units. The fourth and highest level consists of a national reference laboratory. In exceptional cases, national reference functions may be provided by laboratories outside of national administrative units and, instead, inside specialized facilities, e.g., for determining HIV drug resistance or virological diagnosis.

A national reference laboratory is responsible for overseeing the training of medical staff in good laboratory practice and biosafety; proper clinical use of essential laboratory tests; appropriate selection and use of laboratory technologies and equipment, including maintenance and quality assurance of equipment.

Summary of recommendations:

WHO recommends that national health authorities be guided by HIV programme staff and national technical experts and develop a consolidated costed plan for strengthening laboratory capacity and identifying the HIV-related diagnostic reagents, technologies and equipment that are appropriate for their country.

Basic laboratory procedures, testing strategies and protocols for using specific markers should be validated and standardized at the national level, and quality systems put in place for all levels of laboratory services.

National guidelines should stipulate basic laboratory procedures, testing strategies, standard operating procedures, and quality control systems.

There should be expanded access to CD4 testing, especially to optimize HIV care for pregnant women, facilitate their timely initiation of ART and achieve ambitious targets for the elimination of HIV infection in infants and children.

WHO recommends HIV drug resistance testing be performed as part of a national strategy for prevention monitoring and surveillance of HIV drug resistance (see section 3.3.3).

WHO also recommends a minimum essential list of investigations and laboratory tests by level of the health system. Those recommended for the primary and secondary levels (i.e., local health facilities and district hospitals) are outlined in Table Eight.
### TABLE EIGHT: ESSENTIAL LAB TESTS AT THE PRIMARY AND SECONDARY LEVELS.

<table>
<thead>
<tr>
<th>ESSENTIAL LAB TESTS AT HEALTH CENTRE</th>
<th>ADDITIONAL ESSENTIAL LAB TESTS AT DISTRICT HOSPITAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>- HIV diagnostics</td>
<td>- HIV diagnostics</td>
</tr>
<tr>
<td>▪ Rapid HIV antibody tests (first and second tests)</td>
<td>▪ Rapid HIV antibody tests (first, second and third tests)</td>
</tr>
<tr>
<td>▪ Infant diagnosis; preparation of dried blood spot (DBS) and send out for virological testing</td>
<td>▪ CD4 absolute count and percentage</td>
</tr>
<tr>
<td>- Haemoglobin or haematocrit determination</td>
<td>▪ Full blood count with differential</td>
</tr>
<tr>
<td>- Blood collection and send-out for CD4 cell absolute count and percentage</td>
<td>▪ TB diagnostics</td>
</tr>
<tr>
<td>▪ Sputum send-out for smear microscopy (or on-site acid fast bacilli (AFB) smear microscopy)</td>
<td>▪ Acid fast bacilli (AFB) smear microscopy</td>
</tr>
<tr>
<td>▪ Sputum send-out for culture and drug susceptibility testing</td>
<td>▪ Sputum send-out for culture and drug susceptibility testing</td>
</tr>
<tr>
<td>▪ Malaria tests (if in endemic area)</td>
<td>▪ Serum alanine aminotransferase (ALT)</td>
</tr>
<tr>
<td>▪ Peripheral blood smear (PBS) preparation and smear microscopy or</td>
<td>▪ Blood sugar (glucose)</td>
</tr>
<tr>
<td>▪ Rapid test to detect and discriminate between Plasmodium falciparum and mixed Plasmodium species</td>
<td>▪ Serum creatinine and blood urea nitrogen</td>
</tr>
<tr>
<td>- Rapid syphilis test</td>
<td>▪ Gram stain</td>
</tr>
<tr>
<td>- Rapid pregnancy test</td>
<td>▪ Syphilis - rapid plasma reagin (RPR)</td>
</tr>
<tr>
<td>- Urine dipstick for sugar and protein</td>
<td>▪ Basic cerebrospinal fluid (CSF) and urine microscopy</td>
</tr>
</tbody>
</table>

**Key resources:** 98 19 150 151 4 152 153 154

**HIV diagnosis see section 1.1.4**

**CD4 T cell Enumeration Technologies - A technical brief. (2004)**

[LINK](http://www.who.int/diagnostics_laboratory/CD4_Technical_Advice_ENG.pdf)

**Essential List of Laboratory Equipment And Supplies For HIV Testing. WHO AFRICA Regional Office 2005**

**Summary of WHO Recommendations For Clinical Investigations By Level Of Health Care Facility**

[LINK](http://www.who.int/hiv/amds/WHOLabRecommendationBylevelFinal.pdf)

**Laboratory services chapter in Operations Manual**

[DRAFT] MEETING REPORT: Consultation on Technical and Operational Recommendations for Clinical Laboratory Testing Harmonization and Standardization Helping to Expand Sustainable Quality Testing to Improve the Care and Treatment of People Infected with and Affected by HIV/AIDS, TB, and Malaria

*Meeting report will be available later*
Chapter 2
Strengthening and expanding health systems

BACKGROUND
WHO defines a health system as “the sum total of all the organizations, people and actions whose primary intent is to promote, restore or maintain health”. A country’s health system embraces those who try to influence the determinants of health as well as those who deliver health-improving services.

So defined, a health system is more than the pyramid of facilities owned by government, private business and NGOs and of the healthcare workers and support personnel who staff those facilities. It includes a mother caring for an HIV-infected child at home; peer educators who deliver behaviour change communications; organizations run by and for sex workers and distributing preventive literature and condoms; health insurance providers; legislators who adopt health and safety and anti-discrimination laws; those who enforce the laws; and so on. A health system’s activities may include, for example, a multidisciplinary and multisectoral campaign to encourage the ministry of education to promote female education, a well-known determinant of good health, or to encourage the ministry of finance to approve sufficient funding of a programme to promote and support the sexual and reproductive health of out-of-school youth.

WHO believes that the principles on which health systems should be founded are those enshrined in the Declaration of Alma-Ata: universal access, equity, participation and multisectoral action, all within a framework of gender equality and human rights (see Box 3). That is, health systems should have multiple goals including improvement of health in ways that are equitable, responsive, financially fair, and make the best use of available resources. The way to reach those goals is by expanding coverage so it reaches ever more people with ever more effective health interventions.

BOX 3: KEY EXCERPTS FROM THE DECLARATION OF ALMA-ALTA

IV. The people have the right and duty to participate individually and collectively in the planning and implementation of their health care.

V. Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures.

VI. Health care ... is made universally accessible to individuals and families through their full participation and at a cost that the community and country can afford ...

VII. Primary health care:

2. addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services ...;

3. includes at least: education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs;

4. involves, in addition to the health sector, all related sectors and aspects of national and community development ...

5. requires and promotes maximum community and individual self-reliance and participation in the planning, organization, operation and control ..., making fullest use of local, national and other available resources.

Available at: http://www.who.int/publications/almaata_declaration_en.pdf
In its framework for action on health system strengthening, WHO observes that the principles set out in the Declaration of Alma-Ata are more often observed in breach than in observance.\textsuperscript{15} However, it is clear that the response to the HIV pandemic has set precedents and has renewed momentum towards applying those principles. The rapid scale up of access to ART, in response to vigorous civil action with widespread involvement by people living with HIV, has led to an internationally endorsed and increasingly strong commitment to universal access. The recognition that the pandemic requires commitment from all sectors, not just the health sector, has taken firm hold. And the realization that prevention, care, treatment and support should all be part of the response to the pandemic — as per the principles for primary health care set out in the Declaration of Alma-Ata — became a tenet of the response to the HIV and, in turn, the response to TB, malaria and ill health among mothers, infants and children.

Despite those very positive and encouraging achievements, the response to the HIV pandemic remains inadequate. Health system weakness - the weakness of the organizations, people and actions that intend to produce health outcomes, including HIV prevention and treatment - remains a major barrier. This is true not just for low- and middle-income countries. High-income countries also face challenges in, for example, reaching most-at-risk and marginalised groups - sex workers, injecting drug users and men who have sex with men - with effective health system interventions that deploy resources efficiently. The biggest challenges of all are in countries with generalized epidemics, where HIV undermines the capacity of the health sector to provide services by increasing the sector’s workload at the same time as decreasing its healthy and productive workforce.

The structure and operations of health systems vary from country to country and from area to area within countries but WHO has identified six building blocks of all health systems. These are illustrated in Figure 1 and include:

1. Service delivery
2. Health workforce
3. Information
4. Medical products, vaccines and technologies
5. Financing

“Health system strengthening” can be defined as improving these six building blocks and managing their interactions in ways that achieve more equitable and sustained improvements across health services and health outcomes. In this chapter, five of these building blocks will be discussed as they relate to the scaling up the response to HIV and achieving the goal of universal access to HIV prevention, treatment, care and support. The chapter addresses the needs for action under the fourth of the five strategic directions named in the Introduction to this document: strengthening and expanding health systems. The remaining building block, strategic information (also the fifth strategic direction) is covered in Chapter 3.

**FIGURE 1: HEALTH SYSTEM BUILDING BLOCKS, DESIRABLE ATTRIBUTES, GOALS AND OUTCOMES**

**THE WHO HEALTH SYSTEM FRAMEWORK**

**SYSTEM BUILDING BLOCKS**

<table>
<thead>
<tr>
<th>Service delivery</th>
<th>ACCESS</th>
<th>OVERALL GOALS/OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workforce</td>
<td></td>
<td>Improved health (level &amp; equity)</td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td>Responsiveness</td>
</tr>
<tr>
<td>Medical products, vaccines &amp; technologies</td>
<td></td>
<td>Social and financial risk protection</td>
</tr>
<tr>
<td>Financing</td>
<td></td>
<td>Improved efficiency</td>
</tr>
<tr>
<td>Leadership/Governance</td>
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</tbody>
</table>


2.1 SERVICE DELIVERY

Good health services are those which deliver effective, safe, high quality health interventions to the people who need them, when and where they need them, and with minimum waste of resources. These interventions may target individuals or entire populations, whether defined by geography (e.g., national, district or local) or characteristics (e.g., gender, age, nature of illness, occupation, behaviour). In the case of HIV, health services need to take into account that people living with HIV or most-at-risk of infection often face stigma and discrimination because of their infection or because they may belong to groups with particular behavioural or disempowering characteristics. Such groups include sex workers, men who have sex with men, injecting drug users, prisoners and youth. Reaching these groups with HIV prevention, treatment and care requires special interventions that are often best delivered through outreach, community groups or their own organizations.

WHO recommends that planning and implementation of HIV-related service delivery programmes take into account the needs for: integration and linkage of health services; infrastructure and logistics; demand for services; and management.

2.1.1 INTEGRATION AND LINKAGE OF HEALTH SERVICES

There are no universal models for good service delivery, but in the case of HIV-related services, it is agreed that services should be delivered across a continuum of care, which requires integrated and linked service provision at all levels of the health system from primary to secondary to tertiary (specialist) care and embracing all elements of the health system, including home-based and community-based outreach care.

“Linkage” refers to a relationship, for example, between a local health centre and a district hospital and “integration” refers to delivering multiple services or interventions to the same patient by an individual healthcare worker or by a team of healthcare workers and, possibly, workers from other fields. Strong linkages (with referral and coordination between service providers) and integrated services are needed in particular areas of healthcare, such as family planning, care for mothers and newborn infants, mental healthcare, care for people living with HIV, all of which may involve a range of services and services providers including home-based and community-based ones.

The case for integration of HIV-related services into all maternal and newborn care and all sexual and reproductive healthcare service delivery is particularly strong, and so is the case for integration of HIV-related and TB-related services into one package of services.

In many large health centres and hospitals, pregnant women with HIV are identified in the antenatal clinic and then referred for HIV-related services that are in another area of the facility or in another facility altogether. This often results in a significant “loss to follow-up”, with many women not appearing at an HIV clinic even if it is in the same facility. This is a reason why pregnant women who need ART often do not receive ART. To avoid this sequence of events, full integration of HIV intervention delivery within services for antenatal care, childbirth, newborn and postpartum care is a minimum requirement in any countries, districts or localities where HIV infection is common. Such integration should include HIV testing and counselling, assessment whether ARVs for treatment or prophylaxis are needed, initiation and monitoring of ARVs in women and exposed infants, follow up HIV testing for infants, clinical review, and cotrimoxazole prophylaxis when infants return for immunization.

Sexual and reproductive ill-health and HIV infection share the same driving forces, causes or contributors and these include poverty, limited access to information, gender inequality, cultural norms, and social marginalisation of the most vulnerable and at-risk populations. This explains why there is international consensus around the need for effective linkages between responses to HIV and responses to needs for sexual and reproductive health and also consensus around the need for integration of related services wherever feasible. These integrated services should include: promotion of condom use for prevention of unintended pregnancy, STIs and HIV; reproductive choice counselling and counselling for family planning and contraception; education on sexual health for people living with HIV; youth-friendly health services covering sexual and reproductive health.

The high incidence of TB among people living with HIV and the frequent occurrence of HIV infection among people with TB provides the rationale for linkages between responses to TB and HIV and integration of some TB-related and some HIV-related services. Such linkages and integration have already, just recently, resulted in substantial increases in the proportion of TB patients tested for HIV and then referred to HIV care services. In addition, HIV programmers are increasingly committed to TB control, to intensified TB case finding among HIV-infected patients and to offering INH prophylaxis after excluding active TB.

How exactly to go about linking and integrating services will depend on how the health service is organized, and also the characteristics of the HIV epidemic. For more on the latter, see Chapter 4.
Summary of recommendations:

Services for HIV should be linked or integrated with other services in the health sector including those for TB, sexual and reproductive health, and maternal and newborn health. They should also be linked or integrated with services provided by other sectors, such as education and social welfare, and to those provided within homes and communities by families, international and national NGOs, community-based organizations, faith-based organizations and groups or networks of people living with HIV. All such services should be provided as close to clients as possible.

However, when considering integration of health services, planners should opt for a pragmatic approach that takes into account and balances the specific needs of target populations (that might be marginalized), the characteristics of the particular health system, and the aim of providing a comprehensive package of services.

Key resources: 155 156 157 24 158 98

Technical brief on integration of health services
LINK http://www.who.int/healthsystems/service_delivery_techbrief1.pdf

WHO IMI/IMCI/IMPAC tools
LINK http://www.who.int/hiv/pub/imi/IMAIPublicationSm.pdf

LINK http://www.who.int/hiv/capacity/imi/sharepoint/en

Linkage and integration with services for TB

Interim policy on collaborative TB/HIV activities

Linkage and integration with SRH and RH services
LINK http://www.who.int/reproductive-health/hiv/docs.html

LINK http://www.who.int/reproductive-health/hiv/docs.html

2.1.2 INFRASTRUCTURE AND LOGISTICS

Service delivery requires infrastructure and logistics and these include building, equipment, utilities, waste management, transport, and communications.

Physical space is required for receiving clients, triage, waiting, clinical management, counselling, care delivery, surgery, pharmacy, storage, management, and for the equipment required for all of those things as well as for laboratories, deliveries, communications, infection control, waste management and so on.

For people living with HIV, there should be particular attention paid to their needs for privacy and confidentiality, safe water and sanitation and hygiene, and infection control. The latter should take into account the needs to reduce the risk of bloodborne infections, such as HIV and hepatitis, and of other infections, such as TB. It is particularly important to reduce the risk of TB infection given the high incidence of TB among them and the emergence of MDR and XDR TB.

With the recent scale up of treatment for HIV infection, limitations in laboratory infrastructure are increasingly recognized as major obstacles stopping the roll out of services. For follow-up on ART, it is important to have access to some laboratory support on the periphery of the health service, where until recently it was not routinely available, as well as at higher levels of the health system. This means essential tests should be available on site at a local health centre or district hospital, as should the capacity to transport specimens to higher levels. Laboratory support for antiretroviral therapy, early infant diagnosis and TB diagnosis are important priorities for HIV-related lab services.

Chapter 1 provides detailed guidance on the types of laboratory tests needed to support treatment of people living with HIV and management of conditions frequently found among them, such as TB. Providing the tests is a huge challenge, the dimensions of which can be understood best if laboratory support is considered as a health sub-system. This entails giving consideration to service delivery, health workforce and the other building blocks of a health system, as shown in Figure 1, when planning to scale up laboratory services.
Safe medical waste management with separate containers and adequate disposal systems for sharps, other infectious or hazardous waste, and non-infectious and non-hazardous waste are important for infection control in all facilities.

An emerging issue is the relatively low access to information technology in resource limited settings. Computerization can markedly enhance efficiency of HIV service delivery, and computerized record keeping, monitoring and supply management can free up time for clinical tasks.

Communication between staff at local health centres and staff in health facilities and laboratories at higher levels of the health system is essential to ensuring HIV care of the highest quality. Facilitating this communication involves work to ensure that telephone, radio or other communications infrastructure is adequate and, ideally that infrastructure should include computers connected by intranet or internet.

Summary of recommendations:

The infrastructure and logistics of health service delivery should be configured so as to enable delivery on demand of services to people who need those services, wherever they may be located, and should also be designed to last. For the management for HIV infection, it is especially important that health facilities are designed for privacy and confidentiality, infection control, and ready access to laboratories and imaging services.

Every effort should be made to limit the spread of nosocomial infections (resulting from treatment in health care settings) and bloodborne infections (such as HIV and hepatitis) and that there be support for comprehensive infection control, including specific consideration of the risk of the spread of TB.

Key resources: 159 160 98 150

District health facilities : guidelines for development and operations.
LINK http://www.wpro.who.int/NR/rdonlyres/C0DAA210-7425-4382-A171-2C0F6F77153f/0/DistHealth.pdf

Management of resources and support systems: Equipment, vehicles and building

LINK http://www.who.int/hiv/pub/meetingreports/labmeetingreport.pdf

Chapters on infrastructure, laboratory strengthening for HIV service delivery and health workers safety in health centres in resource limited settings with generalized HIV epidemics in the forthcoming Operations Manual. Link access to the current draft is via a SharePoint, by sending an e-mail to imaimail@who.int.

2.1.3 DEMAND FOR SERVICES

In health service planning, most attention usually goes to planning on the supply side of services. The question as to whether the services will, in fact, be used is often neglected, even when it is clear that there are factors that could limit demand. Denial, fear, stigma, discrimination, and high costs are among the factors that limit demand for and uptake of health services and especially uptake of services for conditions such as HIV and TB, which are both surrounded by fear, stigma and discrimination. Chapter 1 discusses interventions that can generate demand, such as outreach to people in most-at-risk populations.

Summary of recommendations:

Raising demand requires understanding the user’s perspective, raising public awareness and overcoming cultural, social or financial obstacles. Overcoming such obstacles requires various forms of social engagement in the planning, delivery and monitoring of services. In the case of HIV-related services, people living with HIV and those vulnerable or most-at-risk should be involved in the design, management, delivery and monitoring of services. This can ensure that services meet their unique needs and address their unique concerns, such as fear of disapproval or open hostility on the part of staff and of disclosure of their HIV status and the possible consequences.

Key resources: 161 162

Website of the WHO-sponsored Preparing for Treatment Programme.
The Treatment Preparedness Coalition is a community group supporting demand creation for HIV services

International Federation of Red Cross and Red Crescent Societies. Service delivery model on access to care and antiretroviral therapy for people living with HIV/AIDS. Geneva 2004

2.1.4 MANAGEMENT

Good leadership and management is about providing direction to, and gaining commitment from, partners and staff, facilitating change and achieving better health services through efficient, creative and responsible deployment of people and other resources. While good leaders set the strategic vision and mobilize action towards its realization, good managers ensure effective organization and utilization of resources to achieve results and meet goals and targets.

The health sector response to the HIV epidemic requires different types of management action. There is need for strategic planning at the national and sub-national levels, need for operational planning throughout the service delivery system and need for facility management.

At the highest level of a health system, good management requires situation analysis, review of the health sector response (including existing policies and strategies), setting programme priorities, selecting key indicators and setting targets, and then coordinating and managing development and implementation of programmes, all of which are dealt with in Chapter 4. It also requires strengthening management systems, and ensuring the technical quality of services, both of which are dealt with below.

Increasingly, the management of implementation happens at district, facility and community level. The district management team, facility managers and community organizations need skills to plan implementation, then to mobilize resources and manage staff, finances and supplies. Training is usually organized and delivered at the regional or district level followed up by regular supportive supervision from the district team and by mentoring from experienced managers from other districts, communities or facilities.

At health facility level, the aim of good management is to provide services to the community in an appropriate, efficient, equitable, and sustainable manner. This can only be achieved if key resources for service provision, including human input, information, finances, and the hardware and process aspects of care delivery are brought together at the point of service delivery and are carefully synchronised.

2.1.4.1. STRENGTHENING MANAGEMENT SYSTEMS

Deficiencies in health system management are well-recognized as obstacles to efficient service delivery.

Summary of recommendations:

WHO recommends action to strengthen management capacity in the health sector. Such action should include ensuring an adequate number of managers at all levels of the health system, ensuring managers have appropriate competencies, creating better management support systems, and creating enabling working environments.

Key resources: 163 164 165

WHO. Strengthening management in low income countries

WHO’s MAKER website (Managers taking Action based on Knowledge and Effective use of resources to achieve Results) provides comprehensive guidance on managing health services.

The WHO website dedicated to strengthening management capacity in the health sector
2.1.4.2. ENSURING THE TECHNICAL QUALITY OF SERVICES

Universal access to HIV prevention, treatment and care provided by the health sector requires that the package of interventions not only be accessible and affordable by the people who need those services but that they also be of good quality, so that they achieve the intended results.

Summary of recommendations:

Ensuring quality during scale up of HIV-related services requires:

• Establishing external and internal quality management systems. These should address clinical care, laboratory testing, and workplace improvement. It is of critical importance to involve the community and beneficiaries (people living with HIV and those vulnerable and most-at-risk of infection) in assessing and improving the quality of care,

• Regularly updating national normative guidelines and tools so they continue to reflect the best international practices and the latest recommendations. This requires convening technical advisory committees and working groups regularly, since HIV and AIDS are rapidly changing areas with new information constantly becoming available.

• Establishing standardized procedures to accredit health facilities and to certify health care providers in the delivery of HIV prevention, treatment and care. All facilities and providers, whether run by government, private business or NGOs, should be covered.

• Establishing national standards for HIV prevention, treatment and care.

• Ensuring quality of training through, for example, the use of experienced facilitators and attention to facilitator-trainee ratios.

• Establishing supervision and clinical mentoring systems, and a budget to prepare and deploy supervisors and mentors for post-training and on-the-job supervision.

Key resources: 166 98 77 167 168


Quality management sections in Operations Manual for HIV service delivery in health centres in resource limited settings with generalized HIV epidemics in the forthcoming Operations Manual. Link access to the current draft is via a SharePoint, by sending an email to imaimail@who.int.


2.2. HEALTH WORKFORCE

Effective service provision requires trained service providers working with the right attitude, knowledge and skills, commodities (medicines, disposables, reagents) and equipment, and with adequate financing. It also requires an organizational environment that provides the right incentives to providers and users.

In many of the countries with the highest burden of HIV, international migration and domestic movement out of health sector employment contribute to the crisis in human resources and, in some of those countries, the crisis is aggravated by civil service hiring caps.

HIV itself contributes to the crisis, not only by increasing the demand for services but infecting and affecting healthcare workers. They may be disabled by illness, lost to death or required to spend less time at work and more at home taking care of HIV-infected family members, attending to those family members’ usual chores and attending funerals. Thus, the supply of healthy and productive healthcare workers is reduced.
Working with people living with HIV is labour intensive and can also be emotionally stressful and draining. When there are many HIV infected people, the demand for services increases and high workloads, poor pay and bad working conditions are added disincentives for healthcare workers to deal with HIV.

Working in the HIV area may also be unpopular with some health workers because they fear becoming infected with HIV or TB or because they cannot relate easily to clients with risk behaviours of which they disapprove. The latter is a problem especially countries with low or concentrated epidemics, where many people living with HIV come from marginalized groups such as sex workers, injecting drug users, MSM and prisoners.

The combined results of all of the above are that, first, it may be difficult to motivate health workers to take jobs providing HIV services unless they are provided with special incentives and, second, there is a severe shortage of skilled health workers in areas with high HIV prevalence.

Notwithstanding those challenges, a defining feature of the response to the HIV pandemic has been the ability of communities to mobilize resources to deal with the impacts of HIV and prevent its further spread. Groups of people living with HIV, community-based organizations, faith-based organizations and many others have faced up to the facts of the pandemic and taken responsibility not just for advocacy but for action. They learned to play a wide range of roles in the response to HIV, serving as outreach workers, home carers, adherence supporters, providers of psychosocial support, counsellors, and managers. This has led to the creation of entirely new health professions in some countries, and led to strong momentum in the direction of task shifting and strong calls for recognition and payment for some of the essential services they provide. Their roles are increasingly recognized and institutionalized, and are beginning to transform the debate on universal primary health care from a distant dream to an achievable goal.

Summary of recommendations:

To counter difficulties, in motivating and retaining health workers the following actions, WHO recommends:

• training additional health workers;
• sensitizing health workers for work with people living with HIV;
• ensuring health workers have access to prevention and other HIV- and TB – related services;
• Considering task shifting as a way of retaining existing health workers for as long as possible.

A full package of HIV prevention, treatment and care services should be made available to health workers and their families on a priority basis and tailored specifically to their needs.

In countries with generalized HIV epidemics and health worker shortages, efforts should be made to increase the number and the competence of health care workers. WHO recommends:

• recruiting and training additional health workers;
• ensure relevant HIV content in pre-service curricula;
• shifting tasks from more- to less-specialized health workers;
• developing in-service training and support for continued learning after training (including mentoring and continuing medical education)

To retain existing health workers the following policy changes should be considered:

• instituting codes of practice and ethical guidelines to minimize migration of health workers from low-income countries to developed countries;
• reducing the draw of private and NGO-run programmes on workers in public health programmes;
• improving the quality of the workplace, including:
  • establishing occupational health and safety procedures to reduce the risk of contracting HIV and other blood-borne diseases
  • addressing stress and burnout;
  • guaranteeing job security;
  • prohibiting HIV-related and other forms of discrimination;
  • providing social benefits;
  • adjusting work demands;
  • providing financial incentives;
  • providing non-financial incentives, such as career and training opportunities.
WHO also recommends recognition and support for the vital roles played by people living with HIV, community organizations and lay workers and that recognition and support take tangible forms, such as certification of skills in service delivery and pay. Such measures should be integrated into national plans for development of human resources for health and HIV.

**Key resources: 58 95 169 156 98**

Tools for planning and developing human resources for HIV/AIDS and other health services. (Management Sciences for Health and WHO 2006).
[LINK](http://www.who.int/hrh/tools/tools_planning_hr_hiv-aids.pdf)

ILO/WHO guidelines on health services and HIV/AIDS
[LINK](http://www.who.int/hiv/pub/prev_care/ilohoguidelines.pdf)

WHO Guidelines on Task-Shifting (WHO 2008)
[LINK](http://www.who.int/healthsystems/TTR-TaskShifting.pdf)

The IMAI/IMCI/IMPAC family of training, programming and management tools. supports task shifting and health care worker education
[LINK](http://www.who.int/hiv/capacity/en)

The chapter on human resource management in the Operations Manual for Delivery of HIV Prevention, Care and Treatment at Primary Health Centres in High-Prevalence, Resource-Constrained Settings. (access to the current draft is via a SharePoint, by sending an e-mail to imaimail@who.int)

### 2.3 MEDICAL PRODUCTS AND TECHNOLOGIES

Many health systems continue to have weak procurement and supply management systems and the result is frequent stock-outs of antiretroviral drugs, medicines, and other essential commodities, including gloves, needles and testing reagents. Among 66 low- and middle-income countries reporting data on stock-outs of antiretroviral drugs in 2007, 25 countries reported having experienced one or more episodes. Globally, 18% of all reporting treatment sites experienced at least one stock-out of antiretroviral drugs, with Africa and Latin America reporting higher stock-out rates than other regions.

Methadone and buprenorphine were added in the WHO list of essential medicines in 2005. These medicines, and potent opioid analgesics, are controlled substances under the international drug control conventions, and are not sufficiently available in many countries, mainly due to 1) greatly exaggerated fears of dependence, 2) overly restrictive national drug control policies, and 3) problems in procurement, manufacture, storage and distribution of controlled substances. It is estimated that over 80% of the world population has no proper access to controlled medications, due to regulatory barriers, prejudice and lack of proper information at national and international levels.

Another concern is for the quality, safety and efficacy of the medicines that are available. The supply of good antiretroviral medicines is reasonably well secured by the WHO prequalification scheme, by the US Federal Drug Administration’s practice of giving provisional approval to generic medicines and by quality standards insisted upon by the Global Fund to Fight AIDS, Tuberculosis and Malaria. However, the same is not the case for other essential medicines brought in by a variety of suppliers under the oversight of national regulatory authorities, who faces challenges in the exercise of their duties.

Summary of recommendations:

A well-functioning health system should ensure equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness, as well as access to their scientifically sound and cost-effective use. WHO recommends:

- establishing national policies, standards, guidelines and regulations for procurement of drugs and other commodities;
- providing health authorities and service providers with information on prices, international trade agreements and capacity to set and negotiate prices;
- ensuring reliable manufacturing practices and quality control for priority products;
- establishing procurement, supply, storage and distribution systems that minimize leakage and other waste;
- providing support for rational use of essential medicines, commodities and equipment through guidelines, strategies and training to ensure enforcement, reduce resistance and maximize patient safety;
- delivering on countries’ obligations under UN Conventions to provide access to analgesics and opioids for substitution therapy.
**Key resources: 170 109 171 172**

AIDS Medicines and Diagnostics Service (AMDS) website is the main WHO gateway to most of the policies, information and tools developed to support access to medicines and commodities for HIV, including those for opioid substitution therapy and oral morphine for analgesia.

LINK  [http://www.who.int/hiv/amds/en](http://www.who.int/hiv/amds/en)

Guidance on how to ensure access to medicines and diagnostics, norms and standards, support for their quality, and policies to support it, are found on the website of the WHO Medicines department.


The WHO prequalification website provides information on which medicines are prequalified by WHO, assessment reports, and access about its procedures.

LINK  [http://healthtech.who.int/pq/](http://healthtech.who.int/pq/)

Global Price Reporting Mechanism, which publicizes the prices paid for ARVs, related drugs and HIV diagnostics.


### 2.4 Financing

After the UN General Assembly’s Declaration of Commitment on HIV/AIDS in 2001, funding for the response (including the health sector response) increased sharply each year until it reached an estimated US$ 10 billion in 2007. However, WHO and UNAIDS estimated that there was still a US$ 8 billion gap between what was available and what was actually needed to scale up the response to HIV at an acceptable pace. There is a similar gap between what is available and what is actually needed for other health priorities. In 2002, the WHO Commission on Macroeconomics and Health recommended that low- and middle-income countries spend a minimum of US$ 40 per capita on essential health services but many still spend far less than that amount.16

In many countries, the costs of HIV treatment and care (particularly antiretroviral therapy) are unaffordable for the majority of people, and even for their governments. In most countries heavily burdened by HIV, sustainable provision of HIV treatment and care will require external funding for the foreseeable future. This would be true even if they increased their domestic funding for the health sector to 15% of GDP, as many African countries pledged to do in the 2001 Abuja Declaration.17

While external and domestic government funding for the HIV response has increased considerably, many people living with HIV still find it difficult to access essential services. Even when drugs are provided free of charge, they incur out of pocket expenditures for the treatment and prevention of concurrent diseases and opportunistic infections, laboratory diagnosis, and formal and informal fees. This limits their access to essential services when they are poor or depend on others to cover their health care costs.

**Summary of recommendations:**

Health systems should raise and secure adequate funds for health in order to ensure people can use services they need and are protected from financial catastrophe or impoverishment because they have to pay for services. In 2005, the World Health Assembly urged it Member States to:18

- Ensure that health-financing systems include a method for prepayment of financial contributions for health care, with a view to sharing risk among the population and avoiding catastrophic health-care expenditure and impoverishment of individuals as a result of seeking care;
- Ensure adequate and equitable distribution of good-quality health care infrastructures and human resources for health so that insureds will receive equitable and good-quality health services according to the benefits package;
- Ensure that external funds for specific health programmes or activities are managed and organized in a way that contributes to the development of sustainable financing mechanisms for the health system as a whole.

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• Plan the transition to universal coverage of their citizens so as to contribute to meeting the needs of the population for health care and improving its quality; to reducing poverty; to attaining internationally agreed development goals, including those contained in the United Nations Millennium Declaration, and to achieving health for all.

With regard to access to services for HIV, WHO recommends that countries implement a public health approach to scale-up of services and, also, adopt a policy of free access at the point of service delivery to basic HIV services, including consultation fees, HIV testing and antiretroviral therapy.

**Key resources: 173 174 175 176**

For effective mobilization of financial resources, health sector strategic plans need to be realistically costed. UNAIDS’ Costing Guidelines provide detailed guidance and tools for costing HIV programmes. The UNAIDS resource needs estimates website has methodological background documents that could be used to justify resource mobilization.

[LINK](http://data.unaids.org/publications/IRC-pub06/IC997-Costing-Guidelines_en.pdf)

The 2005 WHO technical brief for policy-makers on Achieving Universal Health Coverage: Developing the Health Financing System defines options that decision makers should consider.

[LINK](http://www.who.int/health_financing/documents/pb_e_05_1-universal_coverage.pdf)

The financing Website of WHO gives access to policy guidance and tools for financing health sector work.

[LINK](http://www.who.int/health_financing/en)


[LINK](http://www.who.int/hiv/pub/advocacy/promotingfreeaccess.pdf)

### 2.5. LEADERSHIP AND GOVERNANCE

Good leadership and governance can ensure that strategic policy frameworks exist and are combined with effective oversight, coalition building, the provision of appropriate regulations and incentives, attention to system-design, and accountability. Leaders with consistent messages are needed to counter stigma and discrimination, support the involvement of people living with HIV in the response to HIV, ensure equity in access to services, deal with the gender dimensions of the epidemic, speed up progress towards filling the gap between resources available and resources needed to scale up the response and achieve the universal access goal. Leaders with consistent messages are also need to help people envision a better future and achieve that future through research and innovation that finds new methods and tools and ways of putting them to effective use.

Calls for leadership often seem to be aimed at politicians and others in position of great power. However, accelerating the response to HIV also requires leadership from business, industry, trade unions, academic and research institutions and, within neighbourhoods and communities, from community councils, faith based organizations, other community-based organizations, formal and informal groups and networks of people living with HIV, people vulnerable or at high-risk of infection, youth and so on. Health workers at all levels have opportunities to play leadership roles and use their professional and personal connections to advance the cause scaling up the response to HIV.

As for governance over the response to HIV, it has involved considerably over the last few years. It was once dominated by the health sector and lead by national AIDS programmes within ministries of health. It then shifted to national AIDS commissions, with representatives from multiple sectors and HIV-related programmes in ministries and other organizations responsible for action in those sectors. In many low- and middle-income countries, UN Theme Groups on AIDS have been established. Originally intended to coordinate the UN system’s contribution to national responses to HIV, they have expanded to include representatives from government, donors, civil society and the private sector and now seek to harmonize and coordinate action by all of those stakeholders.

When the Global Fund to Fight AIDS, Tuberculosis and Malaria became operational in 2002, it introduced **Country Coordinating Mechanisms (CCMs)** to foster national ownership and engage government, donors, civil society and the private sector in the response to all three diseases. CCMs are meant to build on already existing mechanisms, such as national AIDS commissions and Expanded UN Theme Groups on AIDS, while also increasing transparency and accountability of financing and implementation of the response to HIV. All of these mechanisms have the potential to make governance more complicated and difficult and increase rather than reduce duplication and waste if their roles and responsibilities are not clearly defined.

The increasingly complicated governance of the response to HIV may call upon health sector stakeholders to participate in several multisectoral country coordinating mechanisms. Participating is vital to ensuring their compliance with and their contributions to application of the “Three Ones” principles: a) one agreed HIV/AIDS Action Framework that provides the
basis for coordinating the work of all partners; b) one National AIDS Coordinating Authority, with a broad based multisectoral mandate; and c) one agreed country level Monitoring and Evaluation System.

In addition, health sector stakeholders are called upon to ensure that health sector HIV interventions are included and given appropriate priority and weight in national AIDS plans and action frameworks as well as in national health sector plans, medium term expenditure frameworks, and Poverty Reduction Strategy Papers (PRSPs) and that stakeholders working in other sectors are committed to collaborating with the health sector and supporting health sector HIV interventions.

At the same time as participating in all of those mechanisms and processes, health sector stakeholders need to maintain strong and coherent adherence to principles guiding the health sector in its contributions to the response to HIV, including commitment to universal access, respect for human rights and community involvement in the planning, governance, delivering and monitoring of HIV-related services.

These principles should be upheld not just within the health sector but also through regular reviews of policies, legislation and regulations governing different aspects of the epidemic and any appropriate actions that may arise from such reviews. For example, reviewing legislation that contributes to marginalization of most-at-risk populations might lead to advocating for legislative reform. Reviewing a ministry’s workplace policies might lead to promoting and supporting improvement of those policies. Other areas calling for attention include legislation or government regulations pertaining to the confidentiality of medical records or otherwise governing the health workforce and possibly impeding their ability to function as well as they might by, for example, shifting certain tasks to people outside of the health sector.

**Summary of recommendations:**

Effective leadership in HIV creates momentum for and provides oversight of the HIV response. It is defined both by its actions and by its outcomes. Leadership should create an environment that accelerates scale up of the HIV response, defines the values and principles that should underlie the process, holds the different stakeholders accountable, and supports innovation to maximize the impact of the interventions.

Among the outputs that should be expected of leadership are development, implementation and adaptation of Strategic Policy Frameworks (discussed in Chapter 3), policies, legislation and regulations that create a favourable environment for an effective response to HIV, coalitions and partnerships that contribute to a better response, and new and more effective interventions.

To promote and support effective coordination, health sector stakeholders should participate in and liaise regularly with key country mechanisms that have a coordination function, such as National AIDS Councils/Commissions (NACs), Country Coordinating Mechanisms (CCMs), UN Theme Groups and donor forums. They should also secure commitment of stakeholders from other sectors to actively participate in and commit to development and implementation of the response to HIV. For the health sector, establishing and strengthening coalitions and partnerships with a range of stakeholders (e.g. non-governmental, community-based and faith based organizations, people living with HIV, marginalised groups, academic institutions, and the private sector) are critical to scaling up to universal access.

Leadership should also support innovation and foster an environment conducive to the realization of human rights, including gender equality, women’s empowerment, reduction of stigma and discrimination.

**Key resources:** 177 178 179 180 181

- Global Fund Country Coordinating Mechanisms (CCMs) “Three Ones” Key Principles

  LINK [http://www.who.int/entity/hiv/pub/advocacy/GHSS_E.pdf](http://www.who.int/entity/hiv/pub/advocacy/GHSS_E.pdf)

- International Guidelines on HIV and Human Rights provide technical guidance on operationalising a rights based approach (UNAIDS & UNHCR).
  LINK [http://whqlibdoc.who.int/unaids/2006/9211541689_eng.pdf](http://whqlibdoc.who.int/unaids/2006/9211541689_eng.pdf)

- Ensuring Equitable Access to Antiretroviral Treatment for Women is the WHO/UNAIDS policy statement on equitable access for women in the context of the health sector.

- IAS. The Sydney Declaration: Good Research Drives Good Policy and Programming - A Call to Scale Up Research
2.5.1. COALITION BUILDING AND PARTNERSHIPS
For the health sector, building coalitions and partnerships with a range of stakeholders is critical to scaling up towards universal access.

2.5.2. INVOLVING PEOPLE LIVING WITH HIV
With 33.2 million people living with HIV globally and 6800 new HIV infections daily, people living with HIV are a vital resource in the response to HIV. There already exist ample experience on involvement of People Living With HIV in advocacy, in policy dialogue, service delivery, and in the effort to reduce stigma and discrimination. Innovative mechanisms have been developed to involve people living with HIV in HIV-related services, e.g., on clinical teams, as links with communities and as community health workers. People living with HIV can also serve as expert patients and trainers.

Integrated Management of Adolescent and Adult Illness (IMAI) is a WHO-organized initiative that provides tools to support the involvement of people living with HIV on clinical teams as triage officers and lay counsellors who support HIV testing, adherence to ART and TB treatment and infant feeding and also as data clerks, lab assistants and links to community support services. To be effective in these roles, they require training and appropriate supervision and remuneration. In many countries, there are policy constraints that prevent people living with HIV from taking on these roles and these constraints need to be addressed.

Summary of recommendations:
UNAIDS and WHO believe the meaningful involvement of people living with HIV is central to an effective, rights based HIV response. People living with HIV should be engaged in all aspects of planning, implementing, monitoring and evaluating health sector responses to HIV at the global, regional, national and local levels. This means that people living with HIV should be involved in the development and adaptation of normative policies, tools and guidelines, and in the delivery of services.

Key resources: 161 182 183
Website of the WHO-sponsored Preparing for Treatment Programme.
The Greater Involvement of People Living with HIV (GIPA): UNAIDS Policy Brief
IMAI Expert Patient Trainer curriculum:
LINK http://www.who.int/3by5/capacity/expert/en/

2.5.3. INVOLVING CIVIL SOCIETY AND THE PRIVATE SECTOR
Whereas governments, particularly ministries of health, may take overall responsibility for health sector responses to HIV, it would not be possible to have an effective and comprehensive response, ensuring equitable access to HIV services, without the active involvement of the private sector and civil society, non-governmental, faith-based and academic organizations.

Community mobilization is key to promoting HIV testing and counselling and prevention, and to preparing people for treatment and providing adherence support. Civil society contributions complement and supplement formal health services by playing key roles in: HIV education and prevention, especially in reaching most at-risk populations; creating demand for HIV services; ensuring that HIV/AIDS services are acceptable and of good quality; preparing people for treatment through information and education; supporting adherence to medicine and providing other forms of prevention, care and support. These roles need to be reinforced as much as possible through providing adequate resources for community-health activities and building strong links between health services and community organizations. Academic institutions have an important role in capacity building, adapting guidelines and tools for local use, supporting operational research and providing technical assistance.

In many countries, many or most health care services, including HIV-related ones, are not provided by government but, instead, by faith-based organizations, NGOs and private businesses. It is a serious mistake to exclude them from any key mechanisms or process for planning, coordinating, financing or monitoring and evaluating the overall response to HIV.

Summary of recommendations:
• National health sector strategies and plans should call for the active and meaningful engagement of civil society, NGOs, faith-based organizations, private businesses, and academic institutions in strategic planning, programme development and implementation, and monitoring and evaluation. These non-government players often constitute a significant portion of all
health care providers and, in any case, they can play critical roles in expanding access to services, particularly for most-at-risk, vulnerable and marginalized populations.

- There should be country mechanisms to ensure that all providers of HIV-related services in the health sector meet minimum standards.
- Appropriate referral and communication systems should be established or expanded and strengthened to ensure continuity of care and services across the different sectors and service providers.

**Key resources: 184 185 186 187 188**

WHO’s Stakeholder Analysis tool
LINK http://www.who.int/hac/techguidance/training/stakeholder%20analysis%20ppt.pdf

Scaling up effective partnerships: A guide to working with faith-based organisations in the response to HIV/AIDS
LINK http://www.e-alliance.ch/media/media-6695.pdf


The UNAIDS website on working with civil society


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### 2.5.4 ADDRESSING STIGMA AND DISCRIMINATION

HIV-related stigma and discrimination, often prevalent within health services, have been consistently identified as critical obstacles to provision and uptake of health sector interventions. Stigma or, more correctly, stigmatization devalues people because of their traits or behaviours or illnesses and is often followed by unfair and unjust treatment. It results in lower uptake of HIV prevention, care and treatment services and also makes people living with HIV reluctant to disclose their status to their sexual partners, family members and health care providers. It disproportionately affects women and girls (who are often devalued merely because of their gender) and also sex workers, men who have sex with men, injecting drug users and also ethnic minorities, whose minority status may be due to the fact that they are displaced persons or migrants from somewhere other than where they are living now.

Despite the pervasiveness of stigma and discrimination throughout societies, it is seldom adequately addressed in national responses to HIV. Yet, it can be addressed through simple and practical measures within the health system, such as providing people with accurate information that allays their fears and dispels their misconceptions about HIV and how it is and is not transmitted. The health sector can also advocate for and play its part in implementing a multifaceted national approach to reducing stigma and discrimination. Reducing stigma and discrimination in health facilities requires not only addressing attitudes and practices of health care workers, but also meeting their needs for the information and supplies needed for universal precautions to prevent occupational exposure to HIV. All of these efforts not only will help countries reach targets for universal access, but also will promote respect for human rights and for people living with HIV and vulnerable minorities.

**Summary of recommendations:**

- Systematically collect strategic information about stigma and discrimination by using existing tools (e.g., questionnaires used in behavioural surveillance) for measuring the prevalence of stigma and discrimination and their impact on the response to HIV.
- Facilitate the inclusion of stigma and discrimination reduction in national strategic planning and programming activities.
- Provide training on non-discrimination to health care providers and establish codes of conduct and oversight for service providers.
- To scale up national responses to stigma and discrimination (and thus scale up access to HIV prevention, treatment and care) use a range of approaches to preventing and reducing stigma and discrimination among different key groups (politicians, religious leaders, health authorities, law enforcers and so on), to challenge stigma and discrimination in institutional settings, and to build capacity for the recognition human rights, including the establishment and enforcement of human rights legislation.
2.5.5 DELIVERING GENDER-RESPONSIVE HIV INTERVENTIONS

Gender inequalities are key drivers of the HIV epidemic. In sub-Saharan Africa, they include harmful gender norms and practices such as violence against women, denial of women's access to and control over resources, and so on and they contribute to women and girls' vulnerability to HIV. In other parts of the world with concentrated epidemics, gender inequalities contribute to the vulnerability of sex workers, injecting drug users, men having sex with men, and transgender people to HIV. In these settings women who are married or in long-term relationships with sex workers, clients of sex workers, injecting drug users and men having sex with men are also at risk of HIV and unable to protect themselves due to gender inequalities. For example, norms encouraging men to take sexual risks but discouraging women from learning about sexual and reproductive health stop men and women from protecting themselves.

In many settings, women and girls face barriers in accessing HIV services because they lack the financial means to access care or may need permission from their husbands or other family members to go to a health care facility or are afraid of being labelled as 'promiscuous' if they are seen to seek services for STIs or HIV. Health services can reinforce gender inequalities by stigmatizing those who seek HIV services, especially if they belong to marginalised groups. In many settings, too, doctors are mostly male and share prevalent attitudes of disrespect for females that may manifest as insensitive or rough treatment, especially of women and girls from poor or marginalized populations. For all these reasons, achieving universal access to HIV prevention, treatment and care is contingent on the health sector taking action to reduce gender inequalities.

Summary of recommendations:

"Know your epidemic in gender terms": programme managers and policy makers in the health sector should understand not only who is at risk for HIV in different epidemic settings, but also what underlying sociocultural, economic and political factors increase their vulnerability. Knowing your epidemic in gender terms requires:

• disaggregating data, including data from programme monitoring and evaluation, by sex, age and other appropriate equity parameters in order to identify who is at risk, whether they are being reached equitably, and whether programmes are working for those most in need;
• building capacity of programme managers, policy makers and health care providers to understand and address the links between gender inequalities and HIV;
• ensuring that national health sector HIV policies and programmes explicitly address gender inequalities including by allocating resources;
• addressing women's fear of — or potential experience of — negative consequences of HIV testing and counselling by incorporating safety planning as part of disclosure and risk-reduction counselling;
• reducing gender-related barriers to access to services including non-affordability, necessities to get permission from husbands or other family members, fear of stigma and discrimination, actual stigma and discrimination or rough treatment of women and girls by health workers;
• advocating for gender equality in policies and laws related to women's rights including those related to violence against women, property and inheritance rights for women and access to education for girls.

Key resources: 179 189


Key resources: 190 191 180
Integrating Gender into HIV/AIDS Programmes: A review paper (2003)
Addressing violence against women and HIV testing and counselling: A meeting report, 2007
Ensuring Equitable Access to Antiretroviral Treatment for Women the WHO/UNAIDS policy statement on equitable access for women. In the context of the health sector.
Addressing violence against women in HIV testing and counselling - a meeting report on a consultation held to identify practical strategies for responding to violence against women in HIV testing and counselling services and programmes.


Integrating gender into HIV/AIDS programmes in the health sector: operational tool to improve responsiveness to women’s needs. Forthcoming, WHO 2008 — a practical tool to help programme managers and health care providers of HIV testing and counselling, PMTCT, HIV treatment and care and home-based care programmes to deliver gender-responsive
Chapter 3
Investing in strategic information

BACKGROUND
Strategic information is information and knowledge that guides health policy, planning, resource allocation, programme management, service delivery and accountability. It is essential for action at all levels of the health system. As countries scale up their HIV responses towards universal access, there is an increasing recognition of the need to invest in strategic information to guide programme planning and sustain national and international commitment and accountability.

This chapter presents the key elements in strengthening health information systems, the sixth building block of a health system. It then addresses the three main activities related to strategic information for the HIV response:

• Surveillance of HIV and sexually transmitted infections;
• Monitoring and evaluation (including patient monitoring, prevention and assessment of HIV drug resistance, and pharmacovigilance);
• Research.

The chapter concludes by discussing the effective utilization of data for improving programmes, including for setting targets and conducting situation analyses.

3.1 STRENGTHENING HEALTH INFORMATION SYSTEMS
A well-functioning health information system is one that generates reliable and timely strategic health information on which to base decisions at different levels of the health system. Information systems for HIV programmes must be strengthened within the context of more robust, integrated and harmonized overall health information systems.

Efforts to strengthen information systems to support the HIV response must consider three key dimensions:

1) Content: What information is needed? What are the sources of information?
HIV programmes require a wide range of strategic information on the epidemic and the response. HIV surveillance provides data to monitor the determinants and trends of the epidemic, develop interventions and measure impact. Monitoring and evaluation is required to plan and implement programmes and document outcomes. Drug resistance monitoring and pharmacovigilance are needed to support treatment programmes. Research provides evidence to improve interventions. Both population-based and health facility-based data sources generate strategic information in these areas. Information needs and sources vary in relation to the type of epidemic and country context.

2) Processes: How is information collected, managed and used?
Effective generation and use of strategic information requires optimal processes for data collection, sharing, management and feedback among the different levels of the health system. This includes the definition of norms and standards for collecting and disseminating data; procedures for using data to conduct situation analyses, set targets, guide planning and implementation, and support advocacy efforts; and investment in data quality. The UNAIDS “Three Ones” principles for coordination of national HIV responses emphasize the importance of national ownership and coordination among stakeholders, including international partners, around one agreed framework for national monitoring and evaluation.

3) Resources: What resources are needed to support strategic information activities?
A fully functional health information system requires the infrastructure and tools for data collection, storage and management, including patient registers, reporting forms, databases, and electronic systems for data sharing and analysis. It requires trained human resources to design and implement activities. Infrastructure (e.g., laboratories) is needed to scale up research. Strengthening information systems also requires an appropriate policy, management and financial environment.
3.2 **SURVEILLANCE OF HIV/AIDS AND SEXUALLY TRANSMITTED INFECTIONS**

HIV surveillance provides essential data to understand the magnitude and determinants of the epidemic in a country, assess the burden of disease, monitor trends over time, develop interventions and evaluate their impact. In addition, second generation HIV surveillance systems measure trends in risk behaviours.

HIV surveillance systems should be capable of being adapted and modified to meet the specific needs of each epidemic. For example, surveillance methods and activities in a country with a predominantly generalized heterosexual epidemic should differ greatly from those in countries where HIV infection is mostly concentrated among populations at high risk of infection such as sex workers, men who have sex with men or injecting drug users.

**Summary of recommendations:**

The health sector plays the lead role in comprehensive HIV surveillance. National HIV/AIDS programmes should build surveillance systems that provide data in a routine, standard manner with consistency of methods, tools and populations surveyed. Vital elements of a comprehensive HIV surveillance system include:

- HIV infection and AIDS case reporting;
- HIV sentinel surveillance among clients attending antenatal clinics (ANC);
- integrated biological and behavioural data among most-at-risk populations;
- periodic national population-based surveys (e.g., Demographic and Health Surveys) with HIV testing, including HIV surveillance among TB patients.

Developing reliable estimates of the size of populations at high risk for HIV is another important aspect of surveillance, to inform assessment of needs and development of appropriate policies and programmes. This cannot be done through case reporting because early HIV infection has no distinct clinical features that bring newly-infected people to medical attention. Moreover, detection of recent infection cannot be confirmed easily using routine laboratory tests. Surveillance of sexually transmitted infections (not just of HIV infections) is an important component of comprehensive HIV surveillance because the incidence and prevalence of STIs are useful proxies of the degree of unsafe sexual behaviour.

In addition to collecting data from HIV surveillance, countries also use statistical modelling to better understand their specific HIV epidemics, including trends in HIV prevalence in the general population and most at risk populations, and to estimate the numbers of people who need particular interventions, such as antiretroviral therapy and antiretrovirals for preventing mother-to-child transmission. Based on the recommendations of the UNAIDS Reference Group on Estimates, Modelling and Projections, WHO and UNAIDS provide technical assistance and training to country teams to generate country estimates.

**Key resources:**

192 193 194 195 196 197 198

Guidelines for measuring national HIV prevalence in population-based surveys (2005)
[LINK](http://www.who.int/hiv/pub/surveillance/measuring/en/)

The pre-surveillance assessment: Guidelines for planning serosurveillance of HIV, prevalence of sexually transmitted infections and the behavioural components of second generation surveillance of HIV (2005)
[LINK](http://www.who.int/hiv/pub/surveillance/sti/en/)


Guidelines for effective use of data from HIV surveillance systems (2004)
[LINK](http://www.who.int/hiv/strategic/surveillance/hivpubsurveillance/en/)

Guidelines for conducting HIV sentinel serosurveys among pregnant women and other groups (2003)
[LINK](http://www.who.int/hiv/pub/surveillance/anc_guidelines/en/)

Estimating the size of populations at high risk for HIV. Issues and methods

Guidelines for using HIV testing technologies in surveillance: selection, evaluation and implementation (2001)
[LINK](http://www.who.int/hiv/pub/surveillance/guidelinesforUsingHIVTestingTechs_E.pdf)
3.3 MONITORING AND EVALUATION OF THE HEALTH SECTOR RESPONSE

A comprehensive health sector response to HIV requires sound strategies to monitor and evaluate progress. “Monitoring” refers to the routine tracking of essential data related to the implementation of a programme and its inputs, outputs, outcomes and impacts. “Evaluation” is a collection of activities designed to assess the effectiveness of a programme. Regular monitoring and evaluation are essential to guide programme planning and implementation, measure inputs, outputs, outcomes and impacts, and sustain commitment and accountability.

As global momentum to scale up HIV programmes increases, countries and public health practitioners face increasing demand for information to strengthen programmes, as well as to report accurate, timely information to stakeholders to secure continued funding. The Global Fund recommends that grant applicants should allocate from 5% to 10% of their proposed budgets towards strengthening of their existing monitoring and evaluation (M&E) systems, depending on the current state of their country’s system.

3.3.1 MONITORING HEALTH SECTOR HIV PROGRAMMES

A key step in strengthening M&E systems is to determine what data should be collected, at which levels of the system, and by whom. Decisions should be made on what data need to be reported upwards and for what purpose. The main purpose is generally to measure inputs, outputs, outcomes and impacts against a limited number of key indicators ─ limited so as to avoid overburdening the system.

Summary of recommendations:

National HIV/AIDS programmes, ministries of health and other stakeholders should collaborate on the design, implementation and strengthening of national M&E systems. A national strategy for M&E of health sector HIV/AIDS programmes should include tools and processes to generate a wide range of data plus analysis and reporting on HIV prevention, treatment and care interventions at the national, sub-national and facility levels. The data should include input indicators (e.g., budgets, human resources, supplies, training, interventions to review and update procedures); output indicators (e.g., newly trained health workers, improved procedures); outcome indicators (e.g. increased uptake of services, increased knowledge of HIV, behavioural change); and impact indicators (e.g., reduced incidence of new HIV infections, longer survival of people living with HIV). As national programmes expand, it is also increasingly important to monitor the quality of services and measure impacts on the health system.

Data for monitoring the health sector response to HIV come from several sources. These include routine medical and other records which are part of the broader health information management system; mapping of available services in health facilities and other health care settings; health facility surveys; population-based surveys; cohort studies of people living with HIV; monitoring of procurement and supply of HIV medicines and diagnostics; and impact assessment. Other sources include behavioural and biological surveys and mortality records and reports. Special studies should be considered where routine data collection and analysis is inappropriate or not feasible. Data from organizations providing community-based HIV services are also essential.

M&E activities should use ongoing data collection systems as far as possible to minimize burden of data collection and optimize use of resources. It is important that indicators are defined and measured in a consistent and standard way in order to assess trends and measure progress towards programme goals. It is also important that M&E systems are able to capture data disaggregated by age, sex, population groups (including most-at-risk population groups such as sex workers, men who have sex with men and injecting drug users; patients with TB and hepatitis B and C co-infection) and by geographical regions or socio-economic groups as appropriate.

Key resources: 199 200 122 201 202


National AIDS programmes: A guide to indicators for monitoring and evaluating national HIV/AIDS prevention programmes for young people
http://www.who.int/hiv/pub/epidemiology/napyoungpeople.pdf

National AIDS programmes: A guide to indicators for monitoring and evaluating national antiretroviral programmes

A guide to monitoring and evaluation of collaborative TB/HIV activities (field test version)
Core Indicators for National AIDS programmes: Guidance and Specifications for Additional Recommended Indicators, April 2008 (forthcoming)

Updated guidelines on PMTCT M&E, Male Circumcision and Testing and counseling programmes will be available at the end of 2008.

BOX 4. GLOBAL MONITORING AND REPORTING

At the international level, demonstrating the impact of investments in HIV programmes is critical to sustaining commitment and ensuring accountability. Since the World Health Assembly in 2006, WHO is mandated to monitor and report annually on global progress in the health sector response to HIV/AIDS towards universal access by 2010. Data from national programmes are also necessary to monitor progress towards meeting other international commitments such as the Millennium Development Goals and the UN General Assembly’s Declaration of Commitment on HIV/AIDS.

Summary of recommendations:

WHO has developed a core framework of recommended national level indicators on the health sector response to HIV/AIDS to facilitate global monitoring and reporting. The framework includes indicators to measure the availability and coverage of interventions, as well as their outcomes and impact in terms of survival and improvements in quality of life. The selection of indicators has been guided by the principle of maximum alignment with existing international processes. National programmes are requested to report data on an annual basis and data from national programmes are aggregated and analyzed to produce an annual global progress report.

Key resources: 203 204

Framework for Monitoring and Reporting on the Health Sector’s Response Towards Universal Access to HIV/AIDS Treatment, Prevention, Care and Support


3.3.2 PATIENT MONITORING SYSTEMS

Patient monitoring systems are essential to support individual management of patients in long-term HIV care, as well as for clinical teams to monitor outcomes of groups of patients enrolled in HIV care and to maintain a high quality of services. Patient monitoring systems also contribute to programme monitoring and evaluation at the health centre, sub-national and national levels, since they generate essential information on outcome and impact of programmes (e.g., survival of patients on ART) to report “up” to the national level.

The WHO HIV care/ART patient monitoring system lays out an internationally agreed minimum data set and definitions and includes an illustrative system to collect this data. This system includes summary HIV care/ART patient cards, pre-ART and ART registers, and cross-sectional and cohort reports. The ART register organizes patients into monthly treatment cohorts, which allows group cohort analysis and is useful for monitoring and comparing programme performance between sites. The tools should be adapted for use at country level.

WHO has also developed (and made available for free) an OpenMRS Express electronic medical record that uses the same data elements as the paper forms and produces the same reports. It can be readily customized to meet local requirements and can be used to collect all elements on the patient card or only the register elements. The standard data set is available and can be implemented in other software. Interlinked (HIV care/ART, MCH/PMCTC and TB/HIV) electronic registers are in development, in order to reduce the number of data elements to be entered and to facilitate generation of reports.

In collaboration with multiple partners, WHO has developed three interlinked patient monitoring systems to track longitudinal information on patients in HIV care/ART, TB-HIV management, and MCH/PMCTC monitoring. The latter integrates monitoring care for pregnant women and infants with monitoring of PMTCT interventions and malaria prevention (IPT or cotrimoxazole). Countries are beginning to adapt these three interlinked systems, particularly as decentralization of services becomes more widespread.
Many patient monitoring systems are paper-based at the health facility level and then require that paper-based data be entered again into electronic systems for transmission, aggregation and analysis. While higher volume facilities may use electronic medical records (EMRs) with entry of patient-level data; or data may be entered from patient cards into an electronic register; or entry may happen at the district or national levels, where data is aggregated and analyzed on a spreadsheet or other software (such as the HealthMapper extension for ART data). There are strengths and weaknesses to each way of doing things, depending on the context. Simple and practical paper forms should provide the foundation of any patient monitoring system. In high-volume sites (>1500 patients), however, aggregating data manually to produce monthly or quarterly reports will be a great burden on health workers. Electronic systems facilitate generating such reports easily and, sometimes, automatically but electronic systems require reliable electricity and may also require additional space, equipment, human resources and training. In any case, there will be a continuum of paper to electronic data entry, depending on the needs and resources of each health facility.

Summary of recommendations:

In keeping with the “Three Ones” principles, WHO recommends the development and implementation of one national patient monitoring system which supports a minimum standard data set and standardized forms and reports. Electronic forms should mirror paper forms in order to ensure that the same information is collected and reported regardless of whether this is done through paper or electronically, and patients can transfer between facilities without loss of information.

WHO recommends nationally standardized and interlinked patient monitoring systems that track delivery of integrated HIV care/ART, maternal and child health with integrated PMTCT and malaria prevention interventions, and TB/HIV services. This can facilitate patient and programme management during scale-up.

Key references: 205 202 203 204

(updated guidelines will be finalized at a consultation in September 2008).

Open MRS webpage
LINK http://www.openmrs.org

3.3.3 PREVENTION AND ASSESSMENT OF HIV DRUG RESISTANCE

Given the high replication and mutation rates of HIV and the necessity for lifelong antiretroviral treatment, the emergence of some level of HIV drug resistance (HIVDR) is inevitable, but the risk of HIVDR emergence can be reduced with appropriate action.

Summary of recommendations:

To maintain the effectiveness of first- and second-line antiretroviral regimens, WHO recommends that countries develop a national strategy for HIVDR prevention and assessment. Surveys of HIV drug resistance emergence and prevention during ART and of transmitted drug resistance can be used to inform optimal selection of ARV regimens on a population basis.

Interventions for preventing the emergence of resistance are required at all levels of the health system. Within health facilities, good clinical practice, appropriate prescribing and patient monitoring can prevent drug resistance, while at the district level it is important to optimize ART service functioning, emphasizing removal of barriers to continuous ARV access and the collection and analysis of programme data. To minimize HIVDR, monitoring of program factors that can prevent HIVDR and prompt evidence-based action to support optimal ART site functioning are both necessary at the level of the ART site as well as at the national level. WHO recommends that key HIV drug resistance “early warning indicators” be monitored at all ART sites in the country to provide information to optimize prevention of HIV drug resistance.

The recommended prevention and assessment strategy was developed in consultation with WHO HIVResNet, a global network of institutions, specialists and participating countries. Technical assistance is available to countries from the WHO HIV Drug Resistance Team and from other members of the network.

Key interventions for prevention and managing HIV drug resistance include:

- Promoting use of standard antiretroviral treatment (ART) regimens;
- Supporting use of standardized individual treatment records;
- Active monitoring of adherence;
- Removing barriers to continuous adherence;
- Providing quality assurance/control for drugs, and adequate and continuous drug supply;
• Preventing HIV transmission by persons receiving ART;
• Monitoring programmes for “early warning” of HIVDR;
• Doing surveillance for HIVDR transmission and monitoring HIVDR emergence in treated populations;
• Taking appropriate actions based on the results of monitoring and surveillance.

**Key resource:** 206

HIV Drug Resistance webpage

**LINK**  http://www.who.int/hiv/drugresistance/en/index.html

### 3.3.4 PHARMACOVIGILANCE

The objectives of pharmacovigilance are to enhance patient care and patient safety in relation to the use of medicines; to improve public health and safety in relation to the use of medicines; and to contribute to assessment of the risk-benefit profile of medicines.

As HIV/AIDS treatment programmes are scaled up in low- and middle-income countries, there is a risk that their effectiveness may be compromised as a result of adverse events related to the use of antiretrovirals, such as problems of toxicity, intolerance, drug-drug interactions, and adverse events linked with co-morbidities such as hepatitis. Pharmacovigilance is of critical importance for clinicians as they seek to optimize patient adherence to treatment, treatment outcomes and ensure patient safety. Assessment of the likelihood of adverse events in a given population is also important for policy-makers and programme managers as it informs the initial selection, forecasting, procurement and distribution of antiretroviral drugs.

**Summary of recommendations:**

WHO recommends the development of national pharmacovigilance programmes for ARV drugs, with passive and active surveillance of adverse events that are potentially linked to these medicines. The main focus of these programmes should be on treatment monitoring and post-monitoring surveillance that covers detection, assessment, understanding and prevention of adverse effects or other ARV drug-related problems. Pharmacovigilance programmes should also include communication of information about benefits, harms and risks of drugs to practitioners, patients and the public.

Using standardized methods to collect reports of suspected adverse drug reactions (ADRs) through spontaneous reporting should be a core activity of national pharmacovigilance centres. In the context of antiretroviral therapy, pharmacovigilance activities are also important for programmatic decision-making. Active surveillance of adverse reactions to antiretrovirals through cohort event monitoring and special studies is critical for supporting regular updates of national and global treatment, care and prevention guidelines; improving patient and public care and safety; and standardizing management of toxicity and drug-drug interactions based on local ADR data as well as international recommendations.

To optimize monitoring and management of adverse events associated with antiretroviral drugs, national pharmacovigilance programmes should:

• enable clinicians to identify, report and manage adverse events and toxicity related to ARV use;
• stimulate improved reporting and analysis of ARV adverse events and toxicity;
• integrate active surveillance and cohort event monitoring in national pharmacovigilance programmes;
• carry out focused in-depth studies aimed at improving ARV use and safety;
• pool and analyse data on adverse events as a basis for developing national and global antiretroviral therapy policies, and draft or improve treatment guidelines;
• promote information sharing on issues relating to ARV adverse events, including management of toxicity, intolerance and drug-drug interactions.

**Key reference:** 207

Pharmacovigilance for antiretrovirals in resource-poor countries (WHO, HTP, MPS - 2007)
3.3.5 EVALUATION
Evaluation is an essential, but often neglected, component of a comprehensive M&E system. It assesses the value or impact of a programme or intervention through a detailed analysis of inputs and outcomes. There are three sequential phases of evaluation - process, outcomes and impact evaluation.

Strengthening evaluation is essential for programme managers and decision-makers, since it enables them to assess how successfully programmes are meeting their goals. Evaluation is also critical for countries and their development partners, since it demonstrates the effectiveness of aid and argues for sustained or increased aid. The effective use of evaluation data will ensure that the HIV response is based on the best available evidence and will guide continued programme improvement.

Ideally, sound monitoring provides much of the data required for evaluation, including baseline data. In practice, however, additional data collection is often required because health information systems may be weak, and complete, high-quality data may not be readily available. Capacity for conducting evaluations may also be limited in many countries.

Summary of recommendations:
The main steps in planning evaluation include:

• Conducting a country readiness assessment, which includes assessing the strengths of a national strategic plan, a national M&E plan and the links between them and, also, assessing the availability of data and resources for an evaluation;
• Creating a national evaluation task force which brings together key stakeholders from government, civil society, the private sector, and technical and financial aid agencies;
• Reviewing and cataloguing relevant materials and documents, such as national plans, programme data, census data, data from behavioural and biological surveillance and other surveys, programme monitoring and evaluation reports, and research studies;
• Developing an agenda for the evaluation, including prioritizing key questions and agreeing on an action plan and timelines.

This is followed by implementation of the evaluation agenda. Evaluations bring together data from multiple sources and, in order to strengthen the monitoring and evaluation, it is important that any additional data collection that may be needed be integrated into the existing health information system which, in turn, should be linked to linked to the country review and strategic planning processes (see 4.2). (In other words, the process of doing an evaluation should strengthen the monitoring and evaluation system and thus facilitate future evaluations.) The evaluation process should involve collaboration among policy makers, project managers, international stakeholders and evaluation experts.

Key Reference: 122

3.4 RESEARCH
An effective response to HIV/AIDS requires that interventions and approaches be continually improved over time. Over the past 25 years, sustained research efforts have produced new scientific evidence and enabled the evolution of HIV interventions, policies and programmes.

The importance of investing in research was acknowledged by the ‘Sydney Declaration’ of the 4th International AIDS Society Conference on Pathogenesis, Treatment and Prevention held in Sydney, Australia in July 2007. The declaration called on national governments and bilateral, multilateral and private donors to allocate 10% of all resources for HIV programming to research, which provides ever more and better evidence on which to base the response to HIV.

The HIV response can be strengthened through different types of research: clinical/epidemiologic; socio-behavioural; and health systems. In each of these areas, new evidence should be collected, assessed and then brought to bear on policies, strategies and programmes. Operational research builds on the different disciplines that are used for basic research, to address questions related to programmes. Performing of research, alone, is not enough. There must also be processes for bringing it quickly to bear on decisions, so they are informed by the most up-to-date evidence.

There are many examples of research that is urgently needed in all four areas, including research aimed at discovery of effective prevention technologies (vaccines, microbicides and cervical barriers, and pre-exposure prophylaxis) and of effective treatment and care interventions; research to increase understanding of socio-behavioural factors that increase or decrease risk behaviour or hinder or facilitates access to interventions; research to discover the optimal models of service delivery within a variety of national and sub-national contexts.
To scale up research, countries need to invest in building research capacity. This means training human resources and developing research infrastructure, including laboratories. It also requires stronger health information systems to capture and use information generated through research. Greater collaboration between researchers and policy-makers is needed to ensure that the role of research is appreciated and the findings are translated into practice. Also needed is collaboration among national partners, donors and north/south research organizations and networks in order to devise and conduct research that is relevant to country situations.

3.4.1 OPERATIONAL RESEARCH
Operational research (OR) covers all programme areas and is vital to improving programme operations and making the most effective use of available resources.

Operational research involves the use of systematic research techniques to solve programme problems. It is used to gather evidence to inform treatment and prevention programmes and looks at such matters as different approaches to task shifting for ART delivery, the factors that influence adherence to medical regimens and the factors that influence uptake of testing and counselling. It uses a variety of qualitative and quantitative analytical techniques, favours multi-disciplinary approaches and should be “owned” by country partners.

Summary of recommendations:
A first step for implementing operational research is to conduct a rapid assessment of what is known about the selected topic in the country, and to formulate questions that can be addressed through operational research. This is best done through consulting major stakeholders from the research community, Ministry of Health, and NGOs. Once general priorities are established, it is important to identify those individuals who can form the nucleus for the project, so that they can design an appropriate study and seek resources to support the project. Data collection methods can build on available tools that can be adapted, translated, and tested in the country, in order to ensure that they fit with local realities. Data triangulation is recommended.

Key resources: 208 209
Guide to Operational Research in Programs Supported by the Global Fund (2007)
LINK http://www.who.int/hiv/pub/epidemiology/SIR_operational_research_brochure.pdf
Generic Tools to assist data collection on key topics: adherence to ARVs, prevention of transmission by those under treatment, stigma, and testing for HIV, are forthcoming in 2008.

3.5 USING DATA EFFECTIVELY FOR PROGRAMME IMPROVEMENT
The main reason for generating strategic information is to provide evidence to inform the development and implementation of policies, strategies and programmes at all levels of the health system. This means strategic information activities should be linked to the needs for evidence and to the people who need the evidence and that the evidence must be packaged and disseminated in ways that make it easy for those people to digest and use. Plans for dissemination of the evidence should keep different readers or audiences in mind, whether they be political decision-makers, programme planners and managers, health workers, people living with HIV or at-risk of infection, and so on. Feedback from all such readers or audiences at all levels of the health system ensure that the information is presented in ways that meet their needs and also encourages a culture of data generation and application for programme improvement at all levels.
3.5.1 SITUATION ANALYSES

In order to remain effective, planning and programming of the HIV response must be linked to regular review of the epidemiological situation and programme performance. National HIV/AIDS programmes need a clear understanding of the country situation in order to prioritize and tailor interventions.

For example, to interrupt HIV transmission, it is important to know in which geographical areas and among which populations the epidemic spreading most rapidly, and to plan interventions accordingly. Similarly, organizing services for care, support and treatment requires an understanding of where people living with HIV are located. There may be considerable overlap in initiatives for HIV prevention, care and treatment in terms of geographic and population focus.

Summary of recommendations:

HIV/AIDS programme managers need to regularly track, analyze and utilize data from multiple sources, including data from:

- Biological and behavioural sentinel and periodic surveillance;
- HIV/AIDS case reporting from the health services;
- Sexually transmitted infection (STI) clinics;
- Patient monitoring from testing and counselling services, HIV care and ART services, TB and maternal and child health services;
- Surveys to assess HIV drug resistance prevention, and site indicators for monitoring of HIV drug resistance;
- Situation assessments, mapping studies and rapid assessments among target populations;
- Population surveys (DHS, HIV indicator surveys, etc);
- National census reports;
- Social, cultural and behavioural research;
- Operational research;
- Periodic AIDS, TB and maternal and child health programme reviews.

Rapid assessment and response (RAR) methods can be used to generate information in situations where data are needed extremely quickly, where time or cost constraints rule out the use of more conventional research techniques, and where current, relevant data are needed to develop, implement, monitor or evaluate programmes. RAR methods use existing information from multiple sources, and are flexible and cost-effective. They can provide information on the country situation or context; target populations and settings; risk behaviours; HIV infection and other HIV-related outcomes; and responses. Both qualitative and quantitative methods and data should be considered. All RARs should include recommendations and plans for action. They should encourage community participation.

An analytical approach known as “triangulation” integrates multiple data sources to improve the understanding of a public health problem and to guide programmatic decision-making to address such problems.

Key resources: 210 211 35 212 213

A guide to rapid assessment of human resources for health
LINK http://www.who.int/hrh/tools/en/Rapid_Assessment_guide.pdf

Technical Guide to Rapid Assessment and Response (TG-RAR)
LINK http://www.who.int/hiv/pub/prev_care/tgrar/en/

SEX-RAR: Rapid Assessment and Response guide on psychoactive substance use and sexual risk behaviour.

Rapid Assessment and Response: Adaptation guide on HIV and men who have sex with men (MSM-RAR).

Rapid Assessment and Response: Adaptation guide for work with especially vulnerable young people (EVYP- RAR).

3.5.2 SETTING TARGETS

Setting targets is an integral part of national health sector strategic planning and is necessary to monitor progress. Even the best interventions will have little public health impact if they are implemented on a limited scale. While all countries strive towards the goal of universal access, individual country targets will differ in a given year depending on the country context. For example, the Guidance for global scale-up of the prevention of mother-to-child transmission of HIV suggests the following coverage levels to guide the setting of country-level targets:

- At least 80% of all pregnant women attending antenatal care are tested for HIV, including those previously confirmed to be living with HIV.
- At least 80% of pregnant women living with HIV receive antiretroviral prophylaxis or antiretroviral therapy to reduce the risk of mother-to-child transmission.
- At least 80% of infants born to women living with HIV receive a virological HIV test within two months of birth.

Similarly, the Global Plan to Stop TB 2006-2015 sets global targets of 85% of TB patients in DOTS programmes receiving HIV testing and counselling, and 57% of TB patients in DOTS programmes (HIV-positive and eligible) enrolled on antiretroviral therapy, by 2015. National target-setting is necessary to translate international commitments into country action plans and to monitor implementation.

Summary of recommendations:

A number of factors need to be taken into consideration in order to set targets for scaling up priority health sector interventions for HIV/AIDS (such as the proportion of people in need receiving antiretroviral therapy, or the proportion of HIV-positive pregnant women receiving antiretrovirals to prevent mother-to-child transmission). These include:

- considering the epidemiological context, geographical distribution and the size of populations in need;
- reviewing the programmatic context and health service delivery infrastructure, including human and financial resources;
- assessing current coverage and the possible impact under different target scenarios;
- developing plans and time-bound targets for scaling up towards a standard or a benchmark.

Depending on the information available, targets can be set and coverage monitored in several ways: by geographical distribution, such as on the basis of administrative units (district, province etc); by population sub-groups (such as antiretroviral therapy targets for pregnant women, all adults, adolescents, children, or most-at-risk populations); or by combining methods for a more complete picture.

Target-setting must be integrated with programme planning and budgeting. It must be linked to related, ongoing efforts such as situation analyses and the collection of well-defined indicators and other monitoring and evaluation activities. Targets should be regularly evaluated and revised as necessary.

Key resources: 214 215 216

Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users (IDUs).

LINK http://www.who.int/hiv/idu/TechnicalGuideTargetSettingApril08.pdf

Technical guidance to set targets for ART, PMTCT and testing and counselling interventions are forthcoming.

Setting national targets for moving towards universal access - operational guidance. UNAIDS, 2006.


Considerations for countries to set their own national targets for HIV prevention, treatment and care, UNAIDS 2006.


3.5.3 DATA QUALITY
A sound information system depends largely on the quality of data. Measures such as optimizing the amount of data to be collected, reducing the burden of data collection, using clear definitions, conducting local quality controls and checks, providing training, and providing feedback to data collectors and users help to improve data quality.

Summary of recommendations:
Data quality assessments should be carried out periodically to identify weaknesses in data collection and reporting systems, and to constantly improve data quality and accuracy.

The Health Metrics Network Assessment Tool for health information systems [web link http://www.who.int/healthmetrics/tools/hisassessment/en/index.html] lists the following criteria to assess the quality of health-related data and indicators:

- **timeliness** – the period between data collection and its availability to a higher level, or its publication;
- **periodicity** – the frequency with which an indicator is measured;
- **consistency** – the internal consistency of data within a dataset as well as consistency between datasets and over time; and the extent to which revisions follow a regular, well-established and transparent schedule and process;
- **representativeness** – the extent to which data adequately represent the population and relevant subpopulations;
- **disaggregation** – the availability of statistics stratified by sex, age, socioeconomic status, major geographical or administrative region and ethnicity, as appropriate;
- **confidentiality, data security and data accessibility** – the extent to which practices are in accordance with guidelines and established standards for storage, backup, transport of information (especially over the Internet) and retrieval.

Key resource:
Routine Data Quality Audit (RDQA) tool, GFATM, WHO and partners (forthcoming).
Chapter 4
Operationalizing the health sector response

4.1 OPERATIONAL MANAGEMENT
HIV/AIDS programmes require regular review and update. A systematic review and update process should include: situation, strategic re-planning at the national level every few years, annual or biannual implementation planning, ongoing management of implementation, and ongoing monitoring and evaluation.

Figure 2 illustrates the cycle of review, strategic re-planning then implementation planning and management. The content of most of these steps has already been outlined in the discussion in Chapters 2 and 3. This chapter focuses on some of the more critical aspects of the review and update cycle, those that require careful attention if countries are to scale up their response to HIV as quickly as they can in order to head towards universal access to HIV prevention, treatment and care. It highlights, in particular, the importance of strategic re-planning, of spotting bottlenecks to service delivery and of approaches to overcome such bottlenecks. Thereafter, factors important in prioritising interventions and in service delivery in specific epidemic settings are addressed.

4.2 STRATEGIC REVIEW AND RE-PLANNING
Twenty-five years of responding to HIV have yielded many lessons. Today, it is well-known that an effective response requires the cooperation of many levels of government and many sectors of society. At all of these levels and in all of this sectors there has been an impressive accumulation of experience, the successes and failures of which have led to ever better understanding of how to design and deliver services that achieve their intended results, while making efficient use of whatever resources may be available. To build on this experience, partners in each country’s health sector response to HIV should collaborate on developing a coherent and realistic health sector strategic plan and on strengthening management capacity to support its operationalization.

Decisions about which interventions to include in the national HIV/AIDS programme are usually made during strategic planning, as are decisions about how to prioritize them so the available resources can be allocated accordingly. Whereas most disease control programmes do this every five years or so, strategic re-planning of the HIV response often occurs more frequently in order to the changing situation in a country, including the changing shape of the epidemic (see 3.5.1 on situation analysis), and to take advantage of emerging knowledge about effective interventions and new funding opportunities. However quickly the strategic planning review and update cycle may revolve, it should involve all of the key service providers (in government, civil society and the private sector) and all of the key service recipients (people living with HIV, those most-at-risk of infection and those made vulnerable by gender, age or other characteristics).
1. Review the situation
   - Update the situation analysis of the current epidemic (see section 3.5.1)
   - Analyze the response
   - Review all relevant indicators and targets (section 3.5.2)
   - Determine whether targeted populations are being reached

2. Review current strategic plan and identify bottlenecks and opportunities
   - Review policies
   - Review the strategic plan
   - Analyze the experience to date with scaling up and bottlenecks to scaling up HIV prevention, treatment and care.

3. Strategic replanning
   - Revise prior interventions (see chapter 1)
   - Decide whether to reset or adjust targets (3.5.2)
   - Consider each priority intervention by level and service delivery approach
   - Focus on most-at-risk and vulnerable populations

4. Revise national guidelines and implementation tools
   - Country adaptation of updated global guidelines and tools

5. Plan implementation (yearly workplan/budget)
   (At each level: district, regional, national)
   - Review programme implementation status
   - Decide on approaches for delivering interventions
   - Develop shared programmes of work with partners/other programmes/other sectors
   - Decide on activities and tasks (capacity building, logistics, supply, quality management, etc.)
   - Plan monitoring and evaluation
   - Write and workplan and budget

6. Manage and monitor implementation (ongoing) (2.1.4)
   - Mobilize resources
   - Manage finances
   - Manage supplies (2.3)
   - Manage training, supervision and mentoring
   - Manage human resources (2.2)
   - Coordinate work with partners
   - Ensure technical quality of the interventions (2.1.4.2) (quality of training, clinical team performance, drugs, lab tests, etc.)
   - Solve problems / manage emerging issues
   - Monitor progress - using data / strategic information (chapter 3)

7. Evaluate (3.3.5)
4.2.1 OVERCOMING BOTTLENECKS

Strategic re-planning requires the identification of any bottlenecks preventing scale up of the HIV response, the analysis of these bottlenecks and the formulation of strategies for overcoming them. In most countries where scale up is occurring, critical and usually long-standing weaknesses in health care systems are the main bottlenecks. Bottlenecks commonly occur in the following areas:

- Human resources: availability, skills, motivation, mobilization, effective and efficient use, payment levels, management of human resources;
- Management and coordination of services: management capacity at all levels (local to national) for health sector policy development, coordination of multiple partners and handling relations with non-health sector actors;
- Laboratory capacity;
- Physical infrastructure;
- Information and monitoring systems;
- Drug and diagnostic procurement and supply chain management;
- Financing: adequacy of amounts, speed of disbursement, rules and procedures that may limit access or contribute to poverty;
- Referral and coordination between different elements of the health system;
- Guidelines and operating procedures;
- Community capacity for care;
- Transport and communications;
- Legal, regulatory and policy frameworks;
- Stigma and discrimination within health services.

The nature and severity of bottlenecks vary between and within countries, and from location to location. Bottlenecks in the areas of financing and human resources are often the root cause of many other bottlenecks.

The steps necessary to overcome bottlenecks are often inter-linked and mutually reinforcing and consist largely of the actions outlined in Chapter 2. Well organized districts appear to perform better and adapt to constrained environments, underscoring the fundamental importance of leadership and management capacity at this level. Lack of management and logistical capacity in national, regional and district health facilities are increasingly recognized as critical bottlenecks. With increasing availability of HIV funding, these two bottlenecks often result in slow and irregular disbursement of funding to front-line service providers.

Remaining focused on priority interventions and on effective coordination of all health sector activities can become even more challenging when increasing numbers of new partners become involved in delivering HIV services. Although these new partners may have helped overcome old bottlenecks, they may also help create new ones. For example, they may create parallel systems that introduce new inefficiencies, focus disproportionate shares of resources on interventions that are not of highest priority, or exacerbate weaknesses in health system management by offering better paid positions to good managers. These examples serve to emphasize how important it is to strengthen coordination among all partners in the response to HIV, to strengthen management throughout the health system and to do strategic re-planning that responds to new circumstances. At this time in the epidemic, strategic re-planning also requires moving from an emergency to long-term perspective, whilst still keeping abreast of emerging issues.

Attempts to scale up rapidly often result in substantial investment in training that is not adequately matched by post-training supervision, mentoring and quality management. Lack of standard operating procedures (e.g., in clinical care, laboratory services or supply management) is another common bottleneck during rapid scale up, particularly as decentralization calls for preparation of hundreds of health centre teams (compared to dozens of sites when ART stopped at hospital level). Without good coordination and standard operating procedures, there is potential for many parallel systems and tools, duplication and waste and poor sustainability.

Finally, restrictive policies, laws or regulations may be very serious bottlenecks, limiting the types of services that can be delivered (e.g., harm reduction and outreach to most-at-risk populations) and preventing the optimal use of the human and other resources available (e.g., by task shifting).
4.2.2 RESPONDING TO CONTROVERSIAL, SENSITIVE AND EMERGING ISSUES

HIV/AIDS programmes operate in a dynamic environment that can present significant challenges to programme managers. For example:

- Their decisions have important, often wide ranging consequences for the health and welfare of populations.
- They often deal with controversial and sensitive topics, such as sex, drugs, morality and culture.
- They attract much interest from the media and often trigger debate in communities.
- They rely on cooperation between a wide range of sectors and groups, not health alone, and need to actively engage affected communities.
- They have to deal with a wide range of competing interests and lobby groups, which often have financial interests.
- They have to be aware of debates, nationally and internationally, about HIV/AIDS.
- In light of rapid and frequent advances in knowledge and evidence, they need to regularly review, reflect and change approaches or priorities.

This dynamic environment requires a range of leadership qualities, as well as good management and communication skills. It also requires being “on top of things” with the latest strategic information and assurance that such information is being taken into account in a review and update cycle that provides opportunities for participation by all concerned and for changes in strategic direction, in normative tools and guidelines and in the priority package of interventions and that also takes advantage of emerging knowledge of promising, good and best international practice.

Keeping on top of things requires appropriate consultation mechanisms, including technical and community advisory groups. WHO will continue to contribute by keeping this document up to date so that it presents the most recent normative guidelines and tools.

4.3 PLANNING AND MANAGING IMPLEMENTATION

Implementation planning, or operational planning as it is more often called, needs to occur even more frequently than strategic planning and to be followed up with continuous monitoring to ensure activities are taking place as planned. Increasingly, operational planning and management are decentralized from national to sub-national levels and may take place largely at a district level but also reach down to the community and local facility level. Operational plans should be closely linked to and aligned with national strategic plans, since they are the means for implementing strategic plans.

Operational plans should support consistent progress towards universal access, so that a comprehensive package of high quality HIV preventive, treatment and care reaches ever more people and, in particular, reaches ever more people living with HIV, most-at-risk of infection or vulnerable because of gender, youth, poverty, ethnicity, imprisonment or other characteristics and circumstances. Good operational planning will often involve combining several service delivery models and active collaboration among service providers from government, NGOs, faith-based organizations and the private sector. Good operational plans describe in detail how implementation will take place on the ground. That includes identifying which service providers will provide which services to whom; identifying how available resources will be allocated among all providers and services; covering each service and integrated service packages; and specifying plans and activities to ensure that appropriately skilled human resources, logistical support, and strategic information will be available.
### TABLE 4.1. EXAMPLE: PRIORITY HEALTH SECTOR INTERVENTIONS BY LEVEL OF HEALTH SYSTEM IN LOW LEVEL EPIDEMIC

<table>
<thead>
<tr>
<th>Increasing knowledge of HIV sero-status</th>
<th>Outreach to most-at-risk populations</th>
<th>Community and home-based delivery of interventions</th>
<th>Primary care: at health centre or outpatient clinics (at district hospital) or private providers</th>
<th>District hospital: second level referral care; inpatient care</th>
<th>Regional or central hospital/specialist physicians, paediatricians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outreach HIV testing and counselling</td>
<td>CITC</td>
<td>CITC: at health facility</td>
<td>As to left, plus:</td>
<td>Perform virological tests on DBS and send back results</td>
<td></td>
</tr>
<tr>
<td>HIV prevention outreach to most-at-risk populations, (e.g. sex workers, drug users, men who have sex with men), and vulnerable populations (e.g. migrants, mobile populations,) including:</td>
<td>Prevention of HIV Transmission</td>
<td>Community prevention literacy</td>
<td>Prevent sexual transmission of HIV</td>
<td>Prevention with PLWH:</td>
<td></td>
</tr>
<tr>
<td>• Peer-based information and education</td>
<td>prevent prevention with PLHIV</td>
<td>• Condom promotion, provision to prevent STIs in MARP</td>
<td>• Prevent HIV infection through IDU: comprehensive harm reduction including:</td>
<td>• Discordant couples risk reduction</td>
<td></td>
</tr>
<tr>
<td>• Provision and exchange of sterile needles and syringes</td>
<td>Preventing STI and sexual and reproductive health services, particularly for vulnerable girls and women</td>
<td>• Condom promotion and programming, including 100% condom promotion campaigns</td>
<td>• Patient information, education</td>
<td>• Counsel on continued possibility of HIV transmission on ART,</td>
<td></td>
</tr>
<tr>
<td>• Condom promotion and programming, including 100% condom promotion campaigns</td>
<td>• Targeted STI and sexual and reproductive health services, particularly for vulnerable girls and women</td>
<td>• Community FP</td>
<td>• Prevent HIV infection in infants, young children:</td>
<td>• Condom promotion and provision</td>
<td></td>
</tr>
<tr>
<td>• Targeted STI and sexual and reproductive health services, particularly for vulnerable girls and women</td>
<td>• Referral to specific prevention services</td>
<td>• If HIV-positive mothers in the community:</td>
<td>• Family planning</td>
<td>• Counselling on sexual health, return to sexuality and fertility, reproductive choices</td>
<td></td>
</tr>
<tr>
<td>Prevent infection in infants, young children:</td>
<td>• Referral to specific prevention services</td>
<td>• Mother-to-mother support for PMTCT</td>
<td>• ARV prophylaxis for PMTCT</td>
<td>• Counsel on substance use and relationship to risky behaviour</td>
<td></td>
</tr>
<tr>
<td>Prevent transmission in healthcare settings, including:</td>
<td>Prevent transmission in healthcare settings, including:</td>
<td>• Infant feeding support-replacement feeding if AFFASS</td>
<td>• Infection control, standard precautions</td>
<td>• Brief interventions for harmful or hazardous alcohol use</td>
<td></td>
</tr>
<tr>
<td>• Infection control, standard precautions</td>
<td>Prevent transmission in healthcare settings, including:</td>
<td>• Safe injections</td>
<td>• Safe medical waste management</td>
<td>PMTCT: ART for eligible women; support for complications on ART/AZT prophylaxis</td>
<td></td>
</tr>
<tr>
<td>• Safe injections</td>
<td>• Safe medical waste management</td>
<td>• Infant feeding counselling and support</td>
<td>Safe blood</td>
<td>Safe blood</td>
<td></td>
</tr>
<tr>
<td>• Safe medical waste management</td>
<td>• Occupational health of health workers</td>
<td>Prevent transmission in healthcare settings, including:</td>
<td>• Post-exposure prophylaxis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outreach to most-at-risk populations</td>
<td>Community and home-based delivery of interventions</td>
<td>Primary care: at health centre or outpatient clinics (at district hospital) or private providers</td>
<td>District hospital: second level referral care; inpatient care</td>
<td>Regional or central hospital/ specialist physicians, paediatricians</td>
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<tr>
<td><strong>HIV-AIDS treatment and care</strong></td>
<td><strong>Interventions delivered through outreach to most-at-risk populations (in partnership with other sectors)</strong></td>
<td><strong>Prevent illness:</strong></td>
<td><strong>As to left, plus:</strong></td>
<td><strong>Second-line ART</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Integration of treatment support for antiretroviral therapy, TB treatment and prophylaxis in outreach services</td>
<td>• Cotrimoxazole prophylaxis  • Vaccination  • Nutritional care and support  • Education: safe water, hygiene, sanitation</td>
<td>• Adherence preparation, support  • Recommend or initiate first-line regimens  • Monitor, adjust dose  • Clinical, CD4, limited laboratory monitoring  • Support patient self-management  • Diagnose treatment failure  • (under supervision clinical mentor)  • Manage serious complications of ART</td>
<td>• Clinical mentor for district clinicians  • Management of uncommon and certain severe OIs, ART toxicities, oncology</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Home-based care:</strong> Palliative care</td>
<td><strong>Clinical care/ manage OIs and co-morbidities:</strong></td>
<td><strong>HIV care:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Primary care for pneumonia, fever/ malaria, diarrhoea, malnutrition, other common conditions  • Mental health, psychosocial support  • Back up palliative care at home, symptom management</td>
<td>• Assess and manage severe OI  • Inpatient care  • Manage severe malnutrition  • TB- ART co-treatment plan  • TB- HIV co-management</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>TB prevention, diagnosis, treatment:</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Intensified casefinding TB  • TB infection control  • INH preventive therapy  • Diagnose, start, follow TB treatment</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
4.4 PLANNING FOR LOW-LEVEL EPIDEMICS

In low prevalence settings, it is particularly important to focus on implementation of effective prevention programmes so that HIV incidence remains low and then to define the minimum package of services that will be available at each level of the health system. Serological and behavioural surveillance of HIV and sexually transmitted infections is of particular importance, since it provides the data on which to base estimates of sizes and geographical locations of populations of people living with HIV or most-at-risk of infection and of the behaviours that may have resulted in HIV infection or could result in new infection. This information should guide planning, with priority given to those populations and geographical locations where people are most-at-risk of transmitting infection or becoming newly infected and to those interventions which target particular behaviours.

In low level epidemics, sexual transmitted infections (STIs) are sensitive markers of high-risk sexual activity. Monitoring STI rates can help identify HIV vulnerability and also help evaluate the success of prevention programmes. In addition, early diagnosis and treatment of STIs will decrease STI related morbidity and the likelihood of HIV transmission. STI services are an extremely important entry point for HIV prevention in low-level epidemics.

4.4.1 PREVENTION SERVICES

Targeting most-at-risk populations with HIV/AIDS programmes and services is an efficient way of responding to HIV in all epidemic situations but it should be the key strategy for scaling up HIV prevention, treatment and care in low-level epidemics.

Targeted interventions are aimed at offering services to specific populations within the general population, and in those geographical locations where those specific populations are most likely to be found, so that they can be given the information, skills and tools (e.g., condoms, water based lubricants, safe injection equipment) that will minimize the risk of HIV transmission and so that they can also be given access to HIV treatment and care services. The best-designed HIV/AIDS programmes also improve sexual and reproductive health and wellbeing among these populations and address general health concerns by reducing the harm associated with practices such as female and male sex work and injecting drug use.

Successful targeted interventions do not stigmatize populations at risk, rather they respect their rights and endeavour to protect those rights. In low-level epidemics, targeted interventions optimize the use of resources by focusing on the people and places where risk is greatest and where access to HIV prevention, treatment and care is most needed.

Even in low-level epidemics, interventions to prevent HIV transmission in health facilities must ensure safe blood transfusion, provide infection control measures, standard precautions, and safe injections. Client-initiated testing and counselling (CITC) should be available and provider-initiated testing and counselling (PITC) may additionally be considered in STI services, services for most-at-risk populations, TB services and in antenatal, childbirth and postpartum health services. Essential interventions for HIV prevention and care as well as antiretroviral therapy should be provided for people living with HIV. However, some of these interventions can be offered in fewer facilities, however, depending on health system capacity and resources. Table 4.1 outlines priority health sector interventions by level of the health system appropriate for a low-level epidemic setting.

Key resource: 219

4.4.2 TREATMENT AND CARE SERVICES

In low-level epidemics, scale-up of HIV treatment and care services is more likely to be concentrated at provincial or regional hospitals, with some private service providers increasing access to these services. Developing special treatment and care facilities to cater to the particular needs of extremely marginalized high risk groups, such as injecting drug users may also be appropriate. In any case, where such services are provided in only a few facilities, a well performing system of referrals is of critical important. Patient self-management, home- and community-based care and mutual support by networks of people living with HIV are also important.

Clinical teams which support self-management and the involvement of expert patients on those teams are basic tenets of good chronic care in any epidemic setting. Some community-based services, however, may not be resource-efficient in low prevalence settings. However, components of chronic HIV care may be decentralized to health centres over time, given the well-known advantages of an integrated primary care approach close to home for adherence, community support and quality of life.
4.4.3 CONSIDERATIONS FOR MIDDLE-INCOME COUNTRIES
In middle-income countries, determining the prioritized set of HIV interventions by level of the health system will involve significant emphasis on containing a rapid escalation in health service costs. In these settings, it is important to "stick to the essentials," emphasizing delivery of the selected priority interventions of high quality rather than uneven provision of very expensive services to a few.

4.5 PLANNING FOR CONCENTRATED EPIDEMICS
4.5.1 TARGETED INTERVENTIONS AND SERVICE DELIVERY MODELS
See sections 1.2.1.6 and 4.4.1 for a discussion of targeted interventions. While the discussion begins there, targeting interventions is also the key strategy for scaling up HIV prevention, treatment and care in concentrated epidemic settings. Targeted interventions:

• are for people within the community who are most at risk of HIV infection;
• are located in settings where risk behaviours and HIV transmission are concentrated;
• are adapted to be culturally and socially appropriate for the target population;
• effectively use the language and culture of the people being targeted;
• focus on where limited resources can be used to best advantage;
• acknowledge that barriers to accessing health-care services exist for some populations within communities;
• recognise that people who are at risk of HIV transmission are often marginalized from the broader community, and are experiencing stigma and discrimination.

In many countries experiencing concentrated epidemics, a continuum-of-care network revolving around a range of linked services is the preferred model for implementing HIV treatment and care. CITC serves as an entry point, supplemented by PITC and entry from TB clinics, general health services, NGOs and outreach to most-at-risk populations. Private practitioners clearly linked with HIV care services often follow up all those identified as being HIV positive.

4.5.2 UNDERSTANDING MOST-AT-RISK POPULATIONS (MARPS)
It is important to remember that most-at-risk populations, such as sex workers and men who have sex with men who have sex with men are not homogeneous. There are many different types of sex workers, for example, with varying levels of HIV risk and of access to health services. The same can be said of other most-at-risk populations. Some men who have sex with men, for example, adopt a cultural identity associated with this behaviour and join community groups and frequent venues where other men who have sex with men congregate. Others may not identify or socialize with this community, and may have female partners on a long- or short-term basis. Having a detailed understanding of most-at-risk populations, especially those hardest to reach, is critical for programme planning purposes and assists in the prioritizing of interventions for service delivery.

4.5.3 PRIORITY FOCUSED INTERVENTIONS AND DELIVERY APPROACHES
Targeted interventions take many forms. The selection of interventions depends on the degree of marginalization of the group being targeted, the availability of other services for them, and the capacity of the focus population to participate in or lead the design and implementation of services. In many concentrated HIV epidemics, the populations which require priority interventions are sex workers, men who have sex with men, transgender people, drug users (particularly injecting drug users) and prisoners. Sometimes other populations (such as minority ethnic and displaced, mobile or migrant populations) who do not have the same access to health information and services as the general population also require targeting.

Selecting the most appropriate service delivery models for promotion and distribution of prevention commodities, and securing entry into care and treatment involves ensuring that condoms and sterile needles and syringes are available through outreach workers and outlets that are in venues accessible and acceptable to the target population. HIV messaging also needs
to be designed to be relevant to a specific population, using language that they use and the best suits their educational needs.

Several suitable service delivery models exist:

**Outreach:** This involves peers or people who are trusted by the target population (or are making efforts to build this trust) and go into the community to make direct contact with people, to provide them with information and the means of protection, and help them access services. Examples of outreach include:

- Training sex workers or community health workers to visit brothels, to provide information and condoms, and to link sex workers with STI and HIV services;
- Training men who have sex with men to go to bars and sex venues to talk to other men about HIV, distribute condoms, and help them access STI and HIV services;
- Training current and ex-drug users to go into drug user environments to distribute clean needles and syringes, provide information, assist in overdose prevention and abscess care, and help people access drug dependence treatment and HIV services;
- Arranging mobile vans to visit sex work, MSM or IDU settings at night to provide information, prevention commodities, clinical services and referrals.

**Support for self-help and community groups:** This involves facilitating self-help or community groups from target populations and providing them with resources and facilities where they can work together to address HIV and related issues in their communities. Building capacity of target groups to partner in prevention and care services has been successfully used in many settings.

**Establish local clinics and link these to other services:** This involves providing clinical services for particular populations – such as sex workers, MSM, clients of sex workers – in their own neighbourhoods, with links to other services. It may also include introducing HIV services within already existing health, social or welfare services targeting these populations (e.g. conducting regular clinics in drop-in centres for sex workers).

Table 4.2 outlines priority health sector interventions appropriate for a concentrated epidemic setting.

**Key resources:** 219

### 4.5.3.1 SERVICES FOR SEXUALLY TRANSMITTED INFECTIONS

*See section 1.2.1.2*

Providing services for sexually transmitted infections requires policies, procedures and health worker training to encourage sex workers, men who have sex with men, transgender people, clients of sex workers, vulnerable young people and other targeted groups to access STI services. Staff attitudes, opening times, confidentiality and cost of services are all factors which should be considered in designing these services.

STI services are often best located in environments of high STI incidence, such as sex work districts, within sex worker and MSM organizations, and by optimising use of mobile clinics and reproductive health and primary care clinics. Engagement with private sector services will help increase the quality and reach of private services.

For sex workers, it is important to modify and disseminate STI diagnosis and treatment guidelines which include special screening or presumptive treatment. In all sex work settings (particularly male sex work settings), it is important to ask sex workers and clients about anal sex practices, and provide guidance on the management of proctitis and advice on water-soluble lubricants. Provider-initiated HIV testing and counselling protocols should be integrated within STI services.
4.5.3.2 SERVICES FOR INJECTING DRUG USERS

Providing services for injecting drug users should be of high priority wherever injecting drug use occurs. Improved access to HIV care, support and treatment services should be a priority for this population, particularly in closed settings such as prisons. A comprehensive harm reduction programme for sex workers should include:

- Interventions for preventing HIV transmission associated with injecting drug use (see section 1.2.2)
- Interventions for treatment and care of drug users living with HIV (including management of viral hepatitis and TB coinfection)
- Models of service delivery that are able to reach marginalized and most-at-risk drug users (and involve them and people living with HIV in service delivery) and are able to ensure continuity of services (e.g. from prisons to community programmes).
- Structural interventions that create supportive environments for harm reduction programmes, including review of laws and policies and addressing stigma and discrimination.

Drug-dependence treatment is an effective way of reducing both the demand for illicit drugs and the risks associated with drug use. Clients of such treatment programmes significantly decrease their illicit drug consumption, are less likely to become involved in crime, and gain greater stability in their lives. An integrated approach is can work well, with an IDU/HIV clinics serving as “one stop shop” possibly place in existing HIV clinics, detoxification/drug substitution centres, closed settings and other places with clinical services for IDU. All drug-treatment services offer opportunities to provide HIV prevention and education services and to ensure access to condoms and clean needles and syringes. Similarly, drug-dependence treatment services can be integrated into HIV treatment and care services.

There should also be consideration of non-injecting drug use. Use of many psychoactive substances is associated with high-risk sexual behaviour, including sex work, multiple sexual partners and unprotected sex. Of particular concern is the hazardous use of alcohol and stimulants, such as amphetamine-type stimulants and cocaine. There is also the risk that non-injecting drug users may transition to drug injecting. For these reasons, HIV risk reduction information and counselling and provision of condoms should be included in drug dependence and harm reduction services targeting non-injectors. See also section 1.2.1.6a.

Key resources: 69 216 217

WHO Website on “Prevention, treatment and care for injecting drug use (IDU) and prisons “
LINK http://www.who.int/hiv/topics/idu/en/index.html

IMAI-IDU modifications of Acute care and Chronic HIV care with ART guideline modules and training tools (WHO, 2006)

SEARO. Scaling-up HIV Prevention, Care and Treatment. Report of a Regional meeting, Bangkok, Thailand, 31 October –2 November 2006. SEA/AIDS/174
LINK http://www.searo.who.int/LinkFiles/Publications_scaling-up-HIV200307.pdf

4.5.3.3 SERVICES FOR SEX WORKERS

Preventing HIV among sex workers makes an extremely important contribution to preventing HIV in general populations, since they can transmit their infections to their clients who in turn transmit to their wives or other regular partners. Over and above being at risk themselves, sex workers and their clients have the potential of being effective partners in prevention. Evidence shows that positioning sex workers as proactive collaborators at the centre of HIV service provision can be highly effective.

However, most sex work takes place within an unhealthy and unregulated working environment, with little or no promotion of safer sex, scant control over client’s behaviour and pressure for high client turnover. Where sex workers are poorly organised and have few alternative sources of income, they are less able to refuse a client unwilling to use a condom.

Wherever possible, programmes for HIV prevention, care and treatment in sex work settings should entail: national, and where applicable, cross-border coordination, involvement of the sex workers for whom the services are planned; mapping of the spatial dimensions of sex work and unmet needs for services; outreach services through peer sex workers, with high coverage and intensity; and documenting of service delivery outcomes.

Providing services in sex work settings requires a clear description of the needs, practices and size of the sex work and client population. Surveillance can also be used to define sex workers’ and clients’ success at avoiding risk and their health-seeking
patterns, and this information can inform the planning of flexible responses which are adapted to the local sex work setting and the prevalent distribution of behavioural and societal factors. Repeating surveillance at regular intervals can monitor trends in ages of sex workers over time.

Effective outreach builds trust and lines of communication between the non-sex work and sex work community. In some settings, outreach is the principal (and sometimes only) means of reaching sex workers and maintaining continual contact. It also is an opportunity for providing health services, materials and information to those who do not or cannot attend clinics and it can reduce sex workers’ social isolation through referrals to social services.

Peer services (the provision of services by those for whom they are intended) and peer-support networks also promote positive cultural values. Peer education enables the sex work community to gain control over its own health, and some safe sex information is best taught by experienced sex workers. Given the necessary skills and tools, sex work community members can provide services for their own peers and support behaviour change, often more effectively than outsiders can. This empowers them and increases their self-esteem and self-reliance. It also helps get services in place quicker and more cost-effectively. Since they are of the community, peers can maintain regular contact with sex workers during hours that are convenient for them and raise awareness of HIV and STIs and provide safe sex information and supplies. However, peer services should not be stand-alone, but parts of an integrated package of interventions in clinic and community.

Integrated approaches that combine services for sex workers with services for the general population are likely to be more sustainable in the long term. In the short and medium terms, however, rapid scale up of access to HIV services requires special services for sex workers. In settings were sex work is common, special services for sex workers may be the most cost-effective approach in the long term, too. Absence of disease is not always a priority for sex workers and this makes it necessary to reach out to them with services that are convenient in terms of location, opening hours and so on.

Key resource: 49

Online Sex Work Toolkit: Targeted HIV/AIDS Prevention and Care in Sex Work Settings
LINK http://www.who.int/hiv/pub/prev_care/sexworktoolkit.pdf

4.5.3.4 SERVICES FOR MEN WHO HAVE SEX WITH MEN
In some settings, there is official denial that MSM even exist and, in many settings, illegality of male-to-male sex and officially tolerated stigma and discrimination make it difficult to get official support for services that target MSM. Even where there is such support, it is often half-hearted and arrest or harassment of MSM and peer outreach workers by police may make it difficult to deliver services to MSM. In all such settings, many MSM do not self-identify as such and make every effort to hide the fact, often by marrying or having regular female partners.

For all those reasons, services that target only MSM are often impractical and they are best reached through services to other populations of which they also be a part (e.g., through STI services for all males or services targeting youth.) Transgender people and highly effeminate MSM constitute a special case, since they are often highly stigmatized and discriminated against. Some form of outreach to them is almost always necessary and it can usually be done through their own formal or informal organizations and networks. The special services needs of MSM and transgender people (e.g., for water-based lubricants to reduce risk of condom breakage during anal sex) are discussed in Chapter 1, section 1.2.1.6b.

Key resources: 219 220


###_table 4.2. EXAMPLE: PRIORITY HEALTH SECTOR INTERVENTIONS BY LEVEL OF HEALTH SYSTEM IN CONCENTRATED EPIDEMIC

<table>
<thead>
<tr>
<th>Increasing knowledge of HIV sero-status</th>
<th>Prevention of HIV transmission</th>
<th>Community and home-based delivery of interventions</th>
<th>Primary care: at health centre or outpatient clinics or private providers</th>
<th>Second level care at district hospital; inpatient care</th>
<th>Tertiary care at regional or central hospital/ specialist physicians, paediatricians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outreach to most-at-risk populations</td>
<td>Outreach HIV testing and counselling to MARP and bridge population and consider offering CITC and including sites with rapid tests</td>
<td>CITC closest to MARP setting</td>
<td>CITC at health centre PITC: • Consider in health services targeting MARPs and prison health care • Sexual and injecting partners of index cases • Patients with TB, STI, hepatitis B and C, other blood-borne viruses • Patients at drug dependence setting • Bridge population • Pregnant women • Infant testing and counselling • Prior to receiving PEP</td>
<td>As to left, plus: • Blood donor HIV testing and counselling • Resolve discordant HIV test results</td>
<td>Perform virological tests on DBS and send back results</td>
</tr>
<tr>
<td>Support for self-help and community groups</td>
<td>Prevention in PLHIV with emphasis on prevention in MARPs</td>
<td>Advocacy to reduce stigma, discrimination and criminalization of MARP</td>
<td>Prevention in PLHIV with emphasis on prevention in MARPs</td>
<td>Targeted STI management and sexual and reproductive health services Management of rape and sexual violence including PEP</td>
<td>As to left, plus: Manage STI treatment failures</td>
</tr>
<tr>
<td>HIV prevention outreach to MARPs and “bridge” population such as mobile populations, migrants, border areas: • Peer-mediated information and education, and distribution of prevention commodities • Condom promotion and programming, including 100% condom promotion campaigns • Provision of harm reduction including exchange of needles and syringes • Linkage/referral to prevention, care and treatment sites friendly and oriented to MARP</td>
<td>Peer support for prevention with MARP</td>
<td>Support for self-help and community groups</td>
<td>Prevention in PLHIV with emphasis on prevention in MARPs</td>
<td>Prevent HIV infection through IDU: comprehensive harm reduction including: • Patient information, education • Sterile needle, syringe provision • Drug dependence treatment (including opioid substitution treatment)</td>
<td>Prevent infection in infants, young children • Special attention to young MARP • Tolerant, adolescent-friendly services • Ensure access reproductive health, FP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Condom promotion and provision</td>
<td></td>
<td>Special and tolerant clinical services for SW, MSM including mobile services to attend MARP sites</td>
<td>Prevent transmission in health-care settings, including: • Infection control, standard precautions • Safe injections • Safe medical waste management • Occupational health of health workers; • Post-exposure prophylaxis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Counseling to reduce risky behavior</td>
<td></td>
<td>HIV prevention among youth: • Special attention to young MARP • Tolerant, adolescent-friendly services • Ensure access reproductive health, FP</td>
<td>Prevent transmission in health-care settings, including: • Infection control, standard precautions • Safe injections • Safe medical waste management • Occupational health of health workers; • Post-exposure prophylaxis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community prevention literacy including STI</td>
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<tr>
<td></td>
<td></td>
<td>Harm reduction including needle-syringe programme</td>
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<tr>
<td></td>
<td></td>
<td>PMTCT for women in MARP</td>
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</tbody>
</table>

**Outreach**
- To most-at-risk populations
- Community and home-based delivery of interventions
- Primary care: at health centre or outpatient clinics or private providers

**Second level care**
- At district hospital; inpatient care

**Tertiary care**
- At regional or central hospital/ specialist physicians, paediatricians

**Increasing knowledge of HIV sero-status**
- Outreach HIV testing and counselling to MARP and bridge population and consider offering CITC and including sites with rapid tests
- Support for self-help and community groups

**Prevention of HIV transmission**
- HIV prevention outreach to MARPs and “bridge” population such as mobile populations, migrants, border areas:
  - Peer-mediated information and education, and distribution of prevention commodities
  - Condom promotion and programming, including 100% condom promotion campaigns
  - Provision of harm reduction including exchange of needles and syringes
  - Linkage/referral to prevention, care and treatment sites friendly and oriented to MARP

**Community and home-based delivery of interventions**
- CITC closest to MARP setting

**Primary care**
- At health centre
- PITC:
  - Consider in health services targeting MARPs and prison health care
  - Sexual and injecting partners of index cases
  - Patients with TB, STI, hepatitis B and C, other blood-borne viruses
  - Patients at drug dependence setting
  - Bridge population
  - Pregnant women
  - Infant testing and counselling
  - Prior to receiving PEP

- Blood donor HIV testing and counselling
- Resolve discordant HIV test results

**Second level care**
- At district hospital; inpatient care

**Tertiary care**
- At regional or central hospital/ specialist physicians, paediatricians

**Prevention**
- In health-care settings, including:
  - Infection control, standard precautions
  - Safe injections
  - Safe medical waste management
  - Occupational health of health workers; Post-exposure prophylaxis

**Advocacy**
- To reduce stigma, discrimination and criminalization of MARP
- Prevention in PLHIV with emphasis on prevention in MARPs

- Targeted STI management and sexual and reproductive health services
- Management of rape and sexual violence including PEP

- Prevent HIV infection through IDU: comprehensive harm reduction including:
  - Patient information, education
  - Sterile needle, syringe provision
  - Drug dependence treatment (including opioid substitution treatment)

- Special and tolerant clinical services for SW, MSM including mobile services to attend MARP sites

- HIV prevention among youth:
  - Special attention to young MARP
  - Tolerant, adolescent-friendly services
  - Ensure access reproductive health, FP

- Prevent infection in infants, young children:
  - Family planning
  - ART or ARV prophylaxis
  - Treatment, care, support pregnant women
  - Infant feeding counselling and support

- Prevent transmission in health-care settings, including:
  - Infection control, standard precautions
  - Safe injections
  - Safe medical waste management
  - Occupational health of health workers; Post-exposure prophylaxis
### Table 4.2. Continued

<table>
<thead>
<tr>
<th>HIV treatment and care (including prevention of illness in PLHIV)</th>
<th>Outreach to most-at-risk populations</th>
<th>Community and home-based delivery of interventions</th>
<th>Primary care: at health centre or outpatient clinics or private providers</th>
<th>Second level care at district hospital; inpatient care</th>
<th>Tertiary care at regional or central hospital/ specialist physicians, paediatricians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration of care and support in outreach services</td>
<td>Self help and community support groups</td>
<td>At prevention, care and treatment sites friendly and oriented to MARP</td>
<td>As to left, plus: Management of complicated HIV cases</td>
<td>As to left, plus: Clinical mentor for previous level</td>
<td></td>
</tr>
<tr>
<td>Use prevention outreach as entry point to HIV treatment and care services</td>
<td>Home-based: Care-seeking support</td>
<td>Counselling of PLHIV on adherence, ART, OI prevention and treatment</td>
<td>ART including toxicities and treatment failure</td>
<td>Referral for uncommon and certain severe OIs, ART toxicities, oncology</td>
<td></td>
</tr>
<tr>
<td>Referral to prevention, care and treatment sites friendly and oriented to MARP</td>
<td>Social support</td>
<td>OI prevention and treatment</td>
<td>If resources available: manage severe co-morbidities including oncology and OIs</td>
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<tr>
<td>Palliative care: • Symptom management and end-of-life care in home by caregivers</td>
<td>Nutritional support</td>
<td>Management of hepatitis and other co-infections</td>
<td>Supervise ART prescription at previous level of care</td>
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<tr>
<td>• Patient self-management</td>
<td></td>
<td>Management of non-infectious co-morbidities</td>
<td>Inpatient care</td>
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<td>Patients monitoring (including lab follow up)</td>
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<td>Psychological support</td>
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<td>Immunization</td>
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<td>Opioid substitution treatment</td>
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<td>TB prevention, diagnosis, treatment</td>
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<td></td>
<td></td>
<td>• Intensified casefinding TB</td>
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<td>• TB infection control</td>
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<tr>
<td></td>
<td></td>
<td>• INH preventive therapy</td>
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<td></td>
<td></td>
<td>• TB- HIV co-management</td>
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<tr>
<td></td>
<td></td>
<td>• Diagnose, start, follow TB treatment with focus on MARP</td>
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</tbody>
</table>
4.6 PLANNING FOR GENERALIZED HIV EPIDEMICS

4.6.1 PREVENTION

Though prevention efforts have led to declines in levels of HIV in some countries with generalised epidemics, this has yet to take place in many others, and in all these countries the epidemic continues to disproportionately affect women.

Comprehensive prevention interventions, informed by evidence, could have broader success. Making better use of currently underutilised opportunities to integrate HIV prevention within health services is especially critical to this success. Providing PITC, condoms and counselling for women bringing their children for immunization and other child care services is one example. The female condom remains an under-exploited option and so is safer sex counselling, which may occur after HIV testing, but could also occur on many other occasions when health service provider and patients interact and which should reinforce the message that concurrent sexual partnership is very high risk.

The health sector can also play important roles in promoting progressive delay of the age of coital debut for young people and promoting the control of alcohol use, since it is increasingly recognized as significant contributor to risk-taking behaviour in countries with generalised epidemics. Hazardous or harmful patterns of alcohol use are associated with unsafe sex, high partner number and condom accidents, and addressing it is now recognised as an essential part of HIV prevention.

4.6.2 DECENTRALIZATION OF INTEGRATED PREVENTION, TREATMENT AND CARE

In generalized epidemics with high HIV prevalence, the large numbers of people living with HIV mean that providing efficient and decentralized services is a key strategy for reaching towards universal access. This requires a public health approach to scaling up services with emphasis on achieving broader coverage with key interventions; simple, standardized regimens and formularies; algorithmic clinical decision-making; effective supervision and patient monitoring; and integrated delivery of primary health care through health centres and in the community, within a district health network.

Increasing evidence underscores the greater complexity and cost of caring for patients presenting with advanced HIV disease. Increasing the number of people who are tested and, for those who test positive, regularly following up with pre-antiretroviral care can prevent illness and ensure the timely start-up of antiretroviral therapy.

With good survival rates reported for patients on antiretroviral therapy, the numbers of patients in chronic HIV care have increased steadily and this has led to development of ‘mega-clinics’ in some hospitals. Decentralizing chronic HIV care to the community level and integrating it with other priority health sector interventions are challenges that must be met if universal access is to be achieved in a effective and cost-efficient way. People living with HIV require multiple interventions for TB, substance use, pregnancy, child health, and so on and, in many countries, such interventions are delivered through a number of different facilities with specialized personnel. This is not only an inefficient use of resources but an increased burden on patients and it calls for integration of services in health facilities together with standardized protocols and training of health workers. It also calls for more effective co-management of patients, with family-based and community-based care that addresses the needs of adults, adolescents and children.

To support scale up of country-adapted and integrated packages of essential interventions and to avoid inefficient use of resources and increased burden on health workers and patients, coherent packages of essential interventions appropriate for each level of the health system are necessary but these should be developed and delivered through a shared programme of work. Operational collaboration is necessary both internationally and between national HIV/AIDS programmes and programmes focusing on TB, maternal and newborn services, child health, STI, mental health, and oral health; between programmes organized around specific health cadres (such as nursing and midwifery); and those with a cross-cutting mandate such as human resources for health, health system strengthening, palliative care, chronic care, essential drugs and essential health technologies.

Successful programming requires negotiation of a shared programme of HIV/AIDS work at national level within a clear health sector strategy. Co-sponsorship of integrated implementation at facility and district level with co-supervision by several programmes (usually HIV, TB and MCH) are essential to support integrated services. Co-operation within the district management team and at point of care is often substantially better (and easier) than at national or international level.

Meanwhile, the kind of integration described above is already happening as those responsible for HIV and TB services recognize the advantages of working together on prevention, treatment and care for both diseases (see 1.3.2.4 and 2.1.1).
Most of the HIV interventions described in Chapter 1 can be decentralized to health centre in communities by using simplified, operationalized guidelines. Nurse-led clinical teams in health centres (and in district hospital outpatient clinics) are able to deliver most of the clinical and prevention interventions listed in Chapter 1, provided they have backup from district hospital clinicians and periodic clinical mentoring. Nurse-led teams can initiate and monitor antiretroviral therapy, manage uncomplicated opportunistic infections, and provide primary mental health and neurological care. Managing the broad range of opportunistic infections and other co-morbidities experienced by people living with HIV requires an integrated and coordinated response from a wide range of health services. Clinical teams at health centre level are able to manage uncomplicated opportunistic infections but need to be able to refer patients with severe or complicated conditions to a district hospital clinician for diagnosis and management. Cotrimoxazole prophylaxis should be started promptly in all eligible patients, in all clinical services.

**Key resources:** 48 83 221 142 152 221 222 121

Table 4.3 outlines priority health sector interventions appropriate for a generalized epidemic setting.

### 4.6.1.3 COMMUNITY MOBILIZATION AND INVOLVEMENT OF PEOPLE LIVING WITH HIV

As discussed in section 2.5.1, community mobilization is critical for the scale of HIV prevention, testing and counselling, and for preparing communities for prevention and supporting adherence to drug regimes. Civil society organizations and networks, including those involving people living with HIV and people most-at-risk of infection, complement formal health services by providing preventive information and supplies, creating demand for formal health services, ensuring that the services are acceptable and of good quality, preparing communities for treatment by providing treatment education and information, supporting adherence to drug regimes, providing various care and support services, including palliative care. Heading towards universal access requires reinforcing support for civil society organizations and networks and strengthening the links between them and formal health services. This is especially so given the crisis in human resources for health care that many countries are experiencing.

See 2.5.1 for further discussion of this subject and for ways of involving people living with HIV in clinical teams, together with the need for providing them with training, supervision and pay and overcoming and policy constraints that may prevent the shifting of tasks from profession to lay health care workers.

**Key resources:** 98 222

Treatment Literacy module in International Federation of Red Cross and Red Crescent Societies/WHO/SAFAIDS HIV prevention, treatment, care and support: a training package for community volunteers

Community chapter in Operations Manual
4.6.1.4 MOST-AT-RISK GROUPS IN GENERALIZED EPIDEMICS

Even though an epidemic may be generalized, it remains important to identify and reach marginalized or neglected populations who are at higher risk of HIV infection or who have poor access to clinical and community-based services. Groups that are important in most generalized epidemics, but are often neglected, include sex workers, men who have sex with men, injecting drug users and prisoners. Male-to-male sex is increasingly recognized as a major contributor to HIV infection and injecting drug use is increasing in some cities and ports in Africa. Chapter 1, section 1.2, and section 4.5.3 in this chapter provide guidance on how to reach these populations with prevention.

HIV-negative people in sero-discordant relationships may be numerically the single largest group at risk in countries with generalized epidemics. Special efforts are required to identify and support them, both through facility- and community-based interventions, including partner and couples testing and counselling and risk reduction counselling and support (see 1.2.3.2).

Also at disproportionately high risk in countries with generalized epidemics, are adolescent girls and young women. They require special attention through youth-friendly services and active support for interventions which may be delivered predominantly in other sectors, such as efforts to address transactional sex, intergenerational sex and rape.

Key resources: 21 22

Practical guidelines for intensifying HIV prevention: Towards universal access (UNAIDS, 2007)

Essential Prevention and Care Interventions for Adults and Adolescents Living with HIV in Resource-Limited Settings (2008) WHO

4.6.1.5 WHERE TO IMPLEMENT: HEALTH FACILITY OR COMMUNITY?

With high HIV prevalence and large numbers of people living with HIV, community and home-based service delivery becomes increasingly important. Trained and paid community health workers, home-based caregivers, and a treatment supporter for each patient on antiretroviral therapy and TB treatment can play a crucial role in supporting patients in care (e.g. through adherence support and home-based refills) and promoting methods to prevent HIV transmission. Community-based testing, based on outreach from an index case receiving facility-based care or on large scale “know your status” campaigns, are important both for prevention (e.g. to identify discordant couples and support safer sex and risk reduction in both HIV-positive and HIV-negative persons) and to ensure early entry into HIV care and treatment.

To conclude this chapter, scale-up is not a linear process and can become more complex in successive phases. Initial challenges can differ from those in later phases and may vary in different settings. Also, there may be unintended consequences (for example, economies of scale may improve but quality may deteriorate with increasing levels of activity) that call for corrective action. Providing strong and vigilant oversight is essential for scaling up an integrated package of HIV services, so that information is available to programme managers to help them manage the cross-cutting support activities and systems that need to be in place.
### TABLE 4.3.
EXAMPLE: PRIORITY HEALTH SECTOR INTERVENTIONS BY LEVEL OF HEALTH SYSTEM IN GENERALISED EPIDEMIC WITH HIGH PREVALENCE

<table>
<thead>
<tr>
<th>Increasing knowledge of HIV sero-status</th>
<th>Outreach to most-at-risk populations and vulnerable groups</th>
<th>Community and home-based delivery of interventions</th>
<th>Primary care: at health centre or outpatient clinics of district hospital or private providers</th>
<th>Second level care at district hospital; inpatient care</th>
<th>Tertiary care at regional or central hospital/specialist physicians, paediatricians</th>
</tr>
</thead>
</table>
| Outreach HIV testing and counselling to most-at-risk populations | CITC PITHC:  
- Home-based testing and counselling for family/partners of index case  
- National and local campaigns (Know Your Status) | CITC at health centre PITHC:  
- All patients in all health facilities  
- Infant testing and counseling  
- Send DBS for virological testing  
- Family and partner testing  
- Prior to receiving PEP | As to left, plus:  
- Blood donor HIV testing and counselling  
- Resolve discordant HIV test results | Perform virological tests on DBS and send back results |

### Prevention of HIV transmission

| Prevention of HIV transmission | HIV prevention outreach to sex workers, drug users, men who have sex with men, young people and mobile populations, including:  
- Peer information and education, and distribution of prevention commodities  
- Condom promotion and provision, including support for 100% condom programming  
- Provision and exchange of sterile needles and syringes  
- Targeted STI and sexual and reproductive health services, particularly for vulnerable girls and women  
- Referral to specific prevention services | Community prevention literacy  
Support condom programming  
Home-based:  
- Risk reduction support for discordant couples  
- Peer support for prevention with PLHA | Prevent sexual transmission of HIV  
- Condom promotion, provision  
- Detect and manage STI  
- Safer sex, risk reduction counselling with emphasis prevention with PLHA:  
  - Discordant couples risk reduction  
  - Continued possibility of HIV transmission on ART  
  - Condom promotion and provision  
  - Counsel on sexual health, return to sexuality and fertility on ART, reproductive choices  
  - Counsel on substance use and risky behaviour  
  - Brief interventions harmful or hazardous alcohol use  
  - Male circumcision- in some sites or counselling, wound care  
  - HIV prevention among youth:  
    - Tolerant, adolescent-friendly services - acute and chronic HIV care  
    - Ensure access reproductive health, FP  
    - Special, friendly clinical services SW and MSM  
    - Management rape, sexual violence including PEP  
Prevent HIV infection through IDU: comprehensive harm reduction including:  
- Patient information, education  
- Sterile needle, syringe provision  
- Drug dependence treatment (including opioid substitution treatment)  
Prevent infection in infants, young children:  
- Family planning  
- ART or ARV prophylaxis  
- Treatment, care, support pregnant women  
- Infant feeding counselling and support  
Prevent transmission in health-care settings, including:  
- Infection control, standard precautions  
- Safe injections  
- Safe medical waste management  
- Occupational health of health workers; special focus on care and treatment for health workers  
- Post-exposure prophylaxis- all sites | As to left, plus:  
- Manage STI treatment failures  
Male circumcision in high HIV prevalence settings  
PMTCT: support for complications on ART/AZT prophylaxis | Safe blood |

| Prevention of HIV transmission | HIV prevention outreach to sex workers, drug users, men who have sex with men, young people and mobile populations, including:  
- Peer information and education, and distribution of prevention commodities  
- Condom promotion and provision, including support for 100% condom programming  
- Provision and exchange of sterile needles and syringes  
- Targeted STI and sexual and reproductive health services, particularly for vulnerable girls and women  
- Referral to specific prevention services | Community prevention literacy  
Support condom programming  
Home-based:  
- Risk reduction support for discordant couples  
- Peer support for prevention with PLHA | Prevent sexual transmission of HIV  
- Condom promotion, provision  
- Detect and manage STI  
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  - Condom promotion and provision  
  - Counsel on sexual health, return to sexuality and fertility on ART, reproductive choices  
  - Counsel on substance use and risky behaviour  
  - Brief interventions harmful or hazardous alcohol use  
  - Male circumcision- in some sites or counselling, wound care  
  - HIV prevention among youth:  
    - Tolerant, adolescent-friendly services - acute and chronic HIV care  
    - Ensure access reproductive health, FP  
    - Special, friendly clinical services SW and MSM  
    - Management rape, sexual violence including PEP  
Prevent HIV infection through IDU: comprehensive harm reduction including:  
- Patient information, education  
- Sterile needle, syringe provision  
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- Infant feeding counselling and support  
Prevent transmission in health-care settings, including:  
- Infection control, standard precautions  
- Safe injections  
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- Occupational health of health workers; special focus on care and treatment for health workers  
- Post-exposure prophylaxis- all sites | As to left, plus:  
- Manage STI treatment failures  
Male circumcision in high HIV prevalence settings  
PMTCT: support for complications on ART/AZT prophylaxis | Safe blood |
<table>
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<tr>
<th>Outreach to most-at-risk populations</th>
<th>Community and home-based delivery of interventions</th>
<th>Primary care: at health centre or outpatient clinics or private providers</th>
<th>Second level care at district hospital; inpatient care</th>
<th>Tertiary care at regional or central hospital/ specialist physicians, paediatricians</th>
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<tr>
<td><strong>HIV/AIDS treatment and care</strong></td>
<td>Interventions delivered through outreach to most-at-risk populations (in partnership with other sectors) Integration of treatment support for antiretroviral therapy, TB treatment and prophylaxis in outreach services</td>
<td>Treatment preparedness for both HIV and TB Patient self-management Peer support groups <strong>Home-based:</strong> • Treatment support-ART, TB treatment, and prophylaxis • Drug refill delivery • Management diarrhoea, fever • Careseeking support • Psychosocial support • Nutritional support • Water treatment and safe storage • Hygiene • Insecticide-treated nets • Palliative care: pain and other symptom management and end-of-life care</td>
<td><strong>First-line ART:</strong> • Adherence preparation, support • Recommend or initiate first-line • Monitor, adjust dose • Clinical, CD4, limited lab; patient monitoring systems for HIV care/ART, TB-HIV, PMTCT • Support patient self-management <strong>Prevent illness:</strong> • Cotrimoxazole prophylaxis • Vaccination • Nutritional care and support • Education: safe water, hygiene, sanitation • Prevent malaria <strong>Clinical care/ manage OIs and co-morbidities:</strong> • Primary care for pneumonia, fever/ malaria, diarrhoea, malnutrition, other common conditions • Mental health, psychosocial support • Back up palliative care at home, symptom management <strong>TB prevention, diagnosis, treatment:</strong> • Intensified casefinding TB • TB infection control • INH preventive therapy • Diagnose, start, follow TB treatment including, if referral difficult, suspected smear negative TB • TB- HIV co-management</td>
<td><strong>As to left, plus:</strong> <strong>ART:</strong> • Initiate ART in complicated patients; • Oversee initiation of first line ART in uncomplicated patients by primary care team • Diagnose treatment failure • Second-line ART (under supervision clinical mentor) • Manage serious complications of ART • Assess and manage severe OI • Inpatient care • Manage severe malnutrition • TB- ART co-treatment plan</td>
</tr>
</tbody>
</table>

**Clinical mentor for district clinicians:** • Reviews cases of suspected treatment failure • Makes decision on switching to second-line ART Management of uncommon and certain severe OIs, ART toxicities, oncology
Key resources

Target audience: Policy-makers, programme managers. Implementation focus: Global, National. This policy statement
outlines the ‘3Cs’ principles of HIV testing (confidentiality, counselling and consent) and contains a description of the four
types of HIV testing: VCT; diagnostic testing; recommendation of HIV testing by health care providers; and mandatory HIV
screening.

2. Opening up the HIV/AIDS epidemic: Guidance on encouraging beneficial disclosure, ethical partner counselling and

Type of document: Evidence, policy and advocacy. Target audience: Programme manager, policy makers, researchers.
Implementation focus: Global, Regional, National. This site contains a bibliography of links to abstracts from scientific
conferences or peer-reviewed articles on provider-initiated HIV testing and counselling, as well as policies, guidelines and
training materials on all models of HIV testing and counselling.
LINK http://www.who.int/hiv/topics/vct/elibrary/en/index.html

4. Guidelines for the implementation of reliable and efficient diagnostic HIV testing, Region of the Americas. (2008) PAHO.
English, Spanish. Type of document: Operational guidelines, monitoring, evaluation and quality assurance. Target audience:
Programme managers, laboratory managers and laboratory personnel. Implementation focus: National, district and facility
These guidelines aim to help countries expand testing and counselling services. Simple and standardized testing strategies
are presented for client initiated (VCT) and provider initiated (PITC) testing in the Region of the Americas. It aims to facilitate
development of appropriate national HIV testing algorithms for laboratory and non-conventional laboratory sites. Available at:
LINK http://www.paho.org/English/AD/FCH/AI/LAB_GUIDE_ENG.PDF
LINK http://www.paho.org/Spanish/AD/FCH/AI/LAB_GUIDE_SPAN.PDF

AIDS Alliance. English. Type of document: Toolkit. Target audience: Programme managers. Implementation focus: Global,
national. This toolkit is a collection of documents that offers practical guidance for planning and implementing testing and
counselling services in resource-constrained settings. Regularly updated, it is available in several formats, including hard copy,
CD-ROM and an internet version. References include information, examples of Best Practice; and useful web sites.
LINK http://whqlibdoc.who.int/publications/2005/92415927X_eng.pdf

for Migration. English. Type of document: Normative guidelines Target audience: Normative guidelines Implementation focus:
Global; national. This guie covers HIV testing and counselling for migrants and refugees undergoing IOM migration health
assessments. In this, IOM aims to achieve a balance between the requirements for an HIV test and the need to maintain of
confidentiality while, at the same time, providing a meaningful service to migrants.
LINK http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/main/site/published_docs/brochures_and_info_sheets/
HIV%20counselors%20GUIDE%20FINAL_Apr2006%20(4).pdf

Type of document: Normative guidelines and operational guidelines. Target audience: Programme managers; policy-makers;
health care providers. Implementation focus: National, district, facility. This guide summarizes a wealth of evidence that
provider-initiated testing and counselling can increase uptake of HIV testing, improve access to health services for people
living with HIV, and may create new opportunities for HIV prevention. It provides guidance and recommendations on provider
initiated HIV testing and counselling (PITC) in different settings: low-level, concentrated, and generalized HIV epidemics.
8. WHO case definitions of HIV for surveillance and revised clinical staging and immunological classification of HIV-related disease in adults and children. (2007) WHO. English. Type of document: Normative guidelines and Operational guidelines. Target audience: Programme managers; policy makers; health care providers. Implementation focus: National, district, facility. The publication outlines revisions that WHO made to case definitions for surveillance of HIV, and the clinical and immunological classification of HIV. This is designed to assist in clinical management of HIV, especially where there is limited laboratory capacity. In this classification, the clinical staging of HIV-related disease for adults and children and the simplified immunological classification are harmonized to a universal four-stage system. 

LINK http://www.who.int/hiv/pub/guidelines/HIVstaging150307.pdf

9. HIV testing and counselling in TB clinical settings tools. (2007) US Centres for Disease Control and WHO. English. Type of document: Operational guidelines and Capacity building. Target audience: Programme managers and health care workers. Implementation focus: National. This collection of tools will reinforce standardized operating procedures for providing HIV testing and counselling in TB clinics. Also, to assist countries plan and implement such programmes, the materials provide guidance for the advance planning required for to national policies, logistics and implementation procedures, as well as training for health care providers on incorporating testing into their practice and counselling patients about HIV test results.

LINK http://www.cdc.gov/nchstp/od/gap/pa_hiv_tools.htm

10. IMAI PITC core training course and PITC counselling training video. (2008) WHO. English. Type of document: Operational guidelines; Capacity building. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital. Implementation focus: All health facilities; community level. This one-day training course for clinicians concentrates on how to recommend HIV testing with informed consent, confidentiality, and counselling, and can be followed by additional PITC training integrated within the PMTCT, TB-HIV, STI and other IMAI short courses. The material is based on the 2007 WHO normative guidelines on PITC as operationalized in the IMAI Acute Care guideline module. Skills-based; includes practice with expert patient trainers. A counselling training video demonstrates good practice as well as exercises for discussion.

LINK http://www.who.int/hiv/capacity/IMAIsharepoint/en


LINK http://www.who.int/bloodsafety/en/


15. Guidelines for assuring the accuracy and reliability of HIV rapid testing: applying a quality system approach. (2005) WHO and CDC. English. Type of document: Evidence and policy. Operational guidelines. Quality assurance. Target audience: Programme managers and planners, policy makers, testing personnel. Implementation focus: National, district and facility. This document establishes guidelines for applying quality systems essential for HIV rapid testing. It is intended to assist all persons involved in policy development, planning and implementation of HIV rapid testing. The guide covers organization and management, personnel, equipment, purchasing and inventory, process controls, records and information management and provides guidance on implementation.


Type of document: Operational guideline. Target audience: Policy-makers, directors of blood banks, programme managers.
Implementation focus: National, district and facility

Type of document: Operational guideline. Target audience: Policy-makers, directors of blood banks, programme managers.
Implementation focus: National, district and facility. This report provides an objective assessment of commercially available assays for detecting antibody to HIV-1 and HIV-2 and HIV antigen (HIV Ag/Ab assays). The assessment focus on the operational characteristics of these assays, such as ease of performance, sensitivity and specificity, and suitability for use in small laboratories. It can be used help select HIV antibody and/or HIV Ag/Ab assays appropriate to local needs

Type of document: Operations guidelines. Target audience: Programme planners, programme managers, laboratory staff.
Implementation focus: Regional, national and facility
Practical guidance is provided here for developing country-specific protocols for evaluation of HIV EIA and rapid/simple test methods. Specific guidance is given on the rationale and justification for evaluating new tests, issues to consider when planning an evaluation and projected timelines for an evaluation. Detailed descriptions of phases of the evaluation, quality assurance and evaluation materials e.g., specimens and laboratory safety precautions are also presented.

21. Practical guidelines for intensifying HIV prevention: towards universal access
(2007) UNAIDS. English. Target audience: Programme planners, programme managers, policy makers. Implementation focus: National, District. These guidelines are designed to provide programme managers and other readers with practical guidance to tailor their HIV prevention activities so that it responds to the epidemiological scenario of the country and populations who remain most vulnerable to and at risk of HIV infection.

22. Essential Prevention and Care Interventions for Adults and Adolescents Living with HIV in Resource-Limited Settings
Implementation focus: Global, National

Type of document: Evidence, policy and advocacy. Target audience: Policy makers, advocacy organisations. Implementation focus: Global. This Report is from a high-level consultation in May 2004, which highlighted the key programmatic linkages between family planning and the prevention of HIV in women and children. The Call To Action, outlined in the report, requires dynamic initiatives in four areas: policy and advocacy; programme development; resource mobilization; and monitoring, evaluation and research.
LINK http://www.who.int/entity/hiv/pub/advocacymaterials/glionconsultationsummary_DF.pdf

Type of document: Evidence, policy and advocacy; capacity building and training. Target audience: Programme managers, policy makers. Implementation focus: National and sub national
This website provides a collection of WHO policy documents and tools for planning and implementing HIV and SRH services and for strengthening linkages between HIV/AIDS and SRH programmes.
LINK http://www.who.int/reproductive-health/hiv/docs.html
Type of document: Evidence, policy and advocacy. Target audience: Policy makers, programme managers. Implementation focus: Global and national. This statement summarises the position of WHO, UNAIDS and UNFPA on the role of condom use in comprehensive HIV prevention and treatment. The critical role that condoms play in this regard is highlighted here, as well as a summary of evidence and the rationale for this position.

LINK  http://www.who.int/reproductive-health/publications/m_condom/index.html

LINK  http://www.who.int/reproductive-health/publications/RHR_00_8/index.html

Type of document: Normative guidelines. Operational guidelines. Target audience: Programme managers, health workers. Implementation focus: National. Guidance is given here for adapting health services to address the sexual and reproductive health needs of women living with HIV/AIDS and for integrating these activities within the health system. Providers of HIV services should also be aware of the sexual and reproductive health needs of the people they serve and integrate these interventions within a broad, comprehensive service delivery package. The publication also contains recommendations for counselling, care and other interventions.
LINK  http://whqlibdoc.who.int/publications/2006/924159425X_eng.pdf


LINK  http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003 Fr.pdf
LINK  http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003 Es.pdf

Type of document: Evidence, policy advocacy. Target audience: Policy makers and programme managers. Implementation focus: Global and national. The document summarises discussions of the 2007 technical review meeting on HIV and STI prevention, in addition to recommendations on the opportunities that STI control provides for preventing HIV infection. Further, it contains an updated statement on the role of STI interventions in preventing HIV infection, based on current evidence.
32. IMAI STI/genitourinary problem training course (based on IMAI Acute Care guideline module). (2005) WHO. English. Type of document: Operational guidelines; training tools. Target audience: Health care workers: primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility. This training course (a component of the IMAI Acute Care modules) covers the syndromic approach to STI management (with rapid syphilis testing as only essential laboratory). This will guide management of genitourinary clinical signs and symptoms in men and women at first-level facilities. It is based on the most updated. IMAI Acute Care guidelines which support screening for STI symptoms and signs in all adolescent and adult patients seeking care.


35. SEX-RAR Guide: The Rapid Assessment and Response Guide on Psychoactive Substance Use and Sexual Risk Behaviour,. (2002) WHO. English. Type of document: Normative guidelines. Target audience: Programme managers and planners, policy makers, researchers. This document provides an introduction and background to the aims and objectives of the WHO/UNAIDS project on substance use and sexual risk behaviour. It also provides a tool for rapid assessment and response and includes a complete package for undertaking rapid assessments on sexual behaviours associated with substance use, the associated adverse health consequences and the development of intervention responses.


37. Male Circumcision Information Package. WHO. English. Type of document: Evidence, policy and advocacy. Target audience: Policy makers, programme managers. A series of four leaflets that summarise information in key areas of male circumcision in relation to HIV prevention: Insert 1: Brief introduction on the collaborative work to develop the package by the UN Inter Agency Task Team (IATT) consisting of UNAIDS, UNFPA, UNICEF, WHO and the World Bank. Insert 2: Gives an overview of the global prevalence of male circumcision and outlines the key determinants in different regions and countries. Insert 3: Highlights the main health benefits (other than HIV) of male circumcision and some of the associated risks. Insert 4: Summarises all the evidence on MC for HIV prevention including the 3 RCTs, observational and epidemiological studies. The biological rationale for MC providing a protective effect against HIV is explained.

39. Male Circumcision: Global trends and determinants of prevalence, safety and acceptability. (2007) WHO and UNAIDS. English. Type of document: Evidence, policy and advocacy. Target audience: General. The document provides overview of the global prevalence of male circumcision. It outlines the key determinants and of male circumcision in different regions which include; religion, ethnicity and social factors. The global changing trends in the determinants are also highlighted. In addition, there is a large section on the medical indications, clinical procedures and safety of male circumcision. The third part of the document discusses the improved HIV prevention role that male circumcision offers in sub Saharan Africa. Possible opportunities and barriers including costing, human rights, ethical and legal are also discussed.

http://www.who.int/hiv/topics/malecircumcision/JC1320_MaleCircumcision_Final_UNAIDS.pdf

40. Strategies and approaches for male circumcision programming. WHO meeting report: 5-6 December 2006. (2007) WHO. English. Type of document: Normative guideline. Target audience: Programme managers and planners. Implementation focus: National. This is a report from technical meeting which summarised current models and practices for delivering services for male circumcision. Also identified are the groups who should be prioritised in the roll out of male circumcision programmes, the minimum package of interventions required and the key roll-out strategies.


41. WHO/JHPEIGO Surgical Manual for Male Circumcision under Local Anaesthesia. (2007) WHO and JHPEIGO. English. Type of document: Guideline Target audience: Health care providers. The guideline provides technical guidance on clinical approaches to male circumcision in an appropriate human rights framework as well as address the broader issues of sexual and reproductive health of men.

42. Male Circumcision Quality Assurance: A Guide to Enhancing the Safety and Quality of Services. (2008) WHO. English. Type of document: Guideline document. Target audience: National and district programme managers, health facility managers. Implementation focus: National, district. This Guide provides programme managers with information to help fulfil their roles and responsibilities towards organizing male circumcision services that are safe and effective. The Guide can be used to support the set up of services in different types of settings.


45. Male Circumcision and HIV Prevention in Eastern and Southern Africa Communications Guidance. (2008) WHO. English. Type of document: Guideline document. Target audience: Programme managers and policy makers in Eastern and Southern Africa. This document provides background information on male circumcision and emphasises the case for scaling up. It also outlines key communication approaches, highlights key messages for advocacy and proposes 8 steps for effective communication.

46. Operational Guidance for Scaling up Male Circumcision Services for HIV Prevention. (2008) WHO. English. Type of document: Guidance document. Target audience: Policy makers, programme managers. This document gives practical guidance to help operationalise male circumcision service scale up. It outlines and explains the key elements required for programme set up, these are; leadership and partnership, situation analysis, advocacy, enabling policy and regulatory environment, strategic and operational planning, quality Assurance, human resource development, service delivery approaches, communication, monitoring, evaluation and operations research.

47. UN resources on male circumcision (2004) WHO, UNAIDS, UNICEF and UNFPA. English. Type of document: Key source. This inventory will provide an overview of the UN tools, guidelines and other resources that are available to support male circumcision programme scale up. Provides summaries of the purpose and key contents of each document.

http://www.who.int/hiv/topics/malecircumcision/en/index.html
48. IMAI-IMCI Chronic HIV Care with ARV Therapy and Prevention guideline module (2007) WHO. English, French. Type of document: Operational guidelines. Target audience: Health care workers: primary health workers at health centre and outpatient of district hospital. Implementation focus: Health centre or outpatient care, district hospital. This simplified, operationalized guideline is based on WHO normative guidelines and serves as both a learning and job aid. It addresses children, adolescents and adults, and effectively integrates HIV prevention, care and treatment and promoting broader uptake of preventive interventions essential for HIV control. It includes patient education, prevention for positives, clinical staging, prophylaxis (INH, cotrimoxazole, fluconazole), preparation for ARV treatment then clinical monitoring, special considerations for ART in pregnant women and children, adherence support, and data collection based on a simple treatment card. Clinical content is trained using IMAI-IMCI Basic Chronic HIV Care/ART Clinical training, integrated PMTCT training and reproductive choice/FP short course. Available at:

[Link](http://www.who.int/hiv/pub/imaico/Chronic_HIV_Care7.05.07.pdf)
[Link](http://www.who.int/hiv/pub/imaico/imai_chronic_fr.pdf)


[Link](http://whqlibdoc.who.int/publications/2005/9241592966.pdf)

50. Guidelines for the management of Sexually Transmitted Infections in Female Sex Workers. (2002) WHO-WPRO. English. Type of document: Operational guideline. Target audience: Programme managers. Implementation focus: National, district. These guidelines have been developed to provide appropriate technical guidance for the provision of clinical and social services for female sex workers. They outline the assessment of STI signs and symptoms, present flowcharts for the diagnosis and treatment of STI-associated syndromes and detail of treatment for specific STIs.

[Link](http://www.wpro.who.int/NR/rdonlyres/90F80401-5EA0-4638-95C6-6EFF28213D34/O/Guidelines_for_the_Mgt_of_STIs_in_female_sex_workers.pdf)


[Link](http://www.wpro.who.int/NR/rdonlyres/5F1C719B-4457-4714-ACB1-192FFCA195B1/0/condom.pdf)


[Link](http://whqlibdoc.who.int/unaids/2006/9291734933_eng.pdf)
[Link](http://whqlibdoc.who.int/unaids/2006/9291734950_rus.pdf)


[Link](http://www.who.int/entity/hiv/pub/prev_care/en/msmrar.pdf)


[Link](http://data.unaids.org/Publications/IRC-pub07/jc1269-policybrief-msm_en.pdf)


[Link](http://www.aidsalliance.org/graphics/secretariat/publications/msm0803_between_men_Eng.pdf)
56. AIDS and men who have sex with men. (2000) UNAIDS. English. Type of document: Evidence, policy and advocacy. Target audience: Policy makers and programme managers. Implementation focus: National. The document sets out a range of effective responses to problems that hinder national AIDS programmes that target MSM. Main challenges to such programmes, such as denial and difficulties reaching MSM, are outlined. 
LINK http://whqlibdoc.who.int/unaids/2000/a62375_eng.pdf

57. European guideline on proctitis. (2007) WHO and IUSTI. English. Type of document: Normative guideline. Target audience: Programme managers and policy makers. Implementation focus: Regional, national. These treatment guidelines provide recommendations on management men and women at risk of sexually transmissible anorectal or intestinal infections through a variety of sexual practices, including receptive anal intercourse and oral-anal sexual contact. 

58. Preventing HIV/AIDS in young people: a systematic review of the evidence from developing countries. (2006) UNAIDS Inter-agency Task Team on Young People., D. A. Ross, B. Dick, J. Ferguson and WHO. English. Type of document: Evidence, policy and advocacy. Target audience: Policy makers, programme managers. Implementation focus: National. The findings of a systematic review of the effectiveness of interventions for preventing HIV in young people are presented here. This includes interventions delivered through schools, health services, mass media, communities, and to young people who are most vulnerable to HIV infection. 
LINK http://whqlibdoc.who.int/trs/WHO_TRS_938_eng.pdf

59. Global consultation on the health services response to the prevention and care of HIV/AIDS among young people. (2003) UNAIDS, WHO and UNFPA. English. The report reviews the evidence for effectiveness for a number of interventions delivered through a range of different service providers, including information and counselling; use and distribution of condoms for sexually active young people; STI treatment and care; harm reduction and measures to decrease transmission through IDU and access to HIV testing, care and support. 

60. Adolescent Friendly Health Services: an Agenda for Change. (2003) WHO. English. This document is intended for policy makers and programme managers in both developed and developing countries, as well as decision makers in international organizations supporting public health initiatives in developing countries. It makes a compelling case for concerted action to improve the quality - and especially the friendliness - of health services to adolescents. It highlights the critical role that adolescents themselves can play, in conjunction with committed adults, to contribute to their own health and well being. 
LINK http://www.who.int/child_adolescent_health/en/

61. Consensus statement: delivering antiretroviral drugs in emergencies: neglected but feasible. (2006) WHO. English. Type of document: Evidence, policy and advocacy. Target audience: Policy-makers, programme managers, programme planners. Implementation focus: Global. Policy statement by WHO stating that the delivery of ARVs in emergency settings should be included in national strategic plans through emergency preparedness. This delivery should be resourced and implemented within a common framework that includes all partners, national governments and regional authorities, UN agencies, non-governmental organizations (NGOs), and donors. 
LINK http://www.who.int/hac/techguidance/pht/HIV_AIDS_101106_arvemergencies.pdf

62. Guidelines for HIV/AIDS interventions in emergency settings. (2001) IASC. English. Type of document: Normative guidelines. Target audience: Programme managers and planners, policy makers. Implementation focus: Global, regional, national. These Guidelines for HIV/AIDS interventions in emergency settings are designed to help individuals and organizations in their efforts to address the special needs of HIV-infected and HIV-affected people living in emergency situations. The Guidelines are based on the experiences of organizations of the UN system and their NGO partners, and reflect the shared vision that success can be achieved when resources are pooled and when all concerned work together. 

63. Antiretroviral medication policy for refugees. (2007) UNHCR. English. Type of document: Evidence, policy and advocacy. Implementation focus: Global, national,


LINK http://www.who.int/hiv/idu/OMS_E44comprehensive_WEB.pdf


LINK http://www.euro.who.int/document/e85877.pdf

67. Joint WHO/ILO guidelines on post-exposure prophylaxis (PEP) to prevent HIV infection. (2007) WHO and ILO. English. Type of document: Normative guidelines. Target audience: Nationally for adaptation. Implementation focus: Global, national. These guidelines focus on occupational exposure and exposure through sexual assault, identifying exposure situations for which PEP may be appropriate. Evidence is summarized and WHO recommendations provided. Based on an expert meeting held in 2005.


68. Policy and programming guide for HIV/AIDS prevention and care among injecting drug users. (2005) WHO. English. Type of document: Evidence, policy and advocacy. Target audience: Policy makers, programme managers. Implementation focus: Global. The guide summarises the principles from policies and programmes that have worked well in responding to HIV/AIDS epidemics among IDUs. It aims to assist programme managers to apply these principles, while taking local circumstances into account.


70. HIV prevention, treatment and care for injecting drug users and prisoners. WHO. English. Target audience: Programme managers, policy makers, NGOs, health care workers.


LINK http://www.who.int/substance_abuse/publications/treatment_idus_hiv_aids.pdf


LINK http://www.euro.who.int/document/9241546352R.pdf


76. Treatment and care for HIV-positive injecting drug users. (2008) WHO-SEARO, FHI, USAID and ASEAN secretariat. English. Type of document: Capacity building. Target audience: Medical doctors working in HIV clinics at tertiary and secondary level. Implementation focus: Facility. The course is designed to follow the WHO EURO protocol on HIV treatment and care (section on injecting drug users) and predominantly targets medical doctors already providing HIV care and treatment services including ART. The approach is focusing on knowledge building.

LINK http://www.searo.who.int/en/Section10/Section18/Section356_14247.htm


LINK http://www.womenchildrenhiv.org/wchiv?page=vc-10-00#S3.4X

LINK http://www.womenchildrenhiv.org/wchiv?page=vc-10-00-fr

82. Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants in resource-limited settings: towards universal access: recommendations for a public health approach. (2006) WHO. English, French. Type of document: Normative guidelines. Operational guidelines. Target audience: MoH, programme managers, health care workers. Implementation focus: Global, National. These revised guidelines provide recommendations for the use of antiretroviral drugs in pregnant women for their own health and for preventing HIV infection in infants and young children, and a summary of the scientific rationale for the recommendations. It aims to assist national ministries of health in the provision of ART for pregnant women with indications for treatment, and in the selection of ARV prophylaxis regimens to be included in programmes to prevent MTCT, taking into account the needs and constraints on health systems in their setting.

LINK http://whqlibdoc.who.int/publications/2006/9789241594660_eng.pdf

LINK http://www.who.int/entity/hiv/mtct/guidelines/Antiretroviraux%20FR.pdf

83. IMAI-IMPAC Integrated PMTCT Training Course. (2007-2008) WHO. English. Type of document: Operational guidelines: capacity building. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility. The course is designed to follow after IMAI chronic HIV care/ART training and predominately targets nurses and midwives already providing maternal services. Integration of HIV interventions within MCH services including ART and AZT prophylaxis from 28 weeks, is given particular attention in the three participant training modules (antenatal care, labour and delivery, and post-partum-newborn care). Also included are wallcharts, WHO/CDC flipcharts, clinical practice, skill stations using expert patient trainers. Skills acquired would be further complemented by training in infant feeding counselling and support.

LINK http://www.who.int/hiv/pub/mtct/en

LINK http://www.who.int/hiv/capacity/IMAIsharepoint/en

LINK http://www.who.int/reproductive-health/publications/pcpnc

84. Reproductive Choice and Family Planning for People Living with HIV Training Course. (2006) WHO. English. Type of document: Operational guidelines: capacity building. Target audience: Health care workers: primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility. The tool is designed to fit within IMAI compatibilized short courses but can also be used independently. In a two-day course, the training focuses on safer sex, contraceptive methods, reproductive choices including considering pregnancy and unwanted pregnancy specifically for HIV-infected women, men and couples. A flipchart, participants reference manual, facilitator guide and country adaptation guide are also available.

LINK http://www.who.int/hiv/capacity/IMAIsharepoint/en

85. Strengthening linkages between family planning and HIV: reproductive choices and family planning for people living with HIV. counselling tool. (2007) WHO. English. Type of document: Evidence, policy and advocacy. Target audience: Policy makers. Implementation focus: Global. This technical brief highlights programme strategies to protect reproductive and sexual rights of people living with HIV and to help inform their reproductive choices. The role of family planning in prevention of HIV in children and dual protection are highlighted, together with operational considerations for strengthening linkages between HIV and family planning.

LINK http://www.who.int/reproductive-health/hiv_hiv_tecbrief_fp.pdf


87. Antiretroviral therapy of HIV infection in infants and children: towards universal access: recommendations for a public health approach. (2007) WHO. English. Type of document: Normative guidelines. Target audience: Programme managers and policy makers. Implementation focus: Global, National. These treatment guidelines serve as a framework for selecting first-line and second-line ARV regimens as components of expanded national responses for the care of HIV-infected infants and children. Recommendations are provided on: diagnosing HIV infection in infants and children; when to start ART, including situations where severe HIV disease in children less than 18 months of age has been presumptively diagnosed; clinical and laboratory monitoring of ART; substitution of ARVs for toxicities. It includes a section on ART in adolescents.


92. IMCI Chart booklet for High HIV Settings (2006) WHO. English. Type of document: Operational guideline. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility. The modified IMCI chart booklet for high HIV settings addresses common childhood illnesses (including pneumonia, malaria, diarrhoea and severe malnutrition) as well as identification and management of HIV-related conditions. It has guidelines on HIV-exposed and infected infants and children, including infant feeding, immunization, co-trimoxazole prophylaxis and nutritional support. General information is provided on antiretroviral drugs for children, adherence and side effects of these drugs. The IMCI chart booklet sits alongside the IMAI guideline modules for adults and adolescents.

LINK http://www.who.int/child_adolescent_health/publications/en

93. HIV and infant feeding: framework for priority action. (2003) WHO. Chinese, English, French, Portuguese, Spanish. Type of document: Evidence, policy and advocacy. Target audience: Policy makers, programme managers, advisory bodies, public health authorities. The framework recommends key priority actions for governments related to infant and young child feeding, that cover the special circumstances associated with HIV/AIDS. The aim is to create and sustain an environment that encourages appropriate feeding practices for all infants, while scaling-up interventions to reduce HIV transmission. The Framework proposes a number of priority actions related to policies, research and support Available at:

LINK http://whqlibdoc.who.int/publications/chinese/9290612789_chi.pdf
LINK http://whqlibdoc.who.int/publications/portuguese/9248590772_por.pdf


96. Injection safety toolbox. WHO. English.
   LINK  http://www.who.int/injection_safety/toolbox/en/

   Implementation focus: National, Regional, District, Facility

98. Operations manual for the delivery of HIV prevention, care and treatment at primary Health centres in high-prevalence resource-constrained settings. (2008) WHO. English. Type of document: Operational guideline. Target audience: primary health workers at health centre and relevant to the district management teams and partners. The manual is written for a health centre team as a job aid, in particular for the in-charge nurse or other manager. Chapters cover managing supplies, providing laboratory services and managing patient records, registers and reports. Practical guidance is provided for planning and integrating HIV services, linkages within district health network including the community, human resource management, leadership and quality management including simplified quality improvement methods linked to patient monitoring system. The draft was released in June 2008, to be finalized by the end of 2008
   LINK  http://www.who.int/hiv/capacity/IMAIsharepoint/en


   Type of document: Operational guidelines. Target audience: Policy makers, programme managers. Implementation focus: National. Provides guidance and a checklists to help establish safe, well-organized blood transfusion services, with quality systems in all areas.

   LINK  http://www.who.int/bloodsafety/global_database/en/


   Type of document: Normative guidance. Target audience: Policy makers. Implementation focus: Global, national

105. Nutrition Counselling, Care and Support for HIV-infected Women. WHO. English.
   Implementation focus: Care including nutrition

   Type of document: Evidence, policy and advocacy. Target audience: Policy makers, country. Implementation focus: Global, National. This paper reports a 2005 WHO consultation on nutrition and HIV/AIDS for eastern & southern Africa. A review of the evidence and recommendations are given on the integration of nutrition into the essential package of care, treatment and support for people living with HIV/AIDS.
113. Flipchart for Patient Education: HIV Prevention, Treatment and Care. (2006) WHO. English. Type of document: Operational guidelines: training tool. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital and community health workers. Implementation focus: Facility and community. This flipchart is a communication aid to be used at the health facility as well as by community workers when educating and training patients, family and caregivers. It provides essential information, and offers tips on how to communicate with patients. Simple and effective messages are conveyed to patients and caregivers using illustrations. In general the flipchart is used with HIV-positive patients and their families and caregivers, but some sections such as prevention can be used for HIV-negative patients. It is currently being updated to include more on prevention with positives and alcohol interventions.

114. HIV/AIDS treatment and care: clinical protocols for the WHO European Region. (2007) WHO-EURO, I. Eramova, S. Matic and M. Munz. English, Russian. Type of document: Normative guidelines. Target audience: Programme managers, policy makers, clinicians. Implementation focus: Regional, Facility. This contains 13 treatment and care protocols which have been specifically developed for the entire WHO European Region. The protocols represent a comprehensive and evidence-based tool that offers clear and specific guidance on diagnosing and managing a wide range of HIV/AIDS health related issues for adults, adolescents and children, including antiretroviral treatment, the management of opportunistic infections, tuberculosis, hepatitis, injecting drug use, sexual and reproductive health, prevention of mother-to-child HIV transmission, immunizations, palliative care and post-exposure prophylaxis. Check for future updates at www.euro.who.int/aids


116. IMAI Acute Care. (2005) WHO. English, French. Type of document: Operational guidelines. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility. This simplified, operationalized guideline is based on WHO normative guidelines and serves as both a learning and job aid for acute care integrated with prevention for adolescents and adult. The same format as the IMCI chart booklet is used. It presents a syndromic approach (with limited essential lab) to the most common adult illnesses including most opportunistic infections. Clear instructions are provided about which patients can be managed at the first-level facility and which require referral to the district hospital or assessment by a more senior clinician. Acute care also includes provider-initiated HIV testing and counselling and casefinding for TB. It will updated in 2008. Several training courses are available to teach its content, e.g. OI management and STI/genitourinary problems

117. IMAI OI training course (based on IMAI Acute Care guideline module). (2006) WHO. English. Type of document: Operational guidelines: capacity building. Target audience: Health care workers: primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility. The two-day skills-based training course is designed for inclusion in scale up training for clinical teams for HIV care/ART including outpatient and inpatient clinical sessions. It presents a syndromic approach in an Acute Care guideline modules, and the Palliative Care guideline modules addressing palliative/symptom management; when to suspect HIV infection and TB; and management of key OIs at primary care level. The course includes a course director/facilitator guide; participant training manual; clinical instructor guides; wallcharts; and recording forms.

119. Complementary course on the Provision of Psychosocial Support to HIV Infected and Affected Children and their Families. (2007) WHO. English, French. Type of document: Operational guidelines: capacity building. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital and lay counsellors. Implementation focus: Facility. HIV-infected children and children in HIV-affected families require additional support to deal with dying and bereavement, disclosure as well as adherence issues. This training course has been developed to build skills in counselling and to assist caregivers in dealing with HIV-affected children. These training tools include the complete set of course materials, a facilitator guide and participants’ manual and use Expert Patient Trainers during training. It is one component of the IMAI package of training tools.


LINK http://www.who.int/hiv/capacity/IMAIsharepoint/en


LINK http://adr.iadrjournals.org/cgi/reprint/19/1/17.pdf

121. Pocket book of hospital care for children: guidelines for the management of common illnesses with limited resources. (2005) WHO. English, Portuguese, Russian. Type of document: Operational guidelines. Target audience: Health care workers: primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility, District hospital Guidelines for district clinicians on management children at district hospital level (including all children referred from IMCI first-level algorithm). Presents emergency triage assessment and treatment then syndromic approach with limited laboratory, based on differential diagnosis tables and empirical treatment recommendations. Includes HIV care, OI management and ART; these sections are currently being updated as part of IMAI-IMCI second level learning programme and will appear as an addendum.


LINK http://whqlibdoc.who.int/publications/2005/9789248546709_por.pdf


LINK http://www.who.int/hiv/pub/me/naparv.pdf

LINK French: http://www.who.int/hiv/strategic/me/naparvfr.pdf

LINK Spanish: http://www.who.int/hiv/pub/me/napart_sp.pdf


125. HCV & HBV chapters prevention, care and treatment. WHO-EURO. English. Available at: Treatment and Care:

LINK http://www.euro.who.int/document/SHA/e90840_chapter_5.pdf


126. HCV and HBV prevention. WHO-EURO. English.


127. WHO-EURO Hepatitis website. WHO-EURO. English.

LINK http://www.euro.who.int/ards/hepatitis/20070621_1


132. Psychiatric care in ARV therapy (for second level care): Module 3 WHO mental health and HIV/AIDS series. (2005) WHO. English. Type of document: Operational guidelines. Target audience: District clinicians, medical and clinical officers. Implementation focus: National, district. HIV and mental disorders frequently co-exist and one disease may affect presentation and disease progression of the other as well as response and adherence to treatment. WHO has released a series of five modules aimed at different levels of the district clinical team dealing with anti-retroviral programmes, with modules on organization and systems support; basic counselling; psychosocial support groups and psychotherapeutic interventions. This module on psychiatric care guides the clinician through screening for mental disorder, classification of the mental disorder and guidelines for both therapeutic and psychological management of mental disorders in HIV-infected individuals. This module is currently being updated and will be included in the IMAI Manual for District Clinicians in Low-resource, High HIV Prevalence Settings, currently in development [LINK] http://whqlbdoc.who.int/publications/2005/9241593083_eng.pdf

133. Psychosocial Support Groups in Anti-retroviral (ARV) Therapy: Module 4 in the WHO Mental Health and HIV/AIDS series. (2005) WHO. English. Type of document: Operational guidelines. Target audience: Counsellors and nurses. HIV and mental disorders frequently co-exist and good counselling on adherence is essential for treatment. WHO has released a series of five modules aimed at different levels of the district clinical team dealing with anti-retroviral programmes, with modules on organization and systems support; basic counselling; psychiatric care; psychotherapeutic interventions and this module on psychosocial support groups. [LINK] http://www.who.int/mental_health/resources/mh_hiv_aids/en/print.html


136. IMAI General Principles of Good Chronic Care. (2004) WHO. English, French. Type of document: Operational guidelines. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility. This simplified guideline is based on WHO normative guidelines and is both a learning and job aid. It synthesizes the general principles of good chronic care, which form the basis for the IMAI effective approach to chronic care for HIV as well as for other chronic diseases. This involves working as a clinical team, forming a partnership with the patient and supporting self-management, inclusion of “expert patients” on the clinical team, linkages with the community and effective adherence support. The document supports a transition from acute only health services to effective acute and chronic care. [LINK] http://www.who.int/hiv/capacity/modules/en/index.html

138. IMAI Palliative Care training course. (2003) WHO. English, French. Type of document: Operational guidelines: capacity building. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility. This three-day training equips health workers with knowledge and skills in symptom management, home based care and end of life care. Training includes how to educate patients and caregivers in home care so that the health worker, caregiver and patient can work as members of an integrated health team providing care both at the health centre and at home. Although applicable to all diseases, special considerations in HIV/AIDS care are emphasized as well as using palliative care to encourage disclosure and prevention. Skills-based training with short explanations, cases studies, videos and demonstrations and card sort exercises are included. The course includes a facilitator’s guide, participant training manual and exercise book.

139. Caregiver Booklet Symptom Management and End of Life Care. (2006) WHO. English. Type of document: Guideline. Target audience: Home-based caregivers of PLHIV, PLHIV, primary care health workers. Implementation focus: Facility and community. The Caregiver Booklet is designed for use by health workers to educate family members and other caregivers and to then given to them to use as a reference at home in the home-based care of serious long term illness and those who may be close to the end of life. The book is then given to the caregiver to use as a reference at home. The booklet covers prevention of problems, management of common symptoms, when to seek health care as well as special advice on psychosocial support and supports the extension of care from the health facility to the home. Although focused on PLHIV, the booklet can also be used for HIV negative patients with other chronic health problems.

140. Restoring hope: decent care in the midst of HIV/AIDS. (2008) WHO, T. Karpf and et al. English. Type of document: Community approach to treatment, care and prevention services. Target audience: Programme managers and planners, policy makers, implementers; NGOs; health care workers; public and private employers; donor representatives, technical working groups, trainers. Implementation focus: Global, regional local and within community. “Decent care”, a concept adapted from the world of work, builds on the philosophical and spiritual traditions of dignity, respect, agency and integrity. The authors represent a wide variety of faiths and cultural traditions from around the world. Each brings his or her unique background to bear upon the experience of HIV. They go beyond mere speculation about decency and enter instead upon personal journeys of the heart. For those charged with developing health systems and providing health services, this volume is a call to re-examine assumptions – about what care is and how it should be practised. Rather than issuing yet another demand for radical reform, the writers here make the case for thinking clearly and critically. Most importantly, they urge people living with HIV to become full partners in designing and implementing their own care – and for caregivers to accept them in this role. That is the critical challenge of decent care.


142. Three I’s Meeting: Intensified Case Finding (ICF), Isoniazid Preventive Therapy (IPT) and TB Infection Control (IC) for people living with HIV. (2008) WHO. Eng. Type of document: Infrastructure and logistic.

143. Isoniazid preventive therapy (IPT) for people living with HIV WHO. English.


LINK Arabic: http://www.stoptb.org/globalplan/assets/documents/GPII_Arabic.pdf


149. Tuberculosis care with TB-HIV co-management: Integrated Management of Adolescent and Adult Illness (IMAI). (2007) WHO. English. Type of document: Operational guidelines. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital. This simplified, operationalized guideline is based on WHO normative guidelines and serves as both a learning and job aid. This new guideline module is fully integrated with other IMAI guideline modules and addresses diagnosis and treatment of TB disease in both HIV-positive and HIV-negative patients for first-level facility health workers. Guidelines for diagnosis of smear negative patients according to the latest normative guideline are included. Clear guidelines are given for HIV testing in TB patients, as well as specific recommendations for co-management of TB-HIV including ART.

LINK http://www.who.int/diagnostics_laboratory/LabMeetingDec_2004.PDF

151. Essential lists of laboratory equipment and supplies for HIV testing. WHO-AFRO. English.
LINK http://www.afro.who.int/aids/laboratory_services/resources/list-laboratory.pdf


LINK http://www.who.int/diagnostics_laboratory/CD4_Technical_Advice_ENG.pdf

LINK http://www.who.int/hiv/amds/WHOLabRecommendationBylevelFinal.pdf

LINK http://www.who.int/healthsystems/service_delivery_techbrief1.pdf

156. The IMAI/IMCI/IMPAC family of training, programming and management tools. supports task shifting and health care worker education. WHO. English. Type of document: Operational guideline: capacity building. Target audience: Programme managers, programme planners, policy-makers.

LINK http://www.who.int/hiv/capacity/en/


LINK http://www.who.int/reproductive-health/hiv/docs.html

159. District health facilities: guidelines for development and operations. (1998) WHO-WPRO. English. Type of document: Evidence, policy and advocacy. Target audience: Policy-makers, programme managers and planners. Implementation focus: District. This tool provides generic guidance on operations and management, as well as detailed guidance on the design of health facilities and their operation. It is a very useful resource for designers and planners who need to cost and oversee infrastructure development.

LINK http://www.wpro.who.int/NR/rdonlyres/C0DAA210-7425-4382-A171-2C0F6F77153F/0/DistHealth.pdf

160. Management of resources and support systems: Equipment, vehicles and building. (2008) WHO. English. Type of document: Operational guidelines. Target audience: Programme managers, programme planners, laboratory managers. Implementation focus: Global, regional, national, district. This is the WHO web page that provides access to a wide range of support tools to manage equipment and infrastructure in the health sector.


161. Preparing for Treatment Programme. (2004) WHO. English. Type of document: Operational guidelines. Target audience: Programme managers, programme planners, PLHIV, implementers, NGOs, public and private employers, donor representatives, technical working groups, trainers. Implementation focus: Global, regional, national, district. This Programme sets out WHO's policy position on GIPA and treatment access. WHO recognizes that engaging people living with HIV or AIDS is essential in order to achieve goals of WHO and UNAIDS “3 by 5” Initiative. These groups need to know facts about HIV and AIDS and how to treat and manage side effects (Treatment Literacy) for themselves and for the support of others in their community. They need to be able to advocate for treatment and participate in public policy decisions related to HIV and AIDS (advocacy), and develop a social movement that engages with and complements the public health system (community mobilization).

LINK http://www.who.int/3by5/partners/ptp/en/

162. Missing the target #5: Improving AIDS Drug Access and Advancing Health Care for All. (2007) I. T. P. C. (ITPC). English. Type of document: Evidence, policy and advocacy. Target audience: Programme managers and planners, policy makers, NGOs, donor representatives. Implementation focus: Global, national health centre, outpatient care, community level and all health facilities. The International Treatment Preparedness Coalition is a community group that supports scaling up HIV treatment and other HIV services and advocates for Universal Access. The link below leads to its website which contains documents and publications that help AIDS activists to become aware of global developments and the importance of PLHIV being able to gain access to treatment.

LINK http://www.aidstreatmentaccess.org
Type of document: Evidence, policy and advocacy, capacity building. Target audience: Policy-makers, programme managers, programme planners. Implementation focus: Global. This WHO technical brief explains how to deal with key challenges in order to overcome weaknesses in health systems management.

164. Managers taking Action based on Knowledge and Effective use of resources to achieve Results (mAKER). (2008) WHO. English. Type of document: Operational guidelines. Target audience: Programme managers, programme planners, laboratory managers. This is the WHO web page that provides access to a wide range of support tools to improve the management of health sector programmes. Topics covered include: working with staff; budgeting and monitoring expenditure; collecting and using information; obtaining and managing drugs and equipment; maintaining equipment, vehicles and buildings; interacting with the community and other partners.
LINK http://www.who.int/management/en/

Type of document: Capacity building. Target audience: Programme managers, programme planners, policy-makers. Implementation focus: Global, regional, national, district. This fact sheet summarizes the approaches WHO recommends for building leadership and management capacity at the operational level. It requires a balanced approach covering four interrelated dimensions: number and distribution of managers; managers’ competencies; management support systems; and working environment.

166. Standards for quality HIV care: a tool for quality assessment, improvement, and accreditation. (2004) WHO. English, French. Type of document: Operational guidelines. Target audience: Programme managers, policy makers. Implementation focus: National, District, Facility. WHO’s operational tool provides guidance on developing a framework of accreditation as a guiding principle for improving the quality of HIV care at all levels of health care facilities of the country, with a special focus on antiretroviral therapy. It also offers guidance for managers and quality improvement professionals within HIV health service facilities to improve their health services related to antiretroviral therapy.
LINK http://www.who.int/entity/hiv/pub/prev_care/standardsquality_fr.pdf

Type of document: Guideline.

Type of document: Evidence, policy and advocacy. Target audience: Laboratory managers, laboratory personnel, programme planners. Implementation focus: Regional. This tool covers how to use accreditation to improve the quality of health-service delivery. It provides guidance on how to undertake the accreditation of laboratory services.
LINK http://www.searo.who.int/LinkFiles/Publications_SEA-HLM-394.pdf

Type of document: Evidence, policy and advocacy. Target audience: Policy-makers, programme managers, programme planners. Implementation focus: Global. WHO’s recommendations on task-shifting as part of a solution to the global health workforce crisis within the response to HIV/AIDS.
LINK http://www.who.int/healthsystems/TTR-TaskShifting.pdf


Type of document: Programme planning and management. Target audience: Programme managers, policy-makers.
Implementation focus: National. This tool helps estimate resource needs for health sector scale-up and strategic planning.
The booklet provides assistance and guidance to planners and programme managers at country level in costing selected HIV/AIDS interventions. It provides a scheme for Rapid Costing Assessments (RCAs) including a spreadsheet (INPUT) for generating local data on unit costs.

Type of document: Evidence, policy and advocacy. Target audience: Programme managers, policy-makers. Implementation focus: National. This technical and policy brief covers developing a health financing system for achieving universal health coverage. The role of prepayment and reduced reliance on out-of-pocket payments and user fees are discussed.
LINK http://www.who.int/health_financing/documents/pb_e_05_1-universal_coverage.pdf

175. Health Financing Policy WHO. English.
Type of document: Evidence, policy and advocacy; programme planning and management. Target audience: Programme managers, policy makers. Implementation focus: National
LINK http://www.who.int/health_financing/en/

This evidence and policy paper covers the practise of charging user fees at the point of service delivery for HIV/AIDS treatment and care. It argues that free HIV treatment and care at the point of service delivery is necessary for universal access.
LINK http://www.who.int/hiv/pub/advocacy/promotingfreeaccess.pdf

Type of document: Operational guidelines. Target audience: Programme managers and planners. Implementation focus: Global, regional, national, district. Country Coordinating Mechanisms are central to the Global Fund’s commitment to local ownership and participatory decision-making. These country-level partnerships develop and submit grant proposals to the Global Fund based on priority needs at the national level. After grant approval, they oversee progress during implementation. Country Coordinating Mechanisms include representatives from both the public and private sectors, including governments, multilateral or bilateral agencies, non-governmental organizations, academic institutions, private businesses, and people living with the diseases. The Fund’s website offers guidance on its operation.
LINK http://www.theglobalfund.org/en/apply/mechanisms/

LINK http://www.who.int/hiv/pub/advocacy/GHSS_E.pdf

Type of document: Advocacy, normative guidelines. Target audience: Policy-makers, programme managers and programme planners. Implementation focus: Global, regional, national. Provides technical guidance on putting into operation a rights-based approach to HIV/AIDS.
LINK http://whqlibdoc.who.int/unaids/2006/9241541689_eng.pdf


182. The Greater Involvement of People Living with HIV (GIPA) Policy Brief (2007) UNAIDS. English. Type of document: Advocacy, normative guidelines, programme planning and management; monitoring, evaluation and quality assurance. Target audience: Policy-makers, programme managers and planners. Implementation focus: Global, regional, national. UNAIDS urges everyone involved in the AIDS response to ensure that people living with HIV have the scope and practical support to achieve a greater and more meaningful involvement in the response to the AIDS epidemic. The GIPA Principle aims to realize the rights and responsibilities of people living with HIV, including their right to self-determination and participation in decision-making processes that affect their lives. This Principle was formalized at the 1994 Paris AIDS Summit when 42 countries agreed to “support a greater involvement of people living with HIV at all levels, and to stimulate the creation of supportive political, legal and social environments.

183. Expert Patient-Trainer (EPT) Curriculum to prepare PLHIVs as trainers for the WHO Basic ART Clinical Training Course and the ART aid Training Course Training Manual. (2008-2006) WHO. English. Type of document: Operational guidelines: capacity building. Target audience: PLHIV and trainers. Implementation focus: National, District, Facility. The manual capacitates PLHIV on ART who are experts in their own illness to help train health workers. These PLHIV are trained in the general principles of good chronic care, the 5 A’s, good communication skills, HIV clinical staging and how to portray specific cases (similar to their own life experiences). The EPT’s conduct role-plays as part of the training of clinical officers, nurses and ART aids. Training also covers how to give constructive feedback and background information about good chronic care and patient education. The expert patient-trainers add much needed reality to the instruction of HIV care and ART in an efficient manner, thereby contributing to increased confidence of trainees and rapid scale-up. Facilitator guides, handouts and case-specific checklists are included to use when EPTs contribute to IMAI training courses.
 LINK: http://www.who.int/hiv/capacity/IMAIsharepoint/en

184. WHO's stakeholder analysis tool WHO. English. Type of document: Evidence, policy and advocacy. Target audience: Trainers. Implementation focus: National, district. This is a set of Powerpoint slide on the basics of stakeholder analysis. It is designed to elicit rapid action in emergency situations.
 LINK: http://www.who.int/hac/techguidance/training/stakeholder%20analysis%20ppt.pdf

185. Scaling up effective partnerships: A guide to working with faith-based organisations in the response to HIV and AIDS. (2006) Church World Service, Ecumenical Advocacy Alliance, UNAIDS, Norwegian Church Aid and World Conference of Religions for Peace. English. Type of document: Operational guidelines. Target audience: Programme managers and planners, policy makers. Implementation focus: Global, regional, national. This is a toolkit on how to improve collaboration between government and faith-based organizations. It provides background information and case studies, counteracts myths, and gives practical guidance to people who wish to collaborate with faith-based organizations on joint projects related to HIV and AIDS.
 LINK: http://www.e-alliance.ch/media/media-6695.pdf

186. Partnership work: the health service–community interface for the prevention, care and treatment of HIV/AIDS. (2002) WHO. English. Type of document: Evidence, policy and advocacy. Target audience: Programme managers, programme planners, policy-makers, PLHIV, lay counsellors, nurses, clinical officers, Implementers, NGOs, health workers, public and private employers, donor representatives. Implementation focus: Global, national, district. This WHO document identifies three strategies to strengthen the interface between health services and communities in HIV/AIDS work: strengthening the capacity of the health-care system to interact with communities; strengthening the capacity of communities to interact with health services; and strengthening the processes and methodologies for change. Within these categories several mechanisms were identified that could enhance the interface between health services and communities.


Type of document: Normative guideline. Target audience: Programme managers, researchers. Implementation focus: National, (country programme level)
These guidelines assist surveillance officers and programme managers involved in HIV/AIDS surveillance activities in planning and conducting population-based HIV prevalence surveys. The document also provides guidelines on how to analyse and reconcile the results obtained from national population-based surveys with those obtained from sentinel surveillance to produce an estimate of HIV prevalence in a country.

A pre-surveillance assessment is needed for initial and subsequent rounds of HIV surveillance to ensure that data needs and data gaps are identified and addressed. This publication provides an overview of pre-surveillance assessment to address the questions needed to plan for surveillance, while taking into account the local epidemiological situation. The publication focuses on periodic HIV serosurveys, sexually transmitted infection (STI) surveys and behavioural surveys.


195. Guidelines for Effective Use of Data from HIV Surveillance Systems. (2004) WHO, UNAIDS, Family Health International and E. Commission. English, Spanish. Type of document: Normative guidelines. Target audience: Programme managers, researchers. Implementation focus: National at country programme level. This publication addresses the question of use of data collected through second-generation HIV surveillance systems. It discusses three areas of data use - programme planning, programme monitoring, and evaluation and advocacy, with examples of how data can be used effectively in these contexts.

Type of document: Normative guidelines. Target audience: Programme managers, researchers. Implementation focus: National at country programme level
These guidelines are written for programme managers and epidemiologists responsible for monitoring trends in HIV prevalence in resource-constrained countries. They focus primarily on conducting serosurveys among pregnant women attending antenatal clinics. They also describe how to use and/or collect serosurveillance data from other groups such as the military, occupational groups, and blood donors, which can help characterize the epidemic and plan the response.

Type of document: Normative guidelines. Target audience: Programme managers, researchers. Implementation focus: National (country programme level). These guidelines suggest methods for selecting, evaluating, and implementing HIV testing technologies and strategies based on a country’s laboratory infrastructure and surveillance needs. The guidelines provide recommendations for specimen selection, collection, storage, and testing and for the selection and evaluation of appropriate HIV testing strategies and technologies to meet surveillance objectives, as well as issues of quality assurance.

Type of document: Monitoring, evaluation and quality assurance. Target audience: Programme managers, programme planners, policy makers, researchers, implementers. Implementation focus: Global, National
This document provides guidance for the monitoring and evaluation of programmes for the prevention of HIV infection in infants and young children. It includes recommended indicators to monitor national programmes for the prevention of mother-to-child transmission of HIV.

Type of document: Strategic information. Target audience: Programme managers, programme planners, policy makers, researchers, implementers. Implementation focus: Global, national. This document provides guidance for the monitoring and evaluation of national policies and programmes for HIV prevention among young people. It presents programmatic indicators, as well as measures of the determinants (risk and protective factors) which influence the vulnerability and risk behaviours of young people.
LINK http://www.who.int/hiv/pub/epidemiology/napyoungpeople.pdf
LINK French: http://www.who.int/hiv/pub/me/napyoungpeople_fr.pdf
LINK Spanish: http://www.who.int/hiv/pub/me/napyoungpeople_sp.pdf
LINK Russian: http://www.who.int/hiv/pub/me/napyoungpeople_ru.pdf

Type of document: Monitoring, evaluation and quality assurance. Target audience: Programme managers, programme planners, policy makers, researchers, implementers. Implementation focus: Global, national
This monitoring and evaluation guide has been developed to assist in the management of collaborative TB/HIV activities. It is intended to facilitate the collection of standardized data and help in the interpretation and dissemination of these data for programme improvement.

Type of document: Monitoring, evaluation and quality assurance. Target audience: Programme managers, programme planners, policy makers, researchers, implementers. Implementation focus: Global, national
This document provides a harmonized set of indicators to measure the effectiveness and the performance of the national procurement and supply management system. It provides a practical tool for staff in charge of planning, management, implementation, monitoring and reporting of national procurement and supply management systems, as well as for donors and institutions providing technical support.

Type of document: Monitoring, evaluation and quality assurance. Target audience: Programme managers, programme planners, policy makers, researchers, implementers. Implementation focus: Global
This document provides a global framework of indicators for global monitoring and reporting on the health sector’s response to HIV/AIDS. It brings together a broad range of recommended national-level indicators, which are aligned with other related international monitoring and reporting processes.


This document provides guidance for the development of an effective national HIV care and antiretroviral therapy patient monitoring system. It provides a standardized minimum set of data elements to be included in patient monitoring tools, provides considerations for HIV care and antiretroviral therapy information systems design, and introduces the practice of simple cohort analysis for HIV patients on antiretroviral therapy. The guidelines were published in 2006. Since then, the minimum data set and illustrative tools contained in the guide have been revised and updated following new guidelines, country experience, an expert consultation held in May 2007 and subsequent technical input. A draft booklet of these illustrative forms is also available and includes three interlinked patient monitoring systems for HIV care/ART, MCH/PMTCT and TB/HIV.

LINK http://www.who.int/3by5/capacity/ptmonguidelinesfinalv1.PDF


This document describes the value of, and approaches to operational research in the context of Global Fund supported programmes, including the process and practical examples.

LINK http://www.who.int/hiv/pub/epidemiology/SIR_operational_research_brochure.pdf

This document developed by WHO, Global Fund and other partners explains the definitions and scope of operational research, describes the steps that are needed to include operational research in Global Fund grant applications, and provides case studies of operational research activities from the field.


210. A guide to rapid assessment of human resources for health. (2004) WHO. English. Type of document: Normative guidelines. Target audience: Programme managers; Programme planners, Policy Makers, Researchers. This document provides a general framework to conduct a rapid assessment of human resources for health at country level. It has been developed in collaboration with partners, including ministries of health, health training institutions, professional associations and bilateral and international partners. The guide is designed to help users assess current constraints in human resources for health and address and challenges to scaling up health interventions.


211. Technical Guide to Rapid Assessment and Response (TG-RAR). (2002) WHO. English. Type of document: Normative guideline. The Technical Guide to Rapid Assessment and Response (TG-RAR) provides a detailed introduction into all aspects of planning and implementing rapid situation assessments. It is generic in nature and can be used for a variety of health issues. TG-RAR is best used in conjunction with “Adaptation Guides”, providing brief guidance on how to use the RAR approach with regard to a specific health issue. The “Adaptation Guides” are under development on “HIV/AIDS Prevention and Male-to-Male Sex”, and “HIV/AIDS Prevention among Especially Vulnerable Young People”. Currently, TG-RAR is available as an online version only.

LINK http://www.who.int/corestore/hiv/Core/index.html
LINK http://www.who.int/hiv/pub/prev_care/tgar/en/

213. Rapid Assessment and Response: Adaptation guide for work with especially vulnerable young people (EVYP- RAR). (2004) WHO. English. Type of document: Normative guideline. Target audience: Programme managers; Programme planners, Policy Makers, Researchers. Implementation focus: National (country programme level) This document describes how to undertake a rapid assessment of HIV-related issues among young people and to develop appropriate interventions and responses. The emphasis is on working with young people who may be especially vulnerable. The document provides specific information on vulnerable young groups, the types of questions that might be asked when conducting an initial assessment and issues that might arise in working with these populations.

214. Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (2007) WHO, UNODC and UNAIDS. English. Type of document: Monitoring, evaluation and quality assurance. Target audience: Programme managers, programme planners, policy makers. Implementation focus: National This document provides technical guidance to countries for setting national targets for scaling-up towards universal access to HIV prevention, treatment and care for injecting drug users (IDUs). It includes a framework and process to set national targets, a comprehensive package of core interventions for IDUs, a set of indicators and indicative targets (or “benchmarks”) to be used to set programmatic objectives and monitor and evaluate HIV interventions for IDUs, examples of data sources and examples of indicative targets.
LINK http://www.who.int/hiv/duu/TechnicalGuideTargetSettingApril08.pdf

215. Setting national targets for moving towards universal access: operational guidance. (2006) UNAIDS. English. Type of document: Monitoring, evaluation and quality assurance. Target audience: Programme managers, programme planners, policy makers. Implementation focus: National This document provides operational guidance to countries to set targets for scaling up towards universal access to prevention, treatment, care and support services.

216. Guidance on global scale-up of the prevention of mother-to-child transmission of HIV: Towards universal access for women, infants and young children and eliminating HIV and AIDS among children. (2007) IATT, WHO and UNICEF. English. Type of document: Normative guidelines. Target audience: Programme managers, researchers. Implementation focus: National (country programme level) This document provides a framework for concerted partnerships and guidance to countries on specific actions to take to accelerate the scale-up of PMTCT. It provides guidance to support the implementation of all four components of the United Nations comprehensive approach: primary prevention of HIV among women of childbearing age; preventing unintended pregnancies among women living with HIV; preventing HIV transmission from a woman living with HIV to her infant; and providing appropriate treatment, care and support to women living with HIV and their children and their families.

217. Guidelines on conducting a review of the health sector response to AIDS. (2008) WHO-SEARO. English. Type of document: Evidence, policy and advocacy; programme planning and management. Target audience: Programme managers, policy-makers. Implementation focus: National This guidance document sets out the processes and steps for conducting a review of the health sector AIDS response. The guidelines will help review teams to carry out the different components of a programme review. They can be used as a standalone instrument to evaluate or review the health sector in particular, or for broader multisectoral reviews.
LINK http://www.searo.who.int/LinkFiles/Publications_HealthSectorResponse-AIDS-2008.pdf

LINK http://www.who.int/healthsystems/GF_strategic_approach_%20OHS.pdf
Target audience: Programme managers. Implementation focus: National
The revised AIDS programme management modules take into account the current epidemiology of HIV and sexually transmitted infections (STIs), effective interventions, the lessons learned from programme responses in scaling up HIV and STI prevention, care and treatment interventions in the South-East Asia Region.
The purpose of these training course is to strengthen the management of national AIDS programmes by presenting a systematic process of developing and managing comprehensive national AIDS prevention and care programmes; and providing an opportunity to enhance the knowledge and practice skills needed to implement such a process.
LINK http://www.searo.who.int/en/Section10/Section18/Section356_13495.htm


This document provides an overview of the strategy, training tools and guidelines within IMAI and IMCI. This strategy includes supporting rapid scale-up of prevention, care and treatment services, task-shifting and rebuilding of the district network. 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. The IMAI IMCI training tools and guideline modules are flexible tools for national adaptation and implementation. The package provides access to a range of capacity-building materials and tools developed primarily for staff in first- and second-level (health centre and district) facilities.

222. HIV prevention, treatment, care and support. SAFAIDS, WHO and IFRC. English. Type of document: Training package for community volunteers: capacity building. Implementation focus: Regional, national, district.
Conclusion

This document called “Priority Interventions: HIV/AIDS prevention, treatment and care in the health sector” is a preliminary response to the request of G8 member states to WHO: “to develop and implement a package of HIV prevention, treatment and care, with the aim of coming as close as possible to universal access to treatment for all those who need it by 2010”.

It is the first WHO’s trial to compile all Health sector HIV/AIDS heath sector priority interventions, recommendations and tools in one document. The document presents the complete set of interventions necessary to build a comprehensive health sector response and tries to guide users in prioritizing them according to the epidemic settings and levels of the health system. Countries are expected to select within these interventions those that are adapted to their realities on the ground. A number of important reasons will be considered to make this choice including the epidemiological situation, the level of the system, the socio cultural context and the availability of human and financial resources in the country.

This document also responds to a long standing country need expressed by several National authorities on different occasions. WHO hopes that they will find it as a useful tool to scale up HIV/AIDS prevention, treatment and care towards Universal Access.

As mentioned in the introduction, this document is designed to be a living document, the current version will be available on CD-ROM. WHO is committed to collect the feedbacks from all users and develop an improved second version in hard copy and electronic version as soon as possible.
### Increasing Knowledge of HIV Sero-status

- **Client-initiated testing and counselling**
- **Provider-initiated testing and counselling**
- **Diagnosis of HIV in infants and young children**
- **Family and partner testing and counselling**
- **Laboratory recommendations for HIV diagnosis**

### Accelerating HIV Prevention

#### Prevention of sexual transmission of HIV
- Condom promotion and provision
- Detection and management of STI
- Safer sex and risk reduction counselling
- Male circumcision

#### Prevention of HIV infection through injecting drug use
- Harm reduction
- Targeted information, education and communication
- Needle and syringe programmes
- Drug dependence treatment

#### Special considerations targeting young people

#### Prevention of infection in infants and young children

#### Prevention of HIV (and TB) transmission in health care settings
- Infection control (including TB infection control)
- Blood safety
- Safe injections, use of standard precautions
- Occupational post-exposure prophylaxis (PEP)

### Accelerating Scale-Up of HIV Treatment and Care

#### Prevention and management of OIs and co-morbidities

#### Prevention
- Cotrimoxazole prophylaxis
- Vaccine-preventable diseases
- Nutritional care and support
- Water, sanitation, hygiene

#### Clinical care services
- Pneumonia
- Malaria
- Diarrhoea
- Malnutrition
- Mental health, psychosocial support
- Other common conditions
- Palliative care symptom management and end-of-life care

#### Prevention & treatment HIV-associated TB
- Intensified casefinding, IPT for TB
- TB-HIV co-management
- Antiretroviral therapy for adults, adolescents, children
- Care and treatment for health workers
- Strategic information: patient monitoring