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## **PRIORITY INTERVENTIONS**

**HIV/AIDS prevention, treatment  
and care in the health sector**

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## Glossary

3TC	Lamivudine	NNRTI	Non-nucleoside reverse transcriptase inhibitor
ABC	Abacavir	NRTI	Nucleoside reverse transcriptase inhibitor
AFASS	Acceptable, feasible, affordable, sustainable and safe	NSP	Needle and syringe programmes
AFB	Acid fast bacilli	NVP	Nevirapine
ALT	Alanine aminotransferase	OST	Opioid substitution therapy
ART	Antiretroviral therapy	PCP	Pneumocystis pneumonia
ARV	Antiretroviral	PEP	Post-exposure prophylaxis
AZT	Azidothymidine, Zidovudine	PI	Protease inhibitor
BCG	Bacille Calmette-Guerine (vaccine)	PITC	Provider-initiated testing and counselling
BMI	Body mass index	PLHIV	People living with HIV
CCM	Country coordinating mechanism	PMTCT	Prevention of mother-to-child transmission
CITC	Client-initiated testing and counselling	RAR	Rapid assessment and response
DBS	Dried blood spot	RDA	Recommended daily allowance
DNA	Deoxyribonucleic acid	RFB	Rifabutin
DOTS	Directly observed treatment	RMP	Rifampicin
EFV	Efavirenz	RNA	Ribonucleic acid
EIA/ELISAs	Enzyme immunoassays	RPR	Rapid plasma reagin
FTC	Emtricitabine	RTV	Ritonavir
HBV	Hepatitis B virus	SIGN	Safe Injection Global Network
HCV	Hepatitis C virus	STI	Sexually transmitted infection
HIV	Human immunodeficiency virus	TB	Tuberculosis
HIVDR	HIV drug resistance	TDF	Tenofovir
HPV	Human papillomavirus	TG	Transgender people
IDU	Injecting drug users/use	UNAIDS	Joint United Nations Programme on HIV/AIDS
IMAI	Integrated management of adult and adolescent illness	UNFPA	United Nations Population Fund
IMPAC	Integrated management of pregnancy and childbirth	VCT	Voluntary counselling and testing, now referred to as client-initiated testing and counselling (CITC).
LPV	Lopinavir	WHO	World Health Organization
M&E	Monitoring and evaluation	XDR	Extensively drug-resistant
MARP	Most-at-risk population		
MDR	Multidrug-resistant		
MSM	Men who have sex with men		
NAT	Nucleic acid testing		
NGO	Nongovernmental organization		

## Foreword

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

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

The rapidity of change in scientific understanding of HIV/AIDS, along with the breadth of the response, meant that technical advice on prevention, diagnosis, treatment and care could quickly become obsolete. WHO had no system in place to update earlier guidance, to discard it, or to confirm on an ongoing basis that it was still relevant. The range of technical guidance was diverse, and there was no single place where it could be easily accessed in a 'one-stop shopping' approach.

The year 2003 saw the launch of three key initiatives in the global AIDS response: the Global Fund to Fight AIDS, Tuberculosis and Malaria, the United States President's Emergency Plan for AIDS Relief, and the WHO/UNAIDS '3 by 5' initiative. The resulting programmatic scale-up highlighted a need for sound, evidence-based, impartial guidance for public health action.

Building on the achievements of the '3 by 5' and other initiatives, leaders of G8 countries meeting in 2005 in Gleneagles, Scotland, committed to working with international organizations to develop and implement a 'package' of interventions, with a view to achieving universal access to HIV prevention, treatment, care and support—a goal later endorsed by Member States at the United Nations General Assembly. However, the nature of this essential package had yet to be defined.

In the aftermath of the '3 by 5' Initiative, WHO has been acutely aware of the increasing importance of the health sector in the quest for universal access, and in tracking the epidemic and monitoring the response. The original call by G8 leaders for a package of interventions—coupled with the need for ongoing and updated user-friendly technical guidance—led WHO to develop this umbrella report that brings together in one place key WHO guidance and references for the health sector 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 and links to web-based resources. WHO launched an initial version of the document in August 2008, at the global AIDS conference in Mexico City. This updated report, published online and as a CD-ROM, will be further adapted as recommendations evolve. It offers WHO's best attempt to assemble and package normative advice for the health sector on the essential response to HIV/AIDS. We hope it will prove useful for all people who work in the health sector as they confront the realities of HIV/AIDS throughout the world.

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1 December, 2008  
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# 0 Introduction

## 0.1 Towards universal access

Every day, more than 6800 people become infected with HIV and more than 5700 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.<sup>1</sup> Of eight key areas covered by the Millennium Development Goals, 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.<sup>2</sup>

International mobilization to combat HIV has increased substantially since the Millennium Development Goals were established in 2000. The United Nations 2001 Declaration of Commitment on HIV/AIDS marked the beginning of a sea change in the response to AIDS.<sup>3</sup> In subsequent years, it was followed by ever increasing political and financial commitment. The WHO/UNAIDS '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 therapy (ART) in many low- and middle-income countries.

By December 2007, an estimated 3 million people living with HIV were receiving ART in low- and middle-income countries, representing 31% of the estimated 9 million people in need.<sup>4</sup> 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 of HIV prevention, treatment and care is essential for reducing new infections and AIDS deaths.<sup>5</sup>

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 organizations 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"<sup>6</sup>.

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.<sup>7</sup> In July 2008 at their Hokkaido Tokyo 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.<sup>8</sup>

The global partners' continuing reaffirmation of their commitment to the universal access goal highlights the need for an accelerated scale-up of a comprehensive package of HIV prevention, treatment and care, and for a more rapid 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.

<sup>1</sup> *AIDS epidemic update*. UNAIDS, WHO. 2007

<sup>2</sup> *Progress on global access to HIV antiretroviral therapy: A report on '3 by 5'*. WHO. June 2005

<sup>3</sup> United Nations. *The declaration of commitment on HIV/AIDS*. 2001

<sup>4</sup> *Towards universal access: scaling up priority HIV/AIDS interventions in the health sector. Progress report 2008*. Geneva, World Health Organization, 2008. Available at [http://www.who.int/hiv/pub/towards\\_universal\\_access\\_report\\_2008.pdf](http://www.who.int/hiv/pub/towards_universal_access_report_2008.pdf)

<sup>5</sup> *HIV prevention in the era of expanded treatment access*. Global HIV Prevention Working Group (2004).

<sup>6</sup> *Final G8 communiqué*. Gleneagles, Scotland. July 2005

<sup>7</sup> United Nations. 60/262. *Political declaration on HIV/AIDS*. 2006

<sup>8</sup> *Tokyo framework for action on global health: report of the G8 Health Experts Group*. Hokkaido Tokyo, G8 Summit, 8 July 2008. Available at [http://www.g8summit.go.jp/doc/pdf/0708\\_09\\_en.pdf](http://www.g8summit.go.jp/doc/pdf/0708_09_en.pdf)

## 0.2 The health sector response

Scaling up a comprehensive package of HIV prevention, treatment and care, and strengthening health care systems will require the mobilization of partners from many sectors. 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.

WHO is the UNAIDS cosponsor with primary responsibility for promoting and supporting health sector initiatives. As such, 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:<sup>9</sup>

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)."<sup>10, 11</sup>

## 0.3 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 for HIV.<sup>12, 13</sup> The foundation of this approach is identifying and implementing priority HIV prevention, treatment and care interventions to be delivered by the health sector; standardizing and simplifying protocols and tools to allow expansion and decentralization of services; and optimizing financial and human resources to deliver the most appropriate and effective interventions for the greatest good for the greatest number of people.

The principles that should guide the health sector response include:

- ensuring the full and proactive involvement of governmental, nongovernmental (NGO) and private sector organizations and of civil society, especially people living with HIV, including people most-at-risk of infection;
- tailoring 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;
- creating 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;
- offering a continuum of home, community and health facility services in conjunction with outreach to and consultation with community leaders and members, and especially with people living with and affected by HIV.

<sup>9</sup> *Towards universal access: scaling up priority HIV/AIDS interventions in the health sector. Progress Report.* WHO. April 2007

<sup>10</sup> *Global health sector strategy for HIV/AIDS 2003–2007: providing a framework for partnership and action.* Geneva, WHO, 2002. Available at [http://www.who.int/hiv/pub/advocacy/hiv2002\\_25en.pdf](http://www.who.int/hiv/pub/advocacy/hiv2002_25en.pdf)

<sup>11</sup> <http://www.who.int/whr/2000/en/index.htm>

<sup>12</sup> See WHO terminology compendium: *WHO dictionary of public health*

<sup>13</sup> Gilks CF et al. *The WHO public-health approach to antiretroviral therapy against HIV in resource limited settings.* *Lancet*, 368, Issue 9534, 505–510, 5 August 2006

## 0.4 Priority interventions

The priority interventions described in Chapter 1 are the complete set of interventions recommended by WHO 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, nongovernmental 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, education and supplies and services for preventing HIV transmission in health care settings; preventing sexual HIV transmission; managing sexually transmitted infections (STIs); 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 sites;
- national measures required for supporting service delivery, including leadership and governance; advocacy; strategic planning; programme management; procurement and supply management; laboratory services; human resources; financing; and HIV and STI strategic information management systems.

## 0.5 Tailoring priority interventions to the type of HIV epidemic

At 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 the epidemic and its context (see Box 1).

### **Box 1. Typology of HIV epidemics**

WHO and UNAIDS define the different types of HIV epidemics as follows:

#### **Low-level HIV epidemics**

HIV may have existed for many years, but 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.

#### **Generalized HIV epidemics**

In generalized epidemics, HIV is firmly established in the general population. Although subpopulations 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 prevention services must reach 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 geographic areas where people with HIV are located.

## **0.6 Tailoring priority interventions to the context of the epidemic**

The unique characteristics of the epidemic need to be considered, but successful tailoring also requires taking context into consideration. This means assessing the health system's readiness and its unique nature 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; and 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 that 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, treatment and care;
- 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 injecting drug users, sex workers and men who have sex with men);
- 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 these groups;
- 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, transgender people, injecting drug users, and men who have sex with men;
- 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 people living with HIV;
- recommend HIV Provider-Initiated Testing and Counselling to all patients seeking care, and to pregnant or breastfeeding women.

See Chapter 4 for further detail and resources.

## 0.7 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 its partners 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 designing and delivering HIV-related services.

## 0.8 Target readers

This report is intended for a broad readership of public health decision-makers, national AIDS programme managers, health providers and workers (governmental, non-governmental and private), international, 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; 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: Making the health sector response operational***

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

### ***CHAPTER 6: Key resources to support implementing 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 an electronic version (on the web and a CD-ROM). It is designed to be a living report, 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. WHO will update its content on a regular basis and maintain a current version online.

# 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. When implemented together at sufficient scale and intensity, the priority interventions outlined in this chapter 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: maximizing 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.

The effectiveness of the HIV response depends on the scale of implementation of the priority interventions. It is also contingent on the quality and characteristics of service provision, 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 are critical obstacles to provision and uptake of health sector interventions. Stigma and discrimination—often pervasive at all levels of society—sustain an environment where it is difficult for health services to attract the people who most need the interventions. HIV-related stigma and discrimination can be reduced through strong leadership and concrete measures in national strategic planning and programme design and implementation. Such measures can help countries reach key targets for universal access, and can also promote and protect human rights and foster respect for people living with and affected by HIV/AIDS.

Other factors that can enhance the effectiveness of the HIV response include a coordinated and participatory national strategic plan for HIV; a level of commitment to an HIV response consistent with human rights and fundamental freedoms; and a 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; addressing underlying prejudices and inequalities; and including 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 6: Key resources 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 who know their HIV status—especially among most-at-risk populations—through HIV testing and counselling is key to expanding access to HIV prevention, treatment and care.

WHO guidance on HIV testing and counselling aims to achieve 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 Cs' – informed Consent, Counselling and Confidentiality—should always be maintained. Additional tools are being developed to address the 'Three Cs' as they apply to children and adolescents.

The UNAIDS/WHO policy on HIV testing and counselling defines two main categories:<sup>14</sup>

- i) client-initiated HIV testing and counselling (CITC);
- ii) provider-initiated HIV testing and counselling (PITC)

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 found to be HIV-negative should learn how to remain negative. Those found to be HIV-positive should learn how to prevent transmission to others and maintain their own good health. Additionally, they 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, 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 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, where 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. UNAIDS/WHO policy statement on HIV testing  
<http://www.who.int/hiv/pub/vct/en/hivtestingpolicy04.pdf>
2. Opening up the HIV/AIDS epidemic: Guidance on encouraging beneficial disclosure, ethical partner counselling & appropriate use of HIV case-reporting  
English: [http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp\\_en.pdf](http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp_en.pdf)  
French: [http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp\\_fr.pdf](http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp_fr.pdf)
3. HIV counselling and testing e-library  
<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  
English: [http://www.paho.org/English/AD/FCH/AI/LAB\\_GUIDE\\_ENG.PDF](http://www.paho.org/English/AD/FCH/AI/LAB_GUIDE_ENG.PDF)  
Spanish: [http://www.paho.org/Spanish/AD/FCH/AI/LAB\\_GUIDE\\_SPAN.PDF](http://www.paho.org/Spanish/AD/FCH/AI/LAB_GUIDE_SPAN.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 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 and work places—and through outreach services that may be stationary

<sup>14</sup> Available at: <http://www.who.int/entity/hiv/pub/vct/en/hivtestingpolicy04.pdf>



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. WHO HIV testing and counselling (TC) toolkit  
<http://www.who.int/hiv/topics/vct/toolkit/en/index.html>
6. International Organization for Migration guide for counsellors: IOM HIV counselling in the context of migration health assessment  
[http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/main/site/published\\_docs/brochures\\_and\\_info\\_sheets/HIV%20counselors%20UIDE%20FINAL\\_Apr2006%20\(4\).pdf](http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/main/site/published_docs/brochures_and_info_sheets/HIV%20counselors%20UIDE%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 providers as a standard part of medical care to individuals attending health 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 when 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 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 providers should take measures to ensure that this guarantee is upheld.

The UNAIDS/WHO guidance on PITC specifies situations in which health 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. Testing and counselling is also recommended 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 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, or tuberculosis (TB) and 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 access interventions for reducing HIV transmission to their infants and to benefit from prevention, treatment and care, and is therefore recommended.

**Key resources:**

7. Guidance on provider-initiated HIV testing and counselling in health facilities  
English: [http://whqlibdoc.who.int/publications/2007/9789241595568\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595568_eng.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2007/9789244595565\\_rus.pdf](http://whqlibdoc.who.int/publications/2007/9789244595565_rus.pdf)
8. WHO case definitions of HIV for surveillance and revised clinical staging and immunological classification of HIV-related disease in adults and children  
<http://www.who.int/hiv/pub/guidelines/HIVstaging150307.pdf>
9. HIV testing and counselling in TB clinical settings tools  
[http://www.cdc.gov/globalaids/pa\\_hiv\\_tools.htm](http://www.cdc.gov/globalaids/pa_hiv_tools.htm)  
Agenda: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Agenda\\_12.1.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Agenda_12.1.06.pdf)  
Overview: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20An%20Overview\\_12.1.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20An%20Overview_12.1.06.pdf)

Module 1: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%201\\_12.6.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%201_12.6.06.pdf)  
Module 2: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%202\\_12.7.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%202_12.7.06.pdf)  
Module 3: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%203\\_12.12.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%203_12.12.06.pdf)  
Module 4: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%204\\_12.13.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%204_12.13.06.pdf)  
Module 5: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%205\\_12.6.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%205_12.6.06.pdf)  
Module 6: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%206%20Demo\\_12.1.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%206%20Demo_12.1.06.pdf)

10. IMAI PITC core training course and PITC counselling training video  
<http://www.who.int/hiv/capacity/IMAIsharepoint/en>

### 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. It is equally important 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 both parents and siblings of HIV-infected children. This should be done especially for mothers of HIV-infected children, and for women who were not tested while using prevention of mother-to-child transmission (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, in cases 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. Within a family-centred 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. Guidance on provider-initiated HIV testing and counselling in health facilities  
English: [http://whqlibdoc.who.int/publications/2007/9789241595568\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595568_eng.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2007/9789244595565\\_rus.pdf](http://whqlibdoc.who.int/publications/2007/9789244595565_rus.pdf)
2. Opening up the HIV/AIDS epidemic: Guidance on encouraging beneficial disclosure, ethical partner counselling & appropriate use of HIV case-reporting  
English: [http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp\\_en.pdf](http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp_en.pdf)  
French: [http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp\\_fr.pdf](http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp_fr.pdf)

### 1.1.2.2 Infant and children HIV testing and counselling

WHO and UNAIDS provider-initiated testing and counselling (PITC) guidelines and antiretroviral therapy (ART) guidelines provide guidance on when health care providers should recommend HIV testing and counselling for infants and children. The HIV exposure status of infants should be 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 the infant's HIV exposure is determined. Specific recommendations on testing in infants and children will be reviewed at an expert meeting to be held 20–21 November 2008, and further guidance on counselling and disclosure for children is under development.

#### **Summary of recommendations**

PITC should be recommended for **all infants and children** when HIV is suspected or HIV exposure is recognized. This includes testing and counselling for all infants and children suspected of having TB, and those with malnutrition who do not respond to appropriate nutritional therapy.

All **HIV-exposed infants** should have viral testing at or around four to six weeks of age, or at the earliest opportunity for those seen after six weeks. If viral testing is not available, presumptive clinical diagnosis in accordance with nationally defined algorithms will be required. HIV infection should be confirmed through HIV antibody testing at or around 18 months as part of clinical management.

WHO recommends that maternal or infant HIV antibody testing and counselling be performed for infants of unknown HIV exposure status in all settings when local or national antenatal HIV prevalence is greater than 5% (or locally determined thresholds). In such settings, infant testing can initially be done using HIV antibody testing, and those with detectable HIV antibody should then go on to have viral 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 and children younger than 18 months**, viral tests are recommended to diagnose HIV.

**Key resources:**

11. Report of the WHO technical reference group, paediatric HIV/ART care guideline group meeting, WHO Headquarters, Geneva, Switzerland, 10-11 April 2008  
[http://www.who.int/hiv/pub/paediatric/WHO\\_Paediatric\\_ART\\_guideline\\_rev\\_mreport\\_2008.pdf](http://www.who.int/hiv/pub/paediatric/WHO_Paediatric_ART_guideline_rev_mreport_2008.pdf)
12. Scale up of HIV-related prevention, diagnosis, care and treatment for infants and children: A programming framework  
[http://www.who.int/hiv/paediatric/Paeds\\_programming\\_framework2008.pdf](http://www.who.int/hiv/paediatric/Paeds_programming_framework2008.pdf)
13. Antiretroviral therapy for HIV infection in infants and children: towards universal access: recommendations for a public health approach  
[http://whqlibdoc.who.int/publications/2007/9789241594691\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241594691_eng.pdf)

### 1.1.3 Blood donor HIV testing and counselling

It is the responsibility of a blood transfusion service to provide an adequate supply of safe blood and blood products, while ensuring the safety of both the recipient and the donor. Globally, more than 81 million units of whole blood are collected annually and at least seven million donors are deferred from blood donation.

In accordance with national protocols and standards, quality-assured screening of all donated blood for transfusion-transmissible infections 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. About one million donated units are excluded annually because they contain transfusion-transmissible infections.

The blood transfusion service is often the first point of contact of the general public with the health system. It is uniquely suited to promote healthy living and to advise millions of blood donors on lifestyle issues that affect their health. Counselling of blood donors is necessary before (**pre-donation counselling**) and after (**post-donation counselling**) blood is collected, and should be preceded by pre-donation information and discussion. Effective pre-donation discussion and counselling are vital activities of the blood transfusion service, and are needed to encourage appropriate donor self-deferral.

Post-donation counselling is a necessary part of care for infected donors. It is also important in promoting health maintenance and regular donation by healthy donors. Donors need to be informed of the test result since it has an impact on their health and prevents the use of their donated blood. Blood transfusion services have responsibilities to confirm test results and notify donors of HIV, hepatitis B and C, or any other infections identified, thus giving an opportunity to donors to access treatment and care. These services 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 future transmission of infection and promote healthy lifestyles. It can also lead to family testing and counselling and advice on follow-up and referral.

The WHO Global Database on Blood Safety reported that of 173 countries surveyed in 2004–5, only 48 provide counselling to blood donors, both before and after donation, and in all the facilities collecting blood in the country. Many countries still have no clear policy on blood donor counselling in the context of blood donation, and need guidance and support in setting up blood donor counselling services.

**Summary of recommendations**

Develop and implement a national strategy to screen 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 in the national blood policy.

Encourage donors and the general public to avoid using 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 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:**

14. WHO Blood transfusion safety (WHO web page)  
<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 various testing strategies appropriate for different HIV testing purposes, such as HIV diagnosis in clinical care settings, research and surveillance, or ensuring blood transfusion safety. These 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 critically important for the 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. 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 than parallel testing, since a second test is required only when the initial test is positive.

**Parallel testing** is more costly because of the number of assays and the 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, 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:**

15. Revised recommendations for the selection and use of HIV antibody tests.  
<http://www.who.int/docstore/wer/pdf/1997/wer7212.pdf>

**Quality management systems** should be established at all sites carrying out HIV testing. 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:**

16. Guidelines for assuring the accuracy and reliability of HIV rapid testing: Applying a quality system approach  
[http://whqlibdoc.who.int/publications/2005/9241593563\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593563_eng.pdf)
17. Overview of HIV Rapid Test Training Package  
<http://wwwn.cdc.gov/dls/ila/hivtraining/Overview.pdf>
18. HIV rapid test training: Framework for a systematic roll-out  
<http://wwwn.cdc.gov/dls/ila/hivtraining/Framework.pdf>

**Rapid HIV tests** are recommended when 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 these assays warrants close attention before they are adopted into national testing algorithms.

**Key resource:**

19. HIV assays: Operational characteristics (Phase 1). Report 14: Simple/rapid tests  
[http://www.who.int/diagnostics\\_laboratory/publications/hiv\\_assays\\_rep\\_14.pdf](http://www.who.int/diagnostics_laboratory/publications/hiv_assays_rep_14.pdf)

**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. However, these tests require specialized laboratory equipment and staff. Some EIA and rapid tests allow combined detection of HIV antigen and antibody.

**Key resources:**

20. HIV assays: Operational characteristics (Phase 1). Report 15: Antigen/Antibody ELISAS  
[http://www.who.int/diagnostics\\_laboratory/publications/en/HIV\\_Report15.pdf](http://www.who.int/diagnostics_laboratory/publications/en/HIV_Report15.pdf)
21. Guidelines for appropriate evaluations for HIV testing technologies in Africa  
English: [http://whqlibdoc.who.int/afro/2002/a82959\\_eng.pdf](http://whqlibdoc.who.int/afro/2002/a82959_eng.pdf)  
French: [http://www.who.int/entity/diagnostics\\_laboratory/publications/FR\\_HIVEval\\_Guide.pdf](http://www.who.int/entity/diagnostics_laboratory/publications/FR_HIVEval_Guide.pdf)

National HIV/AIDS programmes should establish laboratories with the capacity to perform **viral testing** for HIV in infants. 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 offers advantages over other specimen collection methods, including ease of collection and transport. Yet, to date, 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. HIV RNA assays demonstrate the presence of HIV for purposes of diagnosis, and allow quantitative measurement of HIV RNA. However, there is currently insufficient evidence to recommend that these assays be 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 in the health sector should include interventions aimed at changing individuals' behaviour and addressing cultural norms, social attitudes and behaviour that may increase people's vulnerability to HIV infection. It should also include biomedical interventions such as condoms, clean needles and providing ART to pregnant women for their own health, or ARVs for prevention of antepartum and intrapartum HIV transmission. Prevention programmes for prophylaxis and safe delivery usually require a combination of several interventions. In sub-Saharan African countries with very high HIV prevalence, biomedical interventions including male circumcision in HIV-negative men 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 people already living with HIV. A key concern for people living with HIV is to prevent inadvertent HIV

transmission. Other concerns include preventing illness, receiving care for opportunistic infections and accessing antiretroviral treatment. Interventions to address their need to engage in sexual activity without fear of transmitting the virus to their sexual partners are highlighted below (see section 1.2.1.5 and section 1.2.3). 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, emphasis should be placed on those interventions that are likely to have the greatest impact, and that 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).

**Key resources:**

22. Practical guidelines for intensifying HIV prevention: towards universal access  
[http://data.unaids.org/pub/Manual/2007/20070306\\_prevention\\_guidelines\\_towards\\_universal\\_access\\_en.pdf](http://data.unaids.org/pub/Manual/2007/20070306_prevention_guidelines_towards_universal_access_en.pdf)
23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)
24. GII consultation on strengthening the linkages between reproductive health and HIV/AIDS: family planning and HIV/AIDS in women and children  
[http://www.who.int/entity/hiv/pub/advocacymaterials/giiconsultationsummary\\_DF.pdf](http://www.who.int/entity/hiv/pub/advocacymaterials/giiconsultationsummary_DF.pdf)
25. Linkages between HIV and SRH: Technical documents and advocacy materials (web page)  
<http://www.who.int/reproductive-health/hiv/docs.html>

## 1.2.1 Preventing 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% to 90%. Evidence indicates that female condoms may offer similar levels of protection against HIV infection.

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

**Summary of recommendations**

Promotion of 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 should be promoted in ways that help overcome social and personal obstacles to their use.

For some high risk populations, such as male sex workers and men who have sex with men, providing **water-based lubricant** is absolutely essential. Female and male condoms should be procured according to the standards and quality assurance procedures established by WHO, the United Nations Population Fund (UNFPA) and UNAIDS. Condoms should be stored and distributed according to international norms and standards.

As part of a multisectoral response, the health sector should provide guidance on 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:**

26. Position statement on condoms and HIV prevention  
[http://www.who.int/hiv/pub/prev\\_care/en/Condom\\_statement.pdf](http://www.who.int/hiv/pub/prev_care/en/Condom_statement.pdf)
27. The male latex condom: Specification and guidelines for condom procurement  
[http://www.who.int/reproductive-health/publications/m\\_condom/who\\_specification\\_04.pdf](http://www.who.int/reproductive-health/publications/m_condom/who_specification_04.pdf)

28. The female condom: a guide for planning and programming  
[http://www.who.int/reproductive-health/publications/RHR\\_00\\_8/index.html](http://www.who.int/reproductive-health/publications/RHR_00_8/index.html)  
 English: [http://www.who.int/reproductive-health/publications/RHR\\_00\\_8/PDF/female\\_condom\\_guide\\_planning\\_programming.pdf](http://www.who.int/reproductive-health/publications/RHR_00_8/PDF/female_condom_guide_planning_programming.pdf)  
 French: [http://www.who.int/reproductive-health/publications/rhr\\_00\\_08\\_fr/female\\_condom\\_guide\\_planning\\_programming\\_fr.pdf](http://www.who.int/reproductive-health/publications/rhr_00_08_fr/female_condom_guide_planning_programming_fr.pdf)
29. Sexual and reproductive health of women living with HIV/AIDS: Guidelines on care, treatment and support for women living with HIV/AIDS and their children in resource-constrained settings  
[http://whqlibdoc.who.int/publications/2006/924159425X\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/924159425X_eng.pdf)

### 1.2.1.2 Detecting and managing sexually transmitted infections

Similar behaviours put people at risk for both sexually transmitted infections (STIs) and HIV. People with STIs may be at higher risk of acquiring or transmitting HIV infection.

Programmes for the prevention and treatment of STIs, especially among populations at higher risk for sexual transmission of HIV, remain important elements of HIV prevention programmes.

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. STI services provide opportunities for access to HIV testing and counselling.

#### **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, when applicable;
- screening and treatment for syphilis in pregnant women;
- provision of hepatitis and human papillomavirus (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 STI prevention and care are integrated or closely coordinated with national AIDS programmes.

#### **Key resources:**

30. Global strategy for the prevention and control of sexually transmitted infections, 2006 - 2015: Breaking the chain of transmission  
 English: [http://whqlibdoc.who.int/publications/2007/9789241563475\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241563475_eng.pdf)  
 Arabic: [http://whqlibdoc.who.int/publications/2007/9789246563470\\_ara.pdf](http://whqlibdoc.who.int/publications/2007/9789246563470_ara.pdf)  
 Chinese: [http://whqlibdoc.who.int/publications/2007/9789245563471\\_chi.pdf](http://whqlibdoc.who.int/publications/2007/9789245563471_chi.pdf)  
 Russian: [http://whqlibdoc.who.int/publications/2007/9789244563472\\_rus.pdf](http://whqlibdoc.who.int/publications/2007/9789244563472_rus.pdf)
31. Guidelines for the management of sexually transmitted infections  
 English: <http://www.who.int/entity/hiv/pub/sti/en/STIGuidelines2003.pdf>  
 French: [http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003\\_fr.pdf](http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003_fr.pdf)  
 Portuguese: [http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003\\_pt.pdf](http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003_pt.pdf)  
 Spanish: [http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003\\_es.pdf](http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003_es.pdf)
32. STI interventions for preventing HIV: Appraisal of the evidence  
 Publication anticipated in early 2009.
33. IMAI acute care STI/genitourinary problem training course participant's manual (part of IMAI acute care guideline module).  
<http://www.who.int/hiv/capacity/IMAIsharepoint/en/>
34. Periodic presumptive treatment for sexually transmitted infections: Experience from the field and recommendations for research  
<http://www.who.int/reproductive-health/publications/ppp/ppt.pdf>
35. WHO regional strategy for the prevention and control of sexually transmitted infections 2007-2015  
[http://www.searo.who.int/LinkFiles/Publications\\_WHO\\_Regional\\_Strategy\\_STI.pdf](http://www.searo.who.int/LinkFiles/Publications_WHO_Regional_Strategy_STI.pdf)

### 1.2.1.3 Safer sex and risk reduction counselling

Behavioural interventions at an individual, group or community level can generate safer sexual behaviour. However, it is critically important to sustain interventions for behaviour and to provide 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 a reduction in number of partners.

Risk reduction counselling includes, for example, information on prevention of transmission of STIs and HIV through condom use, including for most-at-risk populations. Counselling on delay of sexual debut and reduction of number of sexual partners, including visits to sex workers and reduction of concurrent partnership, is recommended to prevent sexual transmission among heterosexual partners. However, the benefit of this counselling for men having sex with men has not been established.

Specific measures may be needed to support and counsel discordant couples and individuals in multiple concurrent partnerships, as well as for men having sex with men.

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

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

#### **Key resources:**

36. SEX-RAR guide: The rapid assessment and response guide on psychoactive substance use and sexual risk behaviour  
[http://www.who.int/mental\\_health/media/en/686.pdf](http://www.who.int/mental_health/media/en/686.pdf)
29. Sexual and reproductive health of women living with HIV/AIDS: Guidelines on care, treatment and support for women living with HIV/AIDS and their children in resource-constrained settings  
[http://whqlibdoc.who.int/publications/2006/924159425X\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/924159425X_eng.pdf)
37. Youth-centered counseling for HIV/STI prevention and promotion of sexual and reproductive health: a guide for front-line providers  
<http://www.paho.org/english/ad/fch/ca/sa-youth.pdf>

### 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%. This evidence supports the findings of many observational studies. There is no definitive evidence that male circumcision reduces the risk of HIV transmission from men to women, or between men who have sex with men.

#### **Summary of recommendations**

WHO recommends that male circumcision undertaken by appropriately trained health providers be considered as part of a comprehensive HIV prevention package. Services should be scaled up for defined geographic settings and priority should be given to males in areas where HIV prevalence in the general populations exceeds 15%.

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 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 for at least six weeks, or 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.

**Key resources:**

38. Male circumcision information package  
[http://www.who.int/hiv/mediacentre/infopack\\_en\\_1.pdf](http://www.who.int/hiv/mediacentre/infopack_en_1.pdf)  
[http://www.who.int/hiv/mediacentre/infopack\\_en\\_2.pdf](http://www.who.int/hiv/mediacentre/infopack_en_2.pdf)  
[http://www.who.int/hiv/mediacentre/infopack\\_en\\_3.pdf](http://www.who.int/hiv/mediacentre/infopack_en_3.pdf)  
[http://www.who.int/hiv/mediacentre/infopack\\_en\\_4.pdf](http://www.who.int/hiv/mediacentre/infopack_en_4.pdf)
39. New data on male circumcision and HIV prevention: policy and programme implications: WHO/UNAIDS technical consultation male circumcision and HIV prevention: Research implications for policy and programming, Montreux, 6-8 March 2007: conclusions and recommendations  
English: [http://whqlibdoc.who.int/unaid/2007/male\\_circumcision\\_eng.pdf](http://whqlibdoc.who.int/unaid/2007/male_circumcision_eng.pdf)  
French: [http://www.who.int/entity/hiv/mediacentre/MCrecommendations\\_fr.pdf](http://www.who.int/entity/hiv/mediacentre/MCrecommendations_fr.pdf)
40. Male circumcision: Global trends and determinants of prevalence, safety and acceptability  
[http://whqlibdoc.who.int/publications/2007/9789241596169\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241596169_eng.pdf)
41. Manual for male circumcision under local anaesthesia  
[http://www.who.int/hiv/pub/malecircumcision/who\\_mc\\_local\\_anaesthesia.pdf](http://www.who.int/hiv/pub/malecircumcision/who_mc_local_anaesthesia.pdf)
42. Male circumcision quality assurance: A guide to enhancing the safety and quality of services  
[http://www.who.int/hiv/pub/malecircumcision/qa\\_guide/](http://www.who.int/hiv/pub/malecircumcision/qa_guide/)
43. Male circumcision quality assurance toolkit  
[http://www.who.int/hiv/pub/malecircumcision/qa\\_toolkit/](http://www.who.int/hiv/pub/malecircumcision/qa_toolkit/)
44. Safe, voluntary, informed male circumcision and comprehensive HIV prevention programming: Guidance for decision-makers on human rights, ethical and legal considerations  
[http://data.unaids.org/pub/Manual/2007/070613\\_humanrightsethicallegalguidance\\_en.pdf](http://data.unaids.org/pub/Manual/2007/070613_humanrightsethicallegalguidance_en.pdf)
45. Male circumcision and HIV prevention in Eastern and Southern Africa communications guidance  
[http://data.unaids.org/pub/Manual/2008/20080515\\_mc\\_hivprevention\\_eastern\\_southern\\_africa\\_en.pdf](http://data.unaids.org/pub/Manual/2008/20080515_mc_hivprevention_eastern_southern_africa_en.pdf)
46. Operational guidance for scaling up male circumcision services for HIV prevention  
[http://www.who.int/hiv/pub/malecircumcision/op\\_guidance/](http://www.who.int/hiv/pub/malecircumcision/op_guidance/)

### 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. Health 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 and condom provision are effective in preventing HIV transmission.

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

### **Summary of recommendations**

People living with HIV should be counselled on safer sex interventions to prevent HIV transmission to others, and on how to avoid contracting sexually transmitted infections. They should also 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.

#### **Key resources:**

23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)
47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)

### **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 address the needs of populations most-at-risk for HIV, and for ensuring 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 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 health facilities.

#### **Key resource:**

22. Practical guidelines for intensifying HIV prevention: towards universal access  
[http://data.unaids.org/pub/Manual/2007/20070306\\_prevention\\_guidelines\\_towards\\_universal\\_access\\_en.pdf](http://data.unaids.org/pub/Manual/2007/20070306_prevention_guidelines_towards_universal_access_en.pdf)

#### **1.2.1.6.1 Interventions targeting sex workers**

Sex workers are among the groups most vulnerable to and affected by HIV. Specific behaviours can place sex workers, their clients and regular partners at risk, and contextual factors can further exacerbate their vulnerability to HIV. The evidence base is firmly established to support a range of interventions to prevent transmission of HIV and other sexually transmitted infections in sex work settings, to provide care and support services, and to empower sex workers to improve their own health and well-being. Interventions can be tailored for brothel or other entertainment establishments, or for more informal street-based and home-based settings.

Worldwide, only a few countries have implemented sex worker programmes of sufficient scale to prevent transmission of HIV and other STIs. There is solid public health evidence demonstrating the effectiveness of comprehensive condom use programmes targeting sex workers or entertainment establishment workers, but most countries still have structural barriers that must be addressed to facilitate equitable access to services.

A comprehensive set of interventions are recommended to increase condom use and safe sex, reduce the STI burden and maximize sex-worker involvement in and control over their working and social conditions.

#### **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 must 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.

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 to prevent sexual transmission of HIV and other STIs include:

- promoting and supporting condom use, including water-based lubricants for male sex workers (see section 1.2.1.1);
- detecting and managing STIs (see section 1.2.1.2);
- information, education and communication through peer outreach;
- enabling people to know their HIV status (see section 1.1).

Other health sector interventions for HIV prevention, treatment and care of sex workers are described in the following sections:

- Family planning, counselling and contraception (see section 1.2.3.1);
- HIV treatment and care (1.3);
- Prevention of HIV in infants and young children (see section 1.2.3);
- Prevention of viral hepatitis (see section 1.3.2.2.5);
- Prevention of HIV transmission through drug use (see section 1.2.2);
- Social support including for income generation and legal services.

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

**Key resources:**

48. Toolkit for targeted HIV/AIDS prevention and care in sex work settings  
<http://whqlibdoc.who.int/publications/2005/9241592966.pdf>
49. Guidelines for the management of sexually transmitted infections in female sex workers  
[http://www.wpro.who.int/NR/ronlyres/90F80401-5EA0-4638-95C6-6EFF28213D34/0/Guidelines\\_for\\_the\\_Mgt\\_of\\_STI\\_in\\_female\\_sex\\_workers.pdf](http://www.wpro.who.int/NR/ronlyres/90F80401-5EA0-4638-95C6-6EFF28213D34/0/Guidelines_for_the_Mgt_of_STI_in_female_sex_workers.pdf)
35. WHO regional strategy for the prevention and control of sexually transmitted infections 2007-2015  
[http://www.searo.who.int/LinkFiles/Publications\\_WHO\\_Regional\\_Strategy\\_STI.pdf](http://www.searo.who.int/LinkFiles/Publications_WHO_Regional_Strategy_STI.pdf)
50. 100% condom use programme in entertainment establishments  
<http://www.wpro.who.int/NR/ronlyres/5F1C719B-4457-4714-ACB1-192FFCA195B1/0/condom.pdf>
34. Periodic presumptive treatment for sexually transmitted infections: Experience from the field and recommendations for research  
<http://www.who.int/reproductive-health/publications/ppt/ppt.pdf>
51. HIV and sexually transmitted infection prevention among sex workers in Eastern Europe and Central Asia  
English: [http://whqlibdoc.who.int/unaid/2006/9291734942\\_eng.pdf](http://whqlibdoc.who.int/unaid/2006/9291734942_eng.pdf)  
Russian: [http://whqlibdoc.who.int/unaid/2006/9291734950\\_rus.pdf](http://whqlibdoc.who.int/unaid/2006/9291734950_rus.pdf)

### 1.2.1.6.2 Interventions targeting MSM and transgender people

While 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. Overall, HIV transmission among MSM in low- and middle-income countries appears to be greatly underreported. There is also a lack of information on access to services for HIV prevention, treatment and care among MSM and TGs in those countries.

Recent evidence suggests 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 being reported in sub-Saharan Africa as well. Surveys in several countries have also shown that many MSM have female partners or are married.

MSM and TGs still face stigma or are driven underground through laws or policies criminalizing MSM behaviours in many countries. Adopting a rights-based approach will ensure that MSM, TGs and their male and female sexual partners have the right to information and commodities, enabling them to protect themselves against HIV and other STIs, as well as information on where to seek appropriate care for these infections. Importantly, this approach also ensures their right to access appropriate and

effective prevention and care services of the highest possible quality, delivered free from discrimination.

### **Summary of recommendations**

The health sector has an important role to play by including services for MSM and TGs in its programme priorities 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 these affected groups should be fully engaged in designing and implementing the interventions.

Priority interventions targeting MSM and TGs to prevent sexual transmission of HIV and other sexually transmitted infections should include:

- promoting and supporting condom use, including water-based lubricants (see section 1.2.1.1);
- detection and management of sexually transmitted infections (see section 1.2.1.2);
- prevention and treatment of viral hepatitis (see section 1.3.2.2.3);
- enabling people to know their HIV status (see section 1.1);
- outreach through peers, the internet and fixed or mobile services to MSM and TGs to broaden their access to information, education and communication, condoms and water-based lubricants, as well as prevention interventions including STI care, and counselling and referral.

Other health-sector interventions for HIV prevention, treatment and care for MSM and TGs are described in the following sections:

- HIV treatment and care (see section 1.3);
- Prevention of viral hepatitis (see section 1.3.2.2.3);
- Prevention of HIV transmission through drug use (see section 1.2.2);
- community-based behaviour change communication (e.g. posters and brochures in venues frequented by MSM and TGs);
- social support and legal services.

### **Key resources:**

52. Rapid assessment and response: Adaptation guide on HIV and men who have sex with men (MSM-RAR)  
[http://www.who.int/entity/hiv/pub/prev\\_care/en/msmrar.pdf](http://www.who.int/entity/hiv/pub/prev_care/en/msmrar.pdf)
53. Policy brief: HIV and sex between men  
[http://data.unaids.org/Publications/IRC-pub07/jc1269-policybrief-msm\\_en.pdf](http://data.unaids.org/Publications/IRC-pub07/jc1269-policybrief-msm_en.pdf)
54. Between men: HIV STI prevention for MSM  
[http://www.aidsalliance.org/graphics/secretariat/publications/msm0803\\_between\\_men\\_Eng.pdf](http://www.aidsalliance.org/graphics/secretariat/publications/msm0803_between_men_Eng.pdf)
55. AIDS and men who have sex with men  
[http://whqlibdoc.who.int/unaid/2000/a62375\\_eng.pdf](http://whqlibdoc.who.int/unaid/2000/a62375_eng.pdf)
56. 2007 European guideline (IUSTI/WHO) on the management of proctitis, proctocolitis and enteritis caused by sexually transmissible pathogens  
<http://www.iusti.org/sti-information/pdf/proctitis-guideline-v7.pdf>

### **1.2.1.7 Specific considerations for HIV prevention in young people<sup>15</sup>**

In order 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;

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<sup>15</sup> Young people includes adolescents and youth 10–24 years.

- attention is paid to fostering parents' and communities' support for youth-friendly services, and to attracting young people to those services.

Prevention services for adults can be modified so that they are also appropriate for young people, but 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. Therefore, services 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 a responsibility to ensure there is serological and behavioural surveillance to provide strategic information on young people and HIV (see section 3.2). This requires data to be disaggregated by age and sex, analysed, and used to guide policies and programming. The health sector should play a stewardship and advocacy role for young people (see section 2.5), and it should ensure a supportive political, legal and social environment that addresses the specific needs of young people.

### **Summary of 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, use sterile equipment;
- condoms for sexually active young people;
- harm reduction for young people who are injecting drug users;
- diagnosis and treatment of sexually transmitted infections;
- male circumcision (in high prevalence settings);
- HIV testing and counselling;
- access to HIV treatment and care services;
- consideration of HPV vaccination for young females.

### **Key resources:**

57. Preventing HIV/AIDS in young people: a systematic review of the evidence from developing countries  
[http://whqlibdoc.who.int/trs/WHO\\_TRS\\_938\\_eng.pdf](http://whqlibdoc.who.int/trs/WHO_TRS_938_eng.pdf)
58. Global consultation on the health services response to the prevention and care of HIV/AIDS among young people  
<http://whqlibdoc.who.int/publications/2004/9241591323.pdf>
59. Adolescent friendly health services: An agenda for change  
[http://whqlibdoc.who.int/hq/2003/WHO\\_FCH\\_CAH\\_02.14.pdf](http://whqlibdoc.who.int/hq/2003/WHO_FCH_CAH_02.14.pdf)

## **1.2.1.8 Specific considerations for vulnerable populations**

### **1.2.1.8.1 Displaced, mobile and migrant populations**

In 2007, 67 million people were forced to flee their homes throughout the world: 26 million were internally displaced due to armed conflict, 25 million due to natural disasters, and 16 million were refugees. Increased vulnerability to HIV associated with displacement, sexual violence, and disruption of families and social and community structures, has been evident in some complex emergencies. However, in some instances, refugees or populations in conflict situations may be less at risk of HIV transmission than surrounding populations when protected in camps and supported by international organizations, or when living in isolation.

In emergency situations, access to HIV services is often limited by the breakdown of health systems. Often emergency situations occur in remote areas where populations have little access to HIV-related services; these may provide opportunities to extend HIV services to new populations and then sustain them after the emergencies are over.

Millions of people each year migrate within countries or across countries and along borders. Increased vulnerability to HIV, associated with displacement and the disruption of families and 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 a large portion of their clientele. In many cases, their work is illegal and their presence is not documented; these factors limit their access to HIV care and ART services. All migrant and mobile populations are difficult to reach with behaviour change communications and other prevention interventions. This is due, in part, to the fact that their movement places them in situations where they are ethnic minorities and face cultural and language barriers.

### **Summary of recommendations**

Access to health services should be based on the principle of equity, ensuring equal access according to need without 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:**

60. Consensus statement: delivering antiretroviral drugs in emergencies: neglected but feasible  
[http://www.who.int/hac/techguidance/pht/HIV\\_AIDS\\_101106\\_arvemergencies.pdf](http://www.who.int/hac/techguidance/pht/HIV_AIDS_101106_arvemergencies.pdf)
61. Guidelines for HIV/AIDS interventions in emergency settings  
English: [http://www.who.int/3by5/publications/documents/en/iasc\\_guidelines.pdf](http://www.who.int/3by5/publications/documents/en/iasc_guidelines.pdf)  
French: <http://www.who.int/3by5/publications/en/directivesvihinalesfr.pdf>
62. Antiretroviral medication policy for refugees  
[http://data.unaids.org/pub/Report/2007/20070326\\_unhcr\\_art\\_en.pdf](http://data.unaids.org/pub/Report/2007/20070326_unhcr_art_en.pdf)

### **1.2.1.8.2 Prisoners and people in other closed settings**

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

A wide range of services are required for people in prisons and similar settings, including condom distribution, clean needle and syringe provision, opioid substitution therapy, HIV testing and counselling, provision of antiretroviral therapy, 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 nongovernmental organizations to ensure continuity of care, including ART, from community to prison and back to community, and also between prisons.

### **Summary of 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:**

63. Effectiveness of interventions to address HIV in prisons (Evidence for action series website)  
<http://www.who.int/hiv/topics/idu/prisons/en/index.html>  
Effectiveness of interventions to address HIV in prisons (Evidence for action technical papers)  
[http://www.who.int/hiv/idu/OMS\\_E4Acomprehensive\\_WEB.pdf](http://www.who.int/hiv/idu/OMS_E4Acomprehensive_WEB.pdf)
64. Policy brief: Reduction of HIV transmission in prisons (Evidence for action on HIV/AIDS and injecting drug use)  
<http://www.who.int/hiv/pub/advocacy/en/transmissionprisonen.pdf>
65. Status paper on prisons, drugs and harm reduction  
<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 and assisting individuals 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 HIV status of the source (e.g. the assailant) if possible;
- provision of antiretrovirals for prophylaxis based on a defined protocol;
- emergency contraception;
- presumptive treatment of sexually transmitted infections, and
- follow-up counselling.

#### **Key resource:**

66. Post-exposure prophylaxis to prevent HIV infection: Joint WHO/ILO guidelines on post-exposure prophylaxis (PEP) to prevent HIV infection  
[http://whqlibdoc.who.int/publications/2007/9789241596374\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241596374_eng.pdf)

### 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 these interventions because of their controversial nature. Intense advocacy, citing public health evidence, is often required to initiate and sustain harm reduction programmes.

Where there are barriers to implementing harm reduction interventions, there is a need to create a supportive policy, legal and social environment that facilitates equitable access to prevention and treatment for all, including IDUs. There is also a need for appropriate models of service delivery, health systems strengthening, and 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 IDUs includes the following nine interventions:

1. needle and syringe programmes (NSPs) (see section 1.2.2.1);
2. drug dependence treatment in particular opioid substitution therapy (see section 1.2.2.2);
3. targeted information, education and communication for IDUs (see section 1.2.2.3);
4. enabling people to know their HIV status (see section 1.1);
5. HIV treatment and care (see section 1.3)

6. promoting and supporting condom use (see section 1.2.1.1);
7. detection and management of sexually transmitted infections (see section 1.2.1.2);
8. prevention and treatment of viral hepatitis (see section 1.3.1.3 and 1.3.2.2.5);
9. tuberculosis prevention, diagnosis and treatment (see section 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 specific services for opioid substitution therapy and antiretroviral therapy. Services for IDUs should take into account that the majority of IDUs are male and have sexual partners, that some sell sex to pay for their habit, and that injecting drug use occurs at all levels of society.

### **Summary of recommendations**

Stand-alone interventions are known to have little impact, so policy-makers should insist on a comprehensive package of interventions. All key interventions should be scaled up, at the necessary intensity, until they cover all drug users. The comprehensive package should be tailored to the country's known drug-use patterns and to other unique elements of the national context.

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

### **Key resources:**

67. Policy and programming guide for HIV/AIDS prevention and care among injecting drug users  
[http://www.who.int/hiv/pub/prev\\_care/policyprogrammingguide.pdf](http://www.who.int/hiv/pub/prev_care/policyprogrammingguide.pdf)
68. Advocacy guide: HIV/AIDS prevention among injecting drug users  
<http://www.who.int/hiv/pub/advocacy/en/advocacyguideen.pdf>
69. Policy briefs and technical papers on HIV/AIDS and injecting drug users (Evidence for action series website)  
<http://www.who.int/hiv/pub/idu/idupolicybriefs/en/index.html>
63. Effectiveness of interventions to address HIV in prisons (Evidence for action series website)  
<http://www.who.int/hiv/topics/idu/prisons/en/index.html>
- Effectiveness of interventions to address HIV in prisons (Evidence for action technical papers)  
[http://www.who.int/hiv/idu/OMS\\_E4Acomprehensive\\_WEB.pdf](http://www.who.int/hiv/idu/OMS_E4Acomprehensive_WEB.pdf)
70. HIV prevention, treatment and care for injecting drug user (IDU) and prisons (Webpage)  
<http://www.who.int/hiv/topics/idu/en/index.html>
71. Effectiveness of community-based outreach in preventing HIV/AIDS among injecting drug users (Evidence for action technical papers)  
<http://whqlibdoc.who.int/publications/2004/9241591528.pdf>
72. Treatment of injecting drug users with HIV/AIDS: Promoting access and optimizing service delivery  
[http://www.who.int/substance\\_abuse/publications/treatment\\_idus\\_hiv\\_aids.pdf](http://www.who.int/substance_abuse/publications/treatment_idus_hiv_aids.pdf)
73. Training guide for HIV prevention outreach to injecting drug users : workshop manual  
English: <http://whqlibdoc.who.int/hq/2004/9241546352.pdf>  
Russian: <http://www.euro.who.int/document/9241546352R.pdf>

### **1.2.2.1 Needle and syringe programmes**

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 communities and peer groups, 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 cover the safe disposal of used equipment to minimize re-use 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. Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users (Evidence for action technical papers)  
<http://whqlibdoc.who.int/publications/2004/9241591641.pdf>
75. Guide to starting and managing needle and syringe programmes  
[http://www.who.int/hiv/idu/Guide\\_to\\_Starting\\_and\\_Managing\\_NSP.pdf](http://www.who.int/hiv/idu/Guide_to_Starting_and_Managing_NSP.pdf)
76. Treatment and care for HIV-positive injecting drug users  
[http://www.searo.who.int/en/Section10/Section18/Section356\\_14247.htm](http://www.searo.who.int/en/Section10/Section18/Section356_14247.htm)  
Module 1: Drug use and HIV in Asia  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_01\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_01_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 2: Comprehensive services for injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_02\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_02_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 3: Initial patient assessment  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_03\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_03_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 4: Managing opioid dependence  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_04\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_04_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 5: Managing non-opioid drug dependence  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_05\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_05_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 6: Managing ART in injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_06\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_06_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 7: Adherence counselling for injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_07\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_07_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 8: Drug interactions  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_08\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_08_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 9: Management of coinfections in HIV-positive injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_09\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_09_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 10: Managing pain in HIV-infected injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_10\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_10_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 11: Psychiatric illness, psychosocial care and sexual health  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_11\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_11_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 12: Continuing medical education  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_12\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_12_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Trainer manual  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_13\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_13_Treatment_&_Care_for_HIV_positive_IDUs.pdf)

### 1.2.2.2 Drug dependence treatment

Approaches to drug and alcohol dependence management include pharmacotherapy, and psychosocial interventions that 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 overdose, 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 antiretroviral therapy, and overall health and well-being. 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 this treatment reduces HIV transmission rates, though it may complement OST. Unlike the case of opioid users, there are no effective substitution therapies for people with amphetamine-type stimulant, cocaine, hallucinogen or hypnotic dependence. Though not very effective, psychosocial treatment remains the only option for non-opioid users today.

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 are also associated with unsafe sexual behaviour.<sup>16</sup>

<sup>16</sup> [http://www.who.int/substance\\_abuse/publications/en/index.html](http://www.who.int/substance_abuse/publications/en/index.html)

### **Summary of recommendations**

Opioid substitution therapy 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 60–120mg, although higher doses may be required.

#### **Key resources:**

77. Treatment of opioid dependence (WHO webpage)  
[http://www.who.int/substance\\_abuse/activities/treatment\\_opioid\\_dependence/en/index.html](http://www.who.int/substance_abuse/activities/treatment_opioid_dependence/en/index.html)
78. WHO recommendations for clinical mentoring to support scale-up of HIV care, antiretroviral therapy and prevention in resource-constrained settings  
[http://whqlibdoc.who.int/publications/2006/9789241594684\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594684_eng.pdf)
79. Effectiveness of drug dependence treatment in prevention of HIV among injecting drug users (Evidence for action technical papers)  
<http://www.who.int/hiv/pub/idu/en/drugdependencefinaldraft.pdf>
80. WHO/UNODC/UNAIDS position paper: substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention  
English: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_eng.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_eng.pdf)  
Chinese: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_chi.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_chi.pdf)  
Russian: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_rus.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_rus.pdf)  
Cambodian: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_cam.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_cam.pdf)  
Lao: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_lao.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_lao.pdf)  
Vietnamese: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_vie.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_vie.pdf)

### **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 should 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 and to adopting non-injecting drug use (e.g. smoking or ingesting); 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 (Evidence for action technical papers)  
<http://whqlibdoc.who.int/publications/2004/9241591528.pdf>

### **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 section 1.2.1);
- prevention of unintended pregnancies among women living with HIV (see section 1.2.3.1);
- prevention of HIV transmission from women living with HIV to their children (see section 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 section 1.2.3.3).

WHO recommends implementing all four components of the comprehensive approach. It also promotes integrating prevention of mother-to-child transmission (PMTCT) of HIV with maternal, newborn and child health care; antiretroviral therapy; family planning; reproductive health; and STI services to ensure the delivery of a package of essential services for quality maternal, newborn and child care. HIV testing is recommended for all pregnant women, as explained in the section on Provider-initiated testing and counselling (see section 1.1.2.)

### **Summary of recommendations**

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

Women with HIV should be supported in the choice they make for their reproductive life. Health services should ensure women with HIV are (1) provided with the skills, knowledge and commodities necessary to avoid unintended pregnancy or (2) are given support for planning a pregnancy.

All pregnant women with HIV should receive antiretroviral (ARV) medicines: either ARV treatment for life, if eligible for therapy, 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.

All infants born to women living with HIV should receive ARV prophylaxis and follow-up care and support.

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.

Please refer also to the report sections referenced above.

### **Key resources:**

81. Strategic approaches to the prevention of HIV infection in infants. Report of a WHO meeting, Morges, Switzerland, 20-22 March 2002  
<http://www.who.int/hiv/mtct/StrategicApproaches.pdf>
82. 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  
English: [http://whqlibdoc.who.int/publications/2007/9789241596015\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241596015_eng.pdf)  
French: [http://whqlibdoc.who.int/publications/2007/9789242596014\\_fre.pdf](http://whqlibdoc.who.int/publications/2007/9789242596014_fre.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2007/9789280643114\\_rus.pdf](http://whqlibdoc.who.int/publications/2007/9789280643114_rus.pdf)
11. Report of the WHO technical reference group, paediatric HIV/ART care guideline group meeting, WHO Headquarters, Geneva, Switzerland, 10-11 April 2008  
[http://www.who.int/hiv/pub/paediatric/WHO\\_Paediatric\\_ART\\_guideline\\_rev\\_mreport\\_2008.pdf](http://www.who.int/hiv/pub/paediatric/WHO_Paediatric_ART_guideline_rev_mreport_2008.pdf)
83. 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  
English: [http://whqlibdoc.who.int/publications/2006/9789241594660\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594660_eng.pdf)  
French: <http://www.who.int/entity/hiv/mtct/guidelines/Antiretroviraux%20FR.pdf>
84. Testing and counselling for prevention of mother-to-child transmission of HIV (TC for PMTCT) support tools  
<http://www.womenchildrenhiv.org/wchiv?page=vc-10-00#S3.4X>  
<http://www.womenchildrenhiv.org/wchiv?page=vc-10-00-fr>
85. IMAI-IMPAC integrated PMTCT training course  
<http://www.who.int/hiv/capacity/IMAISHarepoint/en/>

### **1.2.3.1 Family planning, counselling and contraception**

Family planning helps women and men make 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 to make 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 both (1) acquiring and transmitting HIV and other STIs, and (2) 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;
- risk of HIV transmission for HIV-discordant couples;
- risk of HIV transmission to the infant, and the effectiveness of antiretroviral medicines in reducing HIV transmission;

- the benefits and risks of various infant-feeding choices.

Women living with HIV can safely and effectively use most of the same contraceptive methods used by women without HIV. However, to also reduce risk of transmission of HIV and other sexually transmitted infections, these methods must be combined with condom use.

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

**Key resources:**

29. Sexual and reproductive health of women living with HIV/AIDS: Guidelines on care, treatment and support for women living with HIV/AIDS and their children in resource-constrained settings  
[http://whqlibdoc.who.int/publications/2006/924159425X\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/924159425X_eng.pdf)
23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)
86. Reproductive choices and family planning for people living with HIV - Counselling tool  
[http://www.who.int/reproductive-health/publications/fphiv\\_flipchart/fp\\_hiv\\_flipchart.ppt](http://www.who.int/reproductive-health/publications/fphiv_flipchart/fp_hiv_flipchart.ppt)  
<http://www.who.int/hiv/capacity/IMAISharepoint/en>
87. Strengthening linkages between family planning and HIV: reproductive choices and family planning for people living with HIV  
[http://www.who.int/reproductive-health/hiv/hiv\\_tecbrief\\_fp.pdf](http://www.who.int/reproductive-health/hiv/hiv_tecbrief_fp.pdf)
88. Palliative care: symptom management and end-of-life care  
English: <http://www.who.int/hiv/pub/imai/genericpalliativecare082004.pdf>  
French: [http://www.who.int/hiv/pub/imai/imai\\_palliative\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_palliative_2008_fr.pdf)
47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)

### 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 (ARV) medicines and optimal infant feeding practices are necessary to reduce HIV transmission to the infant and to promote child survival. These recommendations will be reviewed in 2009.

**Summary of recommendations**

WHO recommends that all pregnant women with HIV receive antiretroviral medicines, either ARV therapy (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 section 1.2.3.3) and should continue it throughout their lives.

Pregnant women with HIV and who are at clinical stage 3 with CD4 < 350 should start ART. Otherwise, recommendations to start ART are the same as for all adults.

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 who need ART should be treated with a full combination regimen, and AZT-containing regimens are recommended (see **Table 1**).

For HIV-positive women who do not yet need ART for their own health, combination ARV regimens for prophylaxis are recommended (see **Table 2**).

The HIV-exposed infant requires ARV prophylaxis at birth (see **Table 3**).

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

WHO does not currently recommend ARV drugs be given to infants solely to prevent breastfeeding transmission.

**Table 1. Recommended first line combination antiretroviral treatment regimens for a pregnant woman**

Mother	Treatment
Antepartum	AZT + 3TC + NVP - twice daily
Intrapartum	AZT + 3TC + NVP - twice daily
Postpartum	AZT + 3TC + NVP - twice daily

AZT: Azidothymidine, Zidovudine; 3TC: Lamivudine; NVP: Nevirapine.

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

**Table 2. Recommended antiretroviral regimens for prophylaxis in pregnant women not yet eligible for ART**

Mother	Treatment
Antepartum	AZT starting at 28 weeks of pregnancy or as soon as feasible thereafter
Intrapartum	Sd-NVP + AZT/3TC
Postpartum	AZT/3TC x 7 days

AZT: Azidothymidine, Zidovudine; 3TC: Lamivudine; Sd-NVP: Single-dose nevirapine.

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

**Table 3. Recommended antiretroviral regimens for prevention of resistance and prophylaxis of intra-partum transmission in infants**

Infant	Treatment
At least 4 weeks maternal ART	AZT x 7 days
< 4 weeks maternal ART	AZT x 4 weeks
At least 4 weeks maternal prophylactic ARV	Sd-NVP + AZT x 7 days
< 4 weeks maternal prophylactic ARV	Sd-NVP + AZT x 4 weeks

AZT: Azidothymidine, Zidovudine; 3TC: Lamivudine; Sd-NVP: Single-dose nevirapine.

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

**Key resources:**

83. 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  
English: [http://whqlibdoc.who.int/publications/2006/9789241594660\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594660_eng.pdf)  
French: <http://www.who.int/entity/hiv/mctct/guidelines/Antiretroviraux%20FR.pdf>
47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.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 the 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 their survival, protect them from HIV infection, and provide them with early antiretroviral treatment if they have acquired HIV infection.

**Summary of recommendations**

Infants known to be exposed to HIV should have a viral test (HIV nucleic acid test, or NAT) at four to six weeks of age or at the earliest opportunity for infants seen after they are six weeks old.

HIV-exposed infants should be regularly followed up.

In settings where local or national antenatal HIV seroprevalence is greater than 5%, infants under six weeks of age and with 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 (see section 1.3.2.1).

**Key resources:**

83. 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  
English: [http://whqlibdoc.who.int/publications/2006/9789241594660\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594660_eng.pdf)  
French: <http://www.who.int/entity/hiv/mctc/guidelines/Antiretroviraux%20FR.pdf>
23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)
12. Scale up of HIV-related prevention, diagnosis, care and treatment for infants and children: A programming framework  
[http://www.who.int/hiv/paediatric/Paeds\\_programming\\_framework2008.pdf](http://www.who.int/hiv/paediatric/Paeds_programming_framework2008.pdf)
13. Antiretroviral therapy for HIV infection in infants and children: towards universal access: recommendations for a public health approach  
[http://whqlibdoc.who.int/publications/2007/9789241594691\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241594691_eng.pdf)
47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)
89. HIV and infant feeding: new evidence and programmatic experience: report of a technical consultation, Geneva, Switzerland, 25-27 October 2006  
[http://whqlibdoc.who.int/publications/2007/9789241595971\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595971_eng.pdf)
11. Report of the WHO technical reference group, paediatric HIV/ART care guideline group meeting, WHO Headquarters, Geneva, Switzerland, 10-11 April 2008  
[http://www.who.int/hiv/pub/paediatric/WHO\\_Paediatric\\_ART\\_guideline\\_rev\\_mreport\\_2008.pdf](http://www.who.int/hiv/pub/paediatric/WHO_Paediatric_ART_guideline_rev_mreport_2008.pdf)

### 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% to 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 is 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 six months of life unless replacement feeding is Acceptable, Feasible, Affordable, Sustainable and Safe (AFASS) for mothers and their infants before that time.

When replacement feeding is AFASS, it is recommended that all HIV-infected women avoid breastfeeding.

Breastfeeding mothers of infants or young children who are known to be HIV-infected should be strongly encouraged to continue breastfeeding.

Health services should help women make appropriate infant feeding choices and should continue to offer infant feeding, counselling and support, regardless of the woman's decision. This is particularly important at key points when feeding decisions may be reconsidered, such as the time of infant testing for HIV, and when the infant is six months old.

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

At six months, complementary feeding needs to be introduced, and if replacement feeding is still not AFASS, then continued 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 antiretroviral therapy can breastfeed their infants if replacement feeding is not AFASS, but they should be made aware that some antiretroviral medicines are found in the mother's milk.

### **Key resources:**

90. WHO HIV and infant feeding technical consultation - consensus statement  
[http://www.who.int/child\\_adolescent\\_health/documents/if\\_consensus/en/index.html](http://www.who.int/child_adolescent_health/documents/if_consensus/en/index.html)  
English: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/who\\_hiv\\_infant\\_feeding\\_technical\\_consultation.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/who_hiv_infant_feeding_technical_consultation.pdf)  
French: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/who\\_hiv\\_infant\\_feeding\\_technical\\_consultation\\_fr.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/who_hiv_infant_feeding_technical_consultation_fr.pdf)  
Portuguese: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/who\\_hiv\\_infant\\_feeding\\_technical\\_consultation\\_pt.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/who_hiv_infant_feeding_technical_consultation_pt.pdf)  
Spanish: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/who\\_hiv\\_infant\\_feeding\\_technical\\_consultation\\_es.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/who_hiv_infant_feeding_technical_consultation_es.pdf)
91. Complementary feeding: Report of the global consultation, and summary of guiding principles for complementary feeding of the breastfed child  
<http://whqlibdoc.who.int/publications/2002/924154614X.pdf>
92. Child and adolescent Health and development: HIV/AIDS publications (WHO web page)  
[http://www.who.int/child\\_adolescent\\_health/documents/hiv\\_aids/en/index.html](http://www.who.int/child_adolescent_health/documents/hiv_aids/en/index.html)
93. IMCI chart booklet for high HIV settings  
[http://whqlibdoc.who.int/publications/2006/9789241594370.cb\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.cb_eng.pdf)
94. HIV and infant feeding: framework for priority action  
English: [http://whqlibdoc.who.int/publications/2003/9241590777\\_eng.pdf](http://whqlibdoc.who.int/publications/2003/9241590777_eng.pdf)  
French: <http://whqlibdoc.who.int/publications/2004/9242590770.pdf>  
Spanish: <http://whqlibdoc.who.int/publications/2004/9243590774.pdf>  
Chinese: [http://whqlibdoc.who.int/publications/chinese/9290612789\\_chi.pdf](http://whqlibdoc.who.int/publications/chinese/9290612789_chi.pdf)  
Portuguese: [http://whqlibdoc.who.int/publications/portuguese/9248590772\\_por.pdf](http://whqlibdoc.who.int/publications/portuguese/9248590772_por.pdf)

## **1.2.4 Prevention of HIV transmission in health settings**

Though estimates vary by region, as many as 5–10% of new HIV infections in low- and middle-income countries may be attributable to exposures in health care settings, including unsafe injections, unsafe blood and occupational exposures. However, experts acknowledge that there is substantial uncertainty around this estimate.

In health care settings, transmission of HIV can be prevented through primary prevention measures such as standard precautions, injection safety, blood safety and safe waste disposal, as well as secondary prevention measures, such as post-exposure prophylaxis for occupational exposure.

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

### **Summary of recommendations**

All health facilities should:

- have a zero tolerance policy for HIV transmission, an infection control plan, a person or team responsible for infection control, 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 needles.

### **Key resources:**

95. Aide memoire: Infection control standard precautions in health care  
English: [http://www.who.int/csr/resources/publications/EPR\\_AM2\\_E7.pdf](http://www.who.int/csr/resources/publications/EPR_AM2_E7.pdf)  
French: [http://www.who.int/csr/resources/publications/EPR\\_AM2\\_FR3.pdf](http://www.who.int/csr/resources/publications/EPR_AM2_FR3.pdf)
56. Joint ILO/WHO guidelines on health services and HIV/AIDS  
English: [http://whqlibdoc.who.int/publications/2005/9221175537\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9221175537_eng.pdf)  
French: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_ilo\\_guidelines\\_fr.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_ilo_guidelines_fr.pdf)  
Spanish: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_ilo\\_guidelines\\_sp.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_ilo_guidelines_sp.pdf)  
Russian: [http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelines\\_ru.pdf](http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelines_ru.pdf)  
Arabic: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_arabic.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_arabic.pdf)  
Chinese: <http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelineschinese-pdf.pdf>  
Indonesian: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_indonesian.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_indonesian.pdf)  
Vietnamese: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_vietnamese.PDF](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_vietnamese.PDF)

### **1.2.4.1 Safe injections**

Injection is one of the most common health procedures. Each year some 16 billion injections are administered in low- and middle-income countries. The vast majority, around 95%, are given as part of curative care. Immunization accounts for around 3% of all injections, with the remainder for other indications, including use of injections for transfusion of blood and blood products and contraceptives.

In certain regions of the world, use of injections has overtaken the real need, reaching levels that are not based on rational medical practice. In some situations, as many as 90% of patients who visit to a primary health provider receive an injection; more than 70% of these injections are unnecessary, or could be given in an oral formulation.

A safe injection does no harm. However, unsafe injections expose millions of health care patients to infections, including hepatitis B and C viruses, and HIV. Worldwide, up to 39% of injections are given with syringes and needles re-used without sterilization, and in some countries this proportion is as high as 70%.

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 a behavioural change strategy targeting health care workers and patients.** This includes culturally adapted communication strategies targeting health workers and the community to reduce injection overuse and create consumer demand for safety devices. Twenty years into the HIV pandemic, knowledge of HIV among patients and health workers in some countries has driven consumer demand for safe injection equipment and has substantially improved injection practices.

**Ensure continuous availability of good quality equipment and supplies.** Simply increasing the availability of safe injection equipment can stimulate demand and improve practices.

**Manage waste safely and appropriately.** Waste disposal is frequently not an integral part of health planning, and unsafe waste management is common. National health waste management strategies require a national policy, a comprehensive system for implementation, and improved awareness and training of health workers at all levels, as well as the selection of appropriate options for local solutions.

#### **Key resource:**

96. Injection safety toolbox: Resources to assist in the management of national safe and appropriate use of injection policies (WHO web page)  
[http://www.who.int/injection\\_safety/toolbox/en/](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. Contaminated needles and syringes, when poorly managed, represent a particular threat to staff and patients. They also pose a threat to the community at large when waste ends up in uncontrolled areas and dump sites at the health facility, where needles and syringes may be scavenged and re-used.



### **Summary of recommendations**

Promote environmentally sound management policies for health waste.

#### **Key resources:**

97. Healthcare waste management (web page)  
[http://www.healthcarewaste.org/en/115\\_overview.html](http://www.healthcarewaste.org/en/115_overview.html)
98. Operations manual for the delivery of HIV prevention, care and treatment at primary health centres in high-prevalence resource-constrained settings  
<http://www.who.int/hiv/capacity/IMA/sharepoint/en>

### **1.2.4.3 Occupational health of healthcare workers**

For health workers, exposure to the blood of those receiving care occurs most often 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 expose the patient to infection. Also, when injecting and other equipment is poorly sterilized, HIV may be passed from an HIV-infected individual to an uninfected patient within the health care setting.

Protecting the occupational health of health workers and ensuring that they know their status and receive HIV treatment as appropriate is an important priority for the health sector. Please also see Infection Control in section 1.3.2.4.

#### **Summary of recommendations**

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

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 health workers.

Provide training to health care workers and involve them in identifying and controlling hazards.

Promote health workers' 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 antiretroviral prophylaxis for HIV.

Promote reporting of incidents and quality control of services provided.

#### **Key resources:**

56. Joint ILO/WHO guidelines on health services and HIV/AIDS  
English: [http://whqlibdoc.who.int/publications/2005/9221175537\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9221175537_eng.pdf)  
French: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_ilo\\_guidelines\\_fr.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_ilo_guidelines_fr.pdf)  
Spanish: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_iloguidelines\\_sp.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_iloguidelines_sp.pdf)  
Russian: [http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelines\\_ru.pdf](http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelines_ru.pdf)  
Arabic: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_arabic.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_arabic.pdf)  
Chinese: <http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelineschinese.pdf.pdf>  
Indonesian: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_indonesian.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_indonesian.pdf)  
Vietnamese: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_vietnamese.PDF](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_vietnamese.PDF)
99. Protecting healthcare workers: Preventing needlestick injuries toolkit (website)  
[http://www.who.int/occupational\\_health/activities/pnitoolkit/en/index.html](http://www.who.int/occupational_health/activities/pnitoolkit/en/index.html)
100. IMAI acute care  
English: [http://www.who.int/hiv/pub/imai/en/acutecarerev2\\_e.pdf](http://www.who.int/hiv/pub/imai/en/acutecarerev2_e.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_acutecare\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_acutecare_2008_fr.pdf)

### **1.2.4.4 Occupational post-exposure prophylaxis**

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

The vast majority of incidents of occupational exposure to blood-borne pathogens, including HIV, occur in health 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 health 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.

Antiretroviral (ARV) drugs 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 Nucleoside Reverse Transcriptase Inhibitor (NRTI) drugs. If HIV drug resistance is suspected, the addition of a protease inhibitor may be considered.

ARVs for PEP should be administered for 28 days.

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

### **Key resources:**

66. Post-exposure prophylaxis to prevent HIV infection: Joint WHO/ILO guidelines on post-exposure prophylaxis (PEP) to prevent HIV infection  
[http://whqlibdoc.who.int/publications/2007/9789241596374\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241596374_eng.pdf)
56. Joint ILO/WHO guidelines on health services and HIV/AIDS  
English: [http://whqlibdoc.who.int/publications/2005/9221175537\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9221175537_eng.pdf)  
French: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_ilo\\_guidelines\\_fr.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_ilo_guidelines_fr.pdf)  
Spanish: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_iloguidelines\\_sp.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_iloguidelines_sp.pdf)  
Russian: [http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelines\\_ru.pdf](http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelines_ru.pdf)  
Arabic: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_arabic.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_arabic.pdf)  
Chinese: <http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelineschinese-pdf.pdf>  
Indonesian: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_indonesian.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_indonesian.pdf)  
Vietnamese: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_vietnamese.PDF](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_vietnamese.PDF)

## **1.2.4.5 Blood safety**

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 if blood is available, many recipients of blood and blood products are 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 based on voluntary non-remunerated donations, 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 unpaid 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, where possible, the use of intravenous replacement fluids and other simple alternatives to transfusion.

### Key resources:

14. WHO Blood transfusion safety (WHO web page)  
<http://www.who.int/bloodsafety/en/>
101. Aide memoire on blood safety for national blood programmes  
English: [http://www.who.int/entity/bloodsafety/transfusion\\_services/en/Blood\\_Safety\\_Eng.pdf](http://www.who.int/entity/bloodsafety/transfusion_services/en/Blood_Safety_Eng.pdf)  
French: [http://www.who.int/entity/bloodsafety/transfusion\\_services/en/Blood\\_Safety\\_French.pdf](http://www.who.int/entity/bloodsafety/transfusion_services/en/Blood_Safety_French.pdf)  
Portuguese: [http://www.who.int/entity/bloodsafety/transfusion\\_services/en/Blood\\_Safety\\_Port.pdf](http://www.who.int/entity/bloodsafety/transfusion_services/en/Blood_Safety_Port.pdf)  
Spanish: [http://www.who.int/entity/bloodsafety/transfusion\\_services/en/Blood\\_Safety\\_Span.pdf](http://www.who.int/entity/bloodsafety/transfusion_services/en/Blood_Safety_Span.pdf)
102. Global database on blood safety (WHO web page)  
[http://www.who.int/bloodsafety/global\\_database/en/](http://www.who.int/bloodsafety/global_database/en/)
103. Prioritizing second-line antiretroviral drugs for adults and adolescents: a public health approach. Report of a WHO working group meeting, Geneva, Switzerland, 21-22 May 2007  
[http://www.who.int/hiv/pub/meetingreports/Second\\_Line\\_Antiretroviral.pdf](http://www.who.int/hiv/pub/meetingreports/Second_Line_Antiretroviral.pdf)

## 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 antiretroviral therapy (ART), with pre-ART care that includes regular assessment of the clinical and immunological stage of infection. Interventions for treatment and care include ART and treatment and management of common infections, co-morbidities and toxicities. However, the interventions should also address cardiovascular disease, malignancies, palliative care and end-of-life care.

To optimize and maximize the benefit of 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 in this document are recommended to improve quality of life and to 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 in this document, or a so-called 'continuum of care'. There should be careful consideration of the special needs of injection drug users, sex workers, young people, and men who have sex with men. 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. Attention must also be paid to costs, including the costs of making interventions available and accessible to all who need them. The hidden costs of laboratory testing, transportation and time away from work need to be taken into account. None of these costs should be allowed to impede access to services by people who need them.

Laboratory services required to accelerate the scale up of 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; measures to reduce the incidence of pneumonia, diarrhoea and other conditions that are more common or more serious in children or adults with HIV; screening to detect common malignancies and other co-morbidities; and immunization. **Table 4** 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. These interventions are further discussed in sections 1.3.1.1–1.3.1.6).

**Table 4. Interventions to prevent illness in people living with HIV**

Recommended	Consider
Cotrimoxazole	Influenza vaccine
Safe water, water treatment methods	Yellow fever vaccination if no advance or severe disease
Sanitation, proper disposal of faeces	
Hand washing with soap after defecation or handling faeces	
Hepatitis vaccine for Hep B core antibody negative adults	
TB screening	Optional
Isoniazid preventive therapy for TB	Chemoprophylaxis for Cryptococcus
Intermittent preventive treatment for malaria in pregnant women in malarious areas	Pneumococcal vaccine for adults (polysaccharide vaccine) if CD4 > 500
Indoor residual spraying and insecticide-treated bednets if living in malarious areas	
Full nutritional assessment	

#### **Key resources:**

23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)
47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)

#### 1.3.1.1 Cotrimoxazole prophylaxis

Cotrimoxazole is an effective, well tolerated and inexpensive antibiotic used to prevent Pneumocystis 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 the disease burden in different settings. All HIV-infected adults with a previous episode of PCP require cotrimoxazole prophylaxis, as do all HIV-infected infants and children under five years of age. 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 cotrimoxazole 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, irrespective of 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 if adverse drug reactions occur. Due to insufficient data at this time, stopping cotrimoxazole 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 counts.

**Key resource:**

104. Guidelines on co-trimoxazole prophylaxis for HIV-related infections among children, adolescents and adults: recommendations for a public health approach  
English: [http://whqlibdoc.who.int/publications/2006/9789241594707\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594707_eng.pdf)  
French: [http://whqlibdoc.who.int/publications/2007/9789242594706\\_fre.pdf](http://whqlibdoc.who.int/publications/2007/9789242594706_fre.pdf)

### 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/mm<sup>3</sup>), 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 resource:**

23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)

### 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**

As early in life as possible, HIV-exposed infants and children should receive all vaccines under the Expanded Programme for Immunization, including Haemophilus influenzae type B and pneumococcal vaccine. 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 nine months of age as possible, unless they are severely immunocompromised at that time. Similarly, immunization with pneumococcal conjugate vaccine or Haemophilus influenzae type B conjugate vaccine should be delayed if the child is severely immunocompromised.

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 normally 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 immunosuppression 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 hepatitis B

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 papillomavirus vaccination for young females with HIV.

**Key resources:**

23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)
105. Vaccine-preventable diseases, vaccines and vaccination  
[http://whqlibdoc.who.int/publications/2005/9241580364\\_chap6.pdf](http://whqlibdoc.who.int/publications/2005/9241580364_chap6.pdf)
106. Revised BCG vaccination guidelines for infants at risk for HIV infection  
<http://www.who.int/wer/2007/wer8221.pdf>

### 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 mal-absorption. This, combined with environmental factors—such as a 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, Body Mass Index 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. 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% of the total energy intake.

Whenever feasible, people with HIV and their families who lack the means to meet their basic dietary needs should be assisted in achieving food security. Assistance might, for example, include supplements to their income, or direct provision of some of their food.

**Key resources:**

23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)
107. Nutrition counselling, care and support for HIV-infected women  
[http://www.who.int/hiv/pub/prev\\_care/en/nutri\\_eng.pdf](http://www.who.int/hiv/pub/prev_care/en/nutri_eng.pdf)
108. Integrating nutrition and food assistance into HIV care and treatment programmes: operational guidance  
[http://www.who.int/hiv/topics/arv/who\\_wfp\\_nutrition.pdf](http://www.who.int/hiv/topics/arv/who_wfp_nutrition.pdf)
109. WHO Executive Board EB116/12 116th Session 12 May 2005: Nutrition and HIV/AIDS  
[http://www.who.int/gb/ebwha/pdf\\_files/EB116/B116\\_12-en.pdf](http://www.who.int/gb/ebwha/pdf_files/EB116/B116_12-en.pdf)

### 1.3.1.5 Providing safe water, sanitation and hygiene

Simple, accessible and affordable interventions to ensure safe household water and sanitation (i.e. management of human waste) reduce the risk of transmission of water-borne 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. Over 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 20 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:**

23. [Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)

## **1.3.1.6 Preventing malaria**

In malarious areas, infants and children under five years of age and pregnant women with HIV are at high risk of complications resulting from coinfection 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 cotrimoxazole 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 cotrimoxazole should be given at least three doses of intermittent preventive treatment for malaria as part of their routine antenatal care.

### **Key resource:**

23. [Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)

## **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 section 1.3.2.1)
- Treatment preparedness and adherence support (see section 1.3.2.1.1)
- Management of opportunistic infections and co-morbidities (see section 1.3.2.2)
- Prevention and treatment of mental health disorders (see section 1.3.2.2.7)
- Palliative care (see section 1.3.2.3).

### **1.3.2.1 Antiretroviral therapy for adults, adolescents and children**

A public health approach to antiretroviral therapy (ART) facilitates quality HIV treatment for all who need it, 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 that these drugs be made 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 antiretroviral regimens, WHO recommends that countries develop a national strategy for

HIV drug resistance prevention and assessment (see section 3.3.4). WHO also recommends any expansion or improvement of laboratory services that may be necessary for diagnosis and treatment of HIV, opportunistic infections and related conditions, and to support monitoring of treatment effectiveness (see section 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. At present, 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 be based on the minimum clinical data and, wherever available, CD4 counts. Laboratory eligibility criteria, including any requirements that may be in place 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 Table 5–Table 7. 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. Revised recommendations have been developed for infants requiring ART who have been exposed to nevirapine pre-delivery, perinatally 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 inhibitor (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 Emtricitabine (FTC) are the preferred first-line NRTI medicines. In children, AZT or Abacavir (ABC) combined with 3TC are preferred. First-line regimens for people with active hepatitis B should contain Tenofovir and Lamivudine and avoid nevirapine whenever 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 the WHO Regional Offices for Southeast Asia, Europe, the Americas/Pan American Health Organization, and the Western Pacific are referenced in Chapter 6.

**Patients who develop failure of their first-line therapy will 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 viral load 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 viral load criteria are best used to recognize treatment failure.

**Table 5. WHO recommendations for initiating antiretroviral therapy in adults and adolescents (2006)**

WHO clinical stage	CD4 testing	
	Not available	Available
1	Do not start ART	Start ART if CD4 is < 200 /mm <sup>3</sup>
2	Do not start ART	
3	Start ART	Consider starting ART if cd4 < 350/mm <sup>3</sup> , starting before it drops to < 200 /mm <sup>3</sup> Recommended for all HIV+ pregnant women if CD4 < 350 /mm <sup>3</sup>
4	Start ART	Start all irrespective of CD4



**Table 6. WHO recommendations for initiating antiretroviral treatment in infants and children**

Criteria to start ART in infants and children				
Age	Infants <12 months	12 months through 35 months	36 months through 59 months	5 years or over
% CD4	All	<20	<20	<15
Absolute CD4 #		<750mm <sup>3</sup>	<350mm <sup>3</sup>	As in adults (<200)

# Absolute CD4 count is naturally less constant and more age-dependent than %CD4; it is not therefore appropriate to define a single threshold.

**Table 7. Summary of WHO preferred antiretroviral treatment recommendations for infants, children and adults**

Patient group	Preferred first line regimen	Preferred second line regimen
<b>Infants</b>		
Infant not exposed to ARV	NVP + 2 NRTI	Boosted PI + 2 NRTI
Infant with unknown ARV exposure	NVP + 2 NRTI	Boosted PI + 2 NRTI
Infant exposed to NVP	LPV/r + 2NRTI	NNRTI + 2 NRTI
<b>Children</b>		
Children 3 years or over	NNRTI + 2 NRTI	Boosted PI + 2 NRTI
<b>Adult or adolescents</b>		
Adult or adolescent	NNRTI + 2 NRTI	Boosted PI + 2 NRTI
Woman starting ART in pregnancy	NVP + AZT + 3TC	Doesn't apply
Women starting ART within 6 months of single dose NVP	NNRTI + 2 NRTI or 3 NRTI	Doesn't apply
<b>Concomitant conditions</b>		
Child, adolescent or adult with severe anaemia	NVP + 2NRTI (avoid AZT)	Boosted PI + 2NRTI (avoid AZT)
Child, adolescent or adult with TB	EFV + 2 NRTI or 3 NRTI	Boosted PI * + 2 NRTI
Adult or adolescent with Hepatitis B	TDF + 3TC + NNRTI	Boosted PI + 2 NRTI**
Adult or adolescent with Hepatitis C	EFV + 2 NRTI	Boosted PI + 2 NRTI
IDU	NNRTI + 2 NRTI	Boosted PI + 2 NRTI
HIV-2 or dual infection	3 NRTI	Boosted PI + 2 NRTI

\* 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.

NNRTI = Non-nucleoside reverse transcriptase Inhibitor, NRTI= nucleoside/nucleotide reverse transcriptase inhibitor, PI= Protease inhibitor, IDU= Injecting drug user, AZT= Azidothymidine, 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.

**Key resources:**

8. WHO case definitions of HIV for surveillance and revised clinical staging and immunological classification of HIV-related disease in adults and children  
<http://www.who.int/hiv/pub/guidelines/HIVstaging150307.pdf>
13. Antiretroviral therapy for HIV infection in infants and children: towards universal access: recommendations for a public health approach  
[http://whqlibdoc.who.int/publications/2007/9789241594691\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241594691_eng.pdf)
110. Antiretroviral therapy for HIV infection in adults and adolescents: recommendations for a public health approach: 2006 revision  
[http://whqlibdoc.who.int/publications/2006/9789241594677\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594677_eng.pdf)  
Addendum: <http://www.who.int/entity/hiv/art/ARTadultsaddendum.pdf>
47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)

103. Prioritizing second-line antiretroviral drugs for adults and adolescents: a public health approach. Report of a WHO working group meeting, Geneva, Switzerland, 21-22 May 2007  
[http://www.who.int/hiv/pub/meetingreports/Second\\_Line\\_Antiretroviral.pdf](http://www.who.int/hiv/pub/meetingreports/Second_Line_Antiretroviral.pdf)
111. Prequalification programme: A United Nations Programme managed by WHO (WHO website)  
<http://healthtech.who.int/pg/>
11. Report of the WHO technical reference group, paediatric HIV/ART care guideline group meeting, WHO Headquarters, Geneva, Switzerland, 10-11 April 2008  
[http://www.who.int/hiv/pub/paediatric/WHO\\_Paediatric\\_ART\\_guideline\\_rev\\_mreport\\_2008.pdf](http://www.who.int/hiv/pub/paediatric/WHO_Paediatric_ART_guideline_rev_mreport_2008.pdf)
112. IMAI-IMCI basic chronic HIV/ ART clinical training course  
<http://www.who.int/hiv/capacity/IMAISHAREPOINT/EN>
113. IMAI basic ART aid (lay counsellor) training modules  
<http://www.who.int/hiv/capacity/IMAISHAREPOINT/EN>
114. Patient treatment cards  
<http://www.who.int/hiv/capacity/IMAISHAREPOINT/EN>
115. Flipchart for patient education: HIV prevention, treatment and care  
<http://www.who.int/hiv/capacity/IMAISHAREPOINT/EN>
116. HIV/AIDS treatment and care: clinical protocols for the WHO European Region  
English: <http://www.euro.who.int/document/e90840.pdf>  
Russian: <http://www.euro.who.int/document/e90840R.pdf>
62. Antiretroviral medication policy for refugees  
[http://data.unaids.org/pub/Report/2007/20070326\\_unhcr\\_art\\_en.pdf](http://data.unaids.org/pub/Report/2007/20070326_unhcr_art_en.pdf)
117. Addressing HIV in humanitarian settings  
Forthcoming in 2009
118. WHO consultation on ART failure in the context of a public health approach: 2008 meeting report  
Forthcoming in 2009

### 1.3.2.1.1 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 patients 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 health worker recommendations is a major factor that can be addressed through information, education and counselling. Equally important are practical matters, such as the need for free or affordable transportation to and from treatment centres and the need for those centres to have convenient opening hours for patients.

Treatment 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; they are at a stage of life where they may be inclined to ignore or rebel against the advice of adults, unless adults show respect for their emerging autonomy. Health care providers have responsibilities to assess risk of non-adherence by children and adolescents, and deliver necessary interventions to support adherence. This requires a multidisciplinary approach involving key staff at health centres to ensure convenient opening hours, free or affordable transportation, reduced direct or indirect costs of care, the 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. Health care providers should be prepared to assess their patient's readiness to adhere, offer 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, support from peer educators trained as 'expert patients', and community treatment supporters. These interventions 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:**

119. Adherence to long-term therapies: Evidence for action  
[http://www.who.int/chp/knowledge/publications/adherence\\_introduction.pdf](http://www.who.int/chp/knowledge/publications/adherence_introduction.pdf)  
[http://www.who.int/hiv/pub/prev\\_care/lttherapies/en/](http://www.who.int/hiv/pub/prev_care/lttherapies/en/)
47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)

#### **1.3.2.1.2 Patient monitoring**

Infants, children and adults with HIV require clinical and laboratory monitoring at predetermined 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 3.3.3).

#### **1.3.2.2 Managing opportunistic infections and co-morbidities**

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:**

47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)
100. IMAI acute care  
English: [http://www.who.int/hiv/pub/imai/en/acuteacarerev2\\_e.pdf](http://www.who.int/hiv/pub/imai/en/acuteacarerev2_e.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_acutecare\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_acutecare_2008_fr.pdf)
93. IMCI chart booklet for high HIV settings  
[http://whqlibdoc.who.int/publications/2006/9789241594370.cb\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.cb_eng.pdf)
23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)
120. IMAI OI training course (based on IMAI Acute Care guideline module)  
<http://www.who.int/hiv/capacity/IMAISHAREPOINT/en>
121. Global action plan for the prevention and control of pneumonia (GAPP): report of an informal consultation  
[http://whqlibdoc.who.int/publications/2008/9789241596336\\_eng.pdf](http://whqlibdoc.who.int/publications/2008/9789241596336_eng.pdf)

#### **1.3.2.2.1 Managing HIV-related conditions**

At a minimum, case management protocols for adults and children with HIV should include the conditions listed below, as well as other locally prevalent conditions.

### **Infections:**

- Candida (oesophageal and mucosal)
- Cryptococcal meningitis
- Cytomegalovirus infection
- Herpes virus infections (zoster and simplex)
- Hepatitis B and C
- Pneumocystis pneumonia (PCP)
- Septicaemia (including especially Gram negative and Gram positive for IDU)
- Severe bacterial pneumonia
- Malaria
- Toxoplasmosis

- Tuberculosis including multidrug-resistant (MDR) and extensively drug-resistant (XDR) (see section 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

**Key resources:**

47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)
100. IMAI acute care  
English: [http://www.who.int/hiv/pub/imai/en/acutecarerev2\\_e.pdf](http://www.who.int/hiv/pub/imai/en/acutecarerev2_e.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_acutecare\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_acutecare_2008_fr.pdf)
93. IMCI chart booklet for high HIV settings  
[http://whqlibdoc.who.int/publications/2006/9789241594370.cb\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.cb_eng.pdf)
122. Integrated management of childhood illness, complementary course on HIV/AIDS  
Introduction: [http://whqlibdoc.who.int/publications/2006/9789241594370.intro\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.intro_eng.pdf)  
Module 1: [http://whqlibdoc.who.int/publications/2006/9789241594370.m1\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.m1_eng.pdf)  
Module 2: [http://whqlibdoc.who.int/publications/2006/9789241594370.m2\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.m2_eng.pdf)

Module 3: [http://whqlibdoc.who.int/publications/2006/9789241594370.m3\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.m3_eng.pdf)  
Module 4: [http://whqlibdoc.who.int/publications/2006/9789241594370.m4\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.m4_eng.pdf)  
Facilitator guide for modules: [http://whqlibdoc.who.int/publications/2006/9789241594370.fg\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.fg_eng.pdf)  
Photo booklet: [http://whqlibdoc.who.int/publications/2006/9789241594370.pb\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.pb_eng.pdf)  
Chart booklet: [http://whqlibdoc.who.int/publications/2006/9789241594370.cb\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.cb_eng.pdf)

123. Policy for prevention of oral manifestations in HIV/AIDS: The approach of the WHO Global Oral Health Programme  
<http://adr.iadrjournals.org/cgi/reprint/19/1/17.pdf>
124. Pocket book of hospital care for children: guidelines for the management of common illnesses with limited resources  
English: <http://whqlibdoc.who.int/publications/2005/9241546700.pdf>  
French: [http://whqlibdoc.who.int/publications/2007/9789242546705\\_fre.pdf](http://whqlibdoc.who.int/publications/2007/9789242546705_fre.pdf)  
Portuguese: [http://whqlibdoc.who.int/publications/2005/9789248546709\\_por.pdf](http://whqlibdoc.who.int/publications/2005/9789248546709_por.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2005/9241546700\\_rus.pdf](http://whqlibdoc.who.int/publications/2005/9241546700_rus.pdf)

### 1.3.2.2.2 Managing 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 five 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 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 people with HIV infection and should always be considered.

#### **Key resources:**

100. IMAI acute care  
English: [http://www.who.int/hiv/pub/imai/en/acutecarerev2\\_e.pdf](http://www.who.int/hiv/pub/imai/en/acutecarerev2_e.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_acutecare\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_acutecare_2008_fr.pdf)
93. IMCI chart booklet for high HIV settings  
[http://whqlibdoc.who.int/publications/2006/9789241594370.cb\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.cb_eng.pdf)

### 1.3.2.2.3 Managing 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:**

125. Implementing the new recommendations on the clinical management of diarrhoea: Guidelines for policy makers and programme managers  
English: [http://whqlibdoc.who.int/publications/2006/9241594217\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9241594217_eng.pdf)  
French: [http://whqlibdoc.who.int/publications/2006/9242594210\\_fre.pdf](http://whqlibdoc.who.int/publications/2006/9242594210_fre.pdf)  
Chinese: [http://whqlibdoc.who.int/publications/2006/9241594217\\_chi.pdf](http://whqlibdoc.who.int/publications/2006/9241594217_chi.pdf)  
Russian: <http://www.euro.who.int/document/9244594218R.pdf>
124. Pocket book of hospital care for children: guidelines for the management of common illnesses with limited resources  
English: <http://whqlibdoc.who.int/publications/2005/9241546700.pdf>  
French: [http://whqlibdoc.who.int/publications/2007/9789242546705\\_fre.pdf](http://whqlibdoc.who.int/publications/2007/9789242546705_fre.pdf)  
Portuguese: [http://whqlibdoc.who.int/publications/2005/9789248546709\\_por.pdf](http://whqlibdoc.who.int/publications/2005/9789248546709_por.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2005/9241546700\\_rus.pdf](http://whqlibdoc.who.int/publications/2005/9241546700_rus.pdf)

### 1.3.2.2.4 Managing 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 Body Mass Index (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:**

126. Community-based management of severe acute malnutrition: A Joint Statement by the World Health Organization, the World Food Programme, the United Nations  
English: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/severe\\_acute\\_malnutrition\\_en.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/severe_acute_malnutrition_en.pdf)  
French: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/severe\\_acute\\_malnutrition\\_fr.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/severe_acute_malnutrition_fr.pdf)

### **1.3.2.2.5 Treating viral hepatitis**

In many areas of the world, chronic liver disease caused by either hepatitis B virus (HBV) or hepatitis C virus (HCV) in patients with HIV is common, and this disease is now becoming one of the leading causes of morbidity and mortality among people living with HIV in many regions. Globally, approximately 10% of people with HIV have chronic hepatitis B. Men who have sex with men have higher rates of HBV/HIV coinfection than injecting drug users or heterosexuals.

HCV and HIV coinfection is particularly frequent in areas with a high prevalence of intravenous drug users; in some areas, up to two-thirds of injection drug users have chronic hepatitis C. In Europe, up to 30% of HIV-infected individuals are coinfecting with HCV. The course of HBV- and HCV-related liver disease may be accelerated with HIV. 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-coinfecting patients with cirrhosis, hepatocellular carcinoma 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 coinfecting individuals, as well as activities to prevent HBV and HCV transmission.

In addition to the key resources listed below, detailed recommendations for clinical management can be found in clinical protocols from the WHO Regional Office for Europe<sup>17</sup> and in other regional resources noted in Chapter 6.

#### **Key resources:**

127. HIV/AIDS treatment and care for injecting drug users: Clinical protocol for the WHO European Region  
[http://www.euro.who.int/document/SHA/e90840\\_chapter\\_5.pdf](http://www.euro.who.int/document/SHA/e90840_chapter_5.pdf)
128. Management of Hepatitis C and HIV coinfection: clinical protocol for the WHO European region  
[http://www.euro.who.int/document/SHA/e90840\\_chapter\\_6.pdf](http://www.euro.who.int/document/SHA/e90840_chapter_6.pdf)
129. Prevention of hepatitis A, B and C and other hepatotoxic factors in people living with HIV: Clinical protocol for the WHO European Region  
[http://www.euro.who.int/document/SHA/e90840\\_chapter\\_8.pdf](http://www.euro.who.int/document/SHA/e90840_chapter_8.pdf)
130. WHO EURO hepatitis website  
[http://www.euro.who.int/aids/hepatitis/20070621\\_1](http://www.euro.who.int/aids/hepatitis/20070621_1)

### **1.3.2.2.6 Managing malaria**

Current recommendations on diagnosis and management of malaria in people living with HIV are no different than those for the general population. These recommendations are due to be reviewed in late 2008.

#### **Summary of recommendations**

For adults and children with HIV living in malarious areas who have a 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

<sup>17</sup> HIV/AIDS Treatment and Care Clinical Protocols for the WHO European Region, 2007.  
[http://www.euro.who.int/InformationSources/Publications/Catalogue/20071121\\_1](http://www.euro.who.int/InformationSources/Publications/Catalogue/20071121_1)

treatment. Patients with HIV who are receiving cotrimoxazole prophylaxis should not be given sulfadoxine-pyrimethamine.

**Key resources:**

131. Guidelines for the treatment of malaria  
<http://www.who.int/malaria/docs/TreatmentGuidelines2006.pdf>
132. Malaria and HIV interactions and their implications for public health policy  
English: <http://whqlibdoc.who.int/publications/2005/9241593350.pdf>  
French: <http://www.who.int/entity/hiv/pub/meetingreports/malaria-hiv-fr.pdf>

### 1.3.2.2.7 Preventing and treating mental health disorders

Prevention and treatment of mental health disorders and provision of 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 antiretroviral therapy 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. This requires referrals connecting HIV-related services 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:**

133. Psychiatric care in ARV therapy (for second level care): Module 3 WHO mental health and HIV/AIDS series  
[http://whqlibdoc.who.int/publications/2005/9241593083\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593083_eng.pdf)
134. Psychosocial support groups in Antiretroviral (ARV) Therapy: Module 4 in the WHO mental health and HIV/AIDS series  
Series 1: [http://whqlibdoc.who.int/publications/2005/9241593040\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593040_eng.pdf)  
Series 2: [http://whqlibdoc.who.int/publications/2005/9241593067\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593067_eng.pdf)  
Series 3: [http://whqlibdoc.who.int/publications/2005/9241593083\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593083_eng.pdf)  
Series 4: [http://whqlibdoc.who.int/publications/2005/9241593105\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593105_eng.pdf)  
Series 5: [http://whqlibdoc.who.int/publications/2005/9241593091\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593091_eng.pdf)
47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)

### 1.3.2.2.8 Counselling

Counselling is an essential component of HIV services, and requires specific skills and competencies from health 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 antiretroviral therapy;
- 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).

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

**Key resources:**

135. Basic counselling guidelines for ARV programmes  
[http://whqlibdoc.who.int/publications/2005/9241593067\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593067_eng.pdf)
47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
 English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
 French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)
136. IMAI general principles of good chronic care  
 English: <http://www.who.int/hiv/pub/imai/generalprinciples082004.pdf>  
 French: [http://www.who.int/hiv/pub/imai/imai\\_general\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_general_2008_fr.pdf)

**1.3.2.3 Palliative care**

Palliative care can improve the quality of life of patients facing life-threatening illness and of their families. It offers prevention and relief of suffering by means of early identification, and assessment and treatment of pain and other physical, psychosocial and spiritual needs. It calls for a multidisciplinary team approach that 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 to 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. The analgesics are provided together with non-medical treatments. This requires addressing any limitations in access to opioid analgesics, as well as reservations some health workers may have about prescribing or administering analgesics.

**Summary of recommendations**

Pain demands both specific management of the cause, and control of the pain itself. The analgesic ladder involves starting 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 bedridden 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 manage most symptoms themselves, and community and peer groups and organizations can provide much of the other support.

**Key resources:**

88. Palliative care: symptom management and end-of-life care  
 English: <http://www.who.int/hiv/pub/imai/genericpalliativecare082004.pdf>  
 French: [http://www.who.int/hiv/pub/imai/imai\\_palliative\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_palliative_2008_fr.pdf)
137. WHO's pain ladder (web page)  
<http://www.who.int/cancer/palliative/painladder/en/index.html>
138. IMAI palliative care training course  
<http://www.who.int/hiv/capacity/IMAISHAREPOINT/en>
139. Caregiver booklet: Symptom management and end of life care (draft)  
<http://www.who.int/hiv/pub/imai/patient/en/index.html>



140. Restoring hope: Decent care in the midst of HIV/AIDS  
Available soon at the following web link:  
<http://www.palgrave.com/products/title.aspx?PID=323603>

### 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 reinfection of TB. This is of increasing concern, given the emergence of TB drug resistance, including multi-drug and extensively drug resistance disease. Some most-at-risk groups (e.g. IDUs, prisoners and health 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 ensure the monitoring and evaluation of activities (see section 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 those suspected of having TB, and through provision of condoms and other HIV preventive interventions (see section 1.2), cotrimoxazole prophylaxis (see section 1.3.1.1) and HIV treatment and care (see section 1.3.2).

The burden of TB in people living with HIV should be reduced through what are sometimes called the 'Three Is for HIV/TB': intensified TB case finding, Isoniazid preventive therapy 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 because cotrimoxazole 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 it from becoming worse, and to determine whether patients are eligible for Isoniazid preventive therapy.

The TB status of HIV-infected patients should be monitored on all visits to health providers. 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. However, once the therapy is started, WHO recommends Isoniazid daily for six months. Specialist advice should be sought for preventive therapy for those with multidrug-resistant or extensively drug-resistant TB. Previous TB is not a contraindication to TB-preventive therapy.

#### **Key resources:**

141. Guidelines for implementing collaborative TB and HIV programme activities  
English: [http://whqlibdoc.who.int/hq/2003/WHO\\_CDS\\_TB\\_2003.319.pdf](http://whqlibdoc.who.int/hq/2003/WHO_CDS_TB_2003.319.pdf)  
Russian: [http://whqlibdoc.who.int/hq/2003/WHO\\_CDS\\_TB\\_2003.319\\_rus.pdf](http://whqlibdoc.who.int/hq/2003/WHO_CDS_TB_2003.319_rus.pdf)
23. Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)

142. Three I's Meeting: Intensified Case Finding (ICF), Isoniazid Preventive Therapy (IPT) and TB Infection Control (IC) for people living with HIV  
[http://www.who.int/hiv/pub/meetingreports/WHO\\_3Is\\_meeting\\_report.pdf](http://www.who.int/hiv/pub/meetingreports/WHO_3Is_meeting_report.pdf)
143. Isoniazid preventive therapy (IPT) for people living with HIV  
[http://www.stoptb.org/wq/tb\\_hiv/assets/documents/IPT%20Consensus%20Statement%20TB%20HIV%20Core%20Group.pdf](http://www.stoptb.org/wq/tb_hiv/assets/documents/IPT%20Consensus%20Statement%20TB%20HIV%20Core%20Group.pdf)
144. Guidelines for the prevention of tuberculosis in health care facilities in resource-limited settings  
English: [http://whqlibdoc.who.int/hq/1999/WHO\\_TB\\_99.269.pdf](http://whqlibdoc.who.int/hq/1999/WHO_TB_99.269.pdf)  
English Addendum: [http://whqlibdoc.who.int/hq/1999/WHO\\_TB\\_99.269\\_ADD\\_eng.pdf](http://whqlibdoc.who.int/hq/1999/WHO_TB_99.269_ADD_eng.pdf)  
Russian: [http://whqlibdoc.who.int/hq/1999/WHO\\_TB\\_99.269\\_rus.pdf](http://whqlibdoc.who.int/hq/1999/WHO_TB_99.269_rus.pdf)
145. Tuberculosis infection control in the era of expanding HIV care and treatment. Addendum to the WHO Guidelines for the prevention of tuberculosis in health care facilities in resource-limited settings  
[http://www.who.int/tb/publications/2006/tbhiv\\_infectioncontrol\\_addendum.pdf](http://www.who.int/tb/publications/2006/tbhiv_infectioncontrol_addendum.pdf)
146. The global plan to Stop TB, 2006-2015  
English: <http://www.stoptb.org/globalplan/assets/documents/GlobalPlanFinal.pdf>  
French: [http://www.stoptb.org/globalplan/assets/documents/StopTB\\_GlobalPlan\\_FR\\_web.pdf](http://www.stoptb.org/globalplan/assets/documents/StopTB_GlobalPlan_FR_web.pdf)  
Spanish: [http://www.stoptb.org/globalplan/assets/documents/GPII\\_SPversion%20finale.pdf](http://www.stoptb.org/globalplan/assets/documents/GPII_SPversion%20finale.pdf)  
Arabic: [http://www.stoptb.org/globalplan/assets/documents/GPII\\_Arabic.pdf](http://www.stoptb.org/globalplan/assets/documents/GPII_Arabic.pdf)
147. Tuberculosis care with TB-HIV co-management: Integrated Management of Adolescent and Adult Illness (IMAI)  
[http://whqlibdoc.who.int/publications/2007/9789241595452\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595452_eng.pdf)  
Facilitator's guide: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_fac.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_fac.pdf)  
Participant's manual: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_partman.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_partman.pdf)
148. IMAI TB infection control at health facilities  
[http://www.who.int/hiv/pub/imai/TB\\_HIVModule23.05.07.pdf](http://www.who.int/hiv/pub/imai/TB_HIVModule23.05.07.pdf)  
Facilitator's guide: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_fac.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_fac.pdf)  
Participant's manual: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_partman.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_partman.pdf)

### 1.3.2.4.1 Treating HIV-associated tuberculosis

The Directly Observed Treatment, Short-course (DOTS) principles are well-recognized as the most effective approach to managing TB in 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 immunosuppression. 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 a concern. So is the fact that chest X-ray patterns may be atypical in people with HIV, particularly where there is severe immunosuppression, 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 and children with HIV. Thioacetazone is contraindicated, as it can result in potentially fatal skin hypersensitivity.

#### **Key resources:**

149. Guidance for national tuberculosis programmes on the management of TB in children  
[http://whqlibdoc.who.int/hq/2006/WHO\\_HTM\\_TB\\_2006.371\\_eng.pdf](http://whqlibdoc.who.int/hq/2006/WHO_HTM_TB_2006.371_eng.pdf)
150. TB/HIV: a clinical manual: 2nd edition  
English: <http://whqlibdoc.who.int/publications/2004/9241546344.pdf>  
Russian: [http://whqlibdoc.who.int/hq/1997/WHO\\_TB\\_96.200\\_rus.pdf](http://whqlibdoc.who.int/hq/1997/WHO_TB_96.200_rus.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2005/9244546345\\_rus.pdf](http://whqlibdoc.who.int/publications/2005/9244546345_rus.pdf)  
Portuguese: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.329\\_por.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.329_por.pdf)
147. Tuberculosis care with TB-HIV co-management: Integrated Management of Adolescent and Adult Illness (IMAI)  
[http://whqlibdoc.who.int/publications/2007/9789241595452\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595452_eng.pdf)  
Facilitator's guide: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_fac.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_fac.pdf)  
Participant's manual: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_partman.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_partman.pdf)

## 1.4 Laboratory services

Strengthening laboratory services is an essential component of strengthening and expanding health systems. Accurate and reliable clinical laboratory testing is an essential component of a public health approach to disease management. Health workers need laboratory services in order to assess the status of a patient's 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 centres. 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 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; and 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 plan with complete financial data 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 antiretroviral therapy 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 3.3.4).

WHO also recommends a minimum essential list of investigations and laboratory tests for each 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 8**.

**Table 8. Essential lab tests at the primary and secondary levels**

Essential lab tests at health centre	Additional essential lab tests at district hospital
<p>HIV diagnostics</p> <ul style="list-style-type: none"> <li>▪ Rapid HIV antibody tests (first and second tests)</li> <li>▪ Infant diagnosis; preparation of dried blood spot (DBS) and send out for viral testing</li> </ul> <p>Haemoglobin or haematocrit determination</p> <p>Blood collection and send-out for CD4 cell absolute count and percentage</p> <p>TB diagnostics</p> <ul style="list-style-type: none"> <li>▪ Sputum send-out for smear microscopy (or on-site acid fast bacilli (AFB) smear microscopy)</li> <li>▪ Sputum send-out for culture and drug susceptibility testing</li> </ul> <p>Malaria tests (if in endemic area)</p> <ul style="list-style-type: none"> <li>▪ Peripheral blood smear (PBS) preparation and smear microscopy or</li> <li>▪ Rapid test to detect and discriminate between Plasmodium falciparum and mixed Plasmodium species</li> </ul> <p>Rapid syphilis test</p> <p>Rapid pregnancy test</p> <p>Urine dipstick for sugar and protein</p>	<p>HIV diagnostics</p> <ul style="list-style-type: none"> <li>▪ Rapid HIV antibody tests (first, second and third tests)</li> </ul> <p>CD4 absolute count and percentage</p> <p>Full blood count with differential</p> <p>TB diagnostics</p> <ul style="list-style-type: none"> <li>▪ Acid fast bacilli (AFB) smear microscopy</li> <li>▪ Sputum send-out for culture and drug susceptibility testing</li> </ul> <p>Serum alanine aminotransferase (ALT)</p> <p>Blood sugar (glucose)</p> <p>Serum creatinine and blood urea nitrogen</p> <p>Gram stain</p> <p>Syphilis - rapid plasma reagin (RPR)</p> <p>Basic cerebrospinal fluid and urine microscopy</p> <p>Bilirubin determination for neonates</p> <p>Blood and sputum cultures (send out)</p> <p>Cryptococcal antigen and/or India ink</p> <p>Lactic acid</p> <p>Type and cross match for transfusion</p> <p>Pulse oximetry</p> <p>Chest X-ray</p>

**Key resources:**

98. Operations manual for the delivery of HIV prevention, care and treatment at primary health centres in high-prevalence resource-constrained settings  
<http://www.who.int/hiv/capacity/IMA/sharepoint/en>
20. HIV assays: Operational characteristics (Phase 1). Report 15: Antigen/Antibody ELISAS  
[http://www.who.int/diagnostics\\_laboratory/publications/en/HIV\\_Report15.pdf](http://www.who.int/diagnostics_laboratory/publications/en/HIV_Report15.pdf)
151. WHO consultation on technical and operational recommendations for scale-up of laboratory services and monitoring HIV antiretroviral therapy in resource-limited settings: (Expert meeting, Geneva, 2004)  
<http://www.who.int/hiv/pub/meetingreports/labmeetingreport.pdf>
152. Essential list of laboratory equipment and supplies for HIV testing  
[http://www.afro.who.int/aids/laboratory\\_services/resources/list-laboratory.pdf](http://www.afro.who.int/aids/laboratory_services/resources/list-laboratory.pdf)
4. Guidelines for the implementation of reliable and efficient diagnostic HIV testing, Region of the Americas  
English: [http://www.paho.org/English/AD/FCH/AI/LAB\\_GUIDE\\_ENG.PDF](http://www.paho.org/English/AD/FCH/AI/LAB_GUIDE_ENG.PDF)  
Spanish: [http://www.paho.org/Spanish/AD/FCH/AI/LAB\\_GUIDE\\_SPAN.PDF](http://www.paho.org/Spanish/AD/FCH/AI/LAB_GUIDE_SPAN.PDF)
153. 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. (22-24 January 2008 Maputo, Mozambique)  
[http://www.who.int/diagnostics\\_laboratory/3by5/Maputo\\_Meeting\\_Report\\_7\\_7\\_08.pdf](http://www.who.int/diagnostics_laboratory/3by5/Maputo_Meeting_Report_7_7_08.pdf)
154. CD4+T cell enumeration technologies: technical information  
[http://www.who.int/diagnostics\\_laboratory/CD4\\_Technical\\_Advice\\_ENG.pdf](http://www.who.int/diagnostics_laboratory/CD4_Technical_Advice_ENG.pdf)
155. Summary of WHO recommendations for clinical investigations by level of health care facility  
<http://www.who.int/hiv/amds/WHOLabRecommendationBylevelFinal.pdf>

## 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 health 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 that distribute 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, which is a well-known determinant of good health, or to encourage the ministry of finance to approve sufficient funding for a programme to promote and support the sexual and reproductive health of out-of-school youth.

WHO believes that health systems should be founded on the principles 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 improving health in ways that are equitable, responsive, financially fair, and make the best use of available resources. By expanding coverage so it reaches an increasing number of people with ever more effective health interventions, these goals can be attained.

#### Box 3. Key excerpts from the Declaration of Alma-Ata

- 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.

Source: Declaration of Alma-Ata. International Conference on Primary Health Care, Alma-Ata, USSR, 6–12 September 1978. Available at: [http://www.who.int/publications/almaata\\_declaration\\_en.pdf](http://www.who.int/publications/almaata_declaration_en.pdf)

In its framework for action on health-system strengthening, WHO notes that "the principles set out in the Declaration of Alma-Ata are more often observed in breach than in observance"<sup>18</sup>. However, it is clear that the response to the HIV pandemic has set precedents and has renewed momentum towards applying those principles. In response to vigorous civil action, with widespread involvement

<sup>18</sup> *Everybody's business: Strengthening health systems to improve health outcomes. WHO's framework for action.* Geneva, World Health Organization, 2007. Available at: [http://www.who.int/healthsystems/strategy/everybodys\\_business.pdf](http://www.who.int/healthsystems/strategy/everybodys_business.pdf)

by people living with HIV, the rapid scale-up of access to antiretroviral therapy (ART) 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. Furthermore, the international community has come to realize 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.

This has become a tenet of the response to HIV and, in turn, the response to TB, malaria and ill health among mothers, infants and children.

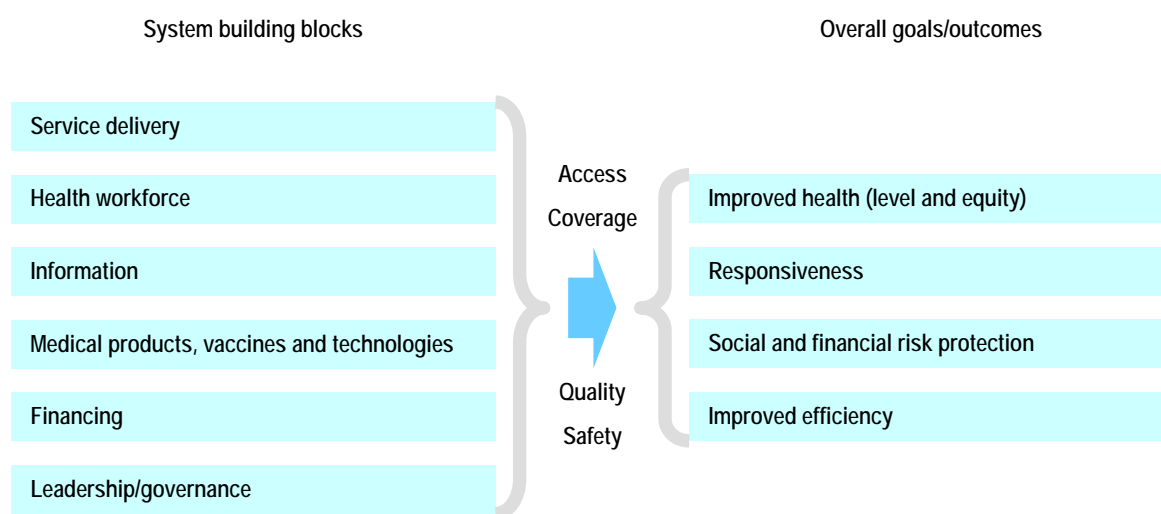
Despite those positive and encouraging achievements, the response to the HIV pandemic remains inadequate. Weak health systems—including organizations, people and actions intended to produce health outcomes, such as HIV prevention and treatment—remain a major barrier. This is true not only for low- and middle-income countries. High-income countries also face challenges—for example, in reaching most-at-risk and marginalized groups (e.g. sex workers, IDUs and MSM) with effective health system interventions that deploy resources efficiently. The biggest challenges of all lie in countries with generalized epidemics, where HIV undermines the capacity of the health sector to provide services by increasing its workload and decreasing its healthy and productive workforce.

While the structure and operations of health systems vary from country to country and from area to area within countries, 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
6. leadership and governance.

'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 scaling up the response to HIV and achieving the goal of universal access to HIV prevention, treatment, care and support. The chapter addresses the need 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**



## 2.1 Service delivery

Good health services are those that 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 should 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 as sex workers, injecting drug users, prisoners, youth and men who have sex with men. 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.

Those planning and implementing HIV-related service delivery programmes should consider the need 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. However, in the case of HIV-related services, it is agreed that services should be delivered across a continuum of care. This requires integrated and linked service provision at all levels of the health system, from primary to secondary to tertiary (specialist) care, 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. 'Integration' refers to delivering multiple services or interventions to the same patient by an individual health care worker or by a team of health care 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 health care, such as family planning, care for mothers and newborn infants, mental health care, and care for people living with HIV. All of these may involve a range of services and service providers, including home-based and community-based ones.

A particularly strong case can be made for integrating HIV-related services into all maternal and newborn care and sexual and reproductive health care service delivery. Integrating HIV-related and TB-related services into one package of services is also recommended.

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'; many women do not appear 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 it.

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 country, district or locality where HIV infection is common. Such integration should include HIV testing and counselling, assessment of whether antiretrovirals for treatment or prophylaxis are needed, initiation and monitoring of antiretrovirals 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: poverty, limited access to information, gender inequality, cultural norms, and social marginalization 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 sexual and reproductive health concerns, as well as consensus around the need for integration of related services whenever feasible. These integrated services should include: promoting condom use for preventing unintended pregnancy, sexually transmitted infections (STIs) and HIV; reproductive choice counselling and counselling for family planning and contraception; education on sexual health for people living with HIV; and 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 provide the rationale for linkages between responses to TB and HIV, and integration of TB-related and HIV-related services. These linkages and integration have already resulted in substantial increases in the proportion of TB patients tested for HIV and then referred to HIV-care services (or provided with some HIV services on-site). In addition, HIV programmers are increasingly committed to TB control, intensified TB case finding among HIV-infected patients, and to offering Isoniazid 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 of these services should be provided as close to clients as possible.

However, when considering the 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:**

156. Integrated health services: What and why?  
[http://www.who.int/healthsystems/service\\_delivery\\_techbrief1.pdf](http://www.who.int/healthsystems/service_delivery_techbrief1.pdf)
157. WHO IMAI/IMCI/IMPAC tools (website)  
<http://www.who.int/hiv/topics/capacity/>  
[http://www.who.int/hiv/pub/imai/imai\\_publication\\_diagram.pdf](http://www.who.int/hiv/pub/imai/imai_publication_diagram.pdf)
158. Interim policy on collaborative TB/HIV activities  
English: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_eng.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_eng.pdf)  
French: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_fre.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_fre.pdf)  
Spanish: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_spa.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_spa.pdf)  
Russian: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_rus.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_rus.pdf)
25. Linkages between HIV and SRH: Technical documents and advocacy materials (web page)  
<http://www.who.int/reproductive-health/hiv/docs.html>
159. Ensuring the sexual and reproductive health of people living with HIV. *Reproductive Health Matters*. Volume 15, Issue 29, Supplement 1 pp. 1-135. May 2007.  
<http://www.who.int/reproductive-health/hiv/docs.html>
98. Operations manual for the delivery of HIV prevention, care and treatment at primary health centres in high-prevalence resource-constrained settings  
<http://www.who.int/hiv/capacity/IMAisharepoint/en>

## **2.1.2 Infrastructure and logistics**

Service delivery requires infrastructure and logistics, including physical space, 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 equipment. Space is also needed for laboratories, deliveries, communications, infection control, waste management, and so on.

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

With the recent scale-up of treatment for HIV infection, the limitations of laboratory infrastructure are increasingly recognized as major obstacles to 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 system (until recently not routinely available), as well as at higher levels of the system (see **Table 8** in Chapter 1). 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 laboratory services.

Chapter 1 provides detailed guidance on the types of laboratory tests needed to support treatment of people living with HIV, and to manage 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. When planning to scale up laboratory services, service delivery, health workforce and the other building blocks of a health system should be considered (see **Figure 1**).

Infection control in all facilities is also important. This includes 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.

An emerging issue is the relatively low access to information technology in resource-limited settings. Computerization has the potential to markedly enhance efficiency of HIV service delivery, as 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 provide HIV care of the highest quality. Facilitating this communication involves ensuring that telephone, radio or other communications infrastructure is adequate. Ideally, the infrastructure should include computers connected by intranet or internet.

### **Summary of recommendations**

The infrastructure and logistics of health-service delivery should be designed to last. They should be configured to enable delivery on demand of services to people who need them, wherever they may be located. For managing 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 settings) and bloodborne infections (such as HIV and hepatitis). Support should be provided for comprehensive infection control, including specific consideration of the risk of the spread of TB.

### **Key resources:**

160. District health facilities: guidelines for development and operations.  
<http://www.wpro.who.int/NR/rdonlyres/CODAA210-7425-4382-A171-2C0F6F77153F/0/DistHealth.pdf>
161. Management of resources and support systems: Equipment, vehicles and buildings (web page)  
<http://www.who.int/management/resources/equipment/en/index1.html>
151. WHO consultation on technical and operational recommendations for scale-up of laboratory services and monitoring HIV antiretroviral therapy in resource-limited settings: (Expert meeting, Geneva, 2004)  
<http://www.who.int/hiv/pub/meetingreports/labmeetingreport.pdf>
98. Operations manual for the delivery of HIV prevention, care and treatment at primary health centres in high-prevalence resource-constrained settings  
<http://www.who.int/hiv/capacity/IMAIsharepoint/en>
147. Tuberculosis care with TB-HIV co-management: Integrated Management of Adolescent and Adult Illness (IMAI)  
[http://whqlibdoc.who.int/publications/2007/9789241595452\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595452_eng.pdf)  
Facilitator's guide: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_fac.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_fac.pdf)  
Participant's manual: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_partman.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_partman.pdf)
148. IMAI TB infection control at health facilities  
[http://www.who.int/hiv/pub/imai/TB\\_HIVModule23.05.07.pdf](http://www.who.int/hiv/pub/imai/TB_HIVModule23.05.07.pdf)  
Facilitator's guide: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_fac.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_fac.pdf)  
Participant's manual: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_partman.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_partman.pdf)

### **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 be used is often neglected, even when it is clear 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. This is especially the case for the uptake of services related to HIV and TB, conditions surrounded by fear, stigma and discrimination. Chapters 1 and 4 discuss 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 demands various forms of social engagement in planning, delivery and monitoring 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 concerns, such as fear of disapproval or open hostility on the part of staff, and fear of disclosure of their HIV status and the possible consequences.

#### **Key resources:**

162. Preparing for treatment programme (WHO website)  
<http://www.who.int/3by5/partners/ptp/en/>
163. Missing the target #5: Improving AIDS drug access and advancing health care for all  
<http://www.aidstreatmentaccess.org/>
164. Service delivery model on access to care and antiretroviral therapy for people living with HIV/AIDS  
[http://www.ifrc.org/cgi/pdf\\_pubshealth.pl?service-delivery-en.pdf](http://www.ifrc.org/cgi/pdf_pubshealth.pl?service-delivery-en.pdf)

## **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. Good leaders set the strategic vision and mobilize action towards that vision. Good managers ensure effective organization and use 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 a need for strategic planning at the national and sub-national levels; for operational planning throughout the service delivery system; and 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. The next step is coordinating and managing the development and implementation of programmes; these issues are addressed in Chapter 4. Good management also requires strengthening management systems, and ensuring the technical quality of services, both of which are dealt with below.

Increasingly, the management of implementation occurs at district, facility and community level. The district management team, facility managers and community organizations need skills to plan the implementation, to mobilize resources, and to manage staff, finances and supplies. Training is usually organized and delivered at the regional or district level; it is then 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 synchronized.

### **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:**

165. Strengthening management in low income countries  
<http://www.who.int/management/general/overall/Strengthening%20Management%20in%20Low-Income%20Countries.pdf>
166. Managers taking action based on knowledge and effective use of resources to achieve results (MAKER) (WHO website)  
<http://www.who.int/management/en/>
167. Strengthening management capacity in the health sector (website)  
<http://www.who.int/management/strengthen/en/index.html>

### **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 be accessible and affordable by the people who need those services and that interventions are 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 of 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.
- Establishing well functioning patient and programme monitoring systems that the clinical team is able to use to measure and improve the quality of care they provide.

### **Key resources:**

168. Standards for quality HIV care: a tool for quality assessment, improvement, and accreditation  
English: <http://whqlibdoc.who.int/hq/2004/9241592559.pdf>  
French: [http://www.who.int/entity/hiv/pub/prev\\_care/standardsquality\\_fr.pdf](http://www.who.int/entity/hiv/pub/prev_care/standardsquality_fr.pdf)
98. Operations manual for the delivery of HIV prevention, care and treatment at primary health centres in high-prevalence resource-constrained settings  
<http://www.who.int/hiv/capacity/IMA/sharepoint/en>
78. WHO recommendations for clinical mentoring to support scale-up of HIV care, antiretroviral therapy and prevention in resource-constrained settings  
[http://whqlibdoc.who.int/publications/2006/9789241594684\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594684_eng.pdf)
169. Guidelines for organising national external quality assessment schemes for HIV serological testing  
[http://www.who.int/diagnostics\\_laboratory/quality/en/EQAS96.pdf](http://www.who.int/diagnostics_laboratory/quality/en/EQAS96.pdf)
170. Guidelines on establishment of accreditation of health laboratories  
[http://www.searo.who.int/LinkFiles/Publications\\_SEA-HLM-394.pdf](http://www.searo.who.int/LinkFiles/Publications_SEA-HLM-394.pdf)

## **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. In some of these countries, the crisis is aggravated by civil service hiring caps.

HIV itself contributes to the crisis, as it increases the demand for services and infects and affects health 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 health 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. High workloads, poor pay and bad working conditions are added disincentives for health care workers to deal with HIV.

Working in the HIV field may also be unpopular with some health providers 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 in countries with low or concentrated epidemics, where many people living with HIV come from marginalized groups, such as sex workers, injecting drug users, men who have sex with men and prisoners.

The combined results of the above are: 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.

Despite those challenges, a defining feature of the response to the HIV pandemic has been the ability of communities to mobilize resources to address the impact of HIV and prevent its further spread. Groups of people living with HIV, community- and faith-based organizations, and many others have taken responsibility for advocacy and action. They have 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. It has led to strong momentum in the direction of task shifting and to persuasive 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, WHO recommends the following actions:

- 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 should be tailored specifically to their needs. Please also refer to Chapter 1, section 1.2.4.3 for additional information on programmes for health care workers.

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;
- ensuring 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 (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 to high-income 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. It recommends that the recognition and support take tangible forms, such as certification of skills in service delivery, and pay. These measures should be integrated into national plans for developing human resources for health and HIV.

**Key resources:**

- 171. Tools for planning and developing human resources for HIV/AIDS and other health services  
[http://www.who.int/hrh/tools/tools\\_planning\\_hr\\_hiv-aids.pdf](http://www.who.int/hrh/tools/tools_planning_hr_hiv-aids.pdf)
- 172. Joint ILO/WHO guidelines on health services and HIV/AIDS  
English: [http://whqlibdoc.who.int/publications/2005/9221175537\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9221175537_eng.pdf)  
French: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_ilo\\_guidelines\\_fr.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_ilo_guidelines_fr.pdf)  
Spanish: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_ilo\\_guidelines\\_sp.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_ilo_guidelines_sp.pdf)  
Russian: [http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelines\\_ru.pdf](http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelines_ru.pdf)  
Arabic: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_arabic.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_arabic.pdf)  
Chinese: <http://www.who.int/entity/hiv/pub/guidelines/ilowhoguidelineschinese-pdf.pdf>  
Indonesian: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_indonesian.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_indonesian.pdf)  
Vietnamese: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_vietnamese.PDF](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_vietnamese.PDF)
- 173. Task-shifting: Treat, train and retain, global recommendations and guidelines  
<http://www.who.int/healthsystems/TTR-TaskShifting.pdf>
- 98. Operations manual for the delivery of HIV prevention, care and treatment at primary health centres in high-prevalence resource-constrained settings  
<http://www.who.int/hiv/capacity/IMAisharepoint/en>
- 174. IMAI-IMCI task-shifting implementation support brochure  
[http://www.who.int/hiv/pub/imai/IMAImc\\_i\\_taskshifting\\_brochure.pdf](http://www.who.int/hiv/pub/imai/IMAImc_i_taskshifting_brochure.pdf)

## 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 experienced one or more stock-out 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 to the WHO list of essential medicines in 2005. These medicines, powerful opioid analgesics used to treat opioid addiction, 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 more than 80% of the world population has no proper access to controlled medications (including opioids and psychoactive substances) 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 on 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, which face challenges in carrying out 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 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:**

175. AIDS medicines and diagnostics service (AMDS) website  
<http://www.who.int/hiv/amds/>
176. Essential medicines and pharmaceutical policies (EMP) (WHO website)  
<http://www.who.int/medicines/en/>
111. Prequalification programme: A United Nations Programme managed by WHO (WHO website)  
<http://healthtech.who.int/pg/>
177. AIDS medicines and diagnostics service (AMDS): Treat 3 Million by 2005 Initiative technical briefs  
[http://whqlibdoc.who.int/hq/2003/WHO\\_HIV\\_2003.21.pdf](http://whqlibdoc.who.int/hq/2003/WHO_HIV_2003.21.pdf)
178. Global price reporting mechanism (GPRM)  
<http://www.who.int/hiv/amds/gprm/en/index.html>
179. A 'step-by-step' algorithm for the procurement of controlled substances for drug substitution treatment.  
<http://www.unodc.un.or.th/drugsandhiv/publications/2007/Step-by-Step.pdf>
180. Access to controlled medications programme: Framework  
[http://www.who.int/medicines/areas/quality\\_safety/Framework\\_ACMF\\_withcover.pdf](http://www.who.int/medicines/areas/quality_safety/Framework_ACMF_withcover.pdf)

## **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 available resources and needs 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.<sup>19</sup>

In many countries, the majority of people and governments cannot afford the costs of HIV treatment and care (particularly antiretroviral therapy). 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 national gross domestic product, as many African countries pledged to do in the 2001 Abuja Declaration.<sup>20</sup>

External and domestic government funding for the HIV response has increased considerably, but many people living with HIV still find it difficult to access essential services. Even when drugs are

<sup>19</sup> *Report of the WHO Commission on macroeconomics and health*. Geneva, Fifty-fifth World Health Assembly, 23 April 2002.

<sup>20</sup> Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Disease. Abuja, Nigeria, Organization for African Unity (OAU), 27 April 2001.

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 its Member States to:<sup>21</sup>

- 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 those insured receive equitable and good-quality health services according to their 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;
- plan the transition to universal coverage of their citizens in ways that contribute to: meeting the needs of the population for quality health care; reducing poverty; attaining internationally agreed development goals, including those contained in the United Nations Millennium Declaration; and 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:**

181. Costing guidelines for HIV/AIDS intervention strategies  
[http://data.unaids.org/publications/IRC-pub06/JC997-Costing-Guidelines\\_en.pdf](http://data.unaids.org/publications/IRC-pub06/JC997-Costing-Guidelines_en.pdf)
182. Achieving universal health coverage: developing the health financing system  
[http://www.who.int/health\\_financing/documents/pb\\_e\\_05\\_1-universal\\_coverage.pdf](http://www.who.int/health_financing/documents/pb_e_05_1-universal_coverage.pdf)
183. Health financing policy (WHO website)  
[http://www.who.int/health\\_financing/en/](http://www.who.int/health_financing/en/)
184. WHO discussion paper: The practice of charging user fees at the point of service delivery for HIV/AIDS treatment and care  
<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 progress towards reducing the gap between resources available and resources required to scale up the response; and achieve the universal access goal. Leaders with consistent messages are also needed to help people envision a better future, and to achieve that future through research and innovation that finds new tools, and new ways of putting them to effective use.

Calls for leadership often seem to be aimed at politicians and others in positions of great power. However, accelerating the response to HIV will also require leadership from business, industry, trade unions, and academic and research institutions. And it will require leadership within neighbourhoods and communities, from community councils, faith-based and other community-based organizations, formal and informal groups, 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

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<sup>21</sup> Sustainable financing, universal coverage and social health insurance. Geneva, Fifty-eighth World Health Assembly, ninth plenary meeting, 25 May 2005.

use their professional and personal connections to advance the cause of scaling up the response to HIV.

Governance of the response to HIV has evolved considerably over the last few years. It was once dominated by the health sector and led 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. These groups were originally intended to coordinate the UN system's contribution to national responses to HIV, but 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 these 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.<sup>22</sup> 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 to increase rather than reduce duplication and waste if 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 ensure 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. There are also calls for stakeholders working in other sectors to commit to collaborating with the health sector and to support health-sector HIV interventions.

While participating in all of these 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 planning, governance, and delivering and monitoring HIV-related services.

These principles should be upheld within the health sector and 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. Regulations governing the health workforce, for example shifting certain tasks, need also to be reviewed.

### **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

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<sup>22</sup> More information available at: <http://www.theglobalfund.org/en/apply/mechanisms/>



Councils/Commissions, 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, marginalized groups, academic institutions, and the private sector) are critical to scaling up to universal access.

Leadership should also support innovation and foster an environment that promotes human rights, including gender equality, women's empowerment, and the reduction of stigma and discrimination.

**Key resources:**

185. The Global Fund country coordinating mechanisms (CCMs) website  
<http://www.theglobalfund.org/en/apply/mechanisms/>
186. 'Three ones' key principles: Coordination of national responses to HIV/AIDS: Guiding principles for national authorities and their partners  
[http://data.unaids.org/UNA-docs/Three-Ones\\_KeyPrinciples\\_en.pdf](http://data.unaids.org/UNA-docs/Three-Ones_KeyPrinciples_en.pdf)
187. WHO's global health sector strategy for HIV/AIDS 2003-2007  
[http://www.who.int/hiv/pub/advocacy/GHSS\\_E.pdf](http://www.who.int/hiv/pub/advocacy/GHSS_E.pdf)
188. International guidelines on HIV/AIDS and human rights: 2006 consolidated version  
[http://whqlibdoc.who.int/unaid/2006/9211541689\\_eng.pdf](http://whqlibdoc.who.int/unaid/2006/9211541689_eng.pdf)
189. Ensuring equitable access to antiretroviral treatment for women: WHO/UNAIDS policy statement  
[http://www.who.int/hiv/pub/advocacy/en/policy%20statement\\_gwh.pdf](http://www.who.int/hiv/pub/advocacy/en/policy%20statement_gwh.pdf)
190. The Sydney Declaration: good research drives good policy and programming - a call to scale up research  
<http://www.iasociety.org/Default.aspx?pageld=63>

## 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.

### 2.5.1.1 Involving people living with HIV

People living with HIV (PLHIV) are a vital resource in the response to the epidemic. The involvement of PLHIV in advocacy efforts, in policy dialogue, in service delivery, and in the effort to reduce stigma and discrimination has already been documented extensively. Innovative mechanisms have been developed to involve them 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), a WHO-organized initiative, provides tools to support the involvement of PLHIV in clinical teams; they serve as triage officers and lay counsellors who support HIV testing, adherence to ART and TB treatment, and infant feeding, as well as data clerks, laboratory assistants and links to community support services. To be effective in these roles, PLHIV require training, appropriate supervision and remuneration. In many countries, there are policy constraints that prevent PLHIV from taking on these roles, and these constraints need to be addressed.

**Summary of recommendations**

WHO and UNAIDS believe the **meaningful involvement of people living with HIV** is central to an effective, rights-based HIV response. They should be engaged in all aspects of planning, implementing, monitoring and evaluating health sector responses to HIV at global, regional, national and local levels; this includes the development and adaptation of normative policies, tools and guidelines, and the delivery of services.

**Key resources:**

162. Preparing for treatment programme (WHO website)  
<http://www.who.int/3by5/partners/ptp/en/>
191. The greater involvement of people living with HIV (GIPA): UNAIDS policy brief  
[http://data.unaids.org/pub/BriefingNote/2007/JC1299\\_Policy\\_Brief\\_GIPA.pdf](http://data.unaids.org/pub/BriefingNote/2007/JC1299_Policy_Brief_GIPA.pdf)
192. IMAI expert patient-trainer curriculum  
<http://www.who.int/hiv/capacity/IMAISHarepoint/en>

### 2.5.1.2 Involving civil society and the private sector

Governments, particularly ministries of health, may take overall responsibility for health sector responses to HIV. However, an effective and comprehensive response that ensures equitable access to HIV services demands the active involvement of the private sector and civil society, as well as nongovernmental, faith-based and academic organizations.

Community mobilization is key to promoting HIV testing and counselling and prevention, to preparing people for treatment, and to providing adherence support. Civil society organizations 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 treatment; 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, health services (including those related to HIV) are largely provided by faith-based organizations, NGOs and private businesses, rather than by governments. It is important to include them from any key mechanisms or processes for planning, coordinating, financing, 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, implementation, and monitoring and evaluation. These non-government players often constitute a significant portion of all health care providers, and 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:**

193. WHO's stakeholder analysis tool  
<http://www.who.int/hac/techguidance/training/stakeholder%20analysis%20ppt.pdf>
194. Scaling up effective partnerships: A guide to working with faith-based organisations in the response to HIV and AIDS  
<http://www.e-alliance.ch/media/media-6695.pdf>
195. Partnership work: the health service–community interface for the prevention, care and treatment of HIV/AIDS  
[http://www.who.int/hiv/pub/prev\\_care/en/37564\\_OMS\\_interieur.pdf](http://www.who.int/hiv/pub/prev_care/en/37564_OMS_interieur.pdf)
196. Working with civil society (UNAIDS website)  
<http://www.unaids.org/en/Partnerships/Civil+society/default.asp>
197. Universal access targets and civil society organizations: a briefing for civil society organizations  
[http://www.unaids.org/unaidresources/images/Partnerships/061126\\_CSTargetsetting\\_en.pdf](http://www.unaids.org/unaidresources/images/Partnerships/061126_CSTargetsetting_en.pdf)

### 2.5.2 Addressing stigma and discrimination

HIV-related stigma and discrimination are often prevalent within health services and 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, behaviours or illnesses, and it is often followed by unfair and unjust treatment. Stigma results in lower uptake of HIV prevention, care and treatment services and 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), sex workers, men who have sex with men, injecting drug users and ethnic minorities, whose minority status may be due to the fact that they are displaced persons or migrants.

Though stigma and discrimination are often pervasive throughout societies, they are seldom adequately addressed in national responses to HIV. Both can be tackled through simple and practical

measures within a health system, such as providing people with accurate information that allays their fears and dispels their misconceptions about HIV and its transmission. The health sector can also advocate for and play its part in implementing a multifaceted national approach to combating stigma and discrimination. In order to reduce stigma and discrimination in health facilities, health workers' attitudes and practices need to be addressed, and they should be given information and supplies to prevent occupational exposure to HIV. These efforts will help countries reach targets for universal access while promoting respect for human rights, for vulnerable minorities, and for people living with HIV.

### **Summary of recommendations**

Strategic information about stigma and discrimination should be systematically collected using existing tools (e.g. questionnaires used in behavioural surveillance) to measure their prevalence and impact on the response to HIV.

Efforts to reduce stigma and discrimination should be included in national strategic planning and programming activities.

Health care workers should be provided with training on non-discrimination, and codes of conduct and oversight for service providers should be established.

As they scale up national responses to stigma and discrimination (and thus access to HIV prevention, treatment and care), planners should employ a range of approaches to prevent and reduce stigma and discrimination among different key groups (politicians, religious leaders, health authorities, law enforcers and so on). In this way, they can challenge stigma and discrimination in institutional settings and build capacity for recognizing human rights, including the establishment and enforcement of human-rights legislation.

### **Key resources:**

188. International guidelines on HIV/AIDS and human rights: 2006 consolidated version  
[http://whqlibdoc.who.int/unaid/2006/9211541689\\_eng.pdf](http://whqlibdoc.who.int/unaid/2006/9211541689_eng.pdf)
198. Reducing HIV stigma and discrimination: a critical part of national AIDS programmes  
[http://data.unaids.org/pub/Report/2008/jc1420-stigmadiscrimi\\_en.pdf](http://data.unaids.org/pub/Report/2008/jc1420-stigmadiscrimi_en.pdf)

## **2.5.3 Delivering gender-responsive HIV interventions**

Gender inequalities are a key driver of the HIV epidemic. Gender inequalities make women and girls especially, but also men, vulnerable to HIV in several ways. In sub-Saharan Africa, women constitute 60% of people living with HIV and in other parts of the world women continue to be disproportionately affected as sex workers, injecting drug users, and as partners of injecting drug users, men who have sex with men, and clients of sex workers. Harmful gender norms and practices such as violence against women, and denial of women's access to and control over resources, contribute to women and girls' vulnerability to HIV. Social norms related to masculinity encourage men to take sexual risks. These norms also contribute to homophobia, which stigmatizes men who have sex with men. Norms related to femininity discourage women, especially young women, from accessing sexual and reproductive health information and services.

In many settings, women and girls face barriers to HIV services because they lack the financial means to access care or they require permission from their husbands or other family members to go to a health care facility. In some cases, they may be 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 marginalized groups. Violence or fear of violence prevents many women from negotiating safe sex and also from accessing HIV testing and counselling services or disclosing their status. For these reasons, achieving universal access to HIV prevention, treatment and care is contingent on the health sector taking action to reduce gender inequalities.<sup>23</sup>

### **Summary of recommendations**

'Know your epidemic in gender terms': Programme managers and policy-makers in the health sector should understand who is at risk for HIV in different epidemic settings, and the underlying sociocultural, economic and political factors that increase their vulnerability. Knowing your epidemic in gender terms requires disaggregating data, including figures from programme monitoring and

<sup>23</sup> United Nations. Scaling up HIV prevention, treatment, care and support. Note by the Secretary-General. 24 March 2006

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.

Build the capacity of programme managers, policy-makers and health care providers to understand and address the links between gender inequalities and HIV.

Ensure that national health sector HIV policies and programmes explicitly integrate gender and allocate financial and human resources to promote gender-responsive strategies.

Support prevention by promoting equality between women and men in sexual decision-making and building women's skills to negotiate safer sex including through use of female and male condoms.

Address 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.

Reduce gender-related barriers to accessing services, including: non-affordability; the need for women to obtain permission from husbands or other family members to go to a health facility; stigma and discrimination against those most-at-risk for or living with HIV including marginalized groups; and providing an appropriate mix of male and female health care providers.

Support women care givers who provide the bulk of care for those living with and affected by HIV.

Advocate 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:**

199. Integrating gender into HIV/AIDS programmes: A review paper  
[http://www.who.int/hiv/pub/prev\\_care/en/IntegratingGender.pdf](http://www.who.int/hiv/pub/prev_care/en/IntegratingGender.pdf)  
Webpage: [http://www.who.int/gender/hiv\\_aids/en/](http://www.who.int/gender/hiv_aids/en/)
200. Integrating gender into HIV/AIDS programmes in the health sector: operational tool to improve responsiveness to women's needs  
Forthcoming in 2009
201. Addressing violence against women and HIV testing and counselling: a meeting report  
[http://www.who.int/gender/documents/VCT\\_addressing\\_violence.pdf](http://www.who.int/gender/documents/VCT_addressing_violence.pdf)
189. Ensuring equitable access to antiretroviral treatment for women: WHO/UNAIDS policy statement  
[http://www.who.int/hiv/pub/advocacy/en/policy%20statement\\_gwh.pdf](http://www.who.int/hiv/pub/advocacy/en/policy%20statement_gwh.pdf)

## 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, one of the six building blocks 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 use 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 involves: the definition of norms and standards, including ethical 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 coordinating 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 data recording tools, data reporting forms, databases, and electronic systems for data-sharing and analysis. It requires investment in building human resource capacity (including epidemiologists, surveillance and monitoring and evaluation officers, and information technology and management information system specialists) at all levels of the health system through training, mentoring and supervision. As programmes are scaled up, there is also need to protect the security and confidentiality of patient data. Infrastructure (e.g. laboratories) is needed to scale up research. Strengthening information systems also requires an appropriate policy, management and financial environment.

**Key resource:**

202. Guidelines on protecting the confidentiality and security of HIV information: Proceedings from a workshop, May 2006. Interim guidelines  
[http://data.unaids.org/pub/manual/2007/confidentiality\\_security\\_interim\\_guidelines\\_15may2007\\_en.pdf](http://data.unaids.org/pub/manual/2007/confidentiality_security_interim_guidelines_15may2007_en.pdf)

### 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 and STI 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, and injecting drug users, as well as the sexual partners of these groups.

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 estimates of 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.

**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;
- integrated biological and behavioural data among most-at-risk populations;
- periodic national population-based surveys (e.g. Demographic and Health Surveys) with HIV testing;
- data from HIV surveillance among TB patients.

Sentinel surveillance among antenatal clinic attendees and population-based surveys with HIV testing are relevant for generalized HIV epidemics. Integrated biological and behavioural surveillance among high risk groups may be relevant for all epidemic levels, and are a priority for concentrated and low-level epidemics.

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. Estimates of the population size of high risk groups should be calculated using standard methods in conjunction with data from integrated biological and behavioural surveillance and service data.

Surveillance of new cases of HIV infection (HIV incidence) is challenging; it cannot be done through case reporting because early HIV infection has no distinct clinical features that bring newly-infected people to medical attention. Current laboratory-based tests for recent infection are not useful for individual determinations; however they may be employed with suitable caution at the population level to produce incidence estimates. In countries or sites with linked testing, dynamic cohorts may be used to measure recent infections. STI surveillance is strongly recommended both in its own right and as a useful early warning system for expansion of an HIV epidemic.

**Key resources:**

203. Guidelines for measuring national HIV prevalence in population-based surveys  
<http://www.who.int/hiv/pub/surveillance/guidelinesmeasuringpopulation.pdf>

204. 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  
<http://www.who.int/hiv/pub/surveillance/psaguidelines.pdf>
205. Guidelines for HIV surveillance among tuberculosis patients. Second edition  
 English: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.339.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.339.pdf)  
 French: [http://whqlibdoc.who.int/hq/2005/WHO\\_HTM\\_TB\\_2004.339\\_fre.pdf](http://whqlibdoc.who.int/hq/2005/WHO_HTM_TB_2004.339_fre.pdf)  
 Spanish: [http://whqlibdoc.who.int/hq/2004/OMS\\_HTM\\_TUB\\_2004.339\\_spa.pdf](http://whqlibdoc.who.int/hq/2004/OMS_HTM_TUB_2004.339_spa.pdf)  
 Russian: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.339\\_rus.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.339_rus.pdf)
206. Guidelines for effective use of data from HIV surveillance systems  
 English: <http://www.who.int/hiv/strategic/surveillance/en/useofdata.pdf>  
 Spanish: [http://www.who.int/hiv/pub/surveillance/useofdata\\_sp.pdf](http://www.who.int/hiv/pub/surveillance/useofdata_sp.pdf)
207. Guidelines for conducting HIV sentinel serosurveys among pregnant women and other groups  
 English: <http://www.who.int/hiv/pub/surveillance/en/ancguidelines.pdf>  
 French: [http://www.who.int/hiv/pub/epidemiology/en/guidelinesforconduction\\_fr.pdf](http://www.who.int/hiv/pub/epidemiology/en/guidelinesforconduction_fr.pdf)
208. Estimating the size of populations at risk for HIV: Issues and methods  
<http://www.who.int/hiv/pub/surveillance/en/EstimatingSizePop.pdf>
209. Guidelines for using HIV testing technologies in surveillance: selection, evaluation and implementation  
[http://www.who.int/hiv/pub/surveillance/en/guidelinesforUsingHIVTestingTechs\\_E.pdf](http://www.who.int/hiv/pub/surveillance/en/guidelinesforUsingHIVTestingTechs_E.pdf)
210. HIV surveillance training modules, WHO Regional Office for South-East Asia  
 Module 1: Overview of the HIV epidemic with an introduction to public health surveillance  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-1.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-1.pdf)  
 Module 2: HIV clinical staging and case reporting  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-2.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-2.pdf)  
 Module 3: HIV Serosurveillance  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-3.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-3.pdf)  
 Module 4: Surveillance for sexually transmitted infections  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-4.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-4.pdf)  
 Module 5: Surveillance of HIV risk behaviours  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-5.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-5.pdf)  
 Module 6: Surveillance of populations at high risk for HIV transmission  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-6.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-6.pdf)  
 Facilitator training guide for HIV surveillance  
[http://www.searo.who.int/LinkFiles/Publications\\_facilitator.pdf](http://www.searo.who.int/LinkFiles/Publications_facilitator.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, processes, 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 progress, and sustain commitment and accountability.

#### 3.3.1 Monitoring health sector HIV programmes

A key step in strengthening monitoring and evaluation (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), process indicators (e.g. training, interventions to review and update procedures, availability and adequacy of national policies and guidelines); output indicators (e.g. newly trained health workers, improved procedures, geographical coverage of interventions); outcome indicators (e.g. increased uptake of services, increased knowledge of HIV, behavioural change); and impact indicators (e.g. longer survival of people living with HIV). As national programmes expand, it is also increasingly important to monitor the quality of services and to 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 that are part of the broader health information management system; mapping available services in health facilities and other health settings; health facility surveys; population-based surveys; cohort studies of people living with HIV; monitoring procurement and supply of HIV medicines and diagnostics; and impact assessment. Other sources include surveillance data (e.g. behavioural and biological surveys) and mortality records and reports. Special studies should be considered when 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 coinfection) and by geographical regions or socioeconomic groups as appropriate.

### **Key resources:**

211. National guide to monitoring and evaluating programmes for the prevention of HIV in infants and young children  
<http://whqlibdoc.who.int/publications/2004/9241591846.pdf>
212. National AIDS programmes: A guide to indicators for monitoring and evaluating national HIV/AIDS prevention programmes for young people  
English: <http://www.who.int/hiv/pub/epidemiology/nayoungpeople.pdf>  
French: [http://www.who.int/hiv/pub/me/nayoungpeople\\_fr.pdf](http://www.who.int/hiv/pub/me/nayoungpeople_fr.pdf)  
Spanish: [http://www.who.int/hiv/pub/me/nayoungpeople\\_sp.pdf](http://www.who.int/hiv/pub/me/nayoungpeople_sp.pdf)  
Russian: [http://www.who.int/hiv/pub/me/nayoungpeople\\_ru.pdf](http://www.who.int/hiv/pub/me/nayoungpeople_ru.pdf)
213. National AIDS programmes: A guide to indicators for monitoring national antiretroviral programmes  
English: <http://www.who.int/hiv/pub/me/naparv.pdf>  
French: <http://www.who.int/hiv/strategic/me/naparvfr.pdf>  
Spanish: [http://www.who.int/hiv/pub/me/napart\\_sp.pdf](http://www.who.int/hiv/pub/me/napart_sp.pdf)
214. A guide to monitoring and evaluation for collaborative TB/HIV activities: Field test version  
English: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.342.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.342.pdf)  
Russian: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.342\\_rus.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.342_rus.pdf)
215. Core indicators for national AIDS programmes: Guidance and specifications for additional recommended indicators  
Forthcoming in 2009

Note that updated guidelines on monitoring and evaluation for PMTCT, male circumcision, and testing and counselling programmes will be available in 2009.

## **3.3.2 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, with a view to achieving 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**

To facilitate global monitoring and reporting, WHO has developed a core framework of recommended national level indicators on the health-sector response to HIV/AIDS. 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 analysed to produce an annual global progress report.

### **Key resources:**

216. Global framework for monitoring and reporting on the health sector's response towards universal access to HIV/AIDS treatment, prevention, care and support  
[http://www.who.int/hiv/universalaccess2010/UAframework\\_Final%20Nov.pdf](http://www.who.int/hiv/universalaccess2010/UAframework_Final%20Nov.pdf)
217. Monitoring the declaration of commitment on HIV/AIDS: Guidelines on construction of core indicators  
[http://data.unaids.org/pub/Manual/2007/20070411\\_ungass\\_core\\_indicators\\_manual\\_en.pdf](http://data.unaids.org/pub/Manual/2007/20070411_ungass_core_indicators_manual_en.pdf)



### 3.3.3 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 the 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 these 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 over time and across 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.

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 maternal and child health/PMTCT monitoring. The latter integrates monitoring the care of pregnant women and infants with monitoring of PMTCT interventions and malaria prevention (cotrimoxazole, or intermittent preventative therapy for malaria with sulfadoxine-pyrimethamine). 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. Higher volume facilities may use electronic medical records 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 are aggregated and analysed on a spreadsheet or other software (such as the HealthMapper extension for ART data).

Depending on the context, each way of doing things has its strengths and weaknesses. 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 the clinical team, and requires a data clerk. Electronic systems facilitate generating such reports easily, and sometimes automatically, but electronic systems require attention to security and confidentiality, 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 developing and implementing one national patient monitoring system that 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 so that 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 resources:**

218. Patient monitoring guidelines for HIV care and antiretroviral therapy  
<http://www.who.int/hiv/pub/ptmonguidelines.pdf>  
Note that new guidelines are currently in draft form at the following web link:  
[http://www.who.int/hiv/pub/imai/pmg\\_form\\_13aug.pdf](http://www.who.int/hiv/pub/imai/pmg_form_13aug.pdf)  
Training materials: <http://www.who.int/hiv/capacity/IMA/sharepoint/en>

215. Core indicators for national AIDS programmes: Guidance and specifications for additional recommended indicators  
Forthcoming in 2009
216. Global framework for monitoring and reporting on the health sector's response towards universal access to HIV/AIDS treatment, prevention, care and support  
[http://www.who.int/hiv/universalaccess2010/UAframework\\_Final%20Nov.pdf](http://www.who.int/hiv/universalaccess2010/UAframework_Final%20Nov.pdf)
217. Monitoring the declaration of commitment on HIV/AIDS: Guidelines on construction of core indicators  
[http://data.unaids.org/pub/Manual/2007/20070411\\_ungass\\_core\\_indicators\\_manual\\_en.pdf](http://data.unaids.org/pub/Manual/2007/20070411_ungass_core_indicators_manual_en.pdf)

### 3.3.4 Prevention and assessment of HIV drug resistance

Given the high replication and mutation rates of HIV and the necessity of lifelong antiretroviral treatment, the emergence of some level of HIV drug resistance (HIVDR) is inevitable. However, the risk of HIVDR 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. 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 from the WHO HIV Drug Resistance Team and from other members of the network.

Key interventions for preventing and managing HIV drug resistance include:

- promoting use of standard 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 an 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:**

219. HIV drug resistance (WHO webpage)  
<http://www.who.int/hiv/drugresistance/>

### 3.3.5 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 assessing 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 using antiretrovirals. These include problems of toxicity, intolerance, drug-drug interactions, and adverse events linked with co-morbidities such as hepatitis. Pharmacovigilance is critically important for clinicians as they seek to optimize patient adherence to treatment and treatment outcomes, and to ensure their safety. Assessing 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, and the 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 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 data on adverse drug reactions, as well as international recommendations.

To optimize monitoring and managing 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 resources:**

220. [Pharmacovigilance for antiretrovirals in resource-poor countries  
http://www.who.int/medicines/areas/quality\\_safety/safety\\_efficacy/PhV\\_for\\_antiretrovirals.pdf](http://www.who.int/medicines/areas/quality_safety/safety_efficacy/PhV_for_antiretrovirals.pdf)

### **3.3.6 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 sustaining or increasing it. 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 that includes gauging the strengths of national strategic and M&E plans and the links between them and, also, assessing the availability of data and resources for an evaluation;
- creating a multidisciplinary national evaluation task force that 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. In order to strengthen monitoring and evaluation, it is important that any additional necessary data collection be integrated into the existing health information system which, in turn, should be linked to the country review and strategic planning processes (see section 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.

## 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 have 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 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 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. These include research aimed at: discovering effective prevention technologies (vaccines, microbicides and cervical barriers, and pre-exposure prophylaxis) and of effective treatment and care interventions; expanding understanding of socio-behavioural factors that increase or decrease risk behaviour or hinder or facilitate access to interventions; and discovering 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. Collaboration among national partners, donors and north/south research organizations and networks is also necessary to devise and conduct research that is relevant to country situations.

### 3.4.1 Operational research

Operational research 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 multidisciplinary 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 such research. This is best done through consulting major stakeholders from the research community, the ministry of health, and NGOs. Once general priorities are established, it is important to identify individuals who can form the nucleus of 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:**

221. Guide to operational research in programs supported by the Global Fund  
[http://www.who.int/hiv/pub/epidemiology/SIR\\_operational\\_research\\_brochure.pdf](http://www.who.int/hiv/pub/epidemiology/SIR_operational_research_brochure.pdf)
222. Framework for operations and implementation research in health and disease control programmes  
<http://www.theglobalfund.org/documents/me/FrameworkForOperationsResearch.pdf>
223. HIV testing, treatment, and prevention: generic tools for operational research  
To be available in 2009 at the following web link:  
<http://www.who.int/hiv/pub/vct/en/>

Note that publication of generic tools to assist data collection on key topics including adherence to ARVs; prevention of transmission by those under treatment; stigma; and testing for HIV, are anticipated in 2009.

## 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 it, and that the evidence must be packaged and disseminated in ways that make it easy for those people to digest and use. Plans for disseminating 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 readers or audiences at all levels of the health system should ensure that the information is presented in ways that meet their needs, and that it encourages a culture of data generation and application for programme improvement at all levels.

### 3.5.1 Situation analysis

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 the geographical areas and populations where the epidemic is spreading most rapidly, and to plan interventions accordingly. Similarly, organizing services for care, support and treatment requires an understanding of the location of people living with HIV. 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, analyse and use data from multiple sources, including:

- 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 HIV drug resistance;
- situation assessments, mapping studies and rapid assessments among target populations;
- population surveys (demographic and health surveys, 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, when time or cost constraints rule out using more conventional research techniques, and when 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; and 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 of action. They should also encourage community participation.

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

**Key resources:**

224. A guide to rapid assessment of human resources for health  
[http://www.who.int/hrh/tools/en/Rapid\\_Assessment\\_guide.pdf](http://www.who.int/hrh/tools/en/Rapid_Assessment_guide.pdf)
222. Framework for operations and implementation research in health and disease control programmes  
<http://www.theglobalfund.org/documents/me/FrameworkForOperationsResearch.pdf>
36. SEX-RAR guide: The rapid assessment and response guide on psychoactive substance use and sexual risk behaviour  
[http://www.who.int/mental\\_health/media/en/686.pdf](http://www.who.int/mental_health/media/en/686.pdf)
52. Rapid assessment and response: Adaptation guide on HIV and men who have sex with men (MSM-RAR)  
[http://www.who.int/entity/hiv/pub/prev\\_care/en/msmrar.pdf](http://www.who.int/entity/hiv/pub/prev_care/en/msmrar.pdf)
225. Rapid assessment and response: Adaptation guide for work with especially vulnerable young people (EVYP- RAR)  
[http://www.who.int/hiv/pub/prev\\_care/en/youngpeoplerrar.pdf](http://www.who.int/hiv/pub/prev_care/en/youngpeoplerrar.pdf)

Note that publication of an HIV triangulation resource guide: Synthesis of results from multiple data sources for evaluation and decision-making, is anticipated in 2009

### 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.

All countries strive towards the goal of universal access, but 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 setting 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. For example, by 2015, 85% of TB patients in DOTS programmes are to receive HIV testing and counselling, and 57% of TB patients in DOTS programmes (HIV-positive and eligible) are to be enrolled on antiretroviral therapy. 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:**

226. Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (IDUs) <http://www.who.int/hiv/idu/TechnicalGuideTargetSettingApril08.pdf>
227. Setting national targets for moving towards universal access: operational guidance [http://data.unaids.org/pub/Guidelines/2006/20061006\\_report\\_universal\\_access\\_targets\\_guidelines\\_en.pdf](http://data.unaids.org/pub/Guidelines/2006/20061006_report_universal_access_targets_guidelines_en.pdf)
228. Considerations for countries to set their own national targets for HIV prevention, treatment and care [http://data.unaids.org/pub/Report/2006/Considerations\\_for\\_target\\_setting\\_April2006.pdf](http://data.unaids.org/pub/Report/2006/Considerations_for_target_setting_April2006.pdf)  
Addendum: [http://data.unaids.org/pub/Guidelines/2006/20061006\\_report\\_universal\\_access\\_targets\\_guidelines\\_en.pdf](http://data.unaids.org/pub/Guidelines/2006/20061006_report_universal_access_targets_guidelines_en.pdf)
82. 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  
English: [http://whqlibdoc.who.int/publications/2007/9789241596015\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241596015_eng.pdf)  
French: [http://whqlibdoc.who.int/publications/2007/9789242596014\\_fre.pdf](http://whqlibdoc.who.int/publications/2007/9789242596014_fre.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2007/9789280643114\\_rus.pdf](http://whqlibdoc.who.int/publications/2007/9789280643114_rus.pdf)

Note that publication of technical guidance on setting targets for ART, PMTCT and testing and counselling interventions is anticipated in 2009.

### 3.5.3 Data quality

A sound information system depends largely on the quality of data. This includes 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 to 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:**

229. Routine data quality audit tool (RDQA): Guidelines for implementation GFATM, WHO and partners (Draft July 2008) <http://www.cpc.unc.edu/measure/tools/monitoring-evaluation-systems/data-quality-assurance-tools/RDQA%20Guidelines-Draft%207.30.08.pdf>

## 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 analysis, 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, and 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, including those that require careful attention as countries scale up their response to the HIV epidemic. In particular, it highlights the importance of: strategic re-planning; spotting bottlenecks to service delivery; and approaches to overcome these bottlenecks. Thereafter, the chapter addresses key factors in prioritizing interventions and in service delivery within specific epidemic settings.

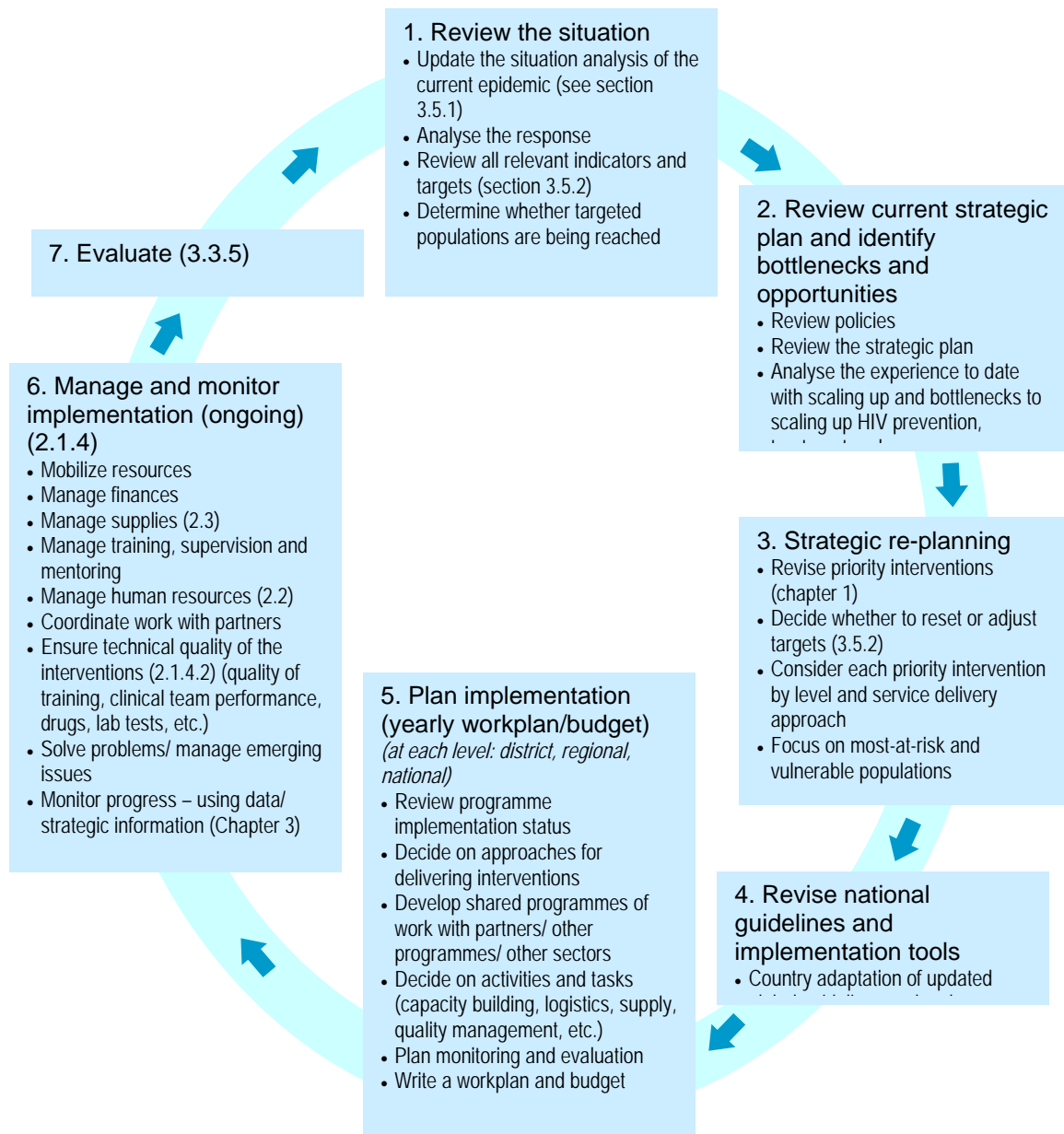
### 4.2 Strategic review and re-planning

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 levels and in all of sectors, there has been an impressive accumulation of experience. Lessons learned from these successes and failures have led to a better understanding of how to design and deliver services that achieve their intended results, while making efficient use of available resources. 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 over which interventions to include in the national HIV/AIDS programme are usually made during strategic planning, as are decisions about how to prioritize the interventions so that available resources can be allocated accordingly. Most disease control programmes do this every five years or so. However, strategic re-planning of the HIV response often occurs more frequently in order to respond to the changing situation in a country, including the changing shape of the epidemic (see section 3.5.1 on situation analysis), and to take advantage of emerging knowledge about effective interventions and new funding opportunities. Regardless of how quickly the strategic planning review and update cycle evolve, they should involve all key service providers (in government, civil society and the private sector), and all key service recipients (people living with HIV, those most-at-risk of infection and those made vulnerable by gender, age or other characteristics).



**Figure 2. Strategic and implementation planning and management cycle**



## 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. These bottlenecks commonly occur in the following areas:<sup>24</sup>

- human resources: availability, skills, motivation, mobilization, effective and efficient use, payment levels, and management;
- managing and coordinating 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 participants;
- 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 obstacles.

The steps necessary to overcome bottlenecks are often inter-linked and mutually reinforcing, and they 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.<sup>25</sup> Lack of management and logistical capacity in health facilities and at national, regional and district levels are increasingly recognized as critical bottlenecks. Despite increasing availability of HIV funding, these 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. Though new partners may have helped overcome old bottlenecks, they may also create new ones. For example, new partners 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 illustrate the importance of: strengthening coordination among all partners in the response to HIV; strengthening management throughout the health system; and responding to new circumstances during the strategic re-planning phase. At this time in the epidemic, strategic re-planning also requires moving from an emergency to a long-term perspective, while 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

<sup>24</sup> Derived from several analyses of constraints to GFATM grant implementation (2006); country priorities in GFATM round 5 health system strengthening proposals; PEPFAR assessment reports.

<sup>25</sup> Alleviating system wide barriers to immunization: issues and conclusions from the second GAVI consultation with country representatives and global partners. Oslo, Norway, 7–8 October 2004. The Global Alliance for Vaccines and Immunization, Geneva, Switzerland. Available at: [http://www.gavialliance.org/resources/14brd\\_allev\\_sys\\_barriers.pdf](http://www.gavialliance.org/resources/14brd_allev_sys_barriers.pdf)

coordination and standard operating procedures, there is a 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 human and other resources (e.g. by task shifting).

#### **Key resources:**

230. Guidelines for conducting a review of the health sector response to HIV/AIDS  
[http://www.searo.who.int/LinkFiles/Publications\\_HealthSectorResponse-AIDS-2008.pdf](http://www.searo.who.int/LinkFiles/Publications_HealthSectorResponse-AIDS-2008.pdf)
231. The Global Fund strategic approach to health systems strengthening: Report from WHO to the Global Fund secretariat  
[http://www.who.int/healthsystems/GF\\_strategic\\_approach\\_%20HS.pdf](http://www.who.int/healthsystems/GF_strategic_approach_%20HS.pdf)

### **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 that 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, emerging knowledge, and best international practice. A review and update cycle should take into account changes in strategic direction, normative tools and guidelines, and the priority package of interventions.

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 it should be followed up with continuous monitoring to ensure activities take 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 levels. Operational plans should be closely linked to and aligned with national strategic plans, since they are the means for implementing them.

Operational plans should support consistent progress towards universal access, so that a comprehensive package of high quality HIV prevention, treatment and care reaches ever more people—in particular, the increasing numbers of people living with HIV, and those 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. This includes: identifying which service providers will offer which services, and to whom; determining how available resources will be allocated among all providers and services; covering each service and

integrated service package by level of care; and specifying plans and activities to ensure that appropriately skilled human resources, logistical support, and strategic information will be available.

## 4.4 Planning for low-level epidemics

In low-prevalence settings, it is particularly important to focus on implementing effective prevention programmes so that HIV incidence remains low, and then defining 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 particularly important. It provides the data on which to base estimates of size and geographical location of populations living with HIV, or those most at risk of infection. It also provides data on the behaviours that may have resulted in HIV infection or could result in new infection. This information should guide planning, with priority given to populations and geographical locations where people are most at risk of transmitting infection or becoming newly infected. Priority should also be given to interventions targeting particular behaviours.

In low-level epidemics, sexually transmitted infections 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 their related morbidity and the likelihood of HIV transmission. STI services are a critical 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. They are also aimed at 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, as well as access to HIV treatment and care services. The best-designed HIV/AIDS programmes also improve sexual and reproductive health and well-being 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; they respect their rights and endeavour to protect them. 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, and 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 also be considered in STI and TB services, services for most-at-risk populations, and antenatal, childbirth and postpartum health. 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, depending on health system capacity and resources. **Table 9** outlines priority health-sector interventions by level of the health system appropriate for a low-level epidemic setting.

#### **Key resource:**

232. National AIDS programme management: A set of training modules  
[http://www.searo.who.int/en/Section10/Section18/Section356\\_13495.htm](http://www.searo.who.int/en/Section10/Section18/Section356_13495.htm)  
Preliminary pages: [http://www.searo.who.int/LinkFiles/Publications\\_Preliminary\\_pages.pdf](http://www.searo.who.int/LinkFiles/Publications_Preliminary_pages.pdf)  
Introduction: [http://www.searo.who.int/LinkFiles/Publications\\_Introduction.pdf](http://www.searo.who.int/LinkFiles/Publications_Introduction.pdf)  
Module 1 – Situation analysis: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_1.pdf)  
Module 2 – Policy and planning: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_2.pdf)  
Module 3 – Determining programme priorities and approaches: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_3.pdf)  
Module 4 – Targeted HIV prevention and care interventions: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_4.pdf)  
Module 5 – Setting coverage targets and choosing key outcome indicators:  
[http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_5.pdf)  
Module 6.1 – Minimizing sexual transmission of HIV and other STIs: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.1.pdf)

Module 6.2 – HIV prevention and care among drug users: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.2.pdf)  
 Module 6.3 – HIV counseling and testing: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.3.pdf)  
 Module 6.4 – The continuum of care for people living with HIV/AIDS and access to antiretroviral therapy: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.4.pdf)  
 Module 6.5 – Prevention of mother-to-child transmission: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.5.pdf)  
 Module 6.6 – Prevention of HIV transmission through blood: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.6.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.6.pdf)  
 Module 7 – Managing the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module7.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module7.pdf)  
 Module 8 – Management systems for the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module8.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module8.pdf)  
 Module 9 – Strategic information: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module9.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module9.pdf)

#### 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, when these services are provided in only a few facilities, a well performing system of referrals is critical. It is also important to create services that promote patient self-management, home- and community-based care, and mutual support by networks of people living with HIV.

Clinical teams that support self-management and involve expert patients on those teams are basic tenets of good chronic care in any epidemic setting. However, some community-based services may not be resource-efficient in low prevalence settings. 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.

##### **Key resources:**

136. IMAI general principles of good chronic care  
 English: <http://www.who.int/hiv/pub/imai/generalprinciples082004.pdf>  
 French: [http://www.who.int/hiv/pub/imai/imai\\_general\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_general_2008_fr.pdf)
232. National AIDS programme management: A set of training modules  
[http://www.searo.who.int/en/Section10/Section18/Section356\\_13495.htm](http://www.searo.who.int/en/Section10/Section18/Section356_13495.htm)  
 Preliminary pages: [http://www.searo.who.int/LinkFiles/Publications\\_Preliminary\\_pages.pdf](http://www.searo.who.int/LinkFiles/Publications_Preliminary_pages.pdf)  
 Introduction: [http://www.searo.who.int/LinkFiles/Publications\\_Introduction.pdf](http://www.searo.who.int/LinkFiles/Publications_Introduction.pdf)  
 Module 1 – Situation analysis: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_1.pdf)  
 Module 2 – Policy and planning: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_2.pdf)  
 Module 3 – Determining programme priorities and approaches: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_3.pdf)  
 Module 4 – Targeted HIV prevention and care interventions: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_4.pdf)  
 Module 5 – Setting coverage targets and choosing key outcome indicators: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_5.pdf)  
 Module 6.1 – Minimizing sexual transmission of HIV and other STIs: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.1.pdf)  
 Module 6.2 – HIV prevention and care among drug users: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.2.pdf)  
 Module 6.3 – HIV counseling and testing: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.3.pdf)  
 Module 6.4 – The continuum of care for people living with HIV/AIDS and access to antiretroviral therapy: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.4.pdf)  
 Module 6.5 – Prevention of mother-to-child transmission: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.5.pdf)  
 Module 6.6 – Prevention of HIV transmission through blood: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.6.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.6.pdf)  
 Module 7 – Managing the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module7.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module7.pdf)  
 Module 8 – Management systems for the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module8.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module8.pdf)  
 Module 9 – Strategic information: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module9.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module9.pdf)

#### 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 high quality delivery of the selected priority interventions.

**Table 9. Example: priority health sector interventions by level of health system in low-level epidemic**

	<b>Outreach to most-at-risk populations (MARP)</b>	<b>Community and home-based delivery of interventions</b>	<b>Primary care: at health centre or outpatient clinics (at district hospital) or private providers</b>	<b>District hospital: second level referral care; inpatient care</b>	<b>Regional or central hospital/ specialist physicians, paediatricians</b>
<b>Increasing knowledge of HIV sero-status</b>	Outreach HIV testing and counselling	CITC	CITC: at health facility PITC: • Antenatal PITC • Family and partner testing	<i>As to left, plus:</i> • Blood donor HIV testing and counselling • PITC for HIV-exposed infants • PITC before post-exposure prophylaxis (PEP) • Resolve discordant results	Perform virological tests on dried blood spot and send back results
<b>Prevention of HIV transmission</b>	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: • Peer-based information and education • Provision and exchange of sterile needles and syringes • Condom promotion and programming, including 100% condom promotion campaigns • Targeted STI and sexual and reproductive health services, particularly for vulnerable girls and women • Referral to specific prevention services	Community prevention literacy  Peer support for prevention with people living with HIV.  Pharmacy programmes for needle and syringe access  • Community family planning If HIV-positive mothers in the community: • Mother-to-mother support for PMTCT • Infant feeding support, and replacement feeding if AFASS	<b>Prevent sexual transmission of HIV</b> • Condom promotion, provision to prevent STIs in MARP • Detect and manage STI • Safer sex, risk reduction counselling (as at hospital depending on people living with HIV client population) • Special, friendly clinical services for sex workers, men who have sex with men  <b>Prevent HIV infection through IDU:</b> comprehensive harm reduction including: • Patient information, education • Sterile needle, syringe provision • Drug dependence treatment (including opioid substitution treatment)  <b>Prevent infection in infants, young children:</b> • Family planning • ARV prophylaxis for PMTCT • Care, support for pregnant women • Infant feeding counselling and support  <b>Prevent transmission in health-care settings, including:</b> • Infection control, standard precautions • Safe injections • Safe medical waste management • Occupational health of health workers • Post-exposure prophylaxis	<i>As to left, plus:</i> • Manage STI treatment failures  <b>Prevention with people living with HIV:</b> • Discordant couples risk reduction • Counsel on continued possibility of HIV transmission on ART, • Condom promotion and provision • Counselling on sexual health, return to sexuality and fertility, reproductive choices • Counsel on substance use and relationship to risky behaviour • Brief interventions for harmful or hazardous alcohol use  <b>PMTCT:</b> ART for eligible women; support for complications on ART/AZT prophylaxis  Safe blood	Safe blood

	<b>Outreach to most-at-risk populations (MARP)</b>	<b>Community and home-based delivery of interventions</b>	<b>Primary care: at health centre or outpatient clinics (at district hospital) or private providers</b>	<b>District hospital: second level referral care; inpatient care</b>	<b>Regional or central hospital/ specialist physicians, paediatricians</b>
<b>HIV-AIDS treatment and care</b>	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	Home-based care: Palliative care	<p><b>Prevent illness:</b></p> <ul style="list-style-type: none"> <li>• Cotrimoxazole prophylaxis</li> <li>• Vaccination</li> <li>• Nutritional care and support</li> <li>• Education: safe water, hygiene, sanitation</li> </ul> <p><b>Clinical care/ manage opportunistic infections and co-morbidities:</b></p> <ul style="list-style-type: none"> <li>• Primary care for pneumonia, fever/ malaria, diarrhoea, malnutrition, other common conditions</li> <li>• Mental health, psychosocial support</li> <li>• Back up palliative care at home, symptom management</li> </ul> <p><b>TB prevention, diagnosis, treatment:</b></p> <ul style="list-style-type: none"> <li>• Intensified casefinding TB</li> <li>• TB infection control</li> <li>• Isoniazid preventive therapy</li> <li>• Diagnose, start, follow TB treatment</li> </ul>	<p>As to left, plus:</p> <p><b>ART:</b></p> <ul style="list-style-type: none"> <li>• Adherence preparation, support</li> <li>• Recommend or initiate first-line regimens</li> <li>• Monitor, adjust dose</li> <li>• Clinical, CD4, limited laboratory monitoring</li> <li>• Support patient self-management</li> <li>• Diagnose treatment failure (under supervision clinical mentor)</li> <li>• Manage serious complications of ART</li> </ul> <p><b>HIV care:</b></p> <ul style="list-style-type: none"> <li>• Assess and manage severe opportunistic infections</li> <li>• Inpatient care</li> <li>• Manage severe malnutrition</li> <li>• TB-ART co-treatment plan</li> <li>• TB-HIV co-management</li> </ul>	<p>Second-line ART</p> <p>Clinical mentor for district clinicians</p> <p>Management of uncommon and certain severe opportunistic infections, ART toxicities, oncology</p>
AFASS ART ARV	acceptable, feasible, affordable, sustainable and safe antiretroviral therapy antiretroviral	AZT CITC IDU	Azidothymidine, Zidovudine Client initiated testing and counselling injecting drug use	MARP PITC PMTCT STI	most at risk populations provider initiated testing and counselling prevention of mother to child transmission sexually transmitted infections

## 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. The discussion begins there, but targeted interventions are 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;
- recognize 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. Client-Initiated Testing and Counselling 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, are not homogeneous. For example, there are many different types of sex workers 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; selecting the right intervention depends on the degree of marginalization of the group being targeted, the availability of other services, 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 that require priority interventions are sex workers, men who have sex with men, transgender people, drug users (particularly injecting drug users) and prisoners. Sometimes it is necessary to target other populations (such as minority, ethnic and displaced, mobile or migrant populations) that do not have the same access to health information and services as the general population.

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

**Outreach:** This approach involves peers or people who are trusted by the target population (or are making efforts to build this trust); outreach workers make direct contact with members of the community, providing them with information and the means of protection, as well as help in accessing 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 to 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 the capacity of target groups to create partnerships 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 and 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 10** outlines priority health-sector interventions appropriate for a concentrated epidemic setting.

**Key resources:**

232. National AIDS programme management: A set of training modules  
[http://www.searo.who.int/en/Section10/Section18/Section356\\_13495.htm](http://www.searo.who.int/en/Section10/Section18/Section356_13495.htm)  
 Preliminary pages: [http://www.searo.who.int/LinkFiles/Publications\\_Preliminar\\_pages.pdf](http://www.searo.who.int/LinkFiles/Publications_Preliminar_pages.pdf)  
 Introduction: [http://www.searo.who.int/LinkFiles/Publications\\_Introduction.pdf](http://www.searo.who.int/LinkFiles/Publications_Introduction.pdf)  
 Module 1 – Situation analysis: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_1.pdf)  
 Module 2 – Policy and planning: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_2.pdf)  
 Module 3 – Determining programme priorities and approaches: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_3.pdf)  
 Module 4 – Targeted HIV prevention and care interventions: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_4.pdf)  
 Module 5 – Setting coverage targets and choosing key outcome indicators:  
[http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_5.pdf)  
 Module 6.1 – Minimizing sexual transmission of HIV and other STIs: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.1.pdf)  
 Module 6.2 – HIV prevention and care among drug users: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.2.pdf)  
 Module 6.3 – HIV counseling and testing: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.3.pdf)  
 Module 6.4 – The continuum of care for people living with HIV/AIDS and access to antiretroviral therapy:  
[http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.4.pdf)  
 Module 6.5 – Prevention of mother-to-child transmission: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.5.pdf)  
 Module 6.6 – Prevention of HIV transmission through blood: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.6.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.6.pdf)  
 Module 7 – Managing the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module7.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module7.pdf)  
 Module 8 – Management systems for the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module8.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module8.pdf)  
 Module 9 – Strategic information: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module9.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module9.pdf)

#### 4.5.3.1 Services for sexually transmitted infections

See section 1.2.1.2.

Providing services for sexually transmitted infections (STI) 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 that should be considered in designing these services.

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

For sex workers, it is important to modify and disseminate STI diagnosis and treatment guidelines that 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. Guidance should be provided on managing proctitis and 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 a high priority wherever injecting drug use occurs. Improved access to HIV prevention, treatment and care services should be a key concern for this population, particularly in closed settings such as prisons. A comprehensive harm reduction programme for injecting drug users 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 managing viral hepatitis and TB co-infection);
- 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 can work well, with an IDU/HIV clinic serving as a 'one-stop-shop' possibly placed in existing HIV clinics, detoxification/drug substitution centres, closed settings and other places with clinical services for IDUs. 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.

Non-injecting drug use should also be considered. Use of many psychoactive substances is associated with high-risk sexual behaviour, including sex work, multiple sexual partners and unprotected sex. The hazardous use of alcohol and stimulants is a particular concern, including 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 1.2.1.6.1.

#### **Key resources:**

70. HIV prevention, treatment and care for injecting drug user (IDU) and prisons (Webpage)  
<http://www.who.int/hiv/topics/idu/en/index.html>
233. IMAI IDU modifications of acute care and chronic HIV care with ART guideline modules and training tools  
<http://www.who.int/hiv/capacity/IMAIsharepoint/en/>
234. Scaling-up HIV prevention, care and treatment: Report of a regional meeting. Bangkok, Thailand, 31 October - 2 November 2006  
[http://www.searo.who.int/LinkFiles/Publications\\_scaling-up-HIV200307.pdf](http://www.searo.who.int/LinkFiles/Publications_scaling-up-HIV200307.pdf)

### 4.5.3.3 Services for sex workers

Preventing HIV among sex workers is critical to preventing HIV in general populations, since sex workers can transmit their infections to their clients, who in turn transmit to their wives or other regular partners. Interventions in several countries, however, have demonstrated that 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.

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

Where 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 service delivery outcomes.

Providing HIV-related 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. This information can inform the planning of flexible responses that 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 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 is also an opportunity for providing health services, materials and information to sex workers who do not or cannot attend clinics, and reducing 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; 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 to put services in place more quickly and more cost-effectively. Since they are part of the community, peers can maintain regular contact with sex workers during hours that are convenient for them. They can raise awareness of HIV and STIs, and can provide safe sex information and supplies. However, peer services should not be stand-alone; they should be part of an integrated package of interventions in clinics and the 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, rapid scale-up of access to HIV services requires special services for sex workers. In settings where sex work is common, special services for sex workers may also be the most cost-effective approach in the long term. Absence of disease is not always a priority for sex workers; 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:**

48. Toolkit for targeted HIV/AIDS prevention and care in sex work settings  
<http://whqlibdoc.who.int/publications/2005/9241592966.pdf>

### **4.5.3.4 Services for men who have sex with men**

In some settings, there is official denial that men who have sex with men (MSM) exist. In other settings, the illegality of male-to-male sex and officially tolerated stigma and discrimination make it difficult to obtain official support for services that target this group. Even if there is such support, it is often half-hearted, and arrest or harassment of MSM and peer outreach workers by police may impede the delivery of services. Many MSM in these settings do not self-identify as such, and make every effort to hide the fact, often by marrying or having regular female partners.

For these reasons, services that target only MSM are often impractical; MSM are often best reached through services to broader populations (e.g. through STI services for males or services targeting youth). Transgender people and highly effeminate MSM constitute a special case, since they often face serious stigmatization and discrimination. 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 1.2.1.6.2.

#### **Key resources:**

232. National AIDS programme management: A set of training modules  
[http://www.searo.who.int/en/Section10/Section18/Section356\\_13495.htm](http://www.searo.who.int/en/Section10/Section18/Section356_13495.htm)  
Preliminary pages: [http://www.searo.who.int/LinkFiles/Publications\\_Preliminar\\_pages.pdf](http://www.searo.who.int/LinkFiles/Publications_Preliminar_pages.pdf)  
Introduction: [http://www.searo.who.int/LinkFiles/Publications\\_Introduction.pdf](http://www.searo.who.int/LinkFiles/Publications_Introduction.pdf)  
Module 1 – Situation analysis: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_1.pdf)  
Module 2 – Policy and planning: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_2.pdf)  
Module 3 – Determining programme priorities and approaches: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_3.pdf)  
Module 4 – Targeted HIV prevention and care interventions: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_4.pdf)  
Module 5 – Setting coverage targets and choosing key outcome indicators:  
[http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_5.pdf)

Module 6.1 – Minimizing sexual transmission of HIV and other STIs: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.1.pdf)  
Module 6.2 – HIV prevention and care among drug users: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.2.pdf)  
Module 6.3 – HIV counseling and testing: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.3.pdf)  
Module 6.4 – The continuum of care for people living with HIV/AIDS and access to antiretroviral therapy: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.4.pdf)  
Module 6.5 – Prevention of mother-to-child transmission: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.5.pdf)  
Module 6.6 – Prevention of HIV transmission through blood: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.6.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.6.pdf)  
Module 7 – Managing the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module7.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module7.pdf)  
Module 8 – Management systems for the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module8.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module8.pdf)  
Module 9 – Strategic information: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module9.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module9.pdf)

235. **Clinical guidelines for sexual health care of men who have sex with men**  
[http://www.iusti.org/sti-information/pdf/IUSTI\\_AP\\_MSM\\_Nov\\_2006.pdf](http://www.iusti.org/sti-information/pdf/IUSTI_AP_MSM_Nov_2006.pdf)

**Table 10. Example: priority health sector interventions by level of health system in concentrated epidemic**

	<b>Outreach to most-at-risk populations (MARP)</b>	<b>Community and home-based delivery of interventions</b>	<b>Primary care: at health centre or outpatient clinics or private providers</b>	<b>Second level care at district hospital; inpatient care</b>	<b>Tertiary care at regional or central hospital/ specialist physicians, paediatricians</b>
<b>Increasing knowledge of HIV sero-status</b>	<p>Outreach HIV testing and counselling to MARP and bridge population and consider offering CITC and including sites with rapid tests</p> <p>Support for self-help and community groups</p>	CITC closest to MARP setting	<p>CITC at health centre PITC:</p> <ul style="list-style-type: none"> <li>• Consider in health services targeting MARPs and prison health care</li> <li>• Sexual and injecting partners of index cases</li> <li>• Patients with TB, STI, hepatitis B and C, other blood-borne viruses</li> <li>• Patients at drug dependence setting</li> <li>• Bridge populations</li> <li>• Pregnant women</li> <li>• Infant testing and counselling</li> <li>• Prior to receiving post-exposure prophylaxis (PEP)</li> </ul>	<p><i>As to left, plus:</i></p> <ul style="list-style-type: none"> <li>• Blood donor HIV testing and counselling</li> <li>• Resolve discordant HIV test results</li> </ul>	Perform virological tests on dried blood spot and send back results
<b>Prevention of HIV transmission</b>	<p>HIV prevention outreach to MARPs and 'bridge' populations such as mobile populations, migrants, border areas:</p> <ul style="list-style-type: none"> <li>• Peer-mediated information and education, and distribution of prevention commodities</li> <li>• Condom promotion and programming, including 100% condom promotion campaigns</li> <li>• Provision of harm reduction including exchange of needles and syringes</li> <li>• Linkage/referral to prevention, care and treatment sites friendly and oriented to MARP</li> </ul>	<p>Advocacy to reduce stigma, discrimination and criminalization of MARP</p> <p>Peer support for prevention with MARP</p> <p>Support for self-help and community groups</p> <p>Condom promotion and provision</p> <p>Counselling to reduce risky behaviour</p> <p>Community prevention literacy including STI</p> <p>Harm reduction including needle-syringe programme</p> <p>PMTCT for women in MARP</p>	<p>Prevention in people living with HIV <b>with emphasis on prevention in MARPs</b></p> <ul style="list-style-type: none"> <li>• Targeted STI management and sexual and reproductive health services</li> <li>• Management of rape and sexual violence including PEP</li> </ul> <p><b>Prevent HIV infection through injecting drug use:</b> comprehensive harm reduction including:</p> <ul style="list-style-type: none"> <li>• Patient information, education</li> <li>• Sterile needle, syringe provision</li> <li>• Drug dependence treatment (including opioid substitution treatment)</li> </ul> <p>Special and tolerant clinical services for sex workers, MSM including mobile services to attend MARP sites</p> <p>HIV prevention among youth:</p> <ul style="list-style-type: none"> <li>• Special attention to young MARP</li> <li>• Tolerant, adolescent-friendly services</li> <li>• Ensure access reproductive health, family planning</li> </ul> <p><b>Prevent infection in infants, young children</b></p> <ul style="list-style-type: none"> <li>• Family planning</li> <li>• ART or ARV prophylaxis</li> <li>• Treatment, care, support pregnant women</li> <li>• Infant feeding counselling and support</li> </ul> <p><b>Prevent transmission in health-care settings, including:</b></p> <ul style="list-style-type: none"> <li>• Infection control, standard precautions</li> <li>• Safe injections</li> <li>• Safe medical waste management</li> <li>• Occupational health of health workers;</li> <li>• Post-exposure prophylaxis</li> </ul>	<p><i>As to left, plus:</i></p> <p>Manage STI treatment failures</p> <p>PMTCT for complicated cases</p> <p>Safe blood</p>	

	<b>Outreach to most-at-risk populations (MARP)</b>	<b>Community and home-based delivery of interventions</b>	<b>Primary care: at health centre or outpatient clinics or private providers</b>	<b>Second level care at district hospital; inpatient care</b>	<b>Tertiary care at regional or central hospital/ specialist physicians, paediatricians</b>
<b>HIV treatment and care (including prevention of illness in PLHIV)</b>	<p>Integration of care and support in outreach services</p> <p>Use prevention outreach as entry point to HIV treatment and care services</p> <p>Referral to prevention, care and treatment sites friendly and oriented to MARP</p>	<p>Self help and community support groups</p> <p><b>Home-based:</b></p> <ul style="list-style-type: none"> <li>• Care-seeking support</li> <li>• Social support</li> <li>• Nutritional support</li> </ul> <p><b>Palliative care:</b></p> <ul style="list-style-type: none"> <li>• Symptom management and end-of-life care in home by caregivers</li> <li>• Patient self-management</li> </ul>	<p>At prevention, care and treatment sites friendly and oriented to MARP</p> <p>Counselling of PLHIV on adherence, ART, opportunistic infections prevention and treatment</p> <p>ART</p> <p>Opportunistic infections prevention and treatment</p> <p>Management of hepatitis and other co-infections</p> <p>Management of non-infectious co-morbidities</p> <p>Patient monitoring (including lab follow up)</p> <ul style="list-style-type: none"> <li>• Psychological support</li> <li>• Immunization</li> <li>• Opioid substitution treatment</li> </ul> <p><b>TB prevention, diagnosis, treatment</b></p> <ul style="list-style-type: none"> <li>• Intensified casefinding TB</li> <li>• TB infection control</li> <li>• Isoniazid preventive therapy</li> <li>• TB- HIV co-management</li> <li>• Diagnose, start, follow TB treatment with focus on MARP</li> </ul>	<p><i>As to left, plus:</i></p> <p>Management of complicated HIV cases</p> <p>ART including toxicities and treatment failure</p> <p>If resources available: manage severe comorbidities including oncology and opportunistic infections</p> <p>Supervise ART prescription at previous level of care</p> <p>Inpatient care</p>	<p><i>As to left, plus:</i></p> <p>Clinical mentor for previous level</p> <p>Referral for uncommon and certain severe opportunistic infections, ART toxicities, oncology</p>
AFASS ART ARV	acceptable, feasible, affordable, sustainable and safe antiretroviral therapy antiretroviral	AZT CITC IDU	Azidothymidine, Zidovudine Client initiated testing and counselling injecting drug use	MARP PITC PMTCT STI	most at risk populations provider initiated testing and counselling prevention of mother to child transmission sexually transmitted infections

## 4.6 Planning for generalized HIV epidemics

### 4.6.1 Prevention

Prevention efforts have led to declines in levels of HIV in some countries with generalized epidemics, but this has yet to take place in many others. Furthermore, in all countries the epidemic continues to disproportionately affect women.

Comprehensive prevention interventions, informed by evidence, could have broader success. Making better use of opportunities to integrate HIV prevention within health services is especially critical to this success. Providing Patient-Initiated Testing and Counselling, condoms and counselling for women who take their children for immunization and other child care services is one example. The female condom remains an under-exploited option, as does safer sex counselling, which should occur after HIV testing but also on many other occasions when health workers and patients interact. Safer sex counselling should reinforce the message that concurrent sexual partnership is very high risk.

The health sector can also play an important role in promoting progressive delay of the age of coital debut for young people, and in advocating for the control of alcohol use, since it is increasingly recognized as a significant contributor to risk-taking behaviour in countries with generalized epidemics. Hazardous or harmful patterns of alcohol use are associated with unsafe sex, high partner numbers and condom accidents. Addressing this problem is now recognized 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 in moving 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 initiation of antiretroviral therapy.

Good survival rates have been reported for patients on antiretroviral therapy, and the numbers of patients in chronic HIV care have increased steadily. This has led to development of 'mega-clinics' in some hospitals. Decentralizing chronic HIV care to the health centre and 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 an effective and cost-efficient way. People living with HIV require multiple interventions for TB, substance use, pregnancy, child health, and so on. In many countries, these interventions are delivered through a number of different facilities with specialized personnel. This is an inefficient use of resources and an increased burden on patients. Integration of these services in health facilities, together with standardized protocols and training for health workers, enables more effective co-management of patients, and promotes family-based care that addresses the needs of adults, adolescents and children.

To support scale-up and to avoid inefficient use of resources and increased burden on health workers and patients, coherent and integrated packages of essential interventions appropriate for each level of the health system are necessary. These should be developed and delivered through a shared programme of work. Operational collaboration is important, both internationally and between: national HIV/AIDS programmes, and those focusing on TB, maternal and newborn services, child health, STIs, mental health, and oral health; 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. Cosponsorship of integrated implementation at facility and district level with co-supervision by several programmes (usually HIV, TB and maternal and child health) are essential to support integrated services. Cooperation within the district management team and at point of care is often substantially better (and easier) than at the 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 sections 1.3.2.4 and 2.1.1).

Most of the HIV interventions described in Chapter 1 can be decentralized to health centres by using simplified, operational 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 for all eligible patients, in all clinical services.

### **Key resources:**

47. IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic  
English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_chronic_fr.pdf)
112. IMAI-IMCI basic chronic HIV/ ART clinical training course  
<http://www.who.int/hiv/capacity/IMAISHarepoint/en>
85. IMAI-IMPAC integrated PMTCT training course  
<http://www.who.int/hiv/capacity/IMAISHarepoint/en/>
113. IMAI basic ART aid (lay counsellor) training modules  
<http://www.who.int/hiv/capacity/IMAISHarepoint/en>
100. IMAI acute care  
English: [http://www.who.int/hiv/pub/imai/en/acutecarerev2\\_e.pdf](http://www.who.int/hiv/pub/imai/en/acutecarerev2_e.pdf)  
French: [http://www.who.int/hiv/pub/imai/imai\\_acutecare\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_acutecare_2008_fr.pdf)
236. IMAI acute care/opportunistic infection training course  
<http://www.who.int/hiv/capacity/IMAISHarepoint/en/>
136. IMAI general principles of good chronic care  
English: <http://www.who.int/hiv/pub/imai/generalprinciples082004.pdf>  
French: [http://www.who.int/hiv/pub/imai/imai\\_general\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_general_2008_fr.pdf)
147. Tuberculosis care with TB-HIV co-management: Integrated Management of Adolescent and Adult Illness (IMAI)  
[http://whqlibdoc.who.int/publications/2007/9789241595452\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595452_eng.pdf)  
Facilitator's guide: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_fac.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_fac.pdf)  
Participant's manual: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_partman.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_partman.pdf)
148. IMAI TB infection control at health facilities  
[http://www.who.int/hiv/pub/imai/TB\\_HIVModule23.05.07.pdf](http://www.who.int/hiv/pub/imai/TB_HIVModule23.05.07.pdf)  
Facilitator's guide: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_fac.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_fac.pdf)  
Participant's manual: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_partman.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_partman.pdf)
237. Briefing package: Integrated approach to HIV prevention, care and treatment: Integrated management of Adult Illness (IMAI) and Childhood Illness (IMCI) tools  
<http://www.who.int/hiv/capacity/ImaiBriefingStrategyAug2007Sm.pdf>
238. HIV prevention, treatment, care and support: a training package of 8 modules for community volunteers  
<http://www.ifrc.org/what/health/tools/hiv-training.asp>  
Facilitators guide: <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Facilitators-guide.pdf>  
Introduction to training <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Intro-to-Training.pdf>  
Module 1: Basic facts on HIV and AIDS <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-1.pdf>  
Module 2: Treatment literacy <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-2.pdf>  
Module 3: Treatment preparedness <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-3.pdf>  
Module 4: Adherence <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-4.pdf>  
Module 5: Community-based counselling <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-5.pdf>  
Module 6: Nutrition <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-6.pdf>  
Module 7: Palliative care - symptom management and end-of-life care <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-7.pdf>  
Module 8: Caring for carers <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-8.pdf>  
  
Evaluation tool <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Evaluation-Tool.pdf>  
Participants handbook <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Participants-handbook-full.pdf>  
Flipchart for client education <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/hiv-flipchart1.pdf>
124. Pocket book of hospital care for children: guidelines for the management of common illnesses with limited resources  
English: <http://whqlibdoc.who.int/publications/2005/9241546700.pdf>  
French: [http://whqlibdoc.who.int/publications/2007/9789242546705\\_fre.pdf](http://whqlibdoc.who.int/publications/2007/9789242546705_fre.pdf)



Portuguese: [http://whqlibdoc.who.int/publications/2005/9789248546709\\_por.pdf](http://whqlibdoc.who.int/publications/2005/9789248546709_por.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2005/9241546700\\_rus.pdf](http://whqlibdoc.who.int/publications/2005/9241546700_rus.pdf)

**Table 11. Example: priority health sector interventions by level of health system in generalized epidemic with high prevalence**

	<b>Outreach to most-at-risk populations and vulnerable groups</b>	<b>Outreach to most-at-risk populations and vulnerable groups</b>	<b>Primary care: at health centre or outpatient clinics of district hospital or private providers</b>	<b>Second level care at district hospital; inpatient care</b>	<b>Tertiary care at regional or central hospital/specialist physicians, paediatricians</b>
<b>Increasing knowledge of HIV sero-status</b>	Outreach HIV testing and counselling to most-at-risk populations	CITC PITC: <ul style="list-style-type: none"> <li>Home-based testing and counselling for family/partners of index case</li> <li>National and local campaigns (Know Your Status)</li> </ul>	CITC at health centre PITC: <ul style="list-style-type: none"> <li>All patients in all health facilities</li> <li>Infant testing and counselling</li> <li>Send dried blood spot for virological testing</li> <li>Family and partner testing</li> <li>Prior to receiving post exposure prophylaxis</li> </ul>	<i>As to left, plus:</i> <ul style="list-style-type: none"> <li>Blood donor HIV testing and counselling</li> <li>Resolve discordant HIV test results</li> </ul>	Perform virological tests on dried blood spot and send back results
<b>Prevention of HIV transmission</b>	HIV prevention outreach to sex workers, drug users, men who have sex with men, young people and mobile populations, including: <ul style="list-style-type: none"> <li>Peer information and education, and distribution of prevention commodities</li> <li>Condom promotion and provision, including support for 100% condom programming</li> <li>Provision and exchange of sterile needles and syringes</li> <li>Targeted STI and sexual and reproductive health services, particularly for vulnerable girls and women</li> <li>Referral to specific prevention services</li> </ul>	Community prevention literacy Support condom programming Home-based: <ul style="list-style-type: none"> <li>Risk reduction support for discordant couples</li> <li>Peer support for prevention with people living with HIV</li> </ul> <ul style="list-style-type: none"> <li>Community family planning</li> <li>Mother to mother support for PMTCT</li> <li>Assure delivery ART/ARV prophylaxis during home delivery</li> <li>Infant feeding support</li> </ul>	<b>Prevent sexual transmission of HIV</b> <ul style="list-style-type: none"> <li>Condom promotion, provision</li> <li>Detect and manage STI</li> <li>Safer sex, risk reduction counselling with emphasis prevention with people living with HIV <ul style="list-style-type: none"> <li>Discordant couples risk reduction</li> <li>Continued possibility of HIV transmission on ART</li> <li>Condom promotion and provision</li> <li>Counsel on sexual health, return to sexuality and fertility on ART, reproductive choices</li> <li>Counsel on substance use and risky behaviour</li> <li>Brief interventions on harmful or hazardous alcohol use</li> </ul> </li> <li>Male circumcision- in some sites or counselling, wound care</li> </ul> <b>HIV prevention among youth:</b> <ul style="list-style-type: none"> <li>Tolerant, adolescent-friendly services- acute and chronic HIV care</li> <li>Ensure access to reproductive health, family planning</li> </ul> Special, friendly clinical services for sex workers and men who have sex with men Management rape, sexual violence including post exposure prophylaxis <b>Prevent HIV infection through IDU: comprehensive harm reduction including:</b> <ul style="list-style-type: none"> <li>Patient information, education</li> <li>Sterile needle, syringe provision</li> <li>Drug dependence treatment (including opioid substitution treatment)</li> </ul> <b>Prevent infection in infants, young children:</b> <ul style="list-style-type: none"> <li>Family planning</li> <li>ART or ARV prophylaxis</li> <li>Treatment, care, support for pregnant women</li> <li>Infant feeding counselling and support</li> </ul> <b>Prevent transmission in health-care settings, including:</b> <ul style="list-style-type: none"> <li>Infection control, standard precautions</li> <li>Safe injections</li> <li>Safe medical waste management</li> <li>Occupational health of health workers; special focus on care and treatment for health workers</li> <li>Post-exposure prophylaxis- all sites</li> </ul>	<i>As to left, plus:</i> Manage STI treatment failures  Male circumcision in high HIV prevalence settings  PMTCT: support for complications on ART/AZT prophylaxis  Safe blood	

	<b>Outreach to most-at-risk populations and vulnerable groups</b>	<b>Outreach to most-at-risk populations and vulnerable groups</b>	<b>Primary care: at health centre or outpatient clinics of district hospital or private providers</b>	<b>Second level care at district hospital; inpatient care</b>	<b>Tertiary care at regional or central hospital/specialist physicians, paediatricians</b>
<b>HIV/AIDS treatment and care</b>	<p>Interventions delivered through outreach to most-at-risk populations (in partnership with other sectors)</p> <p>Integration of treatment support for antiretroviral therapy, TB treatment and prophylaxis in outreach services</p>	<p>Treatment preparedness for both HIV and TB</p> <p>Patient self-management</p> <p>Peer support groups</p> <p><b>Home-based:</b></p> <ul style="list-style-type: none"> <li>• Treatment support- ART, TB treatment, and prophylaxis</li> <li>• Drug refill delivery</li> <li>• Management diarrhoea, fever</li> <li>• Careseeking support</li> <li>• Psychosocial support</li> <li>• Nutritional support</li> <li>• Water treatment and safe storage</li> <li>• Hygiene</li> <li>• Insecticide-treated nets</li> <li>• Palliative care: pain and other symptom management and end-of-life care</li> </ul>	<p><b>First-line ART:</b></p> <ul style="list-style-type: none"> <li>• Adherence preparation, support</li> <li>• Recommend or initiate first-line treatment</li> <li>• Monitor, adjust dose</li> <li>• Clinical, CD4, limited lab; patient monitoring systems for HIV care/ ART, TB-HIV, PMTCT</li> <li>• Support patient self-management</li> </ul> <p><b>Prevent illness:</b></p> <ul style="list-style-type: none"> <li>• Cotrimoxazole prophylaxis</li> <li>• Vaccination</li> <li>• Nutritional care and support</li> <li>• Education: safe water, hygiene, sanitation</li> <li>• Prevent malaria</li> </ul> <p><b>Clinical care / manage opportunistic infections and comorbidities:</b></p> <ul style="list-style-type: none"> <li>• Primary care for pneumonia, fever/malaria, diarrhoea, malnutrition, other common conditions</li> <li>• Mental health, psychosocial support</li> <li>• Back up palliative care at home, symptom management</li> </ul> <p><b>TB prevention, diagnosis, treatment:</b></p> <ul style="list-style-type: none"> <li>• Intensified casefinding TB</li> <li>• TB infection control</li> <li>• Isoniazid preventive therapy</li> <li>• Diagnose, start, follow TB treatment including, if referral difficult, suspected smear negative TB</li> <li>• TB-HIV co-management</li> </ul>	<p><i>As to left, plus:</i></p> <p><b>ART:</b></p> <ul style="list-style-type: none"> <li>• Initiate ART in complicated patients;</li> <li>• Oversee initiation of first line ART in uncomplicated patients by primary care team</li> <li>• Diagnose treatment failure</li> <li>• Second-line ART (under supervision clinical mentor)</li> <li>• Manage serious complications of ART</li> <li>• Assess and manage severe opportunistic infections</li> <li>• Inpatient care</li> <li>• Manage severe malnutrition</li> <li>• TB-ART co-treatment plan</li> </ul>	<p>Clinical mentor for district clinicians:</p> <ul style="list-style-type: none"> <li>• Reviews cases of suspected treatment failure</li> <li>• Makes decision on switching to second-line ART</li> </ul> <p>Management of uncommon and certain severe opportunistic infections, ART toxicities, oncology</p>

AFASS  
ART  
ARV

acceptable, feasible, affordable, sustainable and safe  
antiretroviral therapy  
antiretroviral

AZT  
CITC  
IDU

Azidothymidine, Zidovudine  
Client initiated testing and counselling  
injecting drug use

MARP  
PITC  
PMTCT  
STI

most at risk populations  
provider initiated testing and counselling  
prevention of mother to child transmission  
sexually transmitted infections

**Table 12 How/who IMAI-IMCI-IMPAC tools relate to the priority interventions**

IMAI-IMCI-IMPAC tools:

<b>A</b>	IMAI/IMCI district hospital learning programme	124, 133	<b>E</b>	IMAI/STB – TB care with TB-HIV co-management	147, 148
<b>B</b>	IMAI palliative care and community tools		<b>F</b>	IDU version of IMAI tools	230
		87, 116, 134, 138, 139	<b>G</b>	Reproductive choices and family planning tools	85
<b>C</b>	IMAI acute care adults/IMCI children	33, 93, 101, 121	<b>H</b>	IMAI/IMPAC integrated PMTCT tools	83, 84
<b>D</b>	IMAI-IMCI chronic HIV care with harmonized short courses	10, 88, 113, 114, 115, 116, 136, 190, 216	<b>I</b>	CAH infant feeding tools	92, 93
			<b>J</b>	Operations Manual	99

Priority interventions and related IMAI-IMCI-IMPAC tools	A	B	C	D	E	F	G	H	I	J
<b>1.1 Enabling people to know their HIV status</b>			X							
<b>Client-initiated testing and counselling</b>										
<i>Provider-initiated testing and counselling</i>										
Diagnosis of HIV in infants and young children	X		X	X						X
Family and partner testing and counselling	X			X						X
<b>Laboratory recommendations for HIV diagnosis</b>										X
<b>1.2 Maximizing the health sector's contribution to HIV prevention</b>										
<i>Prevention of sexual transmission of HIV</i>										
Condom promotion and provision	X	X	X	X	X	X	X	X		X
Detection and management of STI	X		X							
Safer sex and risk reduction counselling	X	X	X	X		X	X	X		
Male circumcision	X									
Prevention among people living with HIV	X	X		X			X			X
Interventions targeting sex workers			X							
Interventions targeting MSM and transgendered people	X		X							
Specific considerations for HIV prevention in young people			X	X						
Non-occupational post-exposure prophylaxis	X		X	X						X
<i>Interventions for injecting drug users (harm reduction)</i>										
Needle and syringe programmes						X				
Drug dependence treatment						X				
Information, education and communication for IDUs						X				
<i>Prevention of HIV in infants and young children</i>										
Family planning, counselling and contraception							X			
Antiretroviral medicines for preventing HIV infection in infants				X				X		
Treatment, care, support for pregnant PLHIV	X			X				X		
Infant feeding counselling and support				X					X	
<i>Prevention of HIV transmission in health care settings</i>										
Safe injections	X		X	X			X			X
Safe waste management disposal										X
Occupational health of healthcare workers	X			X			X			X
Occupational post-exposure prophylaxis (PEP)	X		X	X			X			X
<b>1.3 Accelerating scale-up of HIV treatment and care</b>										
<i>Prevention</i>										
Co-trimoxazole prophylaxis	X			X		X		X		X
Vaccinations	X			X		X		X		X
Nutritional care and support	X			X		X		X		X
Prevention of malaria	X			X		X		X		X
<i>Treatment and care interventions</i>										
Antiretroviral therapy for adults, adolescents, children	X			X		X		X		X
Treatment preparedness and adherence support	X			X		X		X		X
Patient monitoring	X			X		X		X		X
<i>Management of opportunistic infections and co-morbidities</i>										
Management of HIV-related conditions	X		X	X		X				
Management of pneumonia	X		X	X		X				
Management of diarrhoea	X		X	X		X				
Management of malnutrition	X		X	X		X				
Management of malaria	X		X	X		X				
Prevention and treatment of mental health disorders	X		X	X		X				
Counselling	X		X	X		X		X		X
Other common conditions	X		X			X				
Palliative care: symptom management and end-of-life care	X	X								X
<i>Tuberculosis prevention, diagnosis and treatment</i>										
Intensified casefinding, TB preventative therapy	X				X					
Treatment of HIV associated TB	X				X					

#### 4.6.2.1 Community mobilization and involvement of people living with HIV

As discussed in section 2.5.1, community mobilization is critical for scaling up HIV prevention, testing and counselling, and for preparing communities to prevent and support adherence to drug regimens. Civil society organizations and networks, including those involving people living with HIV and people most-at-risk of infection, complement formal health services. They provide preventive information and supplies, create demand for formal health services, ensure that the services are acceptable and of good quality, prepare communities for treatment by providing relevant education and information, support adherence to drug regimens, and provide various care and support services, including palliative care. Moving towards universal access requires reinforcing support for civil society organizations and networks, as well as strengthening the links between them and formal health services. Strong civil society organizations and networks are especially important given the crisis in human resources for health that many countries are experiencing.

See section 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 policy constraints that may prevent the shifting of tasks from professional to lay health care workers.

##### **Key resources:**

98. Operations manual for the delivery of HIV prevention, care and treatment at primary health centres in high-prevalence resource-constrained settings  
<http://www.who.int/hiv/capacity/IMA/sharepoint/en>
238. HIV prevention, treatment, care and support: a training package of 8 modules for community volunteers  
<http://www.ifrc.org/what/health/tools/hiv-training.asp>  
Facilitators guide: <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Facilitators-guide.pdf>  
Introduction to training <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Intro-to-Training.pdf>  
Module 1: Basic facts on HIV and AIDS <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-1.pdf>  
Module 2: Treatment literacy <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-2.pdf>  
Module 3: Treatment preparedness <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-3.pdf>  
Module 4: Adherence <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-4.pdf>  
Module 5: Community-based counselling <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-5.pdf>  
Module 6: Nutrition <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-6.pdf>  
Module 7: Palliative care - symptom management and end-of-life care <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-7.pdf>  
Module 8: Caring for carers <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Module-8.pdf>  
  
Evaluation tool <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Evaluation-Tool.pdf>  
Participants handbook <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/Participants-handbook-full.pdf>  
Flipchart for client education <http://www.ifrc.org/Docs/pubs/health/hivaids/hiv-training-package/hiv-flipchart1.pdf>

#### 4.6.2.2 Most-at-risk groups in generalized epidemics

Even though an epidemic may be generalized, it is 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. These often-neglected groups 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. Sections 1.2 and 4.5.3 provide guidance on how to reach these populations with prevention and other services.

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. These interventions include partner and couples testing and counselling, and risk reduction counselling and support (see section 1.2.3.2).

Adolescent girls and young women are also at disproportionately high risk in countries with generalized epidemics. They require special attention through youth-friendly services and active support for interventions that may be delivered predominantly in other sectors, such as efforts to address transactional sex, intergenerational sex and rape.

##### **Key resources:**

22. Practical guidelines for intensifying HIV prevention: towards universal access  
[http://data.unaids.org/pub/Manual/2007/20070306\\_prevention\\_guidelines\\_towards\\_universal\\_access\\_en.pdf](http://data.unaids.org/pub/Manual/2007/20070306_prevention_guidelines_towards_universal_access_en.pdf)

23. [Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)  
[http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)

#### 4.6.2.3 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 become 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 assisting patients in care (e.g. through adherence support and home-based refills) and in 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 that call for corrective action. For example, with increasing levels of activity, economies of scale may improve, but quality may deteriorate. Providing strong and vigilant oversight is essential for scaling up an integrated package of HIV services. Monitoring and evaluation information available to programme managers helps them manage the cross-cutting support activities and systems that need to be in place.

## 5 Conclusion

*Priority interventions: HIV/AIDS prevention, treatment and care in the health sector* is a preliminary response to the request by G8 Member States to develop and implement "a package of HIV prevention, treatment and care" interventions, with a view to achieving universal access for all those in need. This document also responds to a long-standing country need expressed by national authorities.

*Priority interventions* is WHO's first attempt to compile all HIV/AIDS health-sector priority interventions, recommendations and tools in one document. It presents a complete set of interventions necessary to build a comprehensive health-sector response. Countries are expected to prioritize those interventions that are best adapted to their realities on the ground, including the epidemiologic situation, level of the health system, socio-cultural context, and availability of human and financial resources. WHO hopes countries will find it a useful tool in their efforts to scale up HIV/AIDS prevention, treatment and care towards universal access.

As stated in the introduction, *Priority interventions* is designed to be a 'living' document that will be regularly updated with new recommendations based on the rapidly-evolving experience of health-sector scale up. WHO is committed to collecting feedback from all users and to developing improved editions of this document in electronic format.

## 6 Key resources

- UNAIDS/WHO policy statement on HIV testing** (2004) UNAIDS and WHO. English.  
Type of document: Policy statement 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: client-initiated; diagnostic testing; recommendation of HIV testing by health care providers; and mandatory HIV screening.  
Available at: <http://www.who.int/hiv/pub/vct/en/hivtestingpolicy04.pdf>
- Opening up the HIV/AIDS epidemic: Guidance on encouraging beneficial disclosure, ethical partner counselling & appropriate use of HIV case-reporting.** (2000) UNAIDS. English, French.  
Available at: English: [http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp\\_en.pdf](http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp_en.pdf)  
French: [http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp\\_fr.pdf](http://data.unaids.org/Publications/IRC-pub05/JC488-OpenUp_fr.pdf)
- HIV counselling and testing e-library.** WHO. English.  
This site contains a bibliography of links to abstracts from scientific conferences or peer-reviewed articles on provider-initiated HIV testing and counselling. It also covers policies, guidelines and training materials on all models of HIV testing and counselling. Available at: <http://www.who.int/hiv/topics/vct/elibrary/en/index.html>
- 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, facility.  
This publication aims to help countries expand testing and counselling services. It presents simple and standardized testing strategies for client-initiated and provider initiated testing in the Region of the Americas. It also aims to facilitate developing appropriate national HIV testing algorithms for laboratory and non-conventional laboratory sites. Available at: English: [http://www.paho.org/English/AD/FCH/AI/LAB\\_GUIDE\\_ENG.PDF](http://www.paho.org/English/AD/FCH/AI/LAB_GUIDE_ENG.PDF)  
Spanish: [http://www.paho.org/Spanish/AD/FCH/AI/LAB\\_GUIDE\\_SPAN.PDF](http://www.paho.org/Spanish/AD/FCH/AI/LAB_GUIDE_SPAN.PDF)
- WHO HIV testing and counselling (TC) toolkit.** WHO. English.  
Available at: <http://www.who.int/hiv/topics/vct/toolkit/en/index.html>
- International Organization for Migration guide for counsellors: IOM HIV counselling in the context of migration health assessment.** (2006) International Organization for Migration. English.  
Type of document: Normative guidelines Target audience: Normative guidelines Implementation focus: Global; national.  
This guide covers HIV testing and counselling for migrants and refugees undergoing IOM migration health assessments. In it, IOM aims to achieve a balance between the requirements for an HIV test, and the need to maintain confidentiality while providing a meaningful service to migrants. Available at: [http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/published\\_docs/brochures\\_and\\_info\\_sheets/HIV%20counselors%20GUIDE%20FINAL\\_Apr2006%20\(4\).pdf](http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/published_docs/brochures_and_info_sheets/HIV%20counselors%20GUIDE%20FINAL_Apr2006%20(4).pdf)
- Guidance on provider-initiated HIV testing and counselling in health facilities.** (2007) WHO and UNAIDS. English, Russian.  
Type of document: Normative guidelines; 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 related to this testing and counselling in different settings: low-level, concentrated, and generalized HIV epidemics. Available at: English: [http://whqlibdoc.who.int/publications/2007/9789241595568\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595568_eng.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2007/9789244595565\\_rus.pdf](http://whqlibdoc.who.int/publications/2007/9789244595565_rus.pdf)
- 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; 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. It 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. Available at: <http://www.who.int/hiv/pub/guidelines/HIVstaging150307.pdf>
- HIV testing and counselling in TB clinical settings tools.** US Centres for Disease Control and WHO. English.  
This collection of tools will reinforce standardized operating procedures for providing HIV testing and counselling in TB clinics. To assist countries plan and implement these programmes, the materials provide guidance for the advance planning required for 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. Available at: [http://www.cdc.gov/globalaids/pa\\_hiv\\_tools.htm](http://www.cdc.gov/globalaids/pa_hiv_tools.htm)  
Agenda: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Agenda\\_12.1.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Agenda_12.1.06.pdf)  
Overview: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20An%20Overview\\_12.1.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20An%20Overview_12.1.06.pdf)  
Module 1: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%201\\_12.6.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%201_12.6.06.pdf)  
Module 2: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%202\\_12.7.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%202_12.7.06.pdf)  
Module 3: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%203\\_12.12.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%203_12.12.06.pdf)  
Module 4: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%204\\_12.13.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%204_12.13.06.pdf)  
Module 5: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%205\\_12.6.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%205_12.6.06.pdf)  
Module 6: [http://www.cdc.gov/globalaids/docs/tb\\_tools/TB%20Module%206%20Demo\\_12.1.06.pdf](http://www.cdc.gov/globalaids/docs/tb_tools/TB%20Module%206%20Demo_12.1.06.pdf)



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 made operational in the IMAI Acute Care guideline module. It is skills-based and includes practice with expert patient trainers. A counselling training video demonstrates good practice and exercises for discussion. Available at: <http://www.who.int/hiv/capacity/IMAIsharepoint/en>
11. **Report of the WHO technical reference group, paediatric HIV/ART care guideline group meeting, WHO Headquarters, Geneva, Switzerland, 10-11 April 2008.** (2008) WHO. English.  
 Available at: [http://www.who.int/hiv/pub/paediatric/WHO\\_Paediatric\\_ART\\_guideline\\_rev\\_mreport\\_2008.pdf](http://www.who.int/hiv/pub/paediatric/WHO_Paediatric_ART_guideline_rev_mreport_2008.pdf)
12. **Scale up of HIV-related prevention, diagnosis, care and treatment for infants and children: A programming framework** (2008) UNICEF and WHO. English.  
 Available at: [http://www.who.int/hiv/paediatric/Paeds\\_programming\\_framework2008.pdf](http://www.who.int/hiv/paediatric/Paeds_programming_framework2008.pdf)
13. **Antiretroviral therapy for 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, policy-makers. Implementation focus: Global, national. These treatment guidelines serve as a framework for selecting first- and second-line ARV regimens as components of expanded national responses for the care of HIV-infected infants and children. The guidelines provide recommendations on: diagnosing HIV infection in infants and children; when to start ART, including situations in that 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. Available at: [http://whqlibdoc.who.int/publications/2007/9789241594691\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241594691_eng.pdf)
14. **WHO Blood transfusion safety (WHO web page).** WHO. English.  
 Available at: <http://www.who.int/bloodsafety/en/>
15. **Revised recommendations for the selection and use of HIV antibody tests.** (1997) WHO. English.  
 Available at: <http://www.who.int/docstore/wer/pdf/1997/wer7212.pdf>
16. **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, policy and advocacy; operational guidelines. Target audience: Programme managers and planners, policy-makers, testing personnel. Implementation focus: National, district, facility.  
 This document establishes guidelines for applying the quality systems that are essential for HIV rapid testing. It is intended to help all people involved in policy development, planning and implementing HIV rapid testing. The guide covers organization and management, personnel, equipment, purchasing and inventory, process controls, records and information management, as well as offering guidance on implementation. Available at: [http://whqlibdoc.who.int/publications/2005/9241593563\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593563_eng.pdf)
17. **Overview of HIV Rapid Test Training Package** US CDC and WHO. English.  
 Available at: <http://www.cdc.gov/dls/ila/hivtraining/Overview.pdf>
18. **HIV rapid test training: Framework for a systematic roll-out.** WHO and US CDC. English.  
 Available at: <http://www.cdc.gov/dls/ila/hivtraining/Framework.pdf>
19. **HIV assays: Operational characteristics (Phase 1). Report 14: Simple/rapid tests.** (2004) WHO and UNAIDS. English.  
Type of document: Operational guidelines. Target audience: Policy-makers, directors of blood banks, programme managers. Implementation focus: National, district, facility.  
 Available at: [http://www.who.int/diagnostics\\_laboratory/publications/hiv\\_assays\\_rep\\_14.pdf](http://www.who.int/diagnostics_laboratory/publications/hiv_assays_rep_14.pdf)
20. **HIV assays: Operational characteristics (Phase 1). Report 15: Antigen/Antibody ELISAS.** (2004) WHO and UNAIDS. English.  
Type of document: Operational guidelines. Target audience: Policy-makers, directors of blood banks, programme managers. Implementation focus: National, district, facility.  
 This report provides an objective assessment of commercially available assays for detecting antibodies to HIV-1 and HIV-2 and HIV antigen (HIV Ag/Ab assays). The assessment focuses 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 to help select appropriate HIV antibody and/or HIV Ag/Ab assays that will meet local needs. Available at: [http://www.who.int/diagnostics\\_laboratory/publications/en/HIV\\_Report15.pdf](http://www.who.int/diagnostics_laboratory/publications/en/HIV_Report15.pdf)
21. **Guidelines for appropriate evaluations for HIV testing technologies in Africa.** (2002) WHO-AFRO and Centres for Disease Control (U.S.). English and French.  
Type of document: Operational guidelines. Target audience: Programme planners, programme managers, laboratory staff. Implementation focus: Regional, national, facility.  
 This guideline provides practical guidance on low- and middle-income country-specific protocols for evaluating 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. It also contains detailed descriptions of phases of the evaluation and quality assurance and evaluation materials, e.g. specimens and laboratory safety precautions. Available at: English: [http://whqlibdoc.who.int/afro/2002/a82959\\_eng.pdf](http://whqlibdoc.who.int/afro/2002/a82959_eng.pdf)  
 French: [http://www.who.int/entity/diagnostics\\_laboratory/publications/FR\\_HIVEval\\_Guide.pdf](http://www.who.int/entity/diagnostics_laboratory/publications/FR_HIVEval_Guide.pdf)
22. **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 they respond to the epidemiological scenario of the country and populations that remain most vulnerable to, and at risk of, HIV infection. Available at: [http://data.unaids.org/pub/Manual/2007/20070306\\_prevention\\_guidelines\\_towards\\_universal\\_access\\_en.pdf](http://data.unaids.org/pub/Manual/2007/20070306_prevention_guidelines_towards_universal_access_en.pdf)

23. **Essential prevention and care interventions for adults and adolescents living with HIV in resource-limited settings.** (2008) WHO. English.  
Type of document: Normative guidelines; programme planning and management. Target audience: National and regional programme managers; NGOs providing HIV-care services; policy-makers; service providers. Implementation focus: Global, national.  
This guideline contains global, technical, evidence-based recommendations for prevention and care interventions, other than ART, that people living with HIV in resource-constrained settings should expect as part of their health care services. The guideline promotes expansion of interventions for HIV prevention, and non-ART care and treatment for adults and adolescents living with HIV. It focuses on preventing illness and opportunistic infections. Preventing HIV transmission is seen as an integral part of care and treatment services. Implementation can be adapted for countries with different epidemiology and capacities. Available at: [http://www.who.int/hiv/pub/prev\\_care/OMS\\_EPP\\_AFF\\_en.pdf](http://www.who.int/hiv/pub/prev_care/OMS_EPP_AFF_en.pdf)
24. **Glion consultation on strengthening the linkages between reproductive health and HIV/AIDS: family planning and HIV/AIDS in women and children.** (2006) WHO and UNFPA. English.  
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 and highlights the key programmatic linkages between family planning and preventing 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. Available at: [http://www.who.int/entity/hiv/pub/advocacymaterials/glionconsultationsummary\\_DF.pdf](http://www.who.int/entity/hiv/pub/advocacymaterials/glionconsultationsummary_DF.pdf)
25. **Linkages between HIV and SRH: Technical documents and advocacy materials (web page).** WHO. English.  
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. Available at: <http://www.who.int/reproductive-health/hiv/docs.html>
26. **Position statement on condoms and HIV prevention.** (2004) UNAIDS, WHO and UNFPA. English.  
Type of document: Evidence, policy and advocacy. Target audience: Policy-makers, programme managers. Implementation focus: Global, national.  
This statement summarizes the position of WHO, UNAIDS and UNFPA on the role of condom use in comprehensive HIV prevention and treatment. It highlights the critical role that condoms play in this regard, and offers a summary of evidence and a rationale for condom use. Available at: [http://www.who.int/hiv/pub/prev\\_care/en/Condom\\_statement.pdf](http://www.who.int/hiv/pub/prev_care/en/Condom_statement.pdf)
27. **The male latex condom: Specification and guidelines for condom procurement.** (2003) WHO, UNAIDS, UNAIDS, UNFPA and FHI. English.  
Available at: [http://www.who.int/reproductive-health/publications/m\\_condom/who\\_specification\\_04.pdf](http://www.who.int/reproductive-health/publications/m_condom/who_specification_04.pdf)
28. **The female condom: a guide for planning and programming.** (1997) WHO, UNAIDS and FHC. English.  
Available at: [http://www.who.int/reproductive-health/publications/RHR\\_00\\_8/index.html](http://www.who.int/reproductive-health/publications/RHR_00_8/index.html)  
English: [http://www.who.int/reproductive-health/publications/RHR\\_00\\_8/PDF/female\\_condom\\_guide\\_planning\\_programming.pdf](http://www.who.int/reproductive-health/publications/RHR_00_8/PDF/female_condom_guide_planning_programming.pdf)  
French: [http://www.who.int/reproductive-health/publications/rhr\\_00\\_08\\_fr/female\\_condom\\_guide\\_planning\\_programming.fr.pdf](http://www.who.int/reproductive-health/publications/rhr_00_08_fr/female_condom_guide_planning_programming.fr.pdf)
29. **Sexual and reproductive health of women living with HIV/AIDS: Guidelines on care, treatment and support for women living with HIV/AIDS and their children in resource-constrained settings.** (2006) WHO and UNFPA. English.  
Type of document: Normative guidelines; operational guidelines. Target audience: Programme managers, health workers. Implementation focus: National.  
This publication offers guidance on 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 should integrate these interventions within a broad, comprehensive service-delivery package. The publication also contains recommendations for counselling, care and other interventions. Available at: [http://whqlibdoc.who.int/publications/2006/924159425X\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/924159425X_eng.pdf)
30. **Global strategy for the prevention and control of sexually transmitted infections, 2006 - 2015: Breaking the chain of transmission.** (2007) WHO. English, Arabic, Chinese, Russian  
Type of document: Evidence, policy and advocacy; normative guidelines. Target audience: Policy-makers, programme managers. Implementation focus: Global, national.  
The Global strategy for the prevention and control of sexually transmitted infections contains technical and advocacy components. It provides a framework to guide an accelerated global response to prevent and control sexually transmitted infections. It also discusses opportunities for interfacing and integrating with HIV and sexual and reproductive health programmes. Available at: English: [http://whqlibdoc.who.int/publications/2007/9789241563475\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241563475_eng.pdf)  
Arabic: [http://whqlibdoc.who.int/publications/2007/9789246563470\\_ara.pdf](http://whqlibdoc.who.int/publications/2007/9789246563470_ara.pdf)  
Chinese: [http://whqlibdoc.who.int/publications/2007/9789245563471\\_chi.pdf](http://whqlibdoc.who.int/publications/2007/9789245563471_chi.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2007/9789244563472\\_rus.pdf](http://whqlibdoc.who.int/publications/2007/9789244563472_rus.pdf)
31. **Guidelines for the management of sexually transmitted infections.** (2003) WHO. English, French, Portuguese, Spanish.  
Type of document: Programme planning and management; operational guidelines. Target audience: Programme managers. Implementation focus: National.  
This guideline presents treatment recommendations for the comprehensive management of patients with sexually transmitted infections (STIs) in the broader context of control, prevention and care programmes for STIs and HIV. It covers both the syndromic approach to STI management and the diagnostic treatment of specific STIs. Available at: English: <http://www.who.int/entity/hiv/pub/sti/en/STIGuidelines2003.pdf>  
French: [http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003\\_fr.pdf](http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003_fr.pdf)  
Portuguese: [http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003\\_pt.pdf](http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003_pt.pdf)  
Spanish: [http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003\\_es.pdf](http://www.who.int/entity/hiv/pub/sti/STIGuidelines2003_es.pdf)
32. **STI interventions for preventing HIV: Appraisal of the evidence.** (2008) WHO and UNAIDS. English.  
Type of document: Evidence, policy and advocacy. Target audience: Policy-makers and programme managers. Implementation focus: Global, national.  
The document summarises discussions of the 2007 technical review meeting on HIV and STI prevention, and also provides recommendations on the opportunities that STI control provides for preventing HIV infection. Furthermore, based on current evidence, it contains an updated statement on the role of STI interventions in preventing HIV infection. Available at: Publication anticipated in early 2009.

33. **IMAI acute care STI/genitourinary problem training course participant's manual (part of 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). The course 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 that support screening for STI symptoms and signs in all adolescent and adult patients seeking care.  
 Access to the current draft is via a secure IMAI SharePoint website, by sending an email to imaimail@who.int. Available at: <http://www.who.int/hiv/capacity/IMAISHAREPOINT/en/>
34. **Periodic presumptive treatment for sexually transmitted infections: Experience from the field and recommendations for research.** (2008) WHO. English.  
Type of document: Operational guidelines. Target audience: Programme managers, clinicians. Implementation focus: National.  
 This publication summarizes the deliberations of the technical consultation on current knowledge of periodic presumptive treatment, and experiences to date with interventions, including the conditions that seem to be most favourable for these interventions to work well. Further research is clearly needed in this field – including research using possible modelling with current field data. The publication also formulates and presents recommendations for research, as well as guidelines for people carrying out programmes with periodic presumptive treatment. Available at: <http://www.who.int/reproductive-health/publications/ppt/ppt.pdf>
35. **WHO regional strategy for the prevention and control of sexually transmitted infections 2007-2015.** (2007) WHO-SEARO. English.  
Type of document: Operational guidelines; programme planning and management. Target audience: Programme managers. Implementation focus: Regional.  
 Available at: [http://www.searo.who.int/LinkFiles/Publications\\_WHO\\_Regional\\_Strategy\\_STI.pdf](http://www.searo.who.int/LinkFiles/Publications_WHO_Regional_Strategy_STI.pdf)
36. **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 guide 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. Available at: [http://www.who.int/mental\\_health/media/en/686.pdf](http://www.who.int/mental_health/media/en/686.pdf)
37. **Youth-centered counseling for HIV/STI prevention and promotion of sexual and reproductive health: a guide for front-line providers.** (2005) WHO-PAHO. English.  
 Available at: <http://www.paho.org/english/ad/fch/ca/sa-youth.pdf>
38. **Male circumcision information package.** (2007) WHO. English.  
Type of document: Evidence, policy and advocacy. Target audience: Policy-makers, programme managers. This four-leaflet series summarizes 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 Interagency 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: Summarizes all the evidence on MC for HIV prevention including the three Randomized Controlled Trials (RCTs), and observational and epidemiological studies. The series also explains the biological rationale for MC providing a protective effect against HIV. Available at: [http://www.who.int/hiv/mediacentre/infopack\\_en\\_1.pdf](http://www.who.int/hiv/mediacentre/infopack_en_1.pdf)  
[http://www.who.int/hiv/mediacentre/infopack\\_en\\_2.pdf](http://www.who.int/hiv/mediacentre/infopack_en_2.pdf)  
[http://www.who.int/hiv/mediacentre/infopack\\_en\\_3.pdf](http://www.who.int/hiv/mediacentre/infopack_en_3.pdf)  
[http://www.who.int/hiv/mediacentre/infopack\\_en\\_4.pdf](http://www.who.int/hiv/mediacentre/infopack_en_4.pdf)
39. **New data on male circumcision and HIV prevention: policy and programme implications: WHO/UNAIDS technical consultation male circumcision and HIV prevention: Research implications for policy and programming, Montreux, 6-8 March 2007: conclusions and recommendations.** (2007) WHO and UNAIDS. English, French.  
Type of document: Evidence, policy and advocacy; normative guidelines. Target audience: Programme managers, policy-makers. Implementation focus: Global, national.  
 This document summarizes the principal conclusions and public health recommendations of a WHO/UNAIDS technical consultation on male circumcision in March 2007. It outlines 11 key policy and programme conclusions and recommendations of the consultation. Available at: English: [http://whqlibdoc.who.int/unaid/2007/male\\_circumcision\\_eng.pdf](http://whqlibdoc.who.int/unaid/2007/male_circumcision_eng.pdf)  
 French: [http://www.who.int/entity/hiv/mediacentre/MCrecommendations\\_fr.pdf](http://www.who.int/entity/hiv/mediacentre/MCrecommendations_fr.pdf)
40. **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. This publication provides an overview of the global prevalence of male circumcision. It outlines the key determinants of male circumcision in different regions, including religion, ethnicity and social factors and notes changing global trends in these determinants. 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 issues are also discussed. Available at: [http://whqlibdoc.who.int/publications/2007/9789241596169\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241596169_eng.pdf)
41. **Manual for male circumcision under local anaesthesia.** (2007) WHO, JHPEIGO and UNAIDS. 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, and addresses the broader issues of sexual and reproductive health of men. Available at: [http://www.who.int/hiv/pub/malecircumcision/who\\_mc\\_local\\_anaesthesia.pdf](http://www.who.int/hiv/pub/malecircumcision/who_mc_local_anaesthesia.pdf)
42. **Male circumcision quality assurance: A guide to enhancing the safety and quality of services.** (2008) WHO. English.  
Type of document: Guideline. 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. It can be used to support the set-up of services in different types of settings. Available at: [http://www.who.int/hiv/pub/malecircumcision/qa\\_guide/](http://www.who.int/hiv/pub/malecircumcision/qa_guide/)

43. **Male circumcision quality assurance toolkit.** (2008) WHO. English.  
Available at: [http://www.who.int/hiv/pub/malecircumcision/qa\\_toolkit/](http://www.who.int/hiv/pub/malecircumcision/qa_toolkit/)
44. **Safe, voluntary, informed male circumcision and comprehensive HIV prevention programming: Guidance for decision-makers on human rights, ethical and legal considerations.** (2007) WHO and UNAIDS. English.  
Type of document: Guidance. Target audience: Policy-makers, programme managers, service providers. The paper is divided into two sections: 1. Guidance for decision-makers and programme planners on the human rights, and legal and ethical duties of the state, 2. Guidance for health-service providers on their ethical and legal duties when offering or conducting male circumcision. Available at: [http://data.unaids.org/pub/Manual/2007/070613\\_humanrightsethicallegalguidance\\_en.pdf](http://data.unaids.org/pub/Manual/2007/070613_humanrightsethicallegalguidance_en.pdf)
45. **Male circumcision and HIV prevention in Eastern and Southern Africa communications guidance.** (2008) WHO. English.  
Type of document: Guideline. Target audience: Programme managers and policy-makers in Eastern and Southern Africa. This document provides background information on male circumcision and emphasizes the case for scaling it up. It also outlines key communication approaches, highlights key messages for advocacy, and proposes eight steps for effective communication. Available at: [http://data.unaids.org/pub/Manual/2008/20080515\\_mc\\_hivprevention\\_eastern\\_southern\\_africa\\_en.pdf](http://data.unaids.org/pub/Manual/2008/20080515_mc_hivprevention_eastern_southern_africa_en.pdf)
46. **Operational guidance for scaling up male circumcision services for HIV prevention.** (2008) WHO. English.  
Type of document: Guidance. Target audience: Policy-makers, programme managers. This publication provides practical guidance to help implement male circumcision service scale-up. It outlines and explains the key elements required for programme set-up, including leadership and partnership, situation analysis, advocacy, policy and regulatory environment, strategic and operational planning, quality assurance, human-resource development, service delivery approaches, communication, monitoring, and evaluation and operations research. Available at: [http://www.who.int/hiv/pub/malecircumcision/op\\_guidance/](http://www.who.int/hiv/pub/malecircumcision/op_guidance/)
47. **IMAI-IMCI chronic HIV care with ARV therapy and prevention: Interim guidelines for health workers at health centre or district hospital outpatient clinic.** (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 operational 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 promotes 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 for pregnant women and children, treatment adherence support, and data collection based on a simple treatment card. Clinical content is offered using IMAI-IMCI Basic Chronic HIV Care/ART Clinical training, integrated PMTCT training and the reproductive choice/FP short course. Available at: English: [http://www.who.int/hiv/pub/imai/Chronic\\_HIV\\_Care7.05.07.pdf](http://www.who.int/hiv/pub/imai/Chronic_HIV_Care7.05.07.pdf)  
French: [http://www.who.int/hiv/pub/imai/Imai\\_chronic\\_fr.pdf](http://www.who.int/hiv/pub/imai/Imai_chronic_fr.pdf)
48. **Toolkit for targeted HIV/AIDS prevention and care in sex work settings.** (2005) WHO, C. Evans, M. Möller, R. Steen and M. Beg. English.  
Type of document: Evidence, policy and advocacy; programme planning and management; operational guidelines. Target audience: Programme managers, programme planners and implementers. Implementation focus: National, district.  
This toolkit can be used to support the development and scale-up of effective HIV interventions in sex-work settings. It also describes a useful framework for classifying interventions in sex-work settings. Annotations are provided for documents that can be useful in diverse settings. Available at: <http://whqlibdoc.who.int/publications/2005/9241592966.pdf>
49. **Guidelines for the management of sexually transmitted infections in female sex workers.** (2002) WHO-WPRO. English.  
Type of document: Operational guidelines. Target audience: Programme managers. Implementation focus: National, district.  
These guidelines provide appropriate technical guidance on providing clinical and social services for female sex workers. They outline the assessment of STI signs and symptoms, present flowcharts for diagnosing and treating STI-associated syndromes, and offer details about treatment for specific STIs. Available at: [http://www.wpro.who.int/NR/rdonlyres/90F80401-5EA0-4638-95C6-6EFF28213D34/0/Guidelines\\_for\\_the\\_Mgt\\_of\\_STI\\_in\\_female\\_sex\\_workers.pdf](http://www.wpro.who.int/NR/rdonlyres/90F80401-5EA0-4638-95C6-6EFF28213D34/0/Guidelines_for_the_Mgt_of_STI_in_female_sex_workers.pdf)
50. **100% condom use programme in entertainment establishments.** (2000) WHO-WPRO. English.  
Type of document: Strategic information. Target audience: Decision makers, technical staff in different departments including ministries of health. Implementation focus: Global.  
This guideline is written for decision-makers and technical staff in different departments, including ministries of health. It sets out the rationale for the programme and describes the steps for its initiation and expansion. It also explains that the 100% Condom Use Programme is multisectoral and involves many government departments. Available at: <http://www.wpro.who.int/NR/rdonlyres/5F1C719B-4457-4714-ACB1-192FFCA195B10/condom.pdf>
51. **HIV and sexually transmitted infection prevention among sex workers in Eastern Europe and Central Asia.** (2006) UNAIDS. English, Russian.  
Type of document: Evidence, policy and advocacy; programme planning and management; best practice reports. Target audience: Programme managers, policy-makers. Implementation focus: Regional (Eastern Europe and Central Asia), national.  
This best practice publication describes the experiences and challenges facing five organizations in Eastern Europe and Central Asia as they attempted to deal with HIV and STIs. It describes how they developed effective practices and implemented HIV/sexually transmitted infection prevention programmes for sex workers. Available at: English: [http://whqlibdoc.who.int/unaid/2006/9291734942\\_eng.pdf](http://whqlibdoc.who.int/unaid/2006/9291734942_eng.pdf)  
Russian: [http://whqlibdoc.who.int/unaid/2006/9291734950\\_rus.pdf](http://whqlibdoc.who.int/unaid/2006/9291734950_rus.pdf)
52. **Rapid assessment and response: Adaptation guide on HIV and men who have sex with men (MSM-RAR).** (2004) WHO. English.  
Type of document: Programme planning; assessment. Target audience: Policy-makers, programme managers, researchers. Implementation focus: National (country programme level).  
This guide provides guidance on how to conduct a rapid assessment and response focusing on lifestyles, behaviours and HIV/AIDS concerns. It outlines a series of simple and practical activities across a variety of settings that may be used to explore the circumstances, experiences and

needs of men who have sex with men. It is designed to be used either in conjunction with the WHO Rapid Assessment and Response Technical Guide (TG-RAR), or as an independent resource. Available at: [http://www.who.int/entity/hiv/pub/prev\\_care/en/msmrar.pdf](http://www.who.int/entity/hiv/pub/prev_care/en/msmrar.pdf)

53. **Policy brief: HIV and sex between men.** (2006) UNAIDS. English.  
Available at: [http://data.unaids.org/Publications/IRC-pub07/jc1269-policybrief-msm\\_en.pdf](http://data.unaids.org/Publications/IRC-pub07/jc1269-policybrief-msm_en.pdf)
54. **Between men: HIV STI prevention for MSM.** (2003) International HIV/AIDS Alliance. English.  
**Type of document:** Operational guidelines. **Target audience:** Programme managers, CBOs. **Implementation focus:** National.  
This guideline provides ideas for developing prevention programmes with and for men who have sex with men. It discusses sexual health, assessment of vulnerability and risk for HIV, as well as other key issues to consider when designing HIV/STI prevention programmes for MSM. Available at: [http://www.aidsalliance.org/graphics/secretariat/publications/msm0803\\_between\\_men\\_Eng.pdf](http://www.aidsalliance.org/graphics/secretariat/publications/msm0803_between_men_Eng.pdf)
55. **AIDS and men who have sex with men.** (2000) UNAIDS. English.  
**Type of document:** Evidence, policy and advocacy. **Target audience:** Policy-makers, programme managers. **Implementation focus:** National.  
This publication sets out a range of effective responses to problems that hinder national AIDS programmes targeting MSM. It outlines the main challenges facing these programmes, including denial and the difficulties in reaching this marginalized group. Available at: [http://whqlibdoc.who.int/unaid/2000/a62375\\_eng.pdf](http://whqlibdoc.who.int/unaid/2000/a62375_eng.pdf)
56. **2007 European guideline (IUSTI/WHO) on the management of proctitis, proctocolitis and enteritis caused by sexually transmissible pathogens.** (2007) WHO and IUSTI. English.  
**Type of document:** Normative guidelines. **Target audience:** Programme managers, policy-makers. **Implementation focus:** Regional, national.  
These treatment guidelines provide recommendations on managing 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. Available at: <http://www.iusti.org/sti-information/pdf/proctitis-guideline-v7.pdf>
57. **Preventing HIV/AIDS in young people: a systematic review of the evidence from developing countries.** (2006) WHO, UNAIDS Inter-agency Task Team on Young People., D. A. Ross, B. Dick and J. Ferguson. English.  
**Type of document:** Evidence, policy and advocacy. **Target audience:** Policy-makers, programme managers. **Implementation focus:** National.  
This publication covers the findings of a systematic review of the effectiveness of interventions for preventing HIV in young people. This includes interventions delivered through schools, health services, mass media, communities, and to young people who are most vulnerable to HIV infection. Available at: [http://whqlibdoc.who.int/trs/WHO\\_TRS\\_938\\_eng.pdf](http://whqlibdoc.who.int/trs/WHO_TRS_938_eng.pdf)
58. **Global consultation on the health services response to the prevention and care of HIV/AIDS among young people.** (2003) UNAIDS, WHO, UNFPA and YouthNet. English.  
The report reviews the evidence on the effectiveness of a number of interventions delivered through a range of different service providers. It covers information and counselling; use and distribution of condoms for sexually active young people; STI treatment and care; harm reduction; and measures to decrease HIV transmission by IDUs as well as access to HIV testing, care and support. Available at: <http://whqlibdoc.who.int/publications/2004/9241591323.pdf>
59. **Adolescent friendly health services: An agenda for change.** (2002) WHO. English.  
This publication is intended for policy-makers and programme managers in both low- and middle-income countries, as well as decision-makers in international organizations supporting public health initiatives in these countries. It makes a compelling case for concerted action to improve the quality—and especially the friendliness—of health services to adolescents. It also highlights the critical role that adolescents themselves can play, in conjunction with committed adults, to contribute to their own health and well-being. Available at: [http://whqlibdoc.who.int/hq/2003/WHO\\_FCH\\_CAH\\_02.14.pdf](http://whqlibdoc.who.int/hq/2003/WHO_FCH_CAH_02.14.pdf)
60. **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.  
This WHO policy statement notes that the delivery of ARVs in emergency settings should be included in national strategic plans through emergency preparedness. It states that this delivery should be resourced and implemented within a common framework that includes all partners, national governments and regional authorities, UN agencies, nongovernmental organizations (NGOs), and donors. Available at: [http://www.who.int/hac/techguidance/pht/HIV\\_AIDS\\_101106\\_arvemergencies.pdf](http://www.who.int/hac/techguidance/pht/HIV_AIDS_101106_arvemergencies.pdf)
61. **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 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. Available at: English: [http://www.who.int/3by5/publications/documents/en/iasc\\_guidelines.pdf](http://www.who.int/3by5/publications/documents/en/iasc_guidelines.pdf)  
French: <http://www.who.int/3by5/publications/en/directivesvihfinalesfr.pdf>
62. **Antiretroviral medication policy for refugees.** (2007) UNHCR. English.  
**Type of document:** Evidence, policy and advocacy. **Implementation focus:** Global, national.  
Available at: [http://data.unaids.org/pub/Report/2007/20070326\\_unhcr\\_art\\_en.pdf](http://data.unaids.org/pub/Report/2007/20070326_unhcr_art_en.pdf)
63. **Effectiveness of interventions to address HIV in prisons (Evidence for action series website).** WHO, UNODC, UNAIDS and R. Jürgens. English, Russian, Spanish, Chinese.  
The website consists of a collection of resources including: a comprehensive review of the evidence for HIV services in prisons; a policy brief on HIV reduction in prisons; and technical papers on prison interventions. The technical papers address prevention of sexual transmission; needle and syringe programmes and decontamination strategies; drug dependence treatments; HIV care, treatment and support. Available at: <http://www.who.int/hiv/topics/idu/prisons/en/index.html>  
Effectiveness of interventions to address HIV in prisons (Evidence for action technical papers)  
[http://www.who.int/hiv/idu/OMS\\_E4Acomprehensive\\_WEB.pdf](http://www.who.int/hiv/idu/OMS_E4Acomprehensive_WEB.pdf)

64. **Policy brief: Reduction of HIV transmission in prisons (Evidence for action on HIV/AIDS and injecting drug use).** (2004) WHO and UNAIDS. English.  
Available at: <http://www.who.int/hiv/pub/advocacy/en/transmissionprisonen.pdf>
65. **Status paper on prisons, drugs and harm reduction.** (2005) WHO and World Health Organization Europe. English.  
Available at: <http://www.euro.who.int/document/e85877.pdf>
66. **Post-exposure prophylaxis to prevent HIV infection: 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 to HIV and exposure through sexual assault, and identify exposure situations in which PEP may be appropriate. The guidelines also summarize evidence and provide WHO recommendations. They are based on an expert meeting held in 2005. Available at: [http://whqlibdoc.who.int/publications/2007/9789241596374\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241596374_eng.pdf)
67. **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 summarizes 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. Available at: [http://www.who.int/hiv/pub/prev\\_care/policyprogrammingguide.pdf](http://www.who.int/hiv/pub/prev_care/policyprogrammingguide.pdf)
68. **Advocacy guide: HIV/AIDS prevention among injecting drug users.** (2004) WHO and UNAIDS. English.  
Type of document: Guideline. Available at: <http://www.who.int/hiv/pub/advocacy/en/advocacyguideen.pdf>
69. **Policy briefs and technical papers on HIV/AIDS and injecting drug users (Evidence for action series website).** WHO. English.  
Available at: <http://www.who.int/hiv/pub/idu/idupolicybriefs/en/index.html>
70. **HIV prevention, treatment and care for injecting drug user (IDU) and prisons (Webpage).** WHO. English.  
This is a key resource for IDU programming containing links to policy, advocacy, programme planning, technical documents and other resources. It forms a gateway to all WHO documents on these topics. Available at: <http://www.who.int/hiv/topics/idu/en/index.html>
71. **Effectiveness of community-based outreach in preventing HIV/AIDS among injecting drug users (Evidence for action technical papers).** (2004) WHO. English.  
Type of document: Evidence, policy and advocacy. Target audience: Programme managers, policy-makers. Implementation focus: National.  
This document is part of the Evidence for Action series and reviews evidence on the effectiveness of outreach as a strategy for reaching hard-to-reach hidden populations of IDUs. Available at: <http://whqlibdoc.who.int/publications/2004/9241591528.pdf>
72. **Treatment of injecting drug users with HIV/AIDS: Promoting access and optimizing service delivery.** (2006) WHO and S. La Vincente. English.  
Type of document: Operational guidelines. Target audience: Programme managers, implementers. Implementation focus: National.  
This document describes interventions to increase access to HIV treatment, care and prevention for injecting drug users. It also provides details on approaches to service delivery and models of care. Available at: [http://www.who.int/substance\\_abuse/publications/treatment\\_idus\\_hiv\\_aids.pdf](http://www.who.int/substance_abuse/publications/treatment_idus_hiv_aids.pdf)
73. **Training guide for HIV prevention outreach to injecting drug users : workshop manual.** (2004) WHO, D. Burrows, G. Weiler, M. Beg, A. Ball and I. d. Zoysa. English, Russian.  
Type of document: Operational guidelines: capacity building. Target audience: Policy-makers, programme managers, implementers, field workers. Implementation focus: National.  
This guide offers detailed materials for helping to organize workshops on providing outreach services to IDUs. An accompanying CD contains further tools to support this training. The package has four modules that cover varying training needs of participants including orientation to outreach among IDUs; developing outreach programmes; managing outreach programmes; and a field worker training module. Available at: English: <http://whqlibdoc.who.int/hq/2004/9241546352.pdf>  
Russian: <http://www.euro.who.int/document/9241546352R.pdf>
74. **Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users (Evidence for action technical papers).** (2004) WHO, A. Cooney and A. Wodak. English.  
Type of document: Evidence, policy and advocacy. Target audience: Policy-makers, programme managers. Implementation focus: National.  
The publication forms part of the Evidence for Action series and reviews and evaluates evidence on the effectiveness of sterile needle and syringe programming (including other injecting paraphernalia) for HIV prevention among IDUs in different settings and contexts. Recommendations are also provided on how evidence can guide public health policy-makers in programming for HIV prevention among IDUs. Available at: <http://whqlibdoc.who.int/publications/2004/9241591641.pdf>
75. **Guide to starting and managing needle and syringe programmes.** (2007) WHO and UNAIDS. English.  
Available at: [http://www.who.int/hiv/idu/Guide\\_to\\_Starting\\_and\\_Managing\\_NSP.pdf](http://www.who.int/hiv/idu/Guide_to_Starting_and_Managing_NSP.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 mainly targets medical doctors already providing HIV care and treatment services including ART. The approach is focusing on knowledge building. Available at: [http://www.searo.who.int/en/Section10/Section18/Section356\\_14247.htm](http://www.searo.who.int/en/Section10/Section18/Section356_14247.htm)  
Module 1: Drug use and HIV in Asia  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_01\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_01_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 2: Comprehensive services for injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_02\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_02_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
Module 3: Initial patient assessment  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_03\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_03_Treatment_&_Care_for_HIV_positive_IDUs.pdf)

- Module 4: Managing opioid dependence  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_04\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_04_Treatment_&_Care_for_HIV_positive_IDUs.pdf)
- Module 5: Managing non-opioid drug dependence  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_05\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_05_Treatment_&_Care_for_HIV_positive_IDUs.pdf)
- Module 6: Managing ART in injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_06\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_06_Treatment_&_Care_for_HIV_positive_IDUs.pdf)
- Module 7: Adherence counselling for injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_07\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_07_Treatment_&_Care_for_HIV_positive_IDUs.pdf)
- Module 8: Drug interactions  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_08\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_08_Treatment_&_Care_for_HIV_positive_IDUs.pdf)
- Module 9: Management of coinfections in HIV-positive injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_09\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_09_Treatment_&_Care_for_HIV_positive_IDUs.pdf)
- Module 10: Managing pain in HIV-infected injecting drug users  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_10\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_10_Treatment_&_Care_for_HIV_positive_IDUs.pdf)
- Module 11: Psychiatric illness, psychosocial care and sexual health  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_11\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_11_Treatment_&_Care_for_HIV_positive_IDUs.pdf)
- Module 12: Continuing medical education  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_12\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_12_Treatment_&_Care_for_HIV_positive_IDUs.pdf)  
 Trainer manual  
[http://www.searo.who.int/LinkFiles/Publications\\_Module\\_13\\_Treatment\\_&\\_Care\\_for\\_HIV\\_positive\\_IDUs.pdf](http://www.searo.who.int/LinkFiles/Publications_Module_13_Treatment_&_Care_for_HIV_positive_IDUs.pdf)
77. **Treatment of opioid dependence (WHO webpage).** WHO. English.  
 Available at: [http://www.who.int/substance\\_abuse/activities/treatment\\_opioid\\_dependence/en/index.html](http://www.who.int/substance_abuse/activities/treatment_opioid_dependence/en/index.html)
78. **WHO recommendations for clinical mentoring to support scale-up of HIV care, antiretroviral therapy and prevention in resource-constrained settings.** (2006) WHO. English.  
**Type of document:** Operational guidelines. **Target audience:** National programme managers, regional and district staff organizing clinical mentoring, clinical mentors **Implementation focus:** Regional, district.  
 This publication provides guidance on how to develop a national clinical mentoring system to support scaling up HIV care/ART at district hospital and health-centre level. The content is based on at the 'Planning Consultation on Clinical Mentoring: Approaches and Tools to Support Scaling-up of Antiretroviral Therapy and HIV Care in Low-resource Settings', Geneva, 2005 and the Working Meeting on Clinical Mentoring: Approaches and Tools to Support the Scaling-up of Antiretroviral Therapy and HIV Care in Low-resource Settings, Uganda, 2005. Available at: [http://whqlibdoc.who.int/publications/2006/9789241594684\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594684_eng.pdf)
79. **Effectiveness of drug dependence treatment in prevention of HIV among injecting drug users (Evidence for action technical papers).** (2005) WHO, M. Farrell, L. Gowing, J. Marsden, W. Ling and R. Ali. English.  
**Type of document:** Evidence, policy and advocacy. **Target audience:** Programme managers, policy-makers. **Implementation focus:** National.  
 The publication forms part of the Evidence for Action series and reviews and evaluates evidence on the effectiveness of sterile needle and syringe programming (including other injecting paraphernalia) for HIV prevention among IDUs in different settings and contexts. Recommendations are also provided on how evidence can guide public health policy-makers in programming for HIV prevention among IDUs. Available at: <http://www.who.int/hiv/pub/idu/en/drugdependencefinaldraft.pdf>
80. **WHO/UNODC/UNAIDS position paper: substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention.** (2004) WHO, UNAIDS. and UN. Cambodian, Chinese, English, Russian, Vietnamese, Lao.  
**Type of document:** Evidence, policy and advocacy. **Target audience:** Policy-makers. **Implementation focus:** Global, national.  
 This report presents a joint position of WHO/UNODC/UNAIDS on substitution maintenance therapy for opioid dependence. It is based on a review of scientific evidence. Available at: English: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_eng.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_eng.pdf)  
 Chinese: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_chi.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_chi.pdf)  
 Russian: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_rus.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_rus.pdf)  
 Cambodian: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_cam.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_cam.pdf)  
 Lao: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_lao.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_lao.pdf)  
 Vietnamese: [http://whqlibdoc.who.int/unaid/2004/9241591153\\_vie.pdf](http://whqlibdoc.who.int/unaid/2004/9241591153_vie.pdf)
81. **Strategic approaches to the prevention of HIV infection in infants. Report of a WHO meeting, Morges, Switzerland, 20-22 March 2002.** (2002) WHO. Available at: <http://www.who.int/hiv/mct/StrategicApproaches.pdf>
82. **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) Interagency Task Team (IATT) on Prevention of HIV Infection in Pregnant Women Mothers and their Children. English, French, Russian.  
**Type of document:** Evidence, policy and advocacy. **Target audience:** Policy-makers, programme managers. **Implementation focus:** Global, national.  
 This publication provides a framework for concerted partnerships and guidance to countries on specific actions to accelerate scale-up of interventions to reduce HIV transmission in pregnant women, mothers and children. It also supports implementing the four components of the United Nations comprehensive approach to prevention of HIV infection in infants and young children. Available at: English: [http://whqlibdoc.who.int/publications/2007/9789241596015\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241596015_eng.pdf)  
 French: [http://whqlibdoc.who.int/publications/2007/9789242596014\\_fre.pdf](http://whqlibdoc.who.int/publications/2007/9789242596014_fre.pdf)  
 Russian: [http://whqlibdoc.who.int/publications/2007/9789280643114\\_rus.pdf](http://whqlibdoc.who.int/publications/2007/9789280643114_rus.pdf)
83. **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 using antiretroviral drugs for pregnant women for their own health, and for preventing HIV infection in infants and young children, as well, as a summary of the scientific rationale for the recommendations. It aims to assist national ministries of health in providing 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. Available at: English: [http://whqlibdoc.who.int/publications/2006/9789241594660\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594660_eng.pdf)  
French: <http://www.who.int/entity/hiv/mctc/guidelines/Antiretroviraux%20FR.pdf>

84. **Testing and counselling for prevention of mother-to-child transmission of HIV (TC for PMTCT) support tools.** CDC, WHO, UNICEF and USAID. English, French.  
These are web-based tools to facilitate integrating and delivering essential PMTCT messages in antenatal care, labour and delivery, and post-delivery facilities in resource-constrained settings. The flipcharts, client brochures, wall charts and reference guide can be adapted to include national policies and protocols. Available at: <http://www.womenchildrenhiv.org/wchiv?page=vc-10-00#S3.4X>  
<http://www.womenchildrenhiv.org/wchiv?page=vc-10-00-fr>
85. **IMAI-IMPAC integrated PMTCT training course.** WHO. English.  
The course is designed to follow on from IMAI chronic HIV care/ART training, and predominately targets nurses and midwives already providing maternal services. Particular attention is given to integrating HIV interventions within MCH services, including ART and AZT prophylaxis from 28 weeks in the three participant training modules (antenatal care, labour and delivery, and post-partum-newborn care). The course also includes wall charts, WHO/CDC flipcharts, clinical practice, and skill stations using expert patient trainers. Skills acquired can be further complemented by training in infant feeding counselling and support.  
Access to the current draft version is via the IMAI SharePoint website, by sending an email to [imaimail@who.int](mailto:imaimail@who.int). Available at: <http://www.who.int/hiv/capacity/IMAISharepoint/en/>
86. **Reproductive choices and family planning for people living with HIV - Counselling tool.** (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-compatible short courses, but can also be used independently. In a two-day course, the training material focuses on safer sex, contraceptive methods, and 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. Available at: [http://www.who.int/reproductive-health/publications/fphiv\\_flipchart/fp\\_hiv\\_flipchart.ppt](http://www.who.int/reproductive-health/publications/fphiv_flipchart/fp_hiv_flipchart.ppt)  
<http://www.who.int/hiv/capacity/IMAISharepoint/en/>
87. **Strengthening linkages between family planning and HIV: reproductive choices and family planning for people living with HIV.** (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 them understand their reproductive choices. The role of family planning in preventing HIV in children and dual protection are highlighted, along with operational considerations for strengthening linkages between HIV and family planning. Available at: [http://www.who.int/reproductive-health/hiv/hiv\\_tecbrief\\_fp.pdf](http://www.who.int/reproductive-health/hiv/hiv_tecbrief_fp.pdf)
88. **Palliative care: symptom management and end-of-life care.** (2006) WHO. English.  
Available at: English: <http://www.who.int/hiv/pub/imai/genericpalliativecare082004.pdf>.  
French: [http://www.who.int/hiv/pub/imai/imai\\_palliative\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_palliative_2008_fr.pdf)
89. **HIV and infant feeding: new evidence and programmatic experience: report of a technical consultation, Geneva, Switzerland, 25-27 October 2006.** (2007) WHO, UNICEF., United Nations Population Fund. and UNAIDS. English.  
Type of document: Evidence, policy and advocacy. Target audience: Programme managers, infant feeding experts. Implementation focus: National, district.  
This statement summarizes the information considered and lists the recommendations from a consultation that reviewed recent evidence and programme experience regarding HIV and infant feeding. Available at: [http://whqlibdoc.who.int/publications/2007/9789241595971\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595971_eng.pdf)
90. **WHO HIV and infant feeding technical consultation - consensus statement.** (2006) WHO. English.  
Available at: [http://www.who.int/child\\_adolescent\\_health/documents/if\\_consensus/en/index.html](http://www.who.int/child_adolescent_health/documents/if_consensus/en/index.html)  
English: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/who\\_hiv\\_infant\\_feeding\\_technical\\_consultation.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/who_hiv_infant_feeding_technical_consultation.pdf)  
French: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/who\\_hiv\\_infant\\_feeding\\_technical\\_consultation\\_fr.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/who_hiv_infant_feeding_technical_consultation_fr.pdf)  
Portuguese: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/who\\_hiv\\_infant\\_feeding\\_technical\\_consultation\\_pt.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/who_hiv_infant_feeding_technical_consultation_pt.pdf)  
Spanish: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/who\\_hiv\\_infant\\_feeding\\_technical\\_consultation\\_es.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/who_hiv_infant_feeding_technical_consultation_es.pdf)
91. **Complementary feeding: Report of the global consultation, and summary of guiding principles for complementary feeding of the breastfed child.** (2002) WHO. English.  
The report on this consultation came out of the WHO-convened Global Consultation on Complementary Feeding held in December 2001. It reviews and updates global recommendations for appropriate complementary feeding and identifies actions needed to accelerate their implementation. Participants agreed on new estimates of energy requirements for complementary foods assuming an average breast milk intake. They also identified several nutrients that are consistently deficient in the diets of children in low-income countries. Participants examined various approaches for improving the availability of adequate complementary foods, including technologies that can be implemented at home or in the community, and larger-scale production of fortified processed complementary foods involving the public or private sector. Participants recognized that improved nutrition requires attention to foods, as well as feeding behaviours, and they discussed critical dimensions of responsive feeding, and the wider belief system that influences what, when, where and how people feed their children. Finally, suggestions were made on how to accelerate the implementation of interventions to improve feeding of children between six and 24 months of age within the context of the Global Strategy for Infant and Young Child Feeding. Available at: <http://whqlibdoc.who.int/publications/2002/924154614X.pdf>
92. **Child and adolescent Health and development: HIV/AIDS publications (WHO web page).** WHO. English.  
Available at: [http://www.who.int/child\\_adolescent\\_health/documents/hiv\\_aids/en/index.html](http://www.who.int/child_adolescent_health/documents/hiv_aids/en/index.html)
93. **IMCI chart booklet for high HIV settings.** (2006) WHO. English.  
Type of document: Operational guidelines. Target audience: Health care workers: Primary health workers at health centre and outpatient of district hospital. Implementation focus: Facility.  
The modified Integrated Management of Childhood Illness (IMCI) chart booklet for high HIV settings addresses common childhood illnesses (including pneumonia, malaria, diarrhoea and severe malnutrition), as well as identifying and managing HIV-related conditions. It has guidelines



- on HIV-exposed and infected infants and children, including infant feeding, immunization, cotrimoxazole prophylaxis and nutritional support. General information is provided on antiretroviral drugs for children, treatment adherence, and side effects of these drugs. The IMCI chart booklet is a companion to the IMAI guideline modules for adults and adolescents. Available at: [http://whqlibdoc.who.int/publications/2006/9789241594370.cb\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.cb_eng.pdf)
94. **HIV and infant feeding: framework for priority action.** (2003) WHO. English, French, Spanish, Chinese, Portuguese.  
**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 that cover the special circumstances associated with HIV/AIDS related to infant and young child feeding. It aims 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 several priority actions related to policies, research and support. Available at: English: [http://whqlibdoc.who.int/publications/2003/9241590777\\_eng.pdf](http://whqlibdoc.who.int/publications/2003/9241590777_eng.pdf)  
 French: <http://whqlibdoc.who.int/publications/2004/9242590770.pdf>  
 Spanish: <http://whqlibdoc.who.int/publications/2004/9243590774.pdf>  
 Chinese: [http://whqlibdoc.who.int/publications/chinese/9290612789\\_chi.pdf](http://whqlibdoc.who.int/publications/chinese/9290612789_chi.pdf)  
 Portuguese: [http://whqlibdoc.who.int/publications/portuguese/9248590772\\_por.pdf](http://whqlibdoc.who.int/publications/portuguese/9248590772_por.pdf)
  95. **Aide memoire: Infection control standard precautions in health care.** (2007) WHO. English, French.  
 Available at: English: [http://www.who.int/csr/resources/publications/EPR\\_AM2\\_E7.pdf](http://www.who.int/csr/resources/publications/EPR_AM2_E7.pdf)  
 French: [http://www.who.int/csr/resources/publications/EPR\\_AM2\\_FR3.pdf](http://www.who.int/csr/resources/publications/EPR_AM2_FR3.pdf)
  96. **Injection safety toolbox: Resources to assist in the management of national safe and appropriate use of injection policies (WHO web page).** WHO. English.  
 This web page includes resources to assist in managing national, safe and appropriate use of injection policies. Available at: [http://www.who.int/injection\\_safety/toolbox/en/](http://www.who.int/injection_safety/toolbox/en/)
  97. **Healthcare waste management (web page).** WHO. English.  
 Healthcare waste (HCW) is a by-product of health care that includes sharps, non-sharps, blood, body parts, chemicals, pharmaceuticals, medical devices and radioactive materials. This website provides information and resources in four thematic areas: management, training, regulatory and technical aspects). Available at: [http://www.healthcarewaste.org/en/115\\_overview.html](http://www.healthcarewaste.org/en/115_overview.html)
  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 guidelines. **Target audience:** Primary health workers at health centres and the outpatient departments of district hospitals. This manual is meant to be a job aid for a health centre team, in particular for the in-charge nurse or other manager. Chapters cover managing supplies and patient records, registers and reports, and providing laboratory services. Practical guidance is provided for planning and integrating HIV services, linkages within district health network including the community, human resource management, and leadership and quality management including simplified quality improvement methods linked to the patient monitoring system. The draft was released in June 2008 and is to be finalized in early 2009.  
 Access to the current draft is via a secure IMAI SharePoint website, by sending an email to imaimail@who.int. Available at: <http://www.who.int/hiv/capacity/IMAIsharepoint/en>
  99. **Protecting healthcare workers: Preventing needlestick injuries toolkit (website).** WHO. English.  
 Available at: [http://www.who.int/occupational\\_health/activities/pnitoolkit/en/index.html](http://www.who.int/occupational_health/activities/pnitoolkit/en/index.html)
  100. **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, operational guideline is based on WHO normative guidelines and serves as both a learning and job aid for acute care, integrated with HIV prevention for adolescents and adults. It uses the same format as the IMCI chart booklet, and presents a syndromic approach (with limited essential laboratory) to the most common adult illnesses including most opportunistic infections. Clear instructions are provided about patients who can be managed at the first-level facility and those who require referral to the district hospital, or assessment by a more senior clinician. Acute care also includes provider-initiated HIV testing and counselling and case finding for TB. It will be updated in 2009. Several training courses are available to teach its content, e.g. OI management and STI/genitourinary problems. Available at: English: [http://www.who.int/hiv/pub/imai/en/acutecarerev2\\_e.pdf](http://www.who.int/hiv/pub/imai/en/acutecarerev2_e.pdf)  
 French: [http://www.who.int/hiv/pub/imai/imai\\_acutecare\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_acutecare_2008_fr.pdf)
  101. **Aide memoire on blood safety for national blood programmes.** (2002) WHO. English, French, Portuguese, Spanish.  
**Type of document:** Operational guidelines. **Target audience:** Policy-makers, programme managers. **Implementation focus:** National.  
 This publication provides guidance and a checklists to help establish safe well-organized blood transfusion services, with quality systems in all areas. Available at: English [http://www.who.int/entity/bloodsafety/transfusion\\_services/en/Blood\\_Safety\\_Eng.pdf](http://www.who.int/entity/bloodsafety/transfusion_services/en/Blood_Safety_Eng.pdf)  
 French: [http://www.who.int/entity/bloodsafety/transfusion\\_services/en/Blood\\_Safety\\_French.pdf](http://www.who.int/entity/bloodsafety/transfusion_services/en/Blood_Safety_French.pdf)  
 Portuguese: [http://www.who.int/entity/bloodsafety/transfusion\\_services/en/Blood\\_Safety\\_Port.pdf](http://www.who.int/entity/bloodsafety/transfusion_services/en/Blood_Safety_Port.pdf)  
 Spanish: [http://www.who.int/entity/bloodsafety/transfusion\\_services/en/Blood\\_Safety\\_Span.pdf](http://www.who.int/entity/bloodsafety/transfusion_services/en/Blood_Safety_Span.pdf)
  102. **Global database on blood safety (WHO web page).** WHO. English.  
 Available at: [http://www.who.int/bloodsafety/global\\_database/en/](http://www.who.int/bloodsafety/global_database/en/)
  103. **Prioritizing second-line antiretroviral drugs for adults and adolescents: a public health approach. Report of a WHO working group meeting, Geneva, Switzerland, 21-22 May 2007.** (2007) WHO. English.  
**Type of document:** Normative guidelines  
 evidence, policy and advocacy. **Target audience:** Programme managers, policy-makers, clinicians. **Implementation focus:** National, facility.  
 This report provides guidance for national HIV/AIDS programmes on simplified second-line regimen options that countries can choose based on programme efficiencies and costs. It highlights the need for prioritizing drugs for use in second-line regimens, including protease inhibitors, nucleoside and nucleotide reverse transcriptase inhibitors. Available at: [http://www.who.int/hiv/pub/meetingreports/Second\\_Line\\_Antiretroviral.pdf](http://www.who.int/hiv/pub/meetingreports/Second_Line_Antiretroviral.pdf)

104. **Guidelines on co-trimoxazole prophylaxis for HIV-related infections among children, adolescents and adults: recommendations for a public health approach.** (2006) WHO Dept. of HIV/AIDS., C. Gilks and M. Vitoria. English, French.  
Available at: English: [http://whqlibdoc.who.int/publications/2006/9789241594707\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594707_eng.pdf)  
French: [http://whqlibdoc.who.int/publications/2007/9789242594706\\_fre.pdf](http://whqlibdoc.who.int/publications/2007/9789242594706_fre.pdf)
105. **Vaccine-preventable diseases, vaccines and vaccination.** (2005) WHO. English.  
Available at: [http://whqlibdoc.who.int/publications/2005/9241580364\\_chap6.pdf](http://whqlibdoc.who.int/publications/2005/9241580364_chap6.pdf)
106. **Revised BCG vaccination guidelines for infants at risk for HIV infection.** (2007) WHO. English.  
Type of document: Normative guidelines. Target audience: Policy-makers. Implementation focus: Global, national.  
Available at: <http://www.who.int/wer/2007/wer8221.pdf>
107. **Nutrition counselling, care and support for HIV-infected women.** WHO. English.  
Implementation focus: Care including nutrition.  
Available at: [http://www.who.int/hiv/pub/prev\\_care/en/nutri\\_eng.pdf](http://www.who.int/hiv/pub/prev_care/en/nutri_eng.pdf)
108. **Integrating nutrition and food assistance into HIV care and treatment programmes: operational guidance.** (2008) WHO and WFP. English.  
As part of a comprehensive response to treatment, care, and support of people living with HIV, food and nutrition programmes are being developed and implemented in many countries. Following on the World Health Assembly resolution 57.14, WHO and WFP are working together to assist countries in integrating food and nutritional support into national HIV programmes and are also developing related strategies. This document is a first step towards addressing requests made by countries for tools and guidance on how to design and implement food and nutritional support for PLHIV. Available at: [http://www.who.int/hiv/topics/arv/who\\_wfp\\_nutrition.pdf](http://www.who.int/hiv/topics/arv/who_wfp_nutrition.pdf)
109. **WHO Executive Board EB116/12 116th Session 12 May 2005: Nutrition and HIV/AIDS.** (2005) WHO. English.  
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 and southern Africa. It reviews the evidence and provides recommendations on integrating nutrition into the essential package of care, treatment and support for people living with HIV/AIDS. Available at: [http://www.who.int/gb/ebwha/pdf\\_files/EB116/B116\\_12-en.pdf](http://www.who.int/gb/ebwha/pdf_files/EB116/B116_12-en.pdf)
110. **Antiretroviral therapy for HIV infection in adults and adolescents: recommendations for a public health approach: 2006 revision.** (2006) WHO, C. Gilks and M. Vitoria. English.  
Type of document: Normative guidelines. Target audience: Programme managers, policy-makers. Implementation focus: Global, national, facility.  
This guideline is a reference tool for countries with limited resources to develop or revise national guidelines for the use of ART in adults and adolescents. The material presented takes updated evidence into account, including new ARV treatment options, and draws on the experience of established ART scale-up programmes. The simplified approach, with evidence-based standards, continues to be the basis of WHO recommendations for initiating and monitoring ART. Available at: [http://whqlibdoc.who.int/publications/2006/9789241594677\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594677_eng.pdf)  
Addendum: <http://www.who.int/entity/hiv/art/ARTadultsaddendum.pdf>
111. **Prequalification programme: A United Nations Programme managed by WHO (WHO website).** WHO. English.  
This website provides access to the list of WHO prequalified ARV products, and the procedures that enable manufacturers to prequalify them. It also provides information on medicines prequalified by WHO, assessment reports, and its procedures. Available at: <http://healthtech.who.int/pg/>
112. **IMAI-IMCI basic chronic HIV/ ART clinical training course.** (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. Implementation focus: Facility.  
The course supports scale-up of chronic HIV care for both adults and children as a core four-and-a-half day training course for nurses, clinical officers, midwives. Its content includes CTX and INH prophylaxis, first-line ART, prevention, and how to fill patient HIV care/ART card. Skills-based training uses PLHIV Expert Patient Trainers (see EPT curriculum description), skill station exercises such as card sorts, and has been designed for back to back scale-up training of clinical teams. Supportive materials include a course director/facilitator guide, participant's manual, wall charts, photo booklet, and casebooks for continued learning about ART and future clinical mentoring. Available at: <http://www.who.int/hiv/capacity/IMAISHarepoint/en>
113. **IMAI basic ART aid (lay counsellor) training modules.** (2004) WHO. English, French.  
Type of document: Operational guidelines: training tools. Target audience: PLHIV and other lay counsellors, nurses and nursing assistants in some settings. Implementation focus: Facility.  
This course has been designed for lay people to become ART Aids and work effectively on a clinical team, even though they have no medical background and are not necessarily trained to educate and counsel patients. The course is often used to train PLHIV to be members of the clinical team, in addition to their role as Expert Patient Trainers. The package includes: a facilitator's guide, pre- and post-participation tests, as well as participant handouts and materials for continued learning for ART Aids. These materials are being updated to strengthen prevention with positives, and to offer brief alcohol interventions. Available at: <http://www.who.int/hiv/capacity/IMAISHarepoint/en>
114. **Patient treatment cards.** (2004) WHO. English.  
Type of document: Operational guidelines: patient aid. Target audience: PLHIV, health workers. Implementation focus: Facility and community.  
This publication discusses patient treatment cards (one for each first-line ART regimen) that are used by health care workers when informing and educating patients in what it means to take ART—when and how to take their pills, how to manage mild side effects, and when to seek care from the facility. In addition, prevention interventions such as safer sex are addressed. The cards are given to patients to use at home, and they are intended for country adaptation and translation into local languages.  
Access to the current draft is via a secure IMAI SharePoint website, by sending an email to [imaimail@who.int](mailto:imaimail@who.int).  
Available at: <http://www.who.int/hiv/capacity/IMAISHarepoint/en>
115. **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 centres and the outpatient departments of district hospitals. 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 information on prevention with positives and alcohol interventions.

Access to the current draft is via a secure IMAI SharePoint website, by sending an email to imaimail@who.int.

Available at: <http://www.who.int/hiv/capacity/IMAIsharepoint/en>

116. **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 publication contains 13 treatment and care protocols that 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. These issues arise during antiretroviral treatment; managing 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](http://www.euro.who.int/aids) Available at: English: <http://www.euro.who.int/document/e90840.pdf>  
Russian: <http://www.euro.who.int/document/e90840R.pdf>
117. **Addressing HIV in humanitarian settings.** (2009) WHO. Available at: Forthcoming in 2009
118. **WHO consultation on ART failure in the context of a public health approach: 2008 meeting report.** (2009) WHO. English. Available at: Forthcoming in 2009
119. **Adherence to long-term therapies: Evidence for action.** (2003) WHO. English.  
Type of document: Evidence, policy and advocacy; normative guidelines. Target audience: Clinicians, health programme managers, policy-makers. Implementation focus: National, regional.  
This review of the published literature discusses the definitions, measurements, epidemiology, economics and interventions applied to nine chronic conditions including HIV/AIDS, hypertension, tobacco smoking, and tuberculosis. It provides a concise summary of the consequences of poor treatment adherence, both for health and economics, and discusses the options available for improving adherence. Available at: [http://www.who.int/chp/knowledge/publications/adherence\\_introduction.pdf](http://www.who.int/chp/knowledge/publications/adherence_introduction.pdf)  
[http://www.who.int/hiv/pub/prev\\_care/lttherapies/en/](http://www.who.int/hiv/pub/prev_care/lttherapies/en/)
120. **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.  
This 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 Acute Care guideline modules, and the Palliative Care guideline modules. It addresses 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; wall charts; and recording forms. Available at: <http://www.who.int/hiv/capacity/IMAIsharepoint/en>
121. **Global action plan for the prevention and control of pneumonia (GAPP): report of an informal consultation.** (2007) WHO and UNICEF. English.  
Type of document: Meeting report. Target audience: MoH, technical experts, health care providers. Implementation focus: Childhood pneumonia. Available at: [http://whqlibdoc.who.int/publications/2008/9789241596336\\_eng.pdf](http://whqlibdoc.who.int/publications/2008/9789241596336_eng.pdf)
122. **Integrated management of childhood illness, complementary course on HIV/AIDS.** (2006) 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 death and bereavement, HIV or AIDS disclosure by family members, as well as treatment 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 a 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. Available at: Introduction: [http://whqlibdoc.who.int/publications/2006/9789241594370.intro\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.intro_eng.pdf)  
Module 1: [http://whqlibdoc.who.int/publications/2006/9789241594370.m1\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.m1_eng.pdf)  
Module 2: [http://whqlibdoc.who.int/publications/2006/9789241594370.m2\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.m2_eng.pdf)  
Module 3: [http://whqlibdoc.who.int/publications/2006/9789241594370.m3\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.m3_eng.pdf)  
Module 4: [http://whqlibdoc.who.int/publications/2006/9789241594370.m4\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.m4_eng.pdf)  
Facilitator guide for modules: [http://whqlibdoc.who.int/publications/2006/9789241594370.fg\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.fg_eng.pdf)  
Photo booklet: [http://whqlibdoc.who.int/publications/2006/9789241594370.pb\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.pb_eng.pdf)  
Chart booklet: [http://whqlibdoc.who.int/publications/2006/9789241594370.cb\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9789241594370.cb_eng.pdf)
123. **Policy for prevention of oral manifestations in HIV/AIDS: The approach of the WHO Global Oral Health Programme.** (2006) Peterson. English.  
Type of document: Evidence, policy and advocacy. Target audience: Dental health workers, policy-makers. Implementation focus: Global.  
This paper provides background information about the HIV epidemic and key recommendations about the oral-health response to HIV. It also addresses capacity-building and the strengthening of prevention of HIV-related oral disease. Available at: <http://adr.iadrjournals.org/cgi/reprint/19/1/17.pdf>
124. **Pocket book of hospital care for children: guidelines for the management of common illnesses with limited resources.** (2005) WHO. English, French, 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.  
The publication provides guidelines for district clinicians on managing children at district hospital level (including all children referred from IMCI first-level algorithm). It presents emergency triage assessment and treatment, then syndromic approach with limited laboratory based on differential diagnosis tables and empirical treatment recommendations. It includes HIV care, OI management and ART (these sections are being

updated in 2009 as part of the IMAI-IMCI second-level learning programme, and will appear as an addendum). Available at: English: <http://whqlibdoc.who.int/publications/2005/9241546700.pdf>  
French: [http://whqlibdoc.who.int/publications/2007/9789242546705\\_fre.pdf](http://whqlibdoc.who.int/publications/2007/9789242546705_fre.pdf)  
Portuguese: [http://whqlibdoc.who.int/publications/2005/9789248546709\\_por.pdf](http://whqlibdoc.who.int/publications/2005/9789248546709_por.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2005/9241546700\\_rus.pdf](http://whqlibdoc.who.int/publications/2005/9241546700_rus.pdf)

125. **Implementing the new recommendations on the clinical management of diarrhoea: Guidelines for policy makers and programme managers.** (2006) WHO. English.  
Target audience: Policy-makers, programme managers. Available at: English: [http://whqlibdoc.who.int/publications/2006/9241594217\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9241594217_eng.pdf)  
French: [http://whqlibdoc.who.int/publications/2006/9242594210\\_fre.pdf](http://whqlibdoc.who.int/publications/2006/9242594210_fre.pdf)  
Chinese: [http://whqlibdoc.who.int/publications/2006/9241594217\\_chi.pdf](http://whqlibdoc.who.int/publications/2006/9241594217_chi.pdf)  
Russian: <http://www.euro.who.int/document/9244594218R.pdf>
126. **Community-based management of severe acute malnutrition: A Joint Statement by the World Health Organization, the World Food Programme, the United Nations.** (2007) WHO, WFP and UN. English, French.  
Available at: English: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/severe\\_acute\\_malnutrition\\_en.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/severe_acute_malnutrition_en.pdf)  
French: [http://www.who.int/child\\_adolescent\\_health/documents/pdfs/severe\\_acute\\_malnutrition\\_fr.pdf](http://www.who.int/child_adolescent_health/documents/pdfs/severe_acute_malnutrition_fr.pdf)
127. **HIV/AIDS treatment and care for injecting drug users: Clinical protocol for the WHO European Region.** WHO-EURO. English.  
Available at: [http://www.euro.who.int/document/SHA/e90840\\_chapter\\_5.pdf](http://www.euro.who.int/document/SHA/e90840_chapter_5.pdf)
128. **Management of Hepatitis C and HIV coinfection: clinical protocol for the WHO European region.** WHO-EURO. English.  
Available at: [http://www.euro.who.int/document/SHA/e90840\\_chapter\\_6.pdf](http://www.euro.who.int/document/SHA/e90840_chapter_6.pdf)
129. **Prevention of hepatitis A, B and C and other hepatotoxic factors in people living with HIV: Clinical protocol for the WHO European Region.** WHO-EURO. English.  
Available at: [http://www.euro.who.int/document/SHA/e90840\\_chapter\\_8.pdf](http://www.euro.who.int/document/SHA/e90840_chapter_8.pdf)
130. **WHO EURO hepatitis website.** WHO-EURO. English.  
Available at: [http://www.euro.who.int/aids/hepatitis/20070621\\_1](http://www.euro.who.int/aids/hepatitis/20070621_1)
131. **Guidelines for the treatment of malaria** (2006) WHO. English.  
Available at: <http://www.who.int/malaria/docs/TreatmentGuidelines2006.pdf>
132. **Malaria and HIV interactions and their implications for public health policy.** (2005) WHO. English, French.  
Type of document: Evidence, policy and advocacy; programme planning and management. Target audience: Policy-makers, programme planners, implementers. Implementation focus: National, regional.  
This report from a joint technical consultation provides recommendations to improve planning and implementing programmes against HIV and Malaria. There are many synergies and interactions between these two epidemics for children and during pregnancy, particularly in resource-constrained settings. Available at: English: <http://whqlibdoc.who.int/publications/2005/9241593350.pdf>  
French: <http://www.who.int/entity/hiv/pub/meetingreports/malaria/hivfr.pdf>
133. **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  
This publication is part of a WHO series of five modules aimed at different levels of the district clinical team dealing with antiretroviral programmes and covers issues around the fact that HIV and mental disorders frequently coexist, and one disease may affect presentation and progression of the other, as well as response and adherence to treatment. The modules cover organization and systems support, basic counselling, psychosocial support groups, and psychotherapeutic interventions. This module on psychiatric care guides the clinician through screening for a mental disorder, its classification, and guidelines for both therapeutic and psychological management of mental disorders in HIV-infected individuals. The module is being updated in early 2009 and will be included in the *IMAI manual for district clinicians in low-resource, high HIV prevalence settings*, currently in development. Available at: [http://whqlibdoc.who.int/publications/2005/9241593083\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593083_eng.pdf)
134. **Psychosocial support groups in Antiretroviral (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. This is Module 4 of a WHO series of five modules that are aimed at different levels of the district clinical team, and that deal with antiretroviral programmes. The modules make the case that HIV and mental disorders frequently coexist, and that good counselling on adherence is essential for treatment. They cover organization and systems support; basic counselling; psychiatric care; psychotherapeutic interventions. This fourth module deals with psychosocial support groups.  
Available at: Series 1: [http://whqlibdoc.who.int/publications/2005/9241593040\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593040_eng.pdf)  
Series 2: [http://whqlibdoc.who.int/publications/2005/9241593067\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593067_eng.pdf)  
Series 3: [http://whqlibdoc.who.int/publications/2005/9241593083\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593083_eng.pdf)  
Series 4: [http://whqlibdoc.who.int/publications/2005/9241593105\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593105_eng.pdf)  
Series 5: [http://whqlibdoc.who.int/publications/2005/9241593091\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593091_eng.pdf)
135. **Basic counselling guidelines for ARV programmes** (2005) WHO. English.  
Available at: [http://whqlibdoc.who.int/publications/2005/9241593067\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9241593067_eng.pdf)
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, that 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. Available at: English: <http://www.who.int/hiv/pub/imai/generalprinciples082004.pdf>  
French: [http://www.who.int/hiv/pub/imai/imai\\_general\\_2008\\_fr.pdf](http://www.who.int/hiv/pub/imai/imai_general_2008_fr.pdf)

137. **WHO's pain ladder (web page).** WHO. English.  
Available at: <http://www.who.int/cancer/palliative/painladder/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 course equips health workers with knowledge and skills in symptom management, home-based care and end-of-life care. The 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. This course is applicable to all diseases, but special considerations in HIV/AIDS care are emphasized, as well as using palliative care to encourage HIV 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. Available at: <http://www.who.int/hiv/capacity/IMAISHarepoint/en>
139. **Caregiver booklet: Symptom management and end of life care (draft).** (2006) WHO. English.  
Type of document: Guideline. Target audience: Home-based caregivers of PLHIV, PLHIV, primary care health workers. Implementation focus: Facility and community.  
This booklet is designed for use by health workers to educate family members and other caregivers, and is then given to them to use as a reference at home for home-based care of serious long term illness and people who may be close to the end of their life. The booklet is then given to the caregiver to use as a reference at home. It covers preventing problems, managing common symptoms, when to seek health care, as well as special advice on psychosocial support. It also supports the extension of care from the health facility to the home. The booklet is focused on PLHIV, but it can also be used for HIV-negative patients with other chronic health problems. Available at: <http://www.who.int/hiv/pub/imai/patient/en/index.html>
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" is a concept adapted from the world of work, and 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 instead focus on personal journeys of the heart. For health systems developers and health services providers, this publication is a call to re-examine assumptions about what care is and how it should be practised. The writers make the case for thinking clearly and critically and 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. Available at: Available soon at the following web link: <http://www.palgrave.com/products/title.aspx?PID=323603>
141. **Guidelines for implementing collaborative TB and HIV programme activities.** (2003) WHO, Stop TB Partnership. Working Group on TB/HIV. Scientific Panel., N. J. Hargreaves, F. Scano and Stop TB Initiative. English, Russian.  
Type of document: Normative guidelines; programme planning and management. Target audience: Programme managers. Implementation focus: National, district.  
These guidelines mainly aim to enable the central units of national TB and HIV/AIDS programmes to support districts to plan, coordinate and implement collaborative TB/HIV activities. Available at: English: [http://whqlibdoc.who.int/hq/2003/WHO\\_CDS\\_TB\\_2003.319.pdf](http://whqlibdoc.who.int/hq/2003/WHO_CDS_TB_2003.319.pdf)  
Russian: [http://whqlibdoc.who.int/hq/2003/WHO\\_CDS\\_TB\\_2003.319\\_rus.pdf](http://whqlibdoc.who.int/hq/2003/WHO_CDS_TB_2003.319_rus.pdf)
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. English.  
Type of document: Infrastructure and logistic. Available at: [http://www.who.int/hiv/pub/meetingreports/WHO\\_3Is\\_meeting\\_report.pdf](http://www.who.int/hiv/pub/meetingreports/WHO_3Is_meeting_report.pdf)
143. **Isoniazid preventive therapy (IPT) for people living with HIV** WHO. English.  
Available at: [http://www.stoptb.org/wq/tb\\_hiv/assets/documents/IPT%20Consensus%20Statement%20TB%20HIV%20Core%20Group.pdf](http://www.stoptb.org/wq/tb_hiv/assets/documents/IPT%20Consensus%20Statement%20TB%20HIV%20Core%20Group.pdf)
144. **Guidelines for the prevention of tuberculosis in health care facilities in resource-limited settings.** (1999) WHO, R. Granich, N. J. Binkin, W. R. Jarvis, P. M. Simone, H. L. Rieder, M. A. Espinal, J. A. Kumaresan and United States. Dept. of Health and Human Services. English, Russian, Spanish.  
Type of document: Operational guidelines. Target audience: District programme managers, health care workers. Implementation focus: District, facility.  
Available at: English: [http://whqlibdoc.who.int/hq/1999/WHO\\_TB\\_99.269.pdf](http://whqlibdoc.who.int/hq/1999/WHO_TB_99.269.pdf)  
English Addendum: [http://whqlibdoc.who.int/hq/1999/WHO\\_TB\\_99.269\\_ADD\\_eng.pdf](http://whqlibdoc.who.int/hq/1999/WHO_TB_99.269_ADD_eng.pdf)  
Russian: [http://whqlibdoc.who.int/hq/1999/WHO\\_TB\\_99.269\\_rus.pdf](http://whqlibdoc.who.int/hq/1999/WHO_TB_99.269_rus.pdf)
145. **Tuberculosis infection control in the era of expanding HIV care and treatment. Addendum to the WHO Guidelines for the prevention of tuberculosis in health care facilities in resource-limited settings.** WHO. English.  
Type of document: Operational guidelines. Target audience: Programme managers, policy-makers. Implementation focus: National, district, facility.  
This guideline presents WHO's technical guidance on improving TB infection control. The guidance is an addendum to WHO Guidelines for the Prevention of Tuberculosis in Health Care Facilities in Resource-Limited Settings, 1999. Available at: [http://www.who.int/tb/publications/2006/tbhiv\\_infectioncontrol\\_addendum.pdf](http://www.who.int/tb/publications/2006/tbhiv_infectioncontrol_addendum.pdf)
146. **The global plan to Stop TB, 2006-2015.** (2006) WHO. English, French, Spanish, Arabic.  
Type of document: Evidence, policy and advocacy. Target audience: Programme managers, policy-makers. Implementation focus: Global, national.  
The plan provides a consensus view of what the Stop TB Partnership can achieve by 2015 by implementing the Stop TB strategy. Strategic directions for achieving targets and the working group plans of key partnerships are detailed in conjunction with an outline of global and regional scenarios for TB control. Available at: English: <http://www.stoptb.org/globalplan/assets/documents/GlobalPlanFinal.pdf>  
French: [http://www.stoptb.org/globalplan/assets/documents/StopTB\\_GlobalPlan\\_FR\\_web.pdf](http://www.stoptb.org/globalplan/assets/documents/StopTB_GlobalPlan_FR_web.pdf)

Spanish: [http://www.stoptb.org/globalplan/assets/documents/GPII\\_SPversion%20finale.pdf](http://www.stoptb.org/globalplan/assets/documents/GPII_SPversion%20finale.pdf)  
Arabic: [http://www.stoptb.org/globalplan/assets/documents/GPII\\_Arabic.pdf](http://www.stoptb.org/globalplan/assets/documents/GPII_Arabic.pdf)

147. **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 operational guideline is based on WHO normative guidelines, and serves as both a learning and job aid. The 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. The publication also offers clear guidelines for HIV testing in TB patients, as well as specific recommendations for co-management of TB-HIV including ART. Available at: [http://whqlibdoc.who.int/publications/2007/9789241595452\\_eng.pdf](http://whqlibdoc.who.int/publications/2007/9789241595452_eng.pdf)  
Facilitator's guide: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_fac.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_fac.pdf)  
Participant's manual: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_partman.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_partman.pdf)
148. **IMAI TB infection control at health facilities.** (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: Health centre and outpatients.  
Nearly half of PLHIV in Africa will develop coinfection with TB, and it is necessary to train primary level health workers in co-management of TB-HIV, including TB-ART co-treatment during a three day training course. TB infection control at primary health facilities is also covered during a one-day course that is suitable for all health workers. These IMAI - STB training tools consist of the TB-HIV co-management guideline module, a facilitator's guide and a participant's training guide. Available at: [http://www.who.int/hiv/pub/imai/TB\\_HIVModule23.05.07.pdf](http://www.who.int/hiv/pub/imai/TB_HIVModule23.05.07.pdf)  
Facilitator's guide: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_fac.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_fac.pdf)  
Participant's manual: [http://www.who.int/hiv/pub/imai/primary/tbhiv\\_comgt\\_partman.pdf](http://www.who.int/hiv/pub/imai/primary/tbhiv_comgt_partman.pdf)
149. **Guidance for national tuberculosis programmes on the management of TB in children.** (2006) WHO. English.  
Available at: [http://whqlibdoc.who.int/hq/2006/WHO\\_HTM\\_TB\\_2006.371\\_eng.pdf](http://whqlibdoc.who.int/hq/2006/WHO_HTM_TB_2006.371_eng.pdf)
150. **TB/HIV: a clinical manual: 2nd edition.** (2004) WHO, A. D. Harries, D. Maher, S. M. Graham, C. Gilks, P. Nunn, E. v. Praag, S. A. Qazi, M. C. Raviglione and M. W. Weber. English, French, Russian, Portuguese.  
Type of document: Operational guidelines. Target audience: Health care workers. Implementation focus: District, facility.  
This publication offers practical guidelines on managing TB/HIV for clinicians working primarily in sub-Saharan Africa. It presents data on managing patients with TB, provides background information on TB and HIV, and discusses aspects of diagnosis of pulmonary and extrapulmonary TB in children and adults. Available at: English: <http://whqlibdoc.who.int/publications/2004/9241546344.pdf>  
Russian: [http://whqlibdoc.who.int/hq/1997/WHO\\_TB\\_96.200\\_rus.pdf](http://whqlibdoc.who.int/hq/1997/WHO_TB_96.200_rus.pdf)  
Russian: [http://whqlibdoc.who.int/publications/2005/9244546345\\_rus.pdf](http://whqlibdoc.who.int/publications/2005/9244546345_rus.pdf)  
Portuguese: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.329\\_por.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.329_por.pdf)
151. **WHO consultation on technical and operational recommendations for scale-up of laboratory services and monitoring HIV antiretroviral therapy in resource-limited settings: (Expert meeting, Geneva, 2004).** (2008) WHO. English.  
Type of document: Operational guidelines. Target audience: programme managers, policy-makers. Implementation focus: National, regional, district, facility.  
This publication is WHO's technical guidance on a public health approach to scaling up laboratory services and monitoring of ART. It also discusses prequalification and procurement of antiretroviral drugs and diagnostic technologies. Available at: <http://www.who.int/hiv/pub/meetingreports/labmeetingreport.pdf>
152. **Essential list of laboratory equipment and supplies for HIV testing.** WHO-AFRO. English.  
Available at: [http://www.afro.who.int/aids/laboratory\\_services/resources/list-laboratory.pdf](http://www.afro.who.int/aids/laboratory_services/resources/list-laboratory.pdf)
153. **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.** (22-24 January 2008 Maputo, Mozambique). (2008) WHO, WHO-AFRO, US CDC and American Society for Clinical Pathology. English.  
Available at: [http://www.who.int/diagnostics\\_laboratory/3by5/Maputo\\_Meeting\\_Report\\_7\\_7\\_08.pdf](http://www.who.int/diagnostics_laboratory/3by5/Maputo_Meeting_Report_7_7_08.pdf)
154. **CD4+T cell enumeration technologies: technical information.** (2005) WHO and UNAIDS. English.  
Available at: [http://www.who.int/diagnostics\\_laboratory/CD4\\_Technical\\_Advice\\_ENG.pdf](http://www.who.int/diagnostics_laboratory/CD4_Technical_Advice_ENG.pdf)
155. **Summary of WHO recommendations for clinical investigations by level of health care facility.** (2007) WHO. English.  
Available at: <http://www.who.int/hiv/amds/WHOLabRecommendationBylevelFinal.pdf>
156. **Integrated health services: What and why? .** (2008) WHO. English.  
Type of document: Evidence, policy and advocacy. Target audience: Programme managers, policy-makers. Implementation focus: National.  
This WHO technical and policy brief describes integration of services, including a discussion of definitions, rationale and key considerations. This complex issue is simplified in the paper by breaking it down into a series of practical questions about who does what at what levels of a health system. Available at: [http://www.who.int/healthsystems/service\\_delivery\\_techbrief1.pdf](http://www.who.int/healthsystems/service_delivery_techbrief1.pdf)
157. **WHO IMAI/IMCI/IMPAC tools (website).** WHO. English.  
This family of tools supports the scale up of PMTCT services and the recommendation for comprehensive, family-based care. It points out that HIV care and treatment services need to be decentralized to and well-integrated within primary facilities. The tools support decentralization of services to primary care facilities where the majority of services are accessed, and supports task-shifting and health-care worker education, as well as increased patient self-management. Available at: <http://www.who.int/hiv/topics/capacity/>  
[http://www.who.int/hiv/pub/imai/imai\\_publication\\_diagram.pdf](http://www.who.int/hiv/pub/imai/imai_publication_diagram.pdf)
158. **Interim policy on collaborative TB/HIV activities.** (2004) WHO. English, French, Russian, Spanish.  
Type of document: HIV treatment and care. The interim policy on collaborative TB/HIV activities provides the type of activities and the circumstances in which they need to be implemented. The Global TB/HIV Working Group has been forging a collaboration between the HIV/AIDS and TB control programmes, nurturing the evidence-base and promoting experience sharing for providing optimal patient-centred prevention and care for HIV-infected TB patients. Available at: English: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_eng.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_eng.pdf)

- French: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_fre.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_fre.pdf)  
 Spanish: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_spa.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_spa.pdf)  
 Russian: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.330\\_rus.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.330_rus.pdf)
159. **Ensuring the sexual and reproductive health of people living with HIV. Reproductive Health Matters. Volume 15, Issue 29, Supplement 1 pp. 1-135. May 2007.** (2007) WHO. English.  
 Available at: <http://www.who.int/reproductive-health/hiv/docs.html>
  160. **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 district health facility operations and management, as well as detailed guidance on their design and operation. It is a very useful resource for designers and planners who need to set financing for and oversee infrastructure development. Available at: <http://www.wpro.who.int/NR/rdonlyres/CODAA210-7425-4382-A171-2C0F6F7153F0/DistHealth.pdf>
  161. **Management of resources and support systems: Equipment, vehicles and buildings (web page).** WHO. English.  
 This WHO web page provides access to a wide range of support tools to manage equipment and infrastructure in the health sector. Available at: <http://www.who.int/management/resources/equipment/en/index1.html>
  162. **Preparing for treatment programme (WHO website).** WHO. English.  
 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 the WHO/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 to develop a social movement that engages with and complements the public-health system (community mobilization). Available at: <http://www.who.int/3by5/partners/ptp/en/>
  163. **Missing the target #5: Improving AIDS drug access and advancing health care for all.** I. T. P. C. (ITPC). English.  
 This link provides access to the website of the International Treatment Preparedness Coalition which is a community group that supports scaling up HIV treatment and other HIV services and advocates for universal access to treatment. Its website 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. Available at: <http://www.aidstreatmentaccess.org/>
  164. **Service delivery model on access to care and antiretroviral therapy for people living with HIV/AIDS.** (2004) International Federation of Red Cross and Red Crescent Societies. English.  
 Available at: [http://www.ifrc.org/cgi/pdf\\_pubshealth.pl?service-delivery-en.pdf](http://www.ifrc.org/cgi/pdf_pubshealth.pl?service-delivery-en.pdf)
  165. **Strengthening management in low income countries.** (2005) WHO. English.  
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. Available at: <http://www.who.int/management/general/overall/Strengthening%20Management%20in%20Low-Income%20Countries.pdf>
  166. **Managers taking action based on knowledge and effective use of resources to achieve results (MAKER) (WHO website)** WHO. English.  
 This WHO web page 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. Available at: <http://www.who.int/management/en/>
  167. **Strengthening management capacity in the health sector (website).** WHO. English.  
 This fact sheet summarizes the approaches WHO recommends for building leadership and management capacity at the operational level. It states that achieving both requires a balanced approach covering four interrelated dimensions: number and distribution of managers; managers' competencies; management support systems; and working environment. Available at: <http://www.who.int/management/strengthen/en/index.html>
  168. **Standards for quality HIV care: a tool for quality assessment, improvement, and accreditation.** (2004) WHO. English, French.  
Type of document: Monitoring, evaluation and quality assurance. Target audience: Programme managers. Implementation focus: National.  
 The publication offers proposed standards for WHO Member States and their authorizing bodies to develop their own framework of accreditation as a guiding principle. The goal is to improve the quality of HIV care at all levels of health care facilities in the country; with a special focus on antiretroviral therapy. Available at: English: <http://whqlibdoc.who.int/hq/2004/9241592559.pdf>  
 French: [http://www.who.int/entity/hiv/pub/prev\\_care/standardsquality\\_fr.pdf](http://www.who.int/entity/hiv/pub/prev_care/standardsquality_fr.pdf)
  169. **Guidelines for organising national external quality assessment schemes for HIV serological testing.** (1996) WHO. English.  
Type of document: Evidence, policy and advocacy. Target audience: Laboratory managers, laboratory personnel, researchers. Implementation focus: National, district.  
 This publication covers external quality assessment schemes (EQAS) that aim to analyse the accuracy of the entire testing process from receipt and testing of a sample, to reporting results (also known as proficiency testing). The publication states the principles and WHO recommendations to achieve testing process accuracy. Available at: [http://www.who.int/diagnostics\\_laboratory/quality/en/EQAS96.pdf](http://www.who.int/diagnostics_laboratory/quality/en/EQAS96.pdf)
  170. **Guidelines on establishment of accreditation of health laboratories.** (2007) WHO-SEARO. English.  
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 also provides guidance on how to undertake the accreditation of laboratory services. Available at: [http://www.searo.who.int/LinkFiles/Publications\\_SEA-HLM-394.pdf](http://www.searo.who.int/LinkFiles/Publications_SEA-HLM-394.pdf)
  171. **Tools for planning and developing human resources for HIV/AIDS and other health services.** (2006) WHO and MSH. English.  
Type of document: Operational guidelines. Target audience: Programme managers, programme planners, Policy-makers. Implementation focus: Global, regional, national, district.

This manual provides useful information on forecasting human resources needs to adequately train and supply a sufficiently large workforce. Among other things, it covers: an analytical framework and method to update health workforce policy; rapid assessment of human resource management needs; the impact of HIV and AIDS on human resources; as well as a model for estimating workforce needs for antiretroviral therapy; and other priority health services. A spreadsheet application helps to estimate the size of the necessary health workforce. Available at: [http://www.who.int/hrh/tools/tools\\_planning\\_hr\\_hiv-aids.pdf](http://www.who.int/hrh/tools/tools_planning_hr_hiv-aids.pdf)

172. **Joint ILO/WHO guidelines on health services and HIV/AIDS.** (2005) WHO and ILO. Arabic, Chinese, English, French, Spanish, Russian, Indonesian, Vietnamese.  
Type of document: Operational guidelines; programme planning and management. Target audience: Programme managers, policy-makers. Implementation focus: National, district, facility.  
This WHO and ILO operational guidance is aimed at assisting health services in building their capacity to provide their workers with a safe, healthy and decent working environment. This is seen as the most effective way to reduce transmission of HIV and other blood-borne pathogens, and to improve the delivery of care to patients. Available at: English: [http://whqlibdoc.who.int/publications/2005/9221175537\\_eng.pdf](http://whqlibdoc.who.int/publications/2005/9221175537_eng.pdf)  
French: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_ilo\\_guidelines\\_fr.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_ilo_guidelines_fr.pdf)  
Spanish: [http://www.who.int/entity/hiv/pub/prev\\_care/who\\_iloguidelines\\_sp.pdf](http://www.who.int/entity/hiv/pub/prev_care/who_iloguidelines_sp.pdf)  
Russian: [http://www.who.int/entity/hiv/pub/guidelines/lowhogoilguidelines\\_ru.pdf](http://www.who.int/entity/hiv/pub/guidelines/lowhogoilguidelines_ru.pdf)  
Arabic: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_arabic.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_arabic.pdf)  
Chinese: <http://www.who.int/entity/hiv/pub/guidelines/lowhogoilguidelineschinese-pdf.pdf>  
Indonesian: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_indonesian.pdf](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_indonesian.pdf)  
Vietnamese: [http://www.who.int/entity/hiv/pub/guidelines/who\\_ilo\\_guidelines\\_vietnamese.PDF](http://www.who.int/entity/hiv/pub/guidelines/who_ilo_guidelines_vietnamese.PDF)
173. **Task-shifting: Treat, train and retain, global recommendations and guidelines.** (2008) WHO. English.  
Type of document: Evidence, policy and advocacy. Target audience: Policy-makers, programme managers, programme planners. Implementation focus: Global.  
This publication covers WHO's recommendations on task-shifting as part of a solution to the global health workforce crisis within the response to HIV/AIDS. Available at: <http://www.who.int/healthsystems/TTR-TaskShifting.pdf>
174. **IMAI-IMCI task-shifting implementation support brochure.** (2008) WHO. English.  
Available at: [http://www.who.int/hiv/pub/imai/IMAI\\_IMCI\\_taskshifting\\_brochure.pdf](http://www.who.int/hiv/pub/imai/IMAI_IMCI_taskshifting_brochure.pdf)
175. **AIDS medicines and diagnostics service (AMDS) website.** WHO. English.  
This website is the main WHO gateway to the policies, information and tools developed to support access to medicines and commodities for HIV, including those for opoid substitution therapy. AMDS also operates a clearing house that collects and disseminates strategic information through a Global Price Reporting Mechanism (GPRM). A regulatory status database is available, and ARV forecasting is integrated in this website or is available through a dedicated website for PSM tools. Available at: <http://www.who.int/hiv/amds/>
176. **Essential medicines and pharmaceutical policies (EMP) (WHO website).** WHO. English.  
This website of WHO's Medicines Policy and Standards, Technical Cooperation for Essential Drugs and Traditional Medicine departments provides access to policy, technical and normative guidance and advocacy documents in the field of access to medicines. WHO's goal is to help save lives and improve health by ensuring their quality, efficacy, safety and rational use, including for traditional medicines. Available at: <http://www.who.int/medicines/en/>
177. **AIDS medicines and diagnostics service (AMDS): Treat 3 Million by 2005 Initiative technical briefs.** (2003) WHO. English.  
Available at: [http://whqlibdoc.who.int/hq/2003/WHO\\_HIV\\_2003.21.pdf](http://whqlibdoc.who.int/hq/2003/WHO_HIV_2003.21.pdf)
178. **Global price reporting mechanism (GPRM).** WHO. English.  
Type of document: Programme planning and management. Target audience: Programme managers, policy-makers. Implementation focus: National.  
GPRM is a web-based price monitoring tool that screens and shares prices for ARV drugs. This helps HIV/AIDS treatment programmes in countries compare and choose optimal pricing for procuring HIV drugs. Currently, the GPRM offers prices of ARVs purchased and supplied by various procuring agencies for different countries, based on information from UNICEF, the International Dispensary Association (IDA) and the Global Fund (GFATM). Available at: <http://www.who.int/hiv/amds/gprm/en/index.html>
179. **A 'step-by-step' algorithm for the procurement of controlled substances for drug substitution treatment.** (2007) UNODC, WHO and UNAIDS. English.  
Available at: <http://www.unodc.un.or.th/drugsandhiv/publications/2007/Step-by-Step.pdf>
180. **Access to controlled medications programme: Framework.** (2007) WHO. English.  
Available at: [http://www.who.int/medicines/areas/quality\\_safety/Framework\\_ACMP\\_withcover.pdf](http://www.who.int/medicines/areas/quality_safety/Framework_ACMP_withcover.pdf)
181. **Costing guidelines for HIV/AIDS intervention strategies.** (2004) UNAIDS and ADB. English.  
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 in costing selected HIV/AIDS interventions to planners and programme managers at country level. It provides a scheme for Rapid Costing Assessments (RCAs) including a spreadsheet (INPUT) for generating local data on unit costs. Available at: [http://data.unaids.org/publications/IRC-pub06/JC997-Costing-Guidelines\\_en.pdf](http://data.unaids.org/publications/IRC-pub06/JC997-Costing-Guidelines_en.pdf)
182. **Achieving universal health coverage: developing the health financing system.** (2005) WHO. English.  
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 roles of prepayment and reduced reliance on out-of-pocket payments and user fees are discussed. Available at: [http://www.who.int/health\\_financing/documents/pb\\_e\\_05\\_1-universal\\_coverage.pdf](http://www.who.int/health_financing/documents/pb_e_05_1-universal_coverage.pdf)
183. **Health financing policy (WHO website).** WHO. English.



- This website provides access to policy guidance and tools for financing health-sector work. Among other topics, documents cover functions of health financing, dealing with catastrophic expenditures and organizational options for health financing mechanisms. Available at: [http://www.who.int/health\\_financing/en/](http://www.who.int/health_financing/en/)
184. **WHO discussion paper: The practice of charging user fees at the point of service delivery for HIV/AIDS treatment and care.** (2005) WHO. English.  
**Type of document:** Evidence, policy and advocacy; programme planning and management. **Target audience:** Programme managers, policy-makers. **Implementation focus:** National, district.  
 This evidence and policy paper covers the practice 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. Available at: <http://www.who.int/hiv/pub/advocacy/promotingfreeaccess.pdf>
  185. **The Global Fund country coordinating mechanisms (CCMs) website.** TGF. English.  
 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, nongovernmental organizations, academic institutions, private businesses, and people living with the diseases. The Fund's website offers guidance on its operation. Available at: <http://www.theglobalfund.org/en/apply/mechanisms/>
  186. **'Three ones' key principles: Coordination of national responses to HIV/AIDS: Guiding principles for national authorities and their partners.** (2004) UNAIDS. English.  
**Type of document:** Normative guidelines; programme planning and management; monitoring, evaluation and quality assurance. **Target audience:** Policy-makers, programme managers, programme planners. **Implementation focus:** Global, regional, national.  
 This policy note states that there has been a marked shift in the global response to the complex AIDS crisis, adding that national responses are broader and stronger and have improved access to financial resources and commodities. It provides details on the "Three Ones" principle that aims to achieve the most effective and efficient use of resources, and to ensure rapid action and results-based management. The principle includes: One agreed HIV/AIDS Action Framework that provides the basis for coordinating the work of all partners. One National AIDS Coordinating Authority with a broad-based multisectoral mandate. One agreed country-level Monitoring and Evaluation System. Available at: [http://data.unaids.org/UNA-docs/Three-Ones\\_KeyPrinciples\\_en.pdf](http://data.unaids.org/UNA-docs/Three-Ones_KeyPrinciples_en.pdf)
  187. **WHO's global health sector strategy for HIV/AIDS 2003-2007.** WHO. English.  
 This guideline defines health sector's role within a multi-sectoral HIV response, and provides a checklist for what leaders might wish to achieve with their efforts. Available at: [http://www.who.int/hiv/pub/advocacy/GHSS\\_E.pdf](http://www.who.int/hiv/pub/advocacy/GHSS_E.pdf)
  188. **International guidelines on HIV/AIDS and human rights: 2006 consolidated version.** (2006) UNAIDS and UNHCR. English.  
**Type of document:** Evidence, policy and advocacy; normative guidelines. **Target audience:** Policy-makers, programme managers and programme planners. **Implementation focus:** Global, regional, national.  
 These guidelines provide technical guidance on putting into operation a rights-based approach to HIV/AIDS. Available at: [http://whqlibdoc.who.int/unaid/2006/9211541689\\_eng.pdf](http://whqlibdoc.who.int/unaid/2006/9211541689_eng.pdf)
  189. **Ensuring equitable access to antiretroviral treatment for women: WHO/UNAIDS policy statement.** (2004) WHO and UNAIDS. English.  
**Type of document:** Evidence, policy and advocacy. **Target audience:** Policy-makers, programme managers. **Implementation focus:** Global, national.  
 This WHO/UNAIDS policy statement covers equitable access for women in the context of the health sector. Available at: [http://www.who.int/hiv/pub/advocacy/en/policy%20statement\\_gwh.pdf](http://www.who.int/hiv/pub/advocacy/en/policy%20statement_gwh.pdf)
  190. **The Sydney Declaration: good research drives good policy and programming - a call to scale up research.** (2007) I. A. Society. English.  
 Available at: <http://www.iasociety.org/Default.aspx?pagelid=63>
  191. **The greater involvement of people living with HIV (GIPA): UNAIDS policy brief.** (2007) UNAIDS. English.  
**Type of document:** Evidence, policy and 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.  
 This UNAIDS publication 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 epidemic. It sets out the GIPA Principle which 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. Available at: [http://data.unaids.org/pub/BriefingNote/2007/JC1299\\_Policy\\_Brief\\_GIPA.pdf](http://data.unaids.org/pub/BriefingNote/2007/JC1299_Policy_Brief_GIPA.pdf)
  192. **IMAI expert patient-trainer curriculum.** (2008-2006) WHO. English.  
**Type of document:** Operational guidelines: capacity building. **Target audience:** PLHIV and trainers. **Implementation focus:** National, district, facility.  
 The manual provides PLHIV who are on ART and are experts in their own illness with the capacity to help train health workers. These PLHIV are trained in the general principles of good chronic care, the five 'As', good communication skills, HIV clinical staging, and how to portray specific cases (similar to their own life experiences). These Expert Patient Trainers (EPTs) 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 EPTs 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 check lists are included to use when EPTs contribute to IMAI training courses.  
 Access to the current draft version is via the IMAI SharePoint website, by sending an email to imaimail@who.int. Available at: <http://www.who.int/hiv/capacity/IMAISHAREPOINT/en>
  193. **WHO's stakeholder analysis tool** WHO. English.  
**Type of document:** Evidence, policy and advocacy. **Target audience:** Trainers. **Implementation focus:** National, district.  
 This set of PowerPoint slides covers the basics of stakeholder analysis, and is designed to elicit rapid action in emergency situations. Available at: <http://www.who.int/hac/techguidance/training/stakeholder%20analysis%20ppt.pdf>

194. **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 offers practical guidance to people who wish to collaborate with faith-based organizations on joint projects related to HIV and AIDS. Available at: <http://www.e-alliance.ch/media/media-6695.pdf>
195. **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 publication identifies three strategies to strengthen the interface between health services and communities in HIV/AIDS work, including strengthening the: capacity of the health -care system to interact with communities; capacity of communities to interact with health services; and processes and methodologies for change. Within these categories several mechanisms are identified that could enhance the interface between health services and communities. Available at: [http://www.who.int/hiv/pub/prev\\_care/en/37564\\_OMS\\_interieur.pdf](http://www.who.int/hiv/pub/prev_care/en/37564_OMS_interieur.pdf)
196. **Working with civil society (UNAIDS website).** UNAIDS. English.  
 Available at: <http://www.unaids.org/en/Partnerships/Civil+society/default.asp>
197. **Universal access targets and civil society organizations: a briefing for civil society organizations.** (2006) UNAIDS. English.  
 Available at: [http://www.unaids.org/unaids\\_resources/images/Partnerships/061126\\_CSTargetsetting\\_en.pdf](http://www.unaids.org/unaids_resources/images/Partnerships/061126_CSTargetsetting_en.pdf)
198. **Reducing HIV stigma and discrimination: a critical part of national AIDS programmes.** (2007) UNAIDS. English.  
 Available at: [http://data.unaids.org/pub/Report/2008/jc1420-stigmadiscriimi\\_en.pdf](http://data.unaids.org/pub/Report/2008/jc1420-stigmadiscriimi_en.pdf)
199. **Integrating gender into HIV/AIDS programmes: A review paper.** (2003) WHO. English.  
 Available at: [http://www.who.int/hiv/pub/prev\\_care/en/IntegratingGender.pdf](http://www.who.int/hiv/pub/prev_care/en/IntegratingGender.pdf)  
 Webpage: [http://www.who.int/gender/hiv\\_aids/en/](http://www.who.int/gender/hiv_aids/en/)
200. **Integrating gender into HIV/AIDS programmes in the health sector: operational tool to improve responsiveness to women's needs.** (2009) WHO. English.  
 This publication is a practical tool to deliver gender-responsive programmes that will help programme managers and health care providers who offer HIV testing and counselling, PMTCT, HIV treatment and care, and home-based care. Available at: Forthcoming in 2009
201. **Addressing violence against women and HIV testing and counselling: a meeting report.** (2006) WHO. English.  
 Available at: [http://www.who.int/gender/documents/VCT\\_addressing\\_violence.pdf](http://www.who.int/gender/documents/VCT_addressing_violence.pdf)
202. **Guidelines on protecting the confidentiality and security of HIV information: Proceedings from a workshop, May 2006. Interim guidelines.** (2006) UNAIDS. English.  
 Available at: [http://data.unaids.org/pub/manual/2007/confidentiality\\_security\\_interim\\_guidelines\\_15may2007\\_en.pdf](http://data.unaids.org/pub/manual/2007/confidentiality_security_interim_guidelines_15may2007_en.pdf)
203. **Guidelines for measuring national HIV prevalence in population-based surveys.** (2005) WHO and UNAIDS. English.  
Type of document: Normative guidelines. 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 publication also provides guidelines on how to analyse and reconcile national population-based survey results with those obtained from sentinel surveillance, in order to produce an estimate of HIV prevalence in a country. Available at: <http://www.who.int/hiv/pub/surveillance/guidelinesmeasuringpopulation.pdf>
204. **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) WHO, UNAIDS and Family Health International. English.  
Type of document: Normative guidelines. Target audience: Programme managers, researchers. Implementation focus: National (country programme level).  
 This publication describes how 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. It 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 and both behavioural and sexually transmitted infection (STI) surveys. Available at: <http://www.who.int/hiv/pub/surveillance/psaguidelines.pdf>
205. **Guidelines for HIV surveillance among tuberculosis patients. Second edition.** (2004) WHO. English, French, Russian, French.  
Type of document: Normative guidelines. Target audience: Programme managers, researchers. Implementation focus: National (country programme level).  
 As the HIV epidemic continues to fuel the global TB epidemic, these guidelines describe how surveillance of HIV among TB patients is being increasingly recognized as crucial. Their main objective is to provide a framework for the methods to be used for measuring HIV prevalence among tuberculosis patients and to encourage implementation of HIV surveillance. Available at: English: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.339.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.339.pdf)  
 French: [http://whqlibdoc.who.int/hq/2005/WHO\\_HTM\\_TB\\_2004.339\\_fre.pdf](http://whqlibdoc.who.int/hq/2005/WHO_HTM_TB_2004.339_fre.pdf)  
 Spanish: [http://whqlibdoc.who.int/hq/2004/OMS\\_HTM\\_TUB\\_2004.339\\_spa.pdf](http://whqlibdoc.who.int/hq/2004/OMS_HTM_TUB_2004.339_spa.pdf)  
 Russian: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.339\\_rus.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.339_rus.pdf)
206. **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 (country programme level).

This publication addresses the question of using data collected through second-generation HIV surveillance systems. It discusses three areas of data use: programme planning, programme monitoring, and evaluation and advocacy. It also offers examples of how data can be used effectively in these contexts. Available at: English: <http://www.who.int/hiv/strategic/surveillance/en/useofdata.pdf>  
Spanish: [http://www.who.int/hiv/pub/surveillance/useofdata\\_sp.pdf](http://www.who.int/hiv/pub/surveillance/useofdata_sp.pdf)

207. **Guidelines for conducting HIV sentinel serosurveys among pregnant women and other groups.** (2003) WHO and UNAIDS. English, French.  
Type of document: Normative guidelines. Target audience: Programme managers, researchers. Implementation focus: National (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. This can help characterize the epidemic and plan the response. Available at: English: <http://www.who.int/hiv/pub/surveillance/en/ancguidelines.pdf>  
French: [http://www.who.int/hiv/pub/epidemiology/en/guidelinesforconduction\\_fr.pdf](http://www.who.int/hiv/pub/epidemiology/en/guidelinesforconduction_fr.pdf)
208. **Estimating the size of populations at risk for HIV: Issues and methods.** (2003) WHO, UNAIDS, USAID, FHI and UNDCP. English.  
Type of document: Normative guidelines. Target audience: Programme managers; Researchers. Implementation focus: National (country programme level).  
This document presents the major methods available for estimating the size of populations at high risk for HIV, and outlines the strengths and weaknesses of each method. It also explores how best to choose the right method for a given country situation and sub-population. Available at: <http://www.who.int/hiv/pub/surveillance/en/EstimatingSizePop.pdf>
209. **Guidelines for using HIV testing technologies in surveillance: selection, evaluation and implementation.** (2001) WHO, UNAIDS, USAID and CDC. English.  
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. They provide recommendations for specimen selection, collection, storage, and testing; and for selecting and evaluating appropriate HIV testing strategies and technologies to meet surveillance objectives, as well as issues of quality assurance. Available at: [http://www.who.int/hiv/pub/surveillance/en/guidelinesforUsingHIVTestingTechs\\_E.pdf](http://www.who.int/hiv/pub/surveillance/en/guidelinesforUsingHIVTestingTechs_E.pdf)
210. **HIV surveillance training modules, WHO Regional Office for South-East Asia.** (2007) WHO-SEARO. Available at: Module 1: Overview of the HIV epidemic with an introduction to public health surveillance  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-1.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-1.pdf)  
Module 2: HIV clinical staging and case reporting  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-2.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-2.pdf)  
Module 3: HIV Serosurveillance  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-3.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-3.pdf)  
Module 4: Surveillance for sexually transmitted infections  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-4.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-4.pdf)  
Module 5: Surveillance of HIV risk behaviours  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-5.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-5.pdf)  
Module 6: Surveillance of populations at high risk for HIV transmission  
[http://www.searo.who.int/LinkFiles/Publications\\_Module-6.pdf](http://www.searo.who.int/LinkFiles/Publications_Module-6.pdf)  
Facilitator training guide for HIV surveillance  
[http://www.searo.who.int/LinkFiles/Publications\\_facilitator.pdf](http://www.searo.who.int/LinkFiles/Publications_facilitator.pdf)
211. **National guide to monitoring and evaluating programmes for the prevention of HIV in infants and young children.** (2004) WHO, UNAIDS, UNICEF, UNFPA, USAID and CDC. English.  
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 monitoring and evaluating programmes for preventing HIV infection in infants and young children. It also includes recommended indicators to monitor national programmes to prevent mother-to-child transmission of HIV. Available at: <http://whqlibdoc.who.int/publications/2004/9241591846.pdf>
212. **National AIDS programmes: A guide to indicators for monitoring and evaluating national HIV/AIDS prevention programmes for young people.** (2004) WHO, UNAIDS, UNICEF, UNFPA, UNESCO, USAID, CDC and Measure DHS. English, French, Spanish, Russian.  
Type of document: Strategic information. Target audience: Programme managers, programme planners, policy-makers, researchers, implementers. Implementation focus: Global, national.  
This publication provides guidance on monitoring and evaluating national policies and programmes on HIV prevention among young people. It presents programmatic indicators, as well as measures of the determinants (risk and protective factors) that influence the vulnerability and risk behaviours of young people. Available at: English: <http://www.who.int/hiv/pub/epidemiology/nayoungpeople.pdf>  
French: [http://www.who.int/hiv/pub/me/nayoungpeople\\_fr.pdf](http://www.who.int/hiv/pub/me/nayoungpeople_fr.pdf)  
Spanish: [http://www.who.int/hiv/pub/me/nayoungpeople\\_sp.pdf](http://www.who.int/hiv/pub/me/nayoungpeople_sp.pdf)  
Russian: [http://www.who.int/hiv/pub/me/nayoungpeople\\_ru.pdf](http://www.who.int/hiv/pub/me/nayoungpeople_ru.pdf)
213. **National AIDS programmes: A guide to indicators for monitoring national antiretroviral programmes.** (2005) WHO, UNAIDS, USAID, GFATM and Measure DHS. English, French, Spanish.  
Type of document: Monitoring, evaluation and quality assurance. Implementation focus: Programme managers, programme planners, policy makers, researchers, implementers.  
This document provides guidance for monitoring and evaluating national antiretroviral therapy programmes as they expand towards the goal of universal access. Available at: English: <http://www.who.int/hiv/pub/me/naparv.pdf>  
French: <http://www.who.int/hiv/strategic/me/naparvfr.pdf>  
Spanish: [http://www.who.int/hiv/pub/me/naparv\\_sp.pdf](http://www.who.int/hiv/pub/me/naparv_sp.pdf)
214. **A guide to monitoring and evaluation for collaborative TB/HIV activities: Field test version.** (2004) WHO. English, Russian.

- Type of document: Monitoring, evaluation and quality assurance. Target audience: Policy-makers, programme managers. Implementation focus: National.
- This guide has been developed to assist in managing TB and HIV/AIDS programmes that are implementing or planning to implement collaborative TB/HIV activities. It will facilitate collection of standardized data, and help in interpreting and disseminating data for programme improvement. Available at: English: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.342.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.342.pdf)  
Russian: [http://whqlibdoc.who.int/hq/2004/WHO\\_HTM\\_TB\\_2004.342\\_rus.pdf](http://whqlibdoc.who.int/hq/2004/WHO_HTM_TB_2004.342_rus.pdf)
215. **Core indicators for national AIDS programmes: Guidance and specifications for additional recommended indicators.** (2009) WHO. English.  
Available at: Forthcoming in 2009
216. **Global framework for monitoring and reporting on the health sector's response towards universal access to HIV/AIDS treatment, prevention, care and support.** (2007) WHO. English.  
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 worldwide monitoring and reporting on the health sector's response to HIV/AIDS. It brings together a broad range of recommended national-level indicators that are aligned with other related international monitoring and reporting processes. Available at: [http://www.who.int/hiv/universalaccess2010/UAframework\\_Final%202Nov.pdf](http://www.who.int/hiv/universalaccess2010/UAframework_Final%202Nov.pdf)
217. **Monitoring the declaration of commitment on HIV/AIDS: Guidelines on construction of core indicators.** (2007) UNAIDS. English.  
Type of document: HIV surveillance. Available at: [http://data.unaids.org/pub/Manual/2007/20070411\\_ungass\\_core\\_indicators\\_manual\\_en.pdf](http://data.unaids.org/pub/Manual/2007/20070411_ungass_core_indicators_manual_en.pdf)
218. **Patient monitoring guidelines for HIV care and antiretroviral therapy.** (2006) WHO, UNAIDS and USAID. English.  
Type of document: Monitoring, evaluation and quality assurance; operational guidelines. Target audience: Programme managers, programme planners, district management team, policy-makers, researchers, implementers. Implementation focus: National, district, facility.  
This document provides guidance for developing 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, describes 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. The comprehensive set of tools supports both patient and programme management through the routine collection, compilation and analysis of data on HIV patients over time and across service delivery points. Information is summarized on an HIV care/ART facility-held patient card, then transferred to chronic care registers (pre-ART and ART registers), and analysed and reported using standardized cross-sectional and cohort reports. The tools support both partially or fully electronic systems, and WHO has developed a simple electronic tool to facilitate aggregating the reports in HealthMapper. These tools include normative guidelines, standard essential data set and definitions, illustrative forms (for country adaptation); training courses for health workers and data clerks at the facility or on the district management team. Available at: <http://www.who.int/hiv/pub/ptmonguidelines.pdf>  
Note that new guidelines are currently in draft form at the following web link: [http://www.who.int/hiv/pub/imai/pmg\\_form\\_13aug.pdf](http://www.who.int/hiv/pub/imai/pmg_form_13aug.pdf)  
Training materials: <http://www.who.int/hiv/capacity/IMAISharepoint/en>
219. **HIV drug resistance (WHO webpage).** WHO. English.  
Available at: <http://www.who.int/hiv/drugresistance/>
220. **Pharmacovigilance for antiretrovirals in resource-poor countries.** (2007) WHO. English.  
Type of document: Operational guidelines. Target audience: Policy-makers, programme managers. Implementation focus: National.  
This document describes methods of pharmacovigilance monitoring that are likely to meet the specific needs of an ARV adverse event monitoring programme in resource-constrained settings. Available at: [http://www.who.int/medicines/areas/quality\\_safety/safety\\_efficacy/PhV\\_for\\_antiretrovirals.pdf](http://www.who.int/medicines/areas/quality_safety/safety_efficacy/PhV_for_antiretrovirals.pdf)
221. **Guide to operational research in programs supported by the Global Fund.** (2007) WHO and GFATM. English.  
Type of document: Monitoring, evaluation and quality assurance. Target audience: Programme managers, programme planners, policy-makers, researchers. Implementation focus: National.  
This document describes the value of, and approaches to operational research in the context of Global Fund-supported programmes, including a description of the process and practical examples. Available at: [http://www.who.int/hiv/pub/epidemiology/SIR\\_operational\\_research\\_brochure.pdf](http://www.who.int/hiv/pub/epidemiology/SIR_operational_research_brochure.pdf)
222. **Framework for operations and implementation research in health and disease control programmes.** (2007) WHO, GFATM, UNAIDS, USAID, TDR and World Bank. English.  
Type of document: Monitoring, evaluation and quality assurance. Target audience: Programme managers, programme planners, policy-makers, researchers. Implementation focus: National.  
This document was developed by WHO, Global Fund and other partners. It explains the definitions and scope of operational research, describes the steps needed to include operational research in Global Fund grant applications, and provides case studies of operational research activities from the field. Available at: <http://www.theglobalfund.org/documents/me/FrameworkForOperationsResearch.pdf>
223. **HIV testing, treatment, and prevention: generic tools for operational research.** (2009) WHO. English.  
Generic tools to assist data collection on key topics including adherence to ARVs; prevention of transmission by those under treatment; stigma; and testing for HIV. Available at: To be available in 2009 at the following web link: <http://www.who.int/hiv/pub/vct/en/>
224. **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 relation to human resources for health, and to address challenges to be faced in scaling up health interventions. Available at: [http://www.who.int/hrh/tools/en/Rapid\\_Assessment\\_guide.pdf](http://www.who.int/hrh/tools/en/Rapid_Assessment_guide.pdf)

225. **Rapid assessment and response: Adaptation guide for work with especially vulnerable young people (EVYP- RAR).** (2004) WHO. English.  
**Type of document:** Normative guidelines. **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. It emphasizes working with young people who may be especially vulnerable. The document provides specific information on vulnerable young groups, the types of questions that could be asked when conducting an initial assessment, and issues that may arise in working with these populations. Available at: [http://www.who.int/hiv/pub/prev\\_care/en/youngpeople/rar.pdf](http://www.who.int/hiv/pub/prev_care/en/youngpeople/rar.pdf)
226. **Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (IDUs).** (2007) WHO, UNODC and UNAIDS. English.  
**Type of document:** Monitoring, evaluation and quality assurance. **Target audience:** Programme managers, programme planners, policy  
**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. 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 to monitor and evaluate HIV interventions for IDUs. It includes examples of data sources and indicative targets. Available at: <http://www.who.int/hiv/du/TechnicalGuideTargetSettingApril08.pdf>
227. **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 offers operational guidance to countries to set targets for scaling up towards universal access to prevention, treatment, care and support services. Available at: [http://data.unaids.org/pub/Guidelines/2006/20061006\\_report\\_universal\\_access\\_targets\\_guidelines\\_en.pdf](http://data.unaids.org/pub/Guidelines/2006/20061006_report_universal_access_targets_guidelines_en.pdf)
228. **Considerations for countries to set their own national targets for HIV prevention, treatment and care.** (2006) UNAIDS. English.  
**Type of document:** Normative guidelines. **Target audience:** Programme managers, researchers. **Implementation focus:** National (country programme level).  
 This publication describes the key considerations for countries to set their own national targets for HIV prevention, treatment and care. It provides guidance to help countries define and prioritize their efforts in order to come as close as possible to universal access by 2010. Available at: [http://data.unaids.org/pub/Report/2006/Considerations\\_for\\_target\\_setting\\_April2006.pdf](http://data.unaids.org/pub/Report/2006/Considerations_for_target_setting_April2006.pdf)  
 Addendum: [http://data.unaids.org/pub/Guidelines/2006/20061006\\_report\\_universal\\_access\\_targets\\_guidelines\\_en.pdf](http://data.unaids.org/pub/Guidelines/2006/20061006_report_universal_access_targets_guidelines_en.pdf)
229. **Routine data quality audit tool (RDQA): Guidelines for implementation GFATM, WHO and partners (Draft July 2008).** (2008) WHO, TGF, UNAIDS and USAID. English.  
 Available at: <http://www.cpc.unc.edu/measure/tools/monitoring-evaluation-systems/data-quality-assurance-tools/RDQA%20Guidelines-Draft%207.30.08.pdf>
230. **Guidelines for conducting a review of the health sector response to HIV/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's AIDS response. The guidelines will help review teams to carry out the different components of a programme review. They can be used as a stand-alone instrument to evaluate or review the health sector in particular, or for broader multisectoral reviews. Available at: [http://www.searo.who.int/LinkFiles/Publications\\_HealthSectorResponse-AIDS-2008.pdf](http://www.searo.who.int/LinkFiles/Publications_HealthSectorResponse-AIDS-2008.pdf)
231. **The Global Fund strategic approach to health systems strengthening: Report from WHO to the Global Fund secretariat.** (2007) WHO and TGF. English.  
**Type of document:** Evidence, policy and advocacy; capacity building; programme planning and management. **Target audience:** Policy-makers. **Implementation focus:** Global.  
 This report outlines strategy options for the Global Fund to Fight AIDS, Tuberculosis and Malaria in the area of health systems strengthening. Available at: [http://www.who.int/healthsystems/GF\\_strategic\\_approach\\_%20HS.pdf](http://www.who.int/healthsystems/GF_strategic_approach_%20HS.pdf)
232. **National AIDS programme management: A set of training modules.** (2007) WHO-SEARO. English.  
**Target audience:** Programme managers. **Implementation focus:** National.  
 These revised AIDS programme management modules take into account the current epidemiology of HIV and sexually transmitted infections (STIs), effective interventions, and 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 this training course is to strengthen the management of national AIDS programmes. It does so by presenting a systematic process for developing and managing comprehensive national AIDS prevention and care programmes, and providing an opportunity to enhance the knowledge and practice skills needed to implement it. Available at: [http://www.searo.who.int/en/Section10/Section18/Section356\\_13495.htm](http://www.searo.who.int/en/Section10/Section18/Section356_13495.htm)  
 Preliminary pages: [http://www.searo.who.int/LinkFiles/Publications\\_Preliminary\\_pages.pdf](http://www.searo.who.int/LinkFiles/Publications_Preliminary_pages.pdf)  
 Introduction: [http://www.searo.who.int/LinkFiles/Publications\\_Introduction.pdf](http://www.searo.who.int/LinkFiles/Publications_Introduction.pdf)  
 Module 1 – Situation analysis: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_1.pdf)  
 Module 2 – Policy and planning: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_2.pdf)  
 Module 3 – Determining programme priorities and approaches: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_3.pdf)  
 Module 4 – Targeted HIV prevention and care interventions: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_4.pdf)  
 Module 5 – Setting coverage targets and choosing key outcome indicators: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_5.pdf)  
 Module 6.1 – Minimizing sexual transmission of HIV and other STIs: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.1.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.1.pdf)  
 Module 6.2 – HIV prevention and care among drug users: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.2.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.2.pdf)  
 Module 6.3 – HIV counseling and testing: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.3.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.3.pdf)  
 Module 6.4 – The continuum of care for people living with HIV/AIDS and access to antiretroviral therapy: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.4.pdf)  
 Module 6.5 – Prevention of mother-to-child transmission: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.5.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.5.pdf)  
 Module 6.6 – Prevention of HIV transmission through blood: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_6.6.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_6.6.pdf)  
 Module 7 – Managing the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module7.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module7.pdf)

Module 8 – Management systems for the AIDS programme: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module8.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module8.pdf)

Module 9 – Strategic information: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module9.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module9.pdf)

233. **IMAI IDU modifications of acute care and chronic HIV care with ART guideline modules and training tools.** (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.  
This publication discusses recently developed modifications of IMAI Acute Care and Chronic HIV Care with ART guidelines modules and training tools. These support an IDU/HIV/primary care "one-stop shop" that could be placed in HIV clinics, detoxification/drug substitution programmes, and closed settings. This approach responds to the needs of IDUs for primary care and for referral to district and tertiary care services for certain conditions. At the same time, it promotes using community and outreach services through establishing a bi-directional link extended to the patient's home.  
Access to the current draft version is via the IMAI SharePoint website, by sending an email to [imaimail@who.int](mailto:imaimail@who.int). Available at: <http://www.who.int/hiv/capacity/IMAIsharepoint/en/>
234. **Scaling-up HIV prevention, care and treatment: Report of a regional meeting. Bangkok, Thailand, 31 October - 2 November 2006.** (2006) WHO-SEARO. English.  
Available at: [http://www.searo.who.int/LinkFiles/Publications\\_scaling-up-HIV200307.pdf](http://www.searo.who.int/LinkFiles/Publications_scaling-up-HIV200307.pdf)
235. **Clinical guidelines for sexual health care of men who have sex with men.** (2006) IUSTI. English.  
Available at: [http://www.iusti.org/sti-information/pdf/IUSTI\\_AP\\_MSM\\_Nov\\_2006.pdf](http://www.iusti.org/sti-information/pdf/IUSTI_AP_MSM_Nov_2006.pdf)
236. **IMAI acute care/opportunistic infection training course.** (2008) WHO. Access to the current draft is via a secure IMAI SharePoint website, by sending an email to [imaimail@who.int](mailto:imaimail@who.int). Available at: <http://www.who.int/hiv/capacity/IMAIsharepoint/en/>
237. **Briefing package: Integrated approach to HIV prevention, care and treatment: Integrated management of Adult Illness (IMAI) and Childhood Illness (IMCI) tools.** (2007) WHO. English.  
This document provides an overview of the strategy, training tools and guidelines within IMAI and IMCI. Available at: <http://www.who.int/hiv/capacity/ImaiBriefingStrategyAug2007Sm.pdf>
238. **HIV prevention, treatment, care and support: a training package of 8 modules for community volunteers.** SAFAIDS, WHO and IFRC. English.  
**Type of document:** Training package for community volunteers: capacity building. **Implementation focus:** Regional, national, district.  
This is a WHO series of eight modules that are aimed at different levels of the district clinical team, and that deal with antiretroviral programmes. The modules make the case that HIV and mental disorders frequently coexist, and that good counselling on adherence is essential for treatment. They cover organization and systems support: basic counselling; psychiatric care; psychotherapeutic interventions. Available at: <http://www.ifrc.org/what/health/tools/hiv-training.asp>  
Facilitators guide: <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Facilitators-guide.pdf>  
Introduction to training <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Intro-to-Training.pdf>  
Module 1: Basic facts on HIV and AIDS <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Module-1.pdf>  
Module 2: Treatment literacy <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Module-2.pdf>  
Module 3: Treatment preparedness <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Module-3.pdf>  
Module 4: Adherence <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Module-4.pdf>  
Module 5: Community-based counselling <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Module-5.pdf>  
Module 6: Nutrition <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Module-6.pdf>  
Module 7: Palliative care - symptom management and end-of-life care <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Module-7.pdf>  
Module 8: Caring for carers <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Module-8.pdf>  
Evaluation tool <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Evaluation-Tool.pdf>  
Participants handbook <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/Participants-handbook-full.pdf>  
Flipchart for client education <http://www.ifrc.org/Docs/pubs/health/hivaid/hiv-training-package/hiv-flipchart1.pdf>