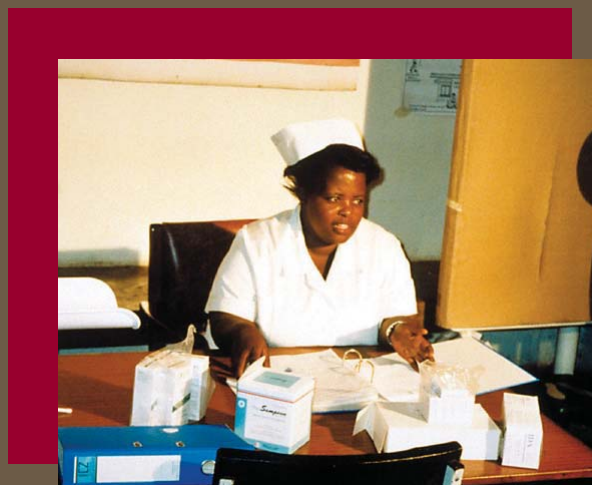


# Zambia

## HIV/AIDS Service Provision Assessment Survey 2005

### Key Findings



This report summarizes the key findings of the 2005 Zambia HIV/AIDS Service Provision Assessment (Zambia HIV/AIDS SPA) Survey carried out by the Zambia Ministry of Health and the Zambia Central Statistical Office. Macro International Inc. provided technical assistance and the U.S. Agency for International Development (USAID) provided funding under the terms of contract number GPO-C-00-03-00002-00. The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID.

Additional information about the 2005 Zambia HIV/AIDS SPA may be obtained from the Zambia Ministry of Health, PO Box 31908, Lusaka, Zambia (Telephone: 260-1-25-1377). Additional information about the MEASURE DHS Project may be obtained from Macro International Inc., MEASURE DHS, 11785 Beltsville Drive, Suite 300, Calverton, Maryland 20705 (Telephone: 301-572-0200 and Fax: 301-572-0999 or email: [reports@orcmacro.com](mailto:reports@orcmacro.com)).

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# THE 2005 ZAMBIA HIV/AIDS SERVICE PROVISION ASSESSMENT

## Introduction

The 2005 Zambia HIV/AIDS Service Provision Assessment (ZHSPA) Survey provides a comprehensive picture of the availability and quality of health services nationwide for people with HIV/AIDS. The survey looked closely at the strengths and weaknesses of facility-based services related to HIV/AIDS, such as voluntary counseling and testing (VCT), preventing mother-to-child-transmission (PMTCT) of HIV, and care and support services (CSS). The primary objectives of the survey were to:

- Provide baseline information on the availability of specific HIV/AIDS services and the extent to which these services are offered;
- Describe how HIV/AIDS services are provided and the quality of standards followed;
- Allow for comparisons at the provincial and national levels, and among different types of facilities;
- Identify gaps in support services, resources, or service provision that may impact the ability of facilities to provide quality services; and
- Provide a baseline measurement of certain international HIV/AIDS indicators for the President's Emergency Plan for AIDS Relief.

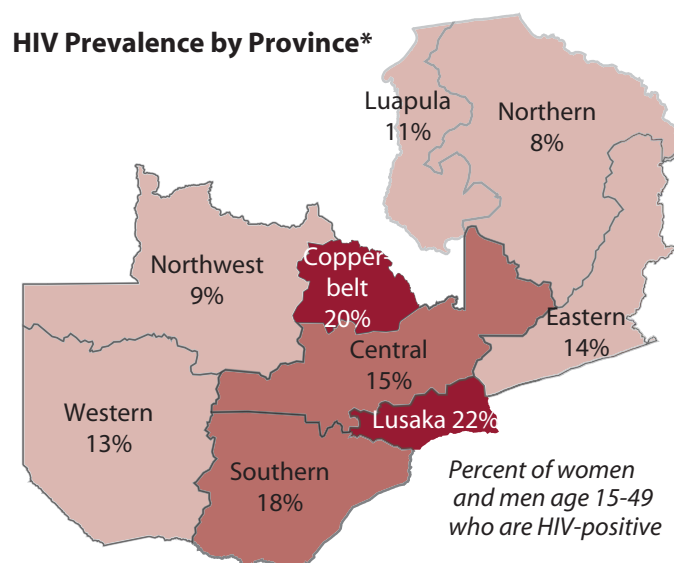
The ZHSPA drew on a nationally representative sample of 430 health care facilities, including hospitals, health centres, clinics, and home-based care facilities. The survey sample covers 306 facilities managed by the Government, including public, military, and prison facilities. An additional 124 facilities are managed by non-governmental organizations (NGOs). The data were weighted during analysis to represent the actual distribution of facilities in the country. Data were collected between July and August 2005.

## HIV/AIDS in Zambia

In 2003, an estimated 920,000 Zambian adults and children were living with HIV/AIDS. There were 89,000 AIDS-related deaths in that year, and more than 630,000 children were considered orphans as a result of one or both of their parents dying from HIV/AIDS (Central Statistic Office 2003).

The national HIV prevalence is 16 percent for women and men age 15 to 49, according to the 2001-02 Zambia Demographic and Health Survey (ZDHS). Women are more likely to be HIV-positive than men (18 percent and 13 percent, respectively).

HIV prevalence is more than twice as high in urban areas than in rural areas. HIV infection is highest among women ages 30 to 34 years and men ages 35 to 39 years. The highest rates are found in densely populated areas, such as Lusaka (22 percent), Copperbelt (20 percent), and Southern (18 percent).



\*Prevalence data from the 2001-02 Zambia Demographic and Health Survey

# AVAILABILITY OF HEALTH CARE IN ZAMBIA

Public health care facilities are found throughout Zambia, with a heavy concentration along the “rail line” that runs south to South Africa and north towards the Democratic Republic of the Congo. These facilities include health posts, health centres, district and first-level referral institutions, general hospitals, and five central hospitals. There are also mine hospitals and clinics in Copperbelt province. Mission hospitals and clinics are commonly located in rural and poorer districts. Ministry of Defense facilities offer services to their staff and relatives, and the private clinics and for-profit hospitals are located primarily in urban areas.

Overall, HIV/AIDS-related services are more available in hospitals and urban health centres than in rural ones. Basic care and support services (CSS) are widely available. Post-exposure prophylaxis and anti-retroviral therapy are among the least available services.

Overview of HIV-Related Health Care Services in Zambia:  
Percent of Facilities Offering Services (N=430)

	Voluntary Counselling and Testing (VCT)	Care and Support Services (CSS)	Anti-Retroviral Therapy (ART)	Preventing Mother-to- Child-Trans- mission (PMTCT)	Post- Exposure Prophylaxis (PEP)	Youth-Friendly VCT/PMTCT Services (YFS)
Central	58	90	9	27	2	14
Copperbelt	60	99	9	23	15	24
Eastern	34	100	5	18	3	8
Luapula	20	96	6	8	5	9
Lusaka	52	93	32	16	27	16
Northern	46	100	3	8	1	32
Northwest	24	95	3	13	2	0
Southern	31	97	5	14	5	7
Western	43	96	4	41	4	12
<b>TOTAL</b>	<b>44</b>	<b>97</b>	<b>10</b>	<b>19</b>	<b>9</b>	<b>15</b>

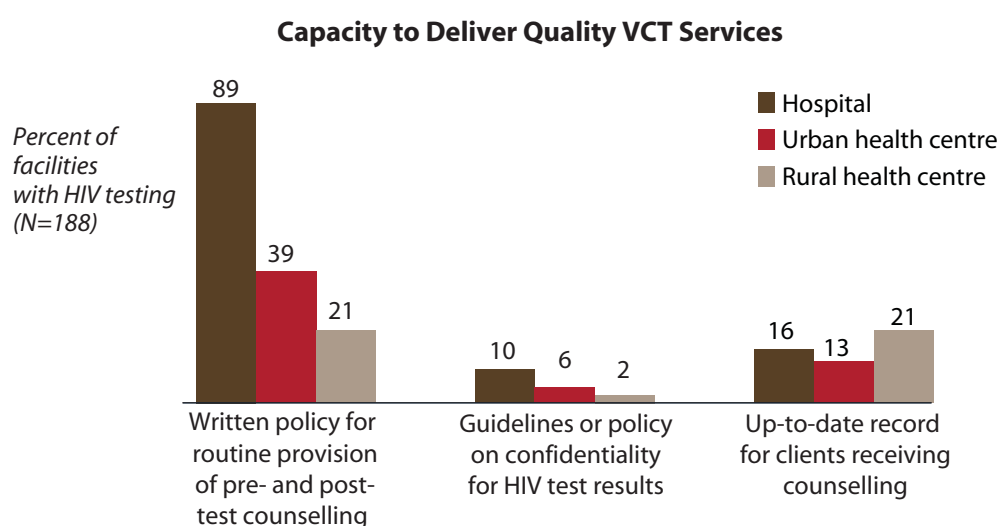
## VOLUNTARY COUNSELLING AND TESTING

The National Voluntary Counselling and Testing (VCT) Programme has established VCT sites in all 72 districts of Zambia. VCT services are most likely to be found in hospitals, urban health centres, and non-government facilities. Generally accepted definitions for VCT include the following key elements:

- Tests will be administered only after clients give their informed consent;
- Testing must be voluntary;
- Clients must be assured that test results are confidential and no one will be given the results without their consent;
- Clients must receive pre-test counselling;
- Both HIV-positive and HIV-negative clients must receive post-test counselling about preventive measures, appropriate treatment, and follow-up; and
- A same-day test result is encouraged.

HIV testing is available in 44 percent of health facilities nationwide. The availability of testing varies from as low as 20 percent in Luapula Province to as high as 60 percent in Copperbelt Province. HIV testing is available in most hospitals (98 percent) and in many urban health centres (88 percent). It is offered in only 25 percent of rural health centres and 41 percent of other types of facilities.

The quality of HIV testing services varies significantly by type of facility and type of service offered. For example, all facilities offering HIV testing (N=188) had at least one trained counselor, but only 21 percent of rural health centres and 39 percent of urban ones have written policies for pre- and post-test counselling. Further, few facilities of any type have confidentiality guidelines or up-to-date client counselling records. Finally, only one-fifth of the facilities offering testing services have a written informed consent policy for HIV testing in all sites.





## HIV CARE AND SUPPORT SERVICES

Care and support services (CSS) include any health services that support and improve the life of an HIV-infected person. Basic CSS are relatively well-developed throughout Zambia. Almost all health care facilities offer some form of CSS, including treatment of common opportunistic infections (OIs) and illnesses commonly associated with HIV infection, such as tuberculosis, sexually transmitted infections, and malaria. Other CSS may include palliative care and social and psychological support services.

More advanced services are also being developed in Zambia. Advanced CSS includes: the capacity of laboratories to diagnose severe OIs; the availability of medications to treat them; antiretroviral therapy; post-exposure prophylaxis; and the availability of services or a formal referral system for psychosocial and socioeconomic care and support.



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## TUBERCULOSIS AND MALARIA

### Tuberculosis

Tuberculosis (TB) is a leading cause of death among people infected with HIV. People with HIV are 50 percent more likely to develop TB in a given year than people without HIV, according to the World Health Organization. More than half of Zambians who have TB are also co-infected with HIV (ZDHS 2001-02).

TB services in Zambia are widely available. Overall, 77 percent of facilities offering any CSS provide either TB diagnosis or treatment services or both. Further, among facilities offering any CSS, almost two-thirds (64 percent) provide directly observed treatment short-course (DOTS), as recommended by the World Health Organization. DOTS helps to ensure that patients take their drugs regularly and complete their treatment. This process helps to cure patients and also helps to prevent the development of drug resistance. First-line TB medicines are available in 79 percent of facilities offering DOTS. The availability of TB treatment and follow-up using DOTS varies widely by province, ranging from a low of 31 percent in Western Province to a high of 99 percent in Eastern Province.

### TB Treatment and/or Follow-up Using DOTS Among Facilities Offering CSS (N=415)

	Any TB diagnostic or treatment services	Report they are part of national DOTS program	Follow DOTS strategy*
Central	82	81	64
Copperbelt	61	58	55
Eastern	99	99	99
Luapula	88	88	88
Lusaka	55	46	37
Northern	91	85	75
Northwest	76	73	72
Southern	79	79	74
Western	99	86	31
<b>TOTAL</b>	<b>77</b>	<b>73</b>	<b>64</b>

\* Treatment strategy followed is either direct observed two months, follow-up six months, or direct observed six months.

### Malaria

Every year, about three million people suffer from malaria and 50,000 people die from it in Zambia. Patients with HIV tend to have more severe forms of malaria. Virtually all facilities offering CSS for HIV/AIDS also provide diagnosis and treatment of malaria.

Overall, treatment guidelines for malaria are available at 61 percent of facilities offering CSS and malaria services. Treatment guidelines are more common in government (79 percent) than non-government facilities (25 percent), and in Western and Northern provinces than in Lusaka Province. Anti-malaria medicines are available in 90 percent of facilities offering CSS for HIV/AIDS and malaria services.

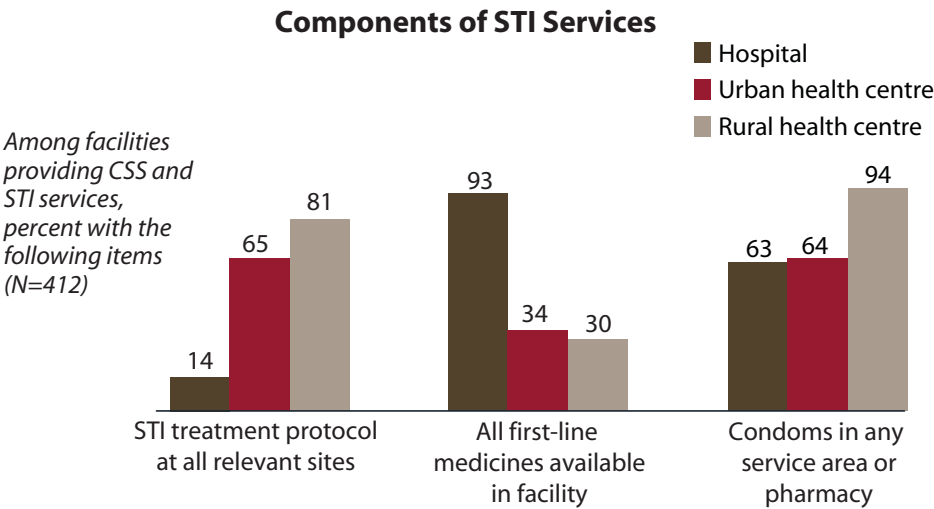
# SEXUALLY TRANSMITTED INFECTIONS

Sexually transmitted infections (STIs) are a known risk factor for contracting HIV. Facilities where STIs are treated are prime locations for the counselling, diagnosis, treatment, and prevention of HIV/AIDS. Almost all facilities that offer CSS for HIV/AIDS provide diagnosis or treatment services for STIs.

Treatment protocols for STIs help ensure that all patients receive appropriate care wherever they seek treatment. STI treatment protocols are more available in government (79 percent) than non-government (25 percent) facilities. Also, health centres are more likely than other types of facilities to have treatment guidelines.

First-line medicines for treating common STIs, such as syphilis and gonorrhoea, are available in 41 percent of facilities offering CSS for HIV/AIDS and STI services. Medicines are more likely to be available in non-government (60 percent) than government (31 percent) facilities.

Condoms are available in 80 percent of facilities. They are more available in rural health centres (94 percent) than in urban health centres (64 percent) or in hospitals (63 percent). Only about one-fifth of the facilities offering CSS and STI services have all three elements for quality STI services: treatment protocols; first-line medicines; and condoms.



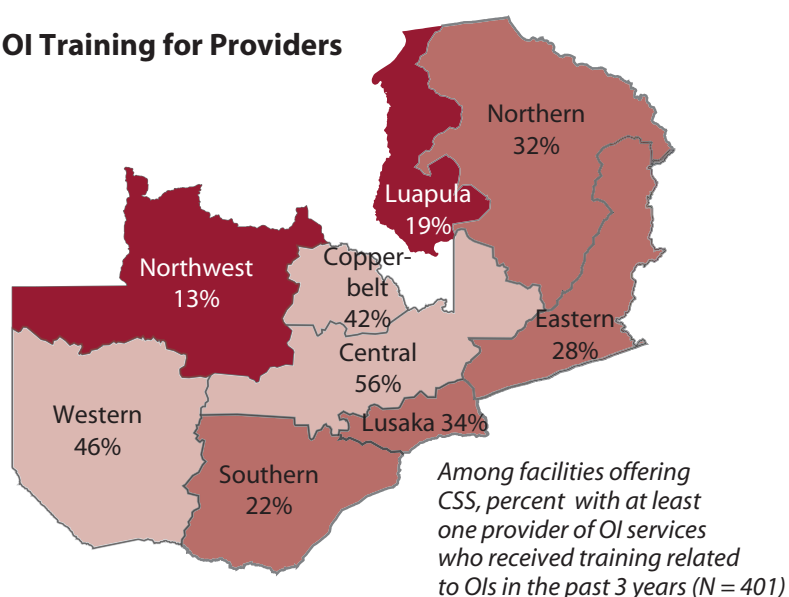


## TREATMENT OF OPPORTUNISTIC INFECTIONS

HIV-infected persons have a high risk of developing opportunistic infections (OIs) as a result of their compromised immune systems. Common OIs include topical fungal infections, chronic diarrhoea, and bacterial pneumonia. Almost all (93 percent) facilities that offer CSS for HIV/AIDS clients provide treatment for OIs. More than 80 percent of the facilities offering treatment for OIs have at least one medicine to treat OIs. Most facilities can also provide basic palliative care for most conditions, except for chronic diarrhoea. In general, hospitals and urban health centres are better supplied with medications than other types of facilities.

However, facilities are much less likely to have protocols for treating OIs. Only 10 percent of health care facilities offering CSS have treatment guidelines for OIs at all treatment sites. Copperbelt (34 percent) and Northwest (16 percent) have the most facilities with protocols. Few providers have been trained to treat OIs. Overall, only about a third (34 percent) of facilities that offer CSS for HIV/AIDS have at least one provider who received OI training in the past three years. Trained providers are least available in rural centres, which also tend to lack treatment guidelines or protocols.

**OI Training for Providers**



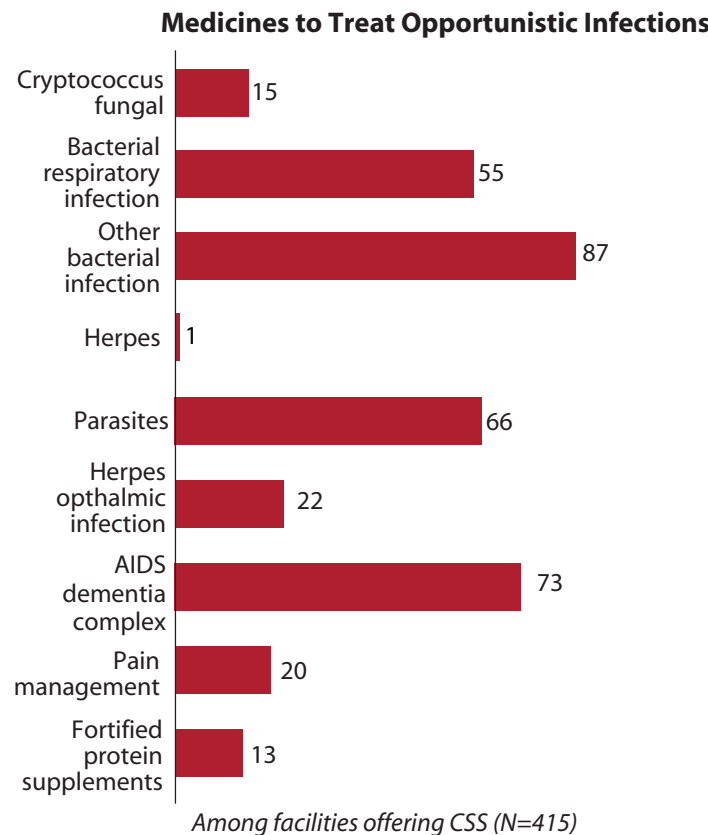
# ADVANCED CLINICAL CARE AND SUPPORT SERVICES

In Zambia, advanced health services for HIV/AIDS are still being developed. These types of services include:

- Capacity of laboratories to diagnose severe OIs and availability of medications to treat them;
- Availability of services or a formal referral system for psychosocial and socioeconomic care and support;
- Antiretroviral therapy (ART); and
- Post-exposure prophylaxis (PEP).

The ZHSPA defines the capacity to provide advanced-level treatment as having: guidelines or protocols for the treatment of common OIs in each service area; at least two of the most common medicines used to treat each infection; at least one trained staff in the facility; and the capacity to diagnose common illnesses related to HIV/AIDS. Laboratory capacity to monitor HIV/AIDS patients is available in only a small percentage of facilities. The presence of treatment guidelines varies greatly by type of facility, managing authority, and province. Only a few facilities have a record-keeping system of any kind.

Overall, medicines are more available in hospitals than in health centres or other types of facilities. The medicines that are most commonly available include those for treating bacterial infections and AIDS dementia complex. By contrast, medicines to treat more common ailments, such as herpes and pain management, are not widely available. Only 13 percent of facilities have fortified protein supplements.



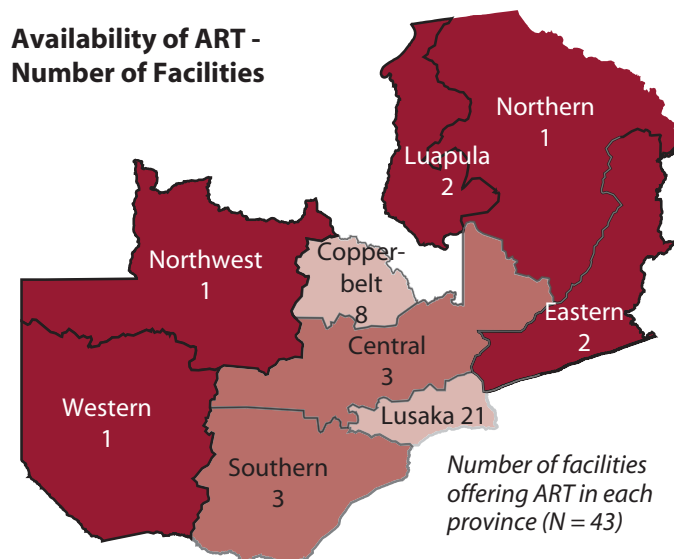
## ANTIRETROVIRAL THERAPY

In 2003, antiretroviral therapy (ART) was first introduced in Zambia to the public sector. ART has now expanded, to varying degrees, to all districts and sectors throughout the country.

Quality ART services include the following:

- Protocols and guidelines for care and support services;
- Trained staff;
- Consistent supply of antiretroviral (ARV) medicines;
- Good storage practices for ARVs;
- A system for client appointments and follow-up services;
- Individual client records for continuity of care; and
- Record-keeping systems to ensure ARV compliance.

At present, however, only 10 percent of all health facilities provide ART services. Further, the availability of ART is unevenly distributed throughout Zambia. Almost half (49 percent) of all facilities offering ART services are located in Lusaka. By contrast, Northwest, Northern, and Western provinces have very few facilities offering ART. Of the facilities offering ART, most (90 percent) have at least one ARV medicine available and more than half have the laboratory capacity to monitor ARV treatment. Very few of these facilities, however, have protocols for ART.



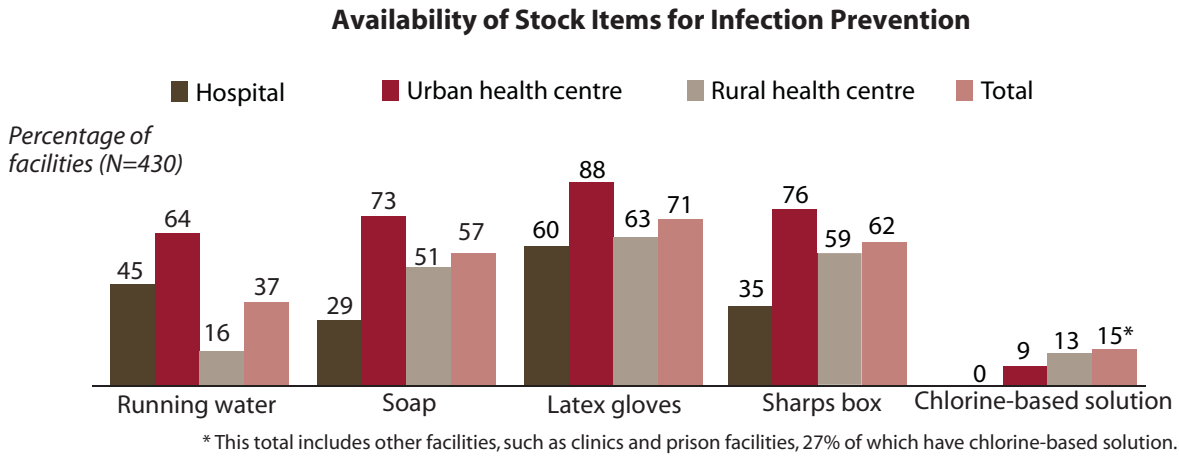
# INFECTION PREVENTION IN HEALTH CARE FACILITIES

Infection prevention practices should be implemented in all health care facilities to protect both clients and providers. The items needed to prevent infections include:

- Running water and soap for hand washing;
- Chlorine-based solution for decontaminating equipment;
- Latex gloves;
- “Sharps” container for the immediate disposal of needles and blades; and
- Written guidelines to enforce infection prevention practices.

Running water, which is essential for infection prevention, is not widely available in health care facilities in Zambia. Overall, running water is available in less than half (37 percent) of all facilities and hospitals (45 percent), and less than a quarter (16 percent) of rural health centres. In Northern Province, only 6 percent of facilities have running water, compared to only 13 percent in Southern Province.

Soap is more widely available than water. It can be found in 57 percent of health care facilities. Sharps boxes are in 62 percent of facilities, and latex gloves are in 71 percent of facilities. Chlorine-based solution for decontaminating equipment is found in only 15 percent of facilities. Overall, only 7 percent of health care facilities have all the specified items needed for infection prevention. Government-managed facilities are less likely than non-government facilities to have all the items necessary for infection prevention.



## POST-EXPOSURE PROPHYLAXIS

Post-exposure prophylaxis (PEP) is the immediate treatment with antiretrovirals for health care providers and others who may have been accidentally exposed to HIV. Given the high prevalence of HIV in Zambia, the risk of contracting HIV infection on the job is a real threat to everyone working in health care facilities. PEP is an essential practice to protect both health care workers and clients.

Only 9 percent of all health care facilities in Zambia offer PEP services. PEP services are more available in non-government facilities than in government facilities. PEP services are more available in Copperbelt and Lusaka provinces than in other provinces. About 71 percent of these facilities have allocated ARV medicines for PEP. The majority of facilities providing PEP services, however, do not have PEP guidelines or records of PEP clients. Although information on PEP may be kept in individual client records, unless the records are periodically abstracted, it is impossible to determine whether or not PEP services are provided according to standard protocols.



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# PREVENTING MOTHER TO CHILD TRANSMISSION OF HIV

Mother-to-child transmission (MTCT) of HIV occurs when the virus is passed from a mother to her baby during pregnancy, delivery, or breastfeeding. The prevention of mother-to-child transmission (PMTCT) programme aims to reduce the risk of HIV transmission. PMTCT services are most often offered in conjunction with antenatal and delivery services. The package of services offered varies greatly from facility to facility.

Generally accepted components of PMTCT are:

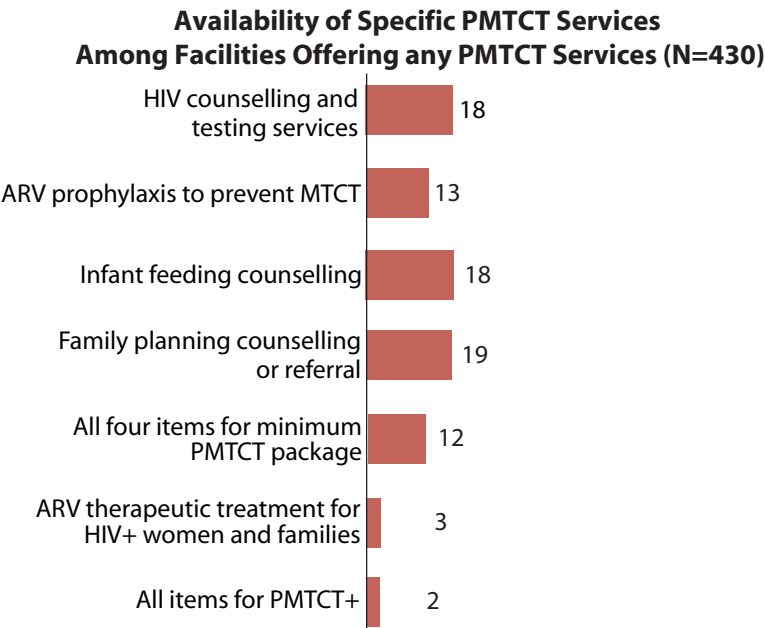
- Counselling and testing pregnant women for HIV infection;
- Providing HIV-positive women with information on infant feeding practices;
- Providing family planning counselling or referral; and
- Providing prophylactic ARV to HIV-positive women and their newborns (within 72 hours of birth).

PMTCT services were introduced in Zambia in 1999. As of 2005, only 19 percent of all facilities offer any components of PMTCT services and only 12 percent offer all four components for the minimum PMTCT package. PMTCT services are most likely to be found in hospitals and urban health centres.



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PMTCT+ is an enhanced program that includes making ART available to all women identified as HIV-positive and to their families. Overall, only 2 percent of health care facilities offering any PMTCT services qualify as providing PMTCT+ services.





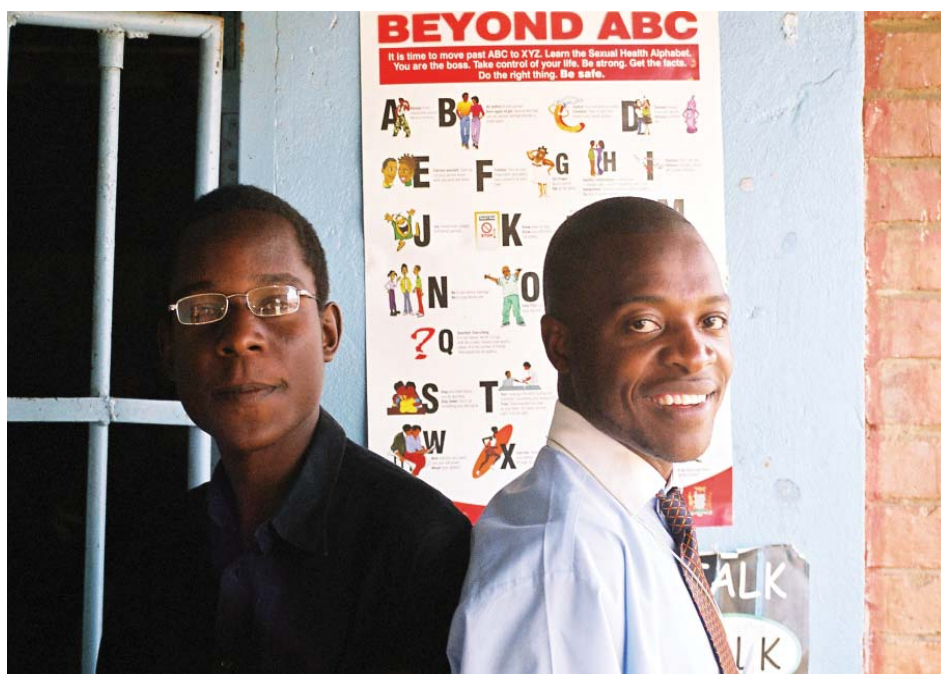
## YOUTH-FRIENDLY SERVICES

Youth-friendly services (YFS) help young adults overcome barriers to accessing HIV/AIDS services. Ideally, YFS involve young people in all aspects of the programme's planning, operations, and evaluation. The services should include staff who are sensitive to youth culture and ethnic cultures as well as to issues of gender, sexual orientation, and HIV status. YFS usually have flexible hours, convenient locations, and walk-in appointments.

The ZHSPA assessed the availability of youth-friendly HIV/AIDS services in Zambian health care facilities. About a third (35 percent) provide youth-friendly counselling and testing services or PMTCT services. They are available in 48 percent of urban health centres and 42 percent rural health centres. However, these services are available in only 18 percent of hospitals and 13 percent of other types of facilities. YFS are more available in government facilities than non-government facilities. They are most common in Northern, Luapula, and Copperbelt provinces.

Of the facilities providing YFS services, 75 percent have at least one provider trained in YFS. Trained providers are more available in urban health centres than in other types of facilities. They are least available in facilities located in Luapula and Southern provinces.

Overall, only 18 percent of the facilities providing YFS have policies or guidelines for these special services. There is also a substantial provincial variation in the availability of policies or guidelines for YFS. For example, policies or guidelines are not available at any facilities in Eastern or Luapula provinces.



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## CONCLUSIONS AND RECOMMENDATIONS

The Government of Zambia has demonstrated a high level of commitment to addressing HIV/AIDS. As early as 1986, Zambia created the National AIDS Surveillance Committee and the National AIDS Prevention and Control Programmes. The country has since developed policies and guidelines for HIV testing, including comprehensive pre-test and post-test counselling, and for the treatment of AIDS.

In 2002, the Government of Zambia established the goal of making antiretroviral therapy (ART) available to every person in need through public health services at a subsidized fee. In 2004, the Government announced that the treatment would be provided free of charge in the public sector.

The Zambia HIV/AIDS Service Provision Assessment Survey (ZHSPA) represents the most recent assessment of Zambia's HIV/AIDS health care services, including health care facilities managed by the government and non-profit agencies as well as non-government and faith-based organizations. This survey and report do not reflect developments in HIV/AIDS services in Zambia since August 2005.

The ZHSPA findings present a mixed picture of HIV-related health services in Zambia. On the one hand, Zambia has made progress in developing VCT services, enhancing basic care and support services (CSS), and in offering tuberculosis (TB) diagnostic and treatment services. On the other hand, access to antiretroviral therapy (ART) remains limited, preventing mother to child transmission (PMTCT) services and YFS are also limited, and post-exposure prophylaxis (PEP) services are available in only a handful of health care facilities.

### Conclusions:

There is wide variation throughout Zambia in the availability of most HIV-related services, with the exception of basic CSS. Basic CSS services, such as treating STIs and TB, are available in most health care facilities. However, other HIV-related health services are far from universal, and there is significant disparity in their availability among the provinces. For example, in four provinces, a third or less of all facilities offers VCT services. In six provinces, less than 10 percent of facilities provide PMTCT services. Similarly, the availability of ART is uneven, with half of the facilities providing ART located in Lusaka.

There are also serious deficiencies in the health care infrastructure, namely the widespread lack of running water. Only 37 percent of all health care facilities have running water, and in rural areas, only 16 percent of facilities have it. Overall, less than half of all hospitals (45 percent) have running water. Inadequate infection prevention places both clients and providers at risk.

HIV counselling and testing services are available in almost half of all facilities (44 percent). However, VCT services are less widely available. They are offered in only 25 percent of rural health centres, 39 percent of government facilities, 20 percent of facilities in Luapula Province, and 24 percent of health care facilities in Northwest Province.

The cost of ART services is very high. As a result, ART services are available in a small proportion of health care facilities (10 percent), primarily in hospitals. The services are available in 32 percent of all health facilities in Lusaka, but in less than 10 percent in other provinces. Although few health care facilities offer ART in Zambia, protocols and guidelines are still necessary to ensure the proper treatment of clients and to prevent drug resistance. At present, only five out of 43 facilities offering ART follow the national ART guidelines.

Women infected with HIV can pass the virus to their children during pregnancy, delivery or later, during breastfeeding. PMTCT can help to prevent this transmission, and offer support to the mother and child after delivery. PMTCT services, however, are available in only 19 percent of all health care facilities.

The services are more likely to be available at hospitals and urban health centres than in rural health centres and other types of facilities. There is great variation among the provinces. Only 8 percent of facilities in Luapula and Northern provinces offer any PMTCT services compared to 27 percent in Central and 41 percent in Western.

PEP is the immediate preventive treatment with antiretrovirals for health care providers and others who may have been accidentally exposed to HIV. PEP is an essential practice to protect both health workers and clients. However, PEP services are available in only 9 percent of all health care facilities in Zambia. The services are most likely to be available in hospitals and non-government facilities located in Lusaka. The services are offered in 5 percent or less of all health care facilities in other provinces.

Making health care facilities more accessible to young people is a recognized intervention for preventing STI and HIV infections. In Zambia, youth-friendly VCT and PMTCT services are offered in only 15 percent of all health care facilities. YFS are more available in government than non-government facilities. Three-quarters of the health care facilities providing VCT and YFS services have at least one provider trained in YFS. However, only 18 percent of health care facilities providing YFS have policies or guidelines for YFS.

### **Recommendations:**

- HIV/AIDS services are frequently offered at one or more sites within a facility, particularly large facilities. When planning training and interventions for improving and monitoring quality of services, all service sites within a facility should be included. At present, it is common that attention is focused only on the main service site.
- Protocols and guidelines for different HIV/AIDS services are not generally available at all sites providing the respective services. Priority should be given to developing and widely disseminating protocols. The protocols and guidelines should be developed, disseminated, and made available to all health care facilities. This is particularly important for providers working at lower-level facilities, such as health centres and health clinics, which may be the first point of contact with the formal health sector for many potentially infected clients.
- Infection prevention and PEP are critical in Zambia, where 16 percent of adults are infected with the AIDS virus. Running water and disinfectant solution are not widely available, particularly in hospitals and government facilities. Policies are needed to establish infection prevention committees at all levels to ensure the safety of clients and staff.
- Clients' records are the cornerstone of monitoring and evaluation all HIV-related services. Record-keeping for monitoring and evaluation of quality of care should be strengthened in all types of health care facilities in Zambia.
- YFS services should be expanded and made available at all facilities that provide VCT, PMTCT, and other HIV/AIDS services, especially in hospitals, other types of facilities, and non-government facilities.