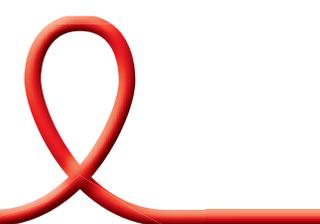




Field Guide to HIV and STIs



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA



FIELD GUIDE TO HIV AND STIs

I Purpose of this FIELD GUIDE to HIV and Sexually Transmitted Infections

The purpose of this Field Guide to HIV and Sexually Transmitted Infections (STIs) is to provide essential information in simple language about these diseases and their management and control to Schools, Educators, Principals and other Education Managers. The Guide is presented in a question-and-answer format for ease of access and understanding. For further information the Department of Basic Education's Policy on HIV, STIs and TB or a local health care professional should be consulted.

2 HIV and AIDS in South Africa

The proportion of South Africans infected with HIV has increased from 10.6% in 2008 to 12.2% in 2012, according to the Human Sciences Research Council (HSRC) National HIV Prevalence, Incidence and Behaviour Survey. The total number of infected South Africans in 2012 stood at 6.4 million, 1.2 million more than in 2008. The highest infection rates were for women aged 30 to 34 (36%), and males aged 35 to 39 (29%). Provincially, KwaZulu-Natal had the highest HIV prevalence (16.9%) and the Western Cape the lowest (5%).

Access to Antiretroviral Treatment (ART) almost doubled between 2008 and 2012, with about one-third of the country's HIV-infected population (2 million out of 6.4 million infected people) accessing ART in 2012. The rate at which new HIV infections are acquired (HIV incidence rate) is a cause for concern with the HIV incidence rate among females aged 15 to 24 more than four times higher than that found in males of the same ages. In the teenage population the difference in HIV prevalence between girls and boys is even higher: Girls have eight times the infection rate of their male counterparts. With over 400,000 new HIV infections occurring in 2012, South Africa had the highest HIV incidence in the world as a result of the particular transmission dynamics in the country.

Individuals who were married had a considerably lower HIV incidence rate than those who were living together with a sexual partner and those who were single. HIV prevalence was found to be higher in the unmarried, cohabiting population than in the married population. Female teenagers aged 15 to 19 years were more likely than their male counterparts to have sex with older partners: In 2012, 19.9% of all respondents were involved in age-disparate relationships involving a sexual partner more than five

years older than they were. However, there was a significant gender difference, with 33% of girls reporting having done so versus only 4.1% of boys. This rate has shown a steady increase since 2005 and is considered as one of the main contributing factors to the HIV&AIDS epidemic.

Condom use decreased significantly from 2008 amongst men and women of all age groups, except for women aged 50 years and older. More than half of survey respondents indicated that they had never used a condom. In the age group 15 to 49 years, people living together, who were not married, had the lowest rate of condom use (33.8%). Furthermore, 10.7% of respondents aged 14 to 24 reported having sex for the first time before their 15th birthday; 12.6% of respondents aged 15 years and older reported that they had more than one sexual partner in the last 12 months, with five times more males (20.1%) than females having had multiple partners. Most respondents aged 15 and older (76.5%) believed they were at a low risk of becoming infected with HIV, but about one in ten who believed they were at low risk for acquiring HIV infection were already infected with HIV but did not know it.

Knowledge of how HIV is transmitted and prevented declined from 30.3% in 2008 to 26.8% in 2012, but attitudes towards people with HIV had improved considerably since 2008. This could be the result of the availability of ART and the fact that many more people had been tested and knew their HIV status.

3 What is HIV?

HIV means Human Immunodeficiency Virus: **H** stands for *Human*. **I** stands for *Immunodeficiency* (HIV weakens the *immune system* by destroying important cells that fight disease and infection). **V** stands for *Virus* (A virus can only reproduce itself by taking over a cell in the body of its host). HIV is like other viruses, including influenza and the common cold. The difference is that over time the body's immune system can clear most viruses out of the body. However, the human immune system cannot naturally rid itself of HIV. That means that once a person has HIV it is there for life. HIV can hide in body cells for long periods and then attacks a key part of the immune system – the T-cells or CD4 cells. These cells will usually fight infections and disease but HIV uses them to make more copies of itself, and then destroys them. Over time, HIV can destroy so many CD4 cells that the body can no longer fight infections and diseases. When that happens, HIV infection leads to AIDS, the final stage of HIV infection. It is at this stage that a person starts becoming sick through a host of opportunistic infections that attack the body.

Not everyone who has HIV progresses to AIDS. With proper treatment, called Antiretroviral Therapy or Treatment (ART), levels of HIV can be kept low. This involves taking a combination of HIV medicines every day to live a longer, healthier life and reduce the risk of transmitting HIV to others, but infected people should always wear condoms to prevent the transmission of infection and/or placing themselves at the risk of reinfection. Today, someone diagnosed with HIV and treated before the disease is far advanced can have a nearly normal life expectancy. No cure for HIV exists at present but medication is available to ensure that people remain as healthy as possible while scientists are working hard to find a cure.

4 What is AIDS?

AIDS means **Acquired Immunodeficiency Syndrome**: **A** stands for *Acquired* – AIDS cannot be inherited but can be *acquired* during or any time after birth. **I** stands for *Immuno* – which refers to the body's immune system, including all the organs and cells that fight off infection or disease. **D** stands for *Deficiency* – AIDS occurs when the immune system is 'deficient', or is not working properly. **S** stands for *Syndrome* – A syndrome is a collection of symptoms and signs of disease, and in the case of AIDS is a complex illness with many complications and symptoms. People at this stage of HIV disease have badly damaged immune systems which puts them at risk for opportunistic infections (OIs).

5 What should you do if you think you have HIV?

The only way to be certain is to be tested. Testing can be done by a doctor, clinic, health care provider or community health centre. This test will tell you if you have HIV or not, and may have to be repeated after a period of 3 to 6 months to ensure that the window period is covered.

6 How do you get HIV?

Certain body fluids from an HIV-infected person can transmit HIV. These include blood, semen, pre-seminal fluid, rectal fluids, vaginal fluids and breast milk. Infection can potentially occur if these body fluids come into contact with a break or a cut in the mucous membrane (these are the soft, moist areas just inside the openings to the human body and include the vagina, the rectum, the opening of the penis and the mouth). Entry through an open wound, or by being directly injected into the bloodstream (by a needle or syringe) will also lead to infection. HIV is commonly spread through having sex with someone who has HIV, either through vaginal or anal sex, and the risk is increased by having multiple partners – particularly if they also have another sexually

transmitted infection (STI). HIV can also be spread by sharing needles or syringes, mainly for people who inject drugs. HIV can be contracted by being born to an HIV-infected mother (who does not take anti-retroviral treatment) or have it passed on during pregnancy, birth or breastfeeding. It is important to note that children who are born to infected parents who are taking anti-retroviral treatment can be born HIV-negative.

It is important to know that HIV is not spread through air or water; insects (including mosquitoes or ticks); saliva, tears, or sweat; casual contact (shaking hands, hugging or sharing dishes/drinking glasses); drinking fountains; or toilet seats. HIV is a fragile virus and does not live long outside the human body.

7 What are the Early Symptoms of HIV?

Within 2-4 weeks after HIV infection, many people - but not all - experience flu-like symptoms, often described as the 'worst flu ever'. This is called 'Acute Retroviral Syndrome' (ARS) or 'Primary HIV Infection' and is the body's natural response to HIV infection. Symptoms can include fever (this is the most common symptom), swollen glands, sore throat, rash, fatigue, muscle and joint aches and pains, and headache.

These symptoms can last from a few days to several weeks but should not be assumed to be HIV without confirmation through an HIV test, as they can be caused by other illnesses, like flu. However, many people who become infected with HIV have no symptoms at all for 10 years or more. The only way to know if one is infected with HIV is to get tested. Someone who has recently been potentially exposed to STIs or HIV (if the person has had vaginal or anal sex without a condom or shared needles to inject drugs) should get an HIV test as soon as possible. New HIV tests can detect the presence of HIV in the body even at an early stage of infection. It is also important to remember that if one is HIV-positive, with or without symptoms, that person can easily transmit HIV to other sexual partners because the levels of HIV in the blood are very high at the early stage of infection. For this reason, it is very important to avoid sexual contact, or as a minimum to use condoms.

8 How do you get AIDS?

The terms HIV and AIDS can be confusing because both terms refer to the same disease. However, HIV refers to the virus and AIDS refers to the late stage of HIV infection when an HIV-infected person's immune system is severely damaged and has difficulty fighting disease and certain cancers. Today, most HIV-positive people do not progress to AIDS due to regular use of Antiretroviral Therapy/Treatment (ART) which keeps the level of HIV in the body low. This also helps to lower the risk of transmitting HIV to others.

9 What are the Symptoms of Progression to AIDS?

If someone has HIV and is not taking Antiretroviral Therapy/Treatment (ART), eventually the HIV will weaken the body's immune system. A set of symptoms will indicate the transition to AIDS and may include rapid weight loss; recurring fever or night sweats; extreme and unexplained tiredness; prolonged swelling of the lymph glands in the armpits, groin or neck; diarrhoea that lasts for more than a week; sores in the mouth, anus or genitals; pneumonia; red, brown, pink, or purplish blotches on or under the skin or inside the mouth, nose, or eyelids; and memory loss, depression, and other neurological disorders. However, it is important to note that each of these symptoms can be related to other illnesses so the only way to know for sure is to be tested for HIV and if found to be HIV-positive, begin ART.

4.10 How can you reduce the Sexual Risk of contracting HIV?

Some of the ways to reduce the risk of getting HIV through sexual contact include:

Do not have sex: Sex (vaginal, anal or oral) is the main way that HIV is transmitted. Reducing sexual contact will assist in reducing the possibility of getting HIV.

Be monogamous: Being monogamous means that 1) A person is in a sexual relationship with only one person; and 2) Both people are having sex only with each other. Having only one sex partner reduces the risk of getting HIV. However, monogamy does not provide protection completely unless it is known for sure that neither one of the partners is infected with HIV, and is only having sexual contact with this one partner.

Get tested and know your partner's status: Knowing one's own status is important for the health of both partners. Talking about HIV status can be difficult but it is important to start the discussion before people in a new relationship consider engaging in sexual activity.

Questions to ask your sexual partner(s): Have you been tested for HIV? When was the last time you had an HIV test? What were the results of your HIV test?

Get tested for HIV every 3 to 6 months: People with more than one sex partner should be tested for HIV and other sexually transmitted infections (STIs) every 3-6 months.

Use condoms consistently and correctly: To reduce the risk of getting HIV or other STIs, a new condom should be used with every act of sex. Condoms should be used correctly to keep them from slipping off or breaking during sex. Both male and female condoms will help protect against HIV and other STIs.

Avoid contact with blood: It is important to avoid exposure to blood in the event of an injury or accident, particularly if there are open wounds or sores on the hands. Use protective gloves if these are available but otherwise avoid contact with the blood of an injured person, regardless of whether or not the presence of HIV is suspected.

11 Why are there no HIV Vaccines available?

HIV is a complex and highly changeable virus, which makes development of a preventive HIV vaccine very difficult but not impossible. It also takes years to research, including the careful clinical testing that will lead to a safe and effective vaccine. Researchers around the world have been working for more than three decades to develop a vaccine that will protect people against HIV infection. Recent vaccine trials have shown for the first time that an HIV vaccine is possible.

12 What does being HIV-Positive mean?

Being diagnosed '*HIV-positive*' means that a person has been exposed to the Human Immunodeficiency Virus (HIV) and that two HIV tests — a preliminary *enzyme immunoassay (EIA)* test and a confirmatory *Western blot* test — have been conducted and both test positive for antibodies to HIV. Being HIV-positive means that it is possible to pass the virus along to others, including one's sexual partners. If a female is infected, it could be passed to the unborn child if the mother does not take Antiretroviral Treatment (ART).

Once one is infected with HIV it remains in the body. There is currently no cure for HIV which is a serious infectious disease that can lead to death if not treated. However, scientific and technological advances have made HIV a chronic but manageable disease. Many people with HIV lead healthy, happy and productive lives and learn how to cope with the disease. This is why it is so important to know one's HIV status. This knowledge gives the person the ability to protect their own health and the health of their partners and children. Being HIV-positive does **not** mean the person has AIDS, which is the most advanced stage of HIV disease. Proper treatment (ART) can prevent HIV from developing into AIDS.

13 What are Opportunistic Infections?

Healthy immune systems allow people to be exposed to most viruses, bacteria or parasites without any negative reaction, but living with HIV and/or AIDS opens the way to serious health threats from what are known as opportunistic infections (OIs). These infections are called 'opportunistic' because they take advantage of weakened immune systems and can cause serious illnesses. Opportunistic infections, such as tuberculosis

(TB), are a sign that the immune system is weakening. Opportunistic infections are the most common cause of death for people with HIV or AIDS.

14 What is the link between HIV&AIDS and Tuberculosis (TB)?

Tuberculosis (TB) is a major threat to people living with HIV or AIDS because HIV and TB infections can work together to make a patient very sick. Worldwide, TB is the leading cause of death amongst people living with HIV. TB is a disease caused by a specific type of bacterial infection called Mycobacterium Tuberculosis which usually affects the lungs, but can also affect the brain, kidneys, spine or other organ systems. TB can cause serious health problems, including death, if left untreated. Because of the serious health risks for co-infection with TB and HIV, it is recommended that all HIV-positive people should be tested for TB. Those who test positive for TB should begin treatment immediately.

This Policy Pack for Schools also contains a Field Guide on Tuberculosis (see Section 6) which provides detailed information on TB and should be read in conjunction with the Field Guide on HIV and STIs.

15 How is TB spread?

TB is primarily an airborne disease. When a person with active TB disease coughs, sneezes, speaks, or sings, TB germs spread through the air. These germs can float in the air for many hours. If a person breathes in the air containing these TB germs, it is possible to become infected. However, TB is not spread by shaking someone's hand; sharing food or drink; touching bed linen or toilet seats; sharing toothbrushes; or kissing.

16 What are Sexually-Transmitted Infections (STIs)?

Sexually transmitted infections (STIs), also known as sexually transmitted diseases (STDs), are infections spread from person to person through sexual contact. These diseases can be passed through any contact between the genitals of one person and the genitals, anus or mouth of another person. Symptoms vary depending on the type of infection, although some people who become infected with an STI may not develop symptoms at all. HIV is a particularly serious STI.

If a clinic or doctor suspects an STI, the patient will be asked how many sexual partners s/he has had and if any of them have had an STI. This will be followed by a physical examination and the collection of samples depending on the suspected STI. For example, painful sores would suggest genital herpes, whereas painless ulcers may indicate syphilis. Chlamydia can be diagnosed with a urine test but may require a

sample of fluids from the cervix or penis. Gonorrhoea requires a direct sample from the tip of the penis, cervix or rectum. Syphilis and HIV can be confirmed with a blood test. If a patient has one STI, the clinic or doctor will probably recommend testing for HIV and other STIs, because of the initial evidence of high-risk sexual activity. In addition, a patient is more likely to contract HIV if s/he is infected with another STI. Viral infections such as genital warts, genital herpes and HIV cannot be cured, but they can be treated and controlled with medication.

STIs can be prevented by not having sex, having sex only with one uninfected person and/or consistently using male or female condoms during sexual activity. Clinics and doctors will urge patients to tell their sex partners if they have an STI so that these partners can also seek medical attention.

17 Control of STIs in South Africa

Control of Sexually Transmitted Infections (STI) is an important intervention in the fight against HIV&AIDS and is one of the key areas of focus for South Africa's National Strategic Planning on HIV, STIs and TB. In South Africa it is estimated that over 11 million STI cases occur annually. For example, in a rural area in KwaZulu-Natal 52% of women attending district antenatal clinics were found to have at least one STI (gonorrhoea, chlamydial infection, trichomoniasis or syphilis) and 18% had more than one infection.

Routine HIV and Syphilis surveillance also indicates high rates of these infections countrywide. The public health importance of STIs has been underscored by evidence that they act as co-factors in the sexual transmission of HIV. With the alarmingly high rates of HIV infection in South Africa, controlling STIs has become a high priority for the country and is one of the main strategies for HIV control.

STIs commonly found in South Africa include, but are not limited to the following, which are listed in alphabetical order:

- *Candida albicans*
- Chancroid
- Chlamydia
- Genital herpes
- Genital warts
- Gonococcal infections/urethritis
- Gonorrhoea
- Human Immunodeficiency Virus (HIV)

- Human papillomavirus
- Syphilis
- Trichomoniasis.

18 What are the Symptoms of STIs?

Sometimes there are no symptoms of STIs. Where symptoms of STIs are present they may include one or more of the following:

- Bumps, sores or warts near the mouth, anus, penis or vagina.
- Swelling or redness near the penis or vagina.
- Skin rash.
- Painful urination.
- Weight loss, loose stools, night sweats.
- Aches, pains, fever and chills.
- Yellowing of the skin (jaundice).
- Discharge from the penis or vagina (vaginal discharge may have a strong smell).
- Bleeding from the vagina other than during a monthly period.
- Painful sex.
- Severe itching near the penis or vagina.

19 How are STIs treated?

Many STIs are treated with antibiotics. It is important to complete the course of medication. Some clinics and doctors may provide additional antibiotics for the patient's partner so that s/he can be treated at the same time.

20 How can the risk of contracting an STI be reduced?

Some basic steps for protection from STIs include:

- Not having sex or sexual relations (abstinence) is the only sure way to prevent STIs.
- Use a latex condom with every act of sex. If a lubricant is used make sure it is water-based.
- Limit the number of sexual partners. The more partners a person has, the more likely they are to catch an STI.
- Practice monogamy. This means having sex with only one person. In such a

relationship, both partners must have sex with only each other to reduce the risk to both partners.

- Choose a sex partner with care. You must both get checked for STIs so as not to risk possibly infecting each other.
- Do not use alcohol or drugs before having sex. People are often less likely to use a condom if they are drunk or high on drugs.
- Know the signs and symptoms of STIs. Learn about STIs. The more knowledge a person has, the easier it will be to avoid infection.

Any comments or suggestions are welcomed and should be addressed to the Director-General: Basic Education for the attention of the Health Promotion Directorate, Private Bag X895; Pretoria; 0001

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