

Learning about HIV/AIDS in Africa
What *you* need to know



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CATHY'S STORY

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Dear Diary,

Today I found out that I am HIV positive...

I have never kept a diary before. I have always had someone to confide in. Now, I don't even know how I will begin facing this. I have cried the whole day and yet feel an icy calm like this cannot be true. In the 3 days that it took for the doctor to give me the results of the test it never once crossed my mind that this could happen to me. I have always been careful about whom I trust, I have slept with very few men, yet one of those must have been HIV positive and possibly infected me.

How is it possible that my life has changed so dramatically in just one second? When the nurse came back through the door where she had gone to fetch the results, I immediately knew that something was wrong. I stupidly stared at her identification pin, which was hanging from her blouse at an angle when she stretched out her hand to give me the envelope. I just could not get myself to take the paper into my hands – I knew my life would never be the same again. My eyes could not focus when I finally reached for the blue piece of paper; it took me forever to interpret what was on it. Seeing my distress, the nurse asked me to wait to speak to a counselor but instead I stumbled outside into my car where I cried uncontrollably for hours.

What am I going to do? What am I going to do? I will never have children; I will become horribly ill ... I don't even know how I will tell people. If only, if only ...

This is the story of Cathy, an American girl who moved to Africa when she was 27. She had been there for less than two years when she started falling sick. Over the period of three months she went from one doctor to the next until she finally found out she was HIV positive.

Cathy’s story is a true story. Only her name has been changed. Thanks to the drug cocktails that are now available “Cathy” is still alive today but, as she herself put it, her life has been irrevocably changed. She will never have children and she has been shunned by some of her friends. At times her blood cell count drops dangerously low and she has no idea how long she will live.

She never found out exactly how she contracted the virus...



Exercise 1

Now take a moment to reflect on this story. What crossed your mind as you read Cathy’s diary and, more importantly, what could Cathy have done to substantially reduce her risk of contracting HIV? Write down anything that comes to mind below. The purpose of this exercise is merely that you list your ideas and reactions.



1 - Learning about HIV/AIDS – an Overview of this Module

The one-eyed man does not thank God until he sees a blind man...

African Proverb

Congratulations! So you are going on a trip to Africa! This is going to be an exciting and important experience in your life. Maybe you will be doing research there or volunteering for one of the many American organizations that provide support to people in Africa. Whatever it is that takes you to Africa, chances are there is a lot that you will need to prepare for. You will need equipment and supplies, reading material, language skills, and you will probably need to address some medical issues.

What you will learn from this module ...

This module will provide you with valuable information on an issue that is of key importance to your personal health and safety, namely HIV/AIDS. The reality is that HIV is widespread in Africa and that you will need to take sensible precautions to avoid contracting this virus. The good news is that reading this module and applying the lessons you learn from it will ensure that you have an excellent chance at protecting yourself.

In the process of completing this module you will take a fictional journey to different places in Africa. You will meet Albert, an American pre-med student who is helping out at a local hospital, and you will also meet Barbara a volunteer with the Peace Corps. You will learn a little about Africa and a lot about HIV/AIDS. By the time you complete this module you will have a good understanding of the three key steps to protecting yourself (and possibly others) against HIV/AIDS.

These **key steps** are:

- ⇒ Recognizing situations that represent a high level of risk of HIV infection;
- ⇒ Evaluating personal risk of contamination within this high risk context;
- ⇒ Identifying and applying correct measures for preventing HIV infection.

It should take you no more than an hour to work through the material in this module. In order for you to make the most of this learning experience you need to follow these three simple instructions:

- a) Carefully read the material in the order in which it is presented
- b) Attempt to answer all the exercises - model answers are provided so that you may check your progress.
- c) Detach the wallet size “what’s what about HIV/AIDS” instruction leaflet from the module when you are finished and place it in your wallet. That way you will always have basic information at hand that you can refer to.

What I have assumed...

In designing this module I have assumed that you have enough of an understanding about HIV/AIDS to be able to provide a definition of HIV/AIDS. It is important that you test your understanding of this assumption before you work your way through this module. So take a few minutes to reflect on what you know about HIV/AIDS and then complete the following exercise.



Exercise 2

Part 1: Diseases are often described in terms of their features. The features of chickenpox, for example, are that it is a highly contagious childhood disease, that it can take up to a week to be cured, and that the patient will have a multitude of tiny red liquid-filled bumps covering their body. In the places provided below, and based on this

explanation, in one or two words indicate what you believe are the two most important features of HIV/AIDS are:

i) _____

ii) _____

Part 2: When a person has HIV/AIDS, which comes first the HIV virus or the AIDS syndrome?

First: _____

Second: _____

Feedback

Good work! Now lets see how you did on this exercise! Please check your answer against the answer sheet provided on p. 35 at the back of the module. If you did not do well in this preparatory exercise then please read appendix 1, which provides you with a definition of HIV/AIDS before moving on to the next section of this module.

Now, let's get started. The next section of the module will discuss HIV/AIDS in more detail and will be followed by a presentation of some basic facts about HIV/AIDS in Africa. I hope that working through this module will be a rewarding and exciting experience for you!



2 – Understanding HIV/AIDS

Take a moment to reflect on what you *really* know about HIV/AIDS... Chances are that you have already been exposed to a considerable amount of information about HIV/AIDS, perhaps to the point of being quite tired of hearing about the topic.

But how much do you really know about this disease? Are you able to distinguish between HIV and AIDS? And, are its characteristics of HIV/AIDS in an African setting at all different from what you have learnt about the US?

In preparing this instructional material, it became clear that while most undergraduate students have heard of HIV/AIDS and understand its main features, many have difficulty in distinguishing between HIV and AIDS. This short chapter will discuss that distinction.

What is HIV?

HIV stands for Human Immunodeficiency virus. HIV is a virus for which there is no cure. At the moment, in spite of much research, there is no cure for HIV or AIDS and so, sadly, it is almost certain that people with AIDS will die.

Remember ...

Being HIV positive means that you have contracted the HIV virus.

Having AIDS means that your immune system has collapsed as a result of the activity of the virus. The body is no longer protected against diseases.

How does HIV act?

HIV acts by gradually destroying the immune system of the infected person. After about 5 to 10 years (although much earlier in some cases) the immune system becomes so weak – or ‘deficient’ - that it cannot fight off infections as it used to. Eventually the infected person may lose weight and become ill with diseases like persistent severe diarrhea, tuberculosis, fever, pneumonia, or skin cancer. He or she has now developed AIDS.

What is AIDS?

AIDS stands for Acquired Immunodeficiency Syndrome and stands for the late stage of infection caused by the HIV virus.

When the immune system of the person who has been infected with HIV no longer protects that person against diseases, than that person is said to have developed AIDS. This person now has a deficient immune system, which is not capable of fighting off infections and

Remember ...

There is still no cure for HIV/AIDS. If you contract HIV/AIDS you will eventually die

keeping cancers from developing. A person with AIDS will become progressively sicker and will eventually die of complications of the various diseases that are affecting him/her.



Exercise 3

Part 1: Circle the correct option below:

- a) HIV and AIDS are both present in the body at the same time but AIDS is a more serious form of the disease.
- b) AIDS destroys the immune system which will then lead to HIV
- c) HIV destroys the immune system which will then lead to AIDS

Part 2: In one or two sentences indicate what you believe the main difference is between HIV and AIDS.

Feedback

Being able to clearly distinguish between HIV/AIDS is essential to your understanding of this topic. Please take a moment to check your answers against those provided on p. 35 at the end of this module. How did you do on this exercise? If you had any difficulty at all please make sure you read this section again.



3 – Some Basic Facts About HIV in Africa

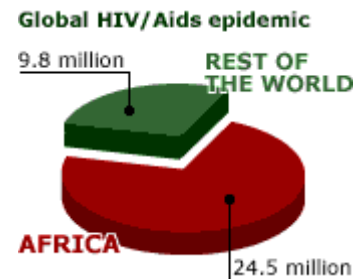
So, how prevalent is HIV in Africa?

More than two thirds of the people in the world who are HIV positive live in Sub-Saharan

In most Sub-Saharan countries, at least one in every four adults is now HIV positive

Africa. In countries where infection rates are the highest (e.g. Botswana, South Africa, Malawi) almost one in every three adults is HIV positive. Amongst prostitutes – or “sex workers” - these infection rates are as high as 80%.

In 1999 more than 2.6 million people worldwide died of AIDS or AIDS related diseases. Almost 2 million of these deaths were in Africa.



Worldwide, six young people are infected by HIV/AIDS every minute

HIV/AIDS is affecting everyone in Africa. Those who are not sick themselves take care of other sick people or of the orphans of family members who have already succumbed to this disease. This happens, for example, in Namibia where grandparents now have to take care of their grandchildren whose parents died from HIV/AIDS.

Some of the myths about HIV/AIDS

There are many misconceptions about HIV/AIDS. Some of these have come about because we tend to associate HIV/AIDS with certain stereotypes even though the profile of the disease has changed dramatically in the two decades since it was first identified. Other misconceptions are the result of the fact that we, as human beings, tend to distort things that we feel uncomfortable about because we feel that if we ignore basic truths they will go away.

A good way to getting a better understanding about HIV is to consider some of the myths commonly associated with the virus.

Myth: Only poor black people in Africa are vulnerable to HIV/AIDS because they don't have access to health care and are promiscuous

 **Truth**

AIDS is spreading so rapidly that it is affecting all social groups in society. In fact, in some countries the more educated people (including whites) – such as government officials and business people - are showing very high rates of infection. It is only in terms of absolute numbers that the percentage HIV infection is higher amongst blacks, because there are more black people than white people in Africa. Finally, it is not necessary to be promiscuous to get HIV. Having unprotected sex with just one person, even if that person appears to be healthy, can already result in infection with HIV.

Myth: HIV/AIDS is only really a problem among homosexuals

 **Truth**

HIV is a disease that affects everyone, not just homosexuals. The number of heterosexual women who are infected with the HIV virus is growing very rapidly. Within the next year or two it is likely that more women in the world will be HIV positive than men. As mentioned above, almost one third of all the adults in Africa are HIV positive.

Myth : I don't need to know anything about this disease! HIV is someone else's problem not mine. As long as I stay away from the local people and make sure I don't touch anything I will be ok

 **Truth**

HIV is a dangerous disease because it strikes when we least expect it. Cathy thought she had made all the right judgments and decisions in her life and still contracted the virus. In order to be prepared for any situation it is important to realize that we are all vulnerable and that the better informed we are the better we will be able to help ourselves and others.

There are many more such myths and truths. By the time you have completed this module you should be able to refute many of these myths as well as any other myths that you may come across but that were not mentioned here.



Exercise 4

i) Which of the options below most accurately indicates the percentage of adults in Africa developing countries that are infected with AIDS? (please tick only 1 of the boxes)

- | | |
|---|--|
| <input type="checkbox"/> Less than 10% | <input type="checkbox"/> More than 50% |
| <input type="checkbox"/> Between 10 and 20% | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Between 20 and 40% | |

ii) Which of the following population groups in Africa is expected to have the highest rate of HIV infection within the next two years? (please chose only one group)

- Drug users
- Homosexuals
- Children under 5
- Heterosexual adult males in general
- Heterosexual adult females in general
- Children between 5-12

Feedback

Please check your answers on p.35. If you got one or both questions wrong please re-read this section. You are making good progress!

Consider this ...

The rain does not befriend anyone, it falls on anyone it meets outside ...
African proverb

In other words, nature has a leveling power, and if you don't protect yourself you will get wet. It is the same with HIV



4 - What is a potential high-risk situation?

If you are going to adequately protect yourself against HIV infection you need to be aware of **situations in which there is a potential risk of exposure to the HIV virus**. Most of you are probably saying: “Well, that is easy! I know that HIV is spread through unprotected sex”. This is certainly one of the ways but there are also others. Also, there are situations in which unprotected sex is much more risky which you will learn about later in this module. And, finally, one of the most difficult things about being in a different environment is that it becomes harder to recognize situations that may be risky. To illustrate this point consider the following question that is frequently asked:

“If I am around people who might be HIV positive and a mosquito that has just bitten one of these people bites me, can I become infected?”

In order to be able to answer this and other questions it is important to clearly understand how HIV is transmitted. In this next section of the module we will discuss HIV transmission and then identify the main characteristics of low and high potential risk settings.

How is HIV transmitted?

According to UNAIDS, the United Nations organization that is responsible for the global effort to prevent and fight HIV/AIDS, the most important thing that travelers to Africa need to remember is that HIV is transmitted through blood and bodily fluids. Bodily fluids are a broad category, which includes three main categories: semen, vaginal secretions, and breast milk.

Remember ...

HIV is transmitted through blood and bodily fluids

It is also important to remember that the HIV virus only survives outside of the human body for a very short period of time and that in order for transmission to take place there

needs to be some direct contact with an open wound or lesion. Therefore, the chances of being infected by blood or other bodily fluids in the absence of contact with another person's open wound are very small.

This information allows us to answer our earlier question: Do mosquitoes transmit HIV? Because the amount of blood involved is miniscule and is also transported outside of the human body to another person, the answer to that question is a resounding "No". Mosquitoes do, however, spread malaria, a potentially deadly disease that you will also need to protect yourself against.

So, what are the characteristics of a potential high-risk situation?

A high **potential** risk situation is a situation, scenario or setting where blood or bodily fluids are present, irrespective of whether the person (in this case you) in this setting is in direct contact with the blood/fluids. Therefore, a high potential risk situation does not necessarily mean that you are personally at risk. **Personal** risk arises if *you* come in direct contact with the blood or bodily fluids. Personal risk will be discussed further in the next chapter.

With what we have just learned, it becomes easy to identify potential high-risk situations.

In a nutshell, in order to judge whether a situation is high or low risk it is essential to assess **whether blood or bodily fluids are present** in the situation under consideration. In other words, any situation in which there is a presence of blood and/or other bodily fluids is a high potential risk situation.

Remember ...

A potential risk is any situation in which blood or bodily fluids are present

A personal risk is any situation where blood or bodily fluids are present AND where *you* come in direct contact with the blood/fluids

Because the prevalence of HIV among the overall population in Africa is so much higher than it is in the US or Europe, extra care and precautions are required in an African setting. Higher prevalence brings with it a much greater chance of being exposed to the

virus. So while the chance of contracting HIV at an accident site in the US might be one in a hundred (hypothetically speaking), it might be one in ten or less in an African setting.



Application in a real-life setting ...

An example will serve to illustrate the point that I am trying to make here.

Cupido ...

Consider the situation of Albert, the pre-med student we referred to in the introduction to this module. Albert has been working closely with a local nurse at the rural hospital where he has been placed. Over time they become romantically involved. After some weeks of dating, they have their first (unprotected) sexual relationship.

Analysis of this example

This is a situation of potential risk because the exchange of bodily fluids that takes place during sexual intercourse presents a high risk of infection. The level of risk is aggravated by the fact that in most African countries females in the age group of 16-35 have the highest infection rate of the overall population. This does not necessarily mean that Albert's companion is HIV positive but does very much increase the chances that she may be.

To finalize this section, and taking into account the general criterion that we defined above, let's consider some examples of potential high-risk situations. Here are some that I was able to think of:

- Accident sites
- Blood transfusions
- Any situations involving sharing of needles

In all three of these examples blood or bodily fluids are present.

What about low risk situations?

Not all situations are high potential risk situation. Using our criterion that blood or bodily fluids must be present, potential situations in which HIV risk is minimal or non-existent include:

- “Casual” everyday contact between people
- Coughing, sneezing, or by touching or hugging someone
- Contact with air, water or food, or sharing of cups, bowls, silverware, clothing or toilet seats
- Insect bites



Exercise 5

i) Let's test what we have learned so far. In the space provided directly below use one or two words to characterize an example of a high potential risk situation. You may refer to your personal experience if you wish.

ii) To complete the exercise lists also one example of a low potential risk situation. Again, this example may be from your personal experience.

Feedback

Good work! Before we move on please compare your response with the answer sheet at the end of the module and evaluate how you did. If you had difficulties completing this exercise, take a short break and read the section again. If you did fine, it is now time to move on to the next section of this module where we will apply what we have just learnt in a real life settings.



Application in a real-life setting ...

One of the difficulties that we often face in applying the kind of “abstract” information provided above, is that in a real life situation we fail to recognize the potential risk or only realize this much later. In a sense that is what happened to Cathy. She had been told about HIV, she knew what the risks were; yet she failed to apply the necessary measures to protect herself. A second important issue is that we often forget that the supplies that we know would be available in a setting in the US will also be available in the African setting.

Remember ...

In real life we often fail to recognize potential risk situations AND we forget that essential supplies that will protect us against HIV may not be available

The following example, which just like Cathy’s story is based on a true situation, serves to illustrate this point.

A necessary haircut

Albert, the US pre-med student, whom we met earlier in the text, had been in Botswana for three months as a volunteer in a rural hospital when he was told that the Prime Minister would be coming to visit the hospital. As these things go in Africa, the information of the visit reached the hospital less than a day before the Prime Minister was going to arrive. There was a flurry of activity getting everything ready and, with about two hours to spare everything, was ready. Realizing that he had some time, and having noticed that morning in the mirror that his beard and hair were both looking rather wild, Albert rushed to the barber downtown. It was a very busy day and the barber worked simultaneously on Albert and the other guest - cutting their hair, trimming beards and getting rid of excess hair.

Analysis of this example

This example shows how a relatively inoffensive activity for which we probably would not think of taking preventive measures, can become a situation of potential risk. If the barber only uses his scissors – providing of course that he does not accidentally stab both men within seconds from one another – then potential risk is low. However, if the barber uses the same razor (a common practice) to deal with the beards of both men then what was initially a low potential risk situation suddenly becomes a high potential risk

situation. And sitting in a barber's chair, you often don't realize what is happening until you actually feel the razor hitting your skin.



Exercise 6

Now, have a go at applying what you have learned to the following real-life situation. Read the story carefully and in the space provided below indicate: i) whether this is a high or low potential risk situation and ii) the reason for your choice. In answering this question, remember that conditions in an African setting are often not the same as those that you would expect to encounter in the US.

Barbara, a young American girl working with the Peace Corps has had a high fever for two days. Thinking that she might have malaria, she asks a colleague to take her to the local health clinic for a check-up. Because her colleague knows the head nurse she is ushered inside for a quick blood test which will determine whether she has malaria.

i) Is this a potential high or low risk situation?

- High risk
- Low risk

ii) What is the reason for your answer?

Feedback

As before, you will find the answer to this exercise in the answer section at the end of this module. Make sure you carefully compare your response to both parts of the question with the model answer. If you feel unsure about what you have learned so far then go back and review the material again before moving on to the next section.

Good work so far! You have completed about one third of the module, which means you are well on your way to acquiring the knowledge and skills that you need to be able to adequately protect yourself from the risk of HIV infection! Next we will look briefly at situations of high personal risk and then move on to consider measures that you can take to protect yourself against HIV contamination.



5 – Situations of High Personal risk

As we have just learned, a key element in the evaluation of any situation, setting or scenario from the perspective of HIV risk is whether there are blood or bodily fluids present. However, as was mentioned earlier, much of the personal risk will depend on your own position in that setting. The following example will serve to illustrate this point.

A tragic accident ...

On her way to the downtown market for grocery shopping Linda comes across the scene of an accident. A small bus transporting people to work hit a curb going round the corner. Because it was traveling at high speed (a common problem with these kind of transport services!) the bus skidded and fell on its side. Many of the passengers have sustained injuries. Linda stops and steps out of her car to see what she can do to help.

Characteristics of a high personal risk situation

In order to be able to judge whether there is a high personal risk for Linda we first need to know what she does next. If she limits herself to calling for help using her cell phone, then her personal risk is going to be low. After all she will not be in direct contact with any of the injured. If, on the other hand, she is going to be actively involved in helping the injured get into the hospital she will be putting her self in a situation where she will come into direct contact with bodily fluids which dramatically increases the level of risk of the situation.

Remember ...

Personal risk means blood and bodily fluids are present AND that you are at risk of direct contact with the blood/fluids

One important element of the assessment of personal risk is therefore **whether there is direct contact with blood or bodily fluids**. A second important element is the **physical condition** of that person concerned at the time in which he/she comes into contact with

the potential source of infection. **Any wound or lesion** on the body of the person who comes in contact with infected blood or bodily fluids further increases the chances of

Remember ...

Any wound or lesion (including sexually transmitted diseases) will significantly increase risk of HIV transmission

infection. So, if Linda has - or contracts - any kind of open wound in the process of transporting injured people to the hospital then her chances of getting infected are even greater.

In the same manner, a person who has unprotected sex is without doubt putting him or herself in great risk of getting infected. However, if that person also has any kind of lesion in

the genital area (these lesion are usually associated with sexually transmitted diseases), then the chances of infection become much greater.

A high personal risk situation is therefore any situation, setting or scenario in which there is the presence of blood or bodily fluids and you (or the person concerned) are in a position where there is a potential for direct contact with blood/bodily fluids. The personal risk is greatly increased if the person has an open wound or lesion that is liable to come into contact with the blood/bodily fluids.

Now let's consider the situations below and examine whether these are high personal risk situations:



Sharing a glass with a person at a party

Assessment of personal risk: Sharing a glass with a person at a party does not involve direct exposure to blood or bodily fluids so this is a low risk situation



Getting a shot of intravenous antibiotics to cure a nasty infection

Assessment of personal risk: Getting an intravenous shot involves direct contact with blood so is potential high risk. The personal risk will depend on whether disposable needles are used or not and this is something to which we will return in the last section of this module.



Caring for babies at a local orphanage

Assessment of personal risk: As long as taking care of babies at a local orphanage does not involve contact with blood or bodily fluids there is no high-risk situation. This changes, of course, if there is a high probability for such contact. Children with tuberculosis – a disease commonly associated with HIV/AIDS - for example, might cough up blood.



Giving counseling to people who have been diagnosed HIV positive

Assessment of personal risk: Giving counseling to HIV positive people involves direct contact with people who are infected but here too there is not direct exposure to blood or bodily fluids so there is not risk of infection.



Spending the weekend at the house of a homosexual friend (non-sexual)

Assessment of personal risk: Spending the weekend with a friend who is homosexual is a low risk situation. Again because irrespective of the person's HIV status there is no direct contact with blood or bodily fluids so this is not a situation of personal risk. The same would apply when staying with a friend who is HIV-positive.

Now, it is time to test what we have just learned before we move on ...



Exercise 7

In a few words describe what makes for a high personal risk situation from an HIV perspective.

Good work! Remember to check your answers once more in the relevant section at the end of the module and to assess whether you are making adequate progress. If you did not perform well on this exercise please go back and re-read the section. If you are happy with your progress move on to the next section in which we look at a practical application.



Application in a real life setting ...

Just as we did with our discussion of the practical examples of a potential risk situation, we will now look at one detailed real-life scenario to see how we can apply what we have learned to real life settings.

Helping others learn ...

Ana is working as a primary school teacher in a rural area in Mozambique. Once she gets to know the children well she learns that a number of them have lost one or both of their parents recently. Although the children do not explicitly mention it, Ana is quite sure that many of the parents probably died of HIV/AIDS. Ana tries to give these children comfort and support both during the class periods and outside of class when she helps them in their sports and extra curricular activities.

Analysis of this example

Is Ana putting herself at risk? Based on what we have learnt the answer to this question would be “no” **as long as** she does not come in contact with blood or bodily fluids. However, when playing or practicing sports it is possible that these children will hurt themselves and that Ana will administer first aid. Under these conditions of direct contact with blood or bodily fluids Ana will be in direct personal risk and need to protect herself.



Exercise 8

In the spaces provided below provide one example of a high personal risk situation and one example of a low personal risk situation. You may use examples from your own personal experience if you wish. Then, for each example write a short statement outlining how you decided this was a high or low personal risk situation.

i) Example of a high personal risk situation

Reason(s):

ii) Example of a low personal risk situation

Reason(s)

A word of caution ...

For the purpose of the exercises and examples in this module we are constantly trying to make clear distinctions between high and low potential and personal risk situations.

However, it is important to remember that it is not always that easy to make this distinction since some settings are not as clear-cut as they might seem at first glance. So, while going to a bar with your friends for a couple of drinks and a good time in itself does not make for a high potential risk situation, you may end up putting yourself in a situation of high personal risk if the quantity that you drink ends up impairing your judgment which might lead you to either engage in unsafe sex or use drugs. The same could apply to other situations.

We are now going to move on to the final major section of this module that deals with preventive measures. As you have already done before, read this section carefully since it

provides a comprehensive overview of the many ways in which you can protect yourself from being infected with the HIV virus. And, hang on in there, we are almost finished ...



6 – Preventive measures – what you can do!

Now that you have a good understanding of the characteristics of high potential risk situations and high personal risk situations, this final section of the module will cover a variety of measures for HIV prevention.

To facilitate our discussion three categories of preventive measures will be discussed in turn. These three categories are:

- a) Preventive measures prior to departure to Africa;
- b) General preventive measures once you have arrived;
- c) Preventive/protective measures in case of direct exposure to the HIV virus.

After each of the three sections you will do a short exercise that will help you memorize what you have just learnt. Be sure to attempt each of these exercises and to refer to the answer sheet on p.35 to check your answers. Let's now look at each of the three categories in turn.



Preventive measures before you leave

One of the main problems in African countries is that it is difficult to predict whether you will be able to purchase the kind of things that here in the US you would be able to acquire at almost any store.

Some (but certainly not all!) of the large cities in Africa will have a reasonable supply of goods. However, the small cities and towns often have only very limited supplies.

Remember ...

You may not be able to get the supplies you would be able to purchase in the US.

Make sure you buy:

- **Gloves**
- **Condoms**
- **Disposable needles**

Because of the variety of situations in which you may be exposed to the HIV, the general guideline is that it is important to try to be prepared for any situation that might arise,

even those that you would not normally expect yourself to be caught in. UNAIDS advises that you as a soon to be travelers to Africa to make sure you:

Purchase supplies, including:

- Disposable latex gloves (various pairs to keep in different places)
- Condoms (note that there are both male and female condoms available)
- Disposable needles (ask your physician for needles that can be used for blood tests as well as blood transfusions).

Acquire an adequate health insurance

Your insurance will need to be sufficiently comprehensive to cover expenses at your destination and include a provision for paying for possible repatriation to the US in case emergency medical care needs to be provided.

Visit a physician if you suspect you may have a STD

If you have an STD get it treated before you leave, even if you don't intend to have sex while you are away. Getting adequate treatment will ensure that you are in good general health. Also, that way if you do happen to meet your long-lost boy or girlfriend whom you have always regretted dumping somewhere in Africa, you will not have too many qualms about picking up where you left off "x" years ago.

Now, before you attempt exercise 8, briefly look back over the main points of this last section to make sure you have memorized what has just been discussed.



Exercise 9

Please list below the main supplies you need to take when traveling to Africa

- i) _____
- ii) _____
- iii) _____

Purchasing these supplies is one of the key preventive measures you would take before departing. What other 2 key preventive measures does UNAIDS advice you take before leaving?

Feedback

As usual you will find the answers to the questions on the answer sheet on p. 35. Check how you did and then decide whether you will move on to the next section or repeat the reading.



Preventive measures once you arrive

Now that you have purchased the supplies you need, and taken the other preventive measures that were recommended, it is important that once you arrive at your destination in Africa, you make use of the knowledge **and** supplies that you have acquired. So, in day-to-day situations, make sure you do the following:

Have two or more pairs of latex gloves with you at all times

Your best bet is to make sure that you have some gloves in the bag that you use for everyday purposes. If you use a car or other form of transportation make sure you have gloves there too. Tell at least one other person who is traveling or staying with you that you have the gloves so that they can use them if you are unable to do so yourself.

Have your disposable needles close at hand in case you need them

Make sure you take needles with you when you travel and at any time that you have to go to a hospital – even if you don't use them for yourself they may come in handy for others! Make sure you have at least two of each of the kinds of needles indicated above.

Upon arrival find out what local health facilities are like

Crucial questions that you will need to ask include:

- i) Is all donated blood screened for HIV? If not and you think you might need a blood transfusion there are three steps that you might consider:
 - donate blood for your own use later
 - find a friend or colleague who has the same blood group and can vouch that they are HIV negative (of course there is still a small risk this person is not telling the truth but you still stand a much better chance of not becoming infected than if you were to have a blood transfusion with untested blood in a context where HIV infection rates are very high)
 - consider using artificial plasma (the Embassy/Consulate may be able to help you with where to obtain this)
- ii) What is the most reliable source of medical care and where is it located?
 - Make sure you ask friends and colleagues about medical facilities in general. That way, if something happens, you will be well prepared and know where you want to be taken for medical assistance.

Visit to the US Embassy or consulate at your destination (if there is one)

Make sure you register yourself at the Embassy/Consulate so that they are aware that you are in the country and will be able to provide you with assistance if you need it. The Embassy/Consulate may also have specific guidelines regarding HIV/AIDS.

Before you attempt exercise 9, again briefly look back over the main points of this last section to make sure you have a good understanding of what has just been discussed.



Exercise 10

You have just learnt about preventive measures that you need to take once you arrive at your destination. Now test your memory and list the four main measures below.

- i) _____

ii) _____

iii) _____

iv) _____

Feedback

Great work! Please check your answers against the answer sheet. If you feel you need to further consolidate what you have just learnt then go back over the material again and then repeat the exercise.



Preventive/protective measures in case of direct exposure to HIV

Remember that a situation of possible direct exposure would involve possible contact with blood or bodily fluids. If you are in such a situation ALWAYS take appropriate measures i.e.:

If you have sex with someone use a condom

Make sure you use a new condom every time. Check to see that the date on the condom has not expired. For the women, remember that the female condom may be a good alternative since it protects you even if your partner does not want to use a condom!

Use gloves if you know you will be in touch with blood and bodily fluids

If you are going to be in touch with blood or other bodily fluids in any other way than through sexual contact, always use gloves. If you have open wounds stay away from any possible source of infection until your wounds or lesions have healed.

Get anti-retroviral drugs if you fear you might have been exposed to HIV

If you did not take adequate protection and have been in contact with blood or bodily fluids do the following:

- Get in touch with a reliable physician immediately. He/she can prescribe anti-retroviral drugs (the medication that is used for HIV/AIDS) for a period of six weeks.

Although the anti-retroviral drugs have some side effects, taking these drugs will greatly decrease your chances of becoming infected with the virus.

- If you do not get adequate support from your physician or have difficulties in getting access to the drugs you need then get in touch with the local US Embassy/Consulate and ask them to help you.



Exercise 11

You are almost done now! As a final test of what we have just covered please list below the main preventive/protective measures that you will take in case of direct exposure to the virus.

- i) _____
- ii) _____
- iii) _____

Feedback

Excellent! Check your answers against the answer sheet provided at the back of the module. If you were able to identify the required number of measures for questions 8, 9, and 10 then you did a great job and are now ready to move on to the very last part of this module. If you had difficulty in coming up with these preventive measures then please re-read this section and try again. Do not be discouraged if you have to re-read this section. This section provides you with crucial information that will allow you to protect yourself adequately against the risk of HIV infection. Also, when you read the text a second time, you will find that it is much easier to remember the material.



Application in a real life setting ...

Before we move on to the summary section of this module let's consider two final examples of a practical application of what we have just learnt in a real life settings.

The shopping list

Albert is going to be leaving for Africa in three weeks. One of the things he has to do before he leaves is buy supplies that he will need for his trip. He has read this module and knows exactly what he needs to bring. Here are some of the items on his list that are relevant to what we have just learnt:

Items to buy at pharmacy:

10 pairs of disposable latex gloves

20 condoms

disposable needles as per prescription from the doctor



Another application

The above example was pretty straightforward. Now, let's consider one that is slightly more complex. The example below is of a high risk setting and discusses the relevant preventive measures that were applied in this context.

Facing surgery far from home...

Charlene has been told that she will have to undergo surgery and that it is likely that she will need a blood transfusion. This is a situation of potential high personal risk because it involves direct contact with the blood of another person. Because her surgery is urgent, Charlene does not have the option of being evacuated to another hospital or back to the US.

Good, now let's look at what Charlene could do to provide herself with the best possible protection in this situation. If Charlene is not sure that the blood supply at the hospital is safe, and does not have the option of going to a more reliable hospital, the first thing she needs to do is to find out, from a reliable source, whether ALL blood in the hospital is tested for HIV. This is a question that she would need to ask her physician. In addition, she might want to check the general reputation of the hospital by asking any of the local people that she has been working with what experience they have with the hospital and what they know about the reliability of the blood supply.

If there is any doubt at all about the quality of the blood then there are two further options Charlene could consider:

- i) Use artificial plasma or;
- ii) If plasma is not available, Charlene could find a close friend, with her blood group or a person who qualifies as a universal donor, who is willing to donate the blood that she will need for the operation. She would have to carefully explain to that person the seriousness of the matter and ask them whether they have been tested for HIV. As was mentioned earlier, although there is always a possibility that the donor is not truthful, chances are very few people would want to take such a huge risk.

The above discussion should have made it clear to you that there are a number of preventive/protective measures that you can take; i) before you embark on your trip; ii) once you arrive and; iii) if you believe that you might have been exposed to blood and bodily fluids and had not protected yourself. Being aware and actively applying these measures is essential to avoiding HIV infection.

You have done excellent work on this material! There is only one last section left of the module before the post-test. In this last section I will review with you what you have learned.



7 - Summary and Conclusion

You have almost concluded this instruction! Now let's briefly review what you have learned in this module.

About two thirds of all HIV infected people live in Africa. HIV infection is highly prevalent there among people of all ages and ethnicities. The highest rates of infection are among young heterosexual adolescents and young adults, with approximately one in three adults in countries with the highest rates of infection being HIV positive.

You need to be aware of situations of risk if you are to protect yourself. The easiest way to identify situations of high general risk of HIV infection is to remember that blood and/or bodily fluids (semen, vaginal secretions and breast milk) must be present.

Examples of such situations include accident sites, working at a hospital, breastfeeding, etc.

A high general risk situation does not necessarily mean that you are personally at risk. We therefore also discussed the concept of personal risk. Personal risk arises if you come in direct contact with the blood or bodily fluids. Personal risk is greatly increased if you have any external wounds and lesions, including those that are associated with sexually transmitted diseases.

It is important to protect yourself against HIV infection. You can do this prior to your departure by making sure that you purchase an adequate supply of disposable latex gloves, condoms and disposable needles. If you suspect you have any STD's make sure you get adequate treatment. Once you arrive at your destination, make sure you are able to protect yourself when in a high personal risk situation by having disposable gloves and condoms with you at all times. Make sure too that the disposable needles are in a place where you can access them at all times. Finally, if you believe that you might have been in touch with a potential source of HIV infection, immediately consult a physician and

ask them to prescribe a six week treatment of anti-retroviral drugs so that your chances of becoming infected may be significantly reduced. If you do not get adequate support from your physician or have difficulties in getting access to the drugs you need, then get in touch with the local US Embassy/Consulate and ask them to help you.



A final application in a real life setting ...

Let's consider one final practical application in which we attempt to apply all that we have learned in this module.

Caring for children who have lost their parents

Charlene works as an assistant trainer for staff at an orphanage. Many of the children who are in the orphanage have lost either one or both parents to AIDS. Charlene interacts frequently with the children and often uses her spare time to play with them. On occasion she will help the staff with basic care giving such as feeding the children, bathing them and changing their diapers.

Based on what you have learned from this module, you will probably agree that this is a situation of high overall risk. Some of the children at the orphanage will be HIV positive and will get sick. The reality of the kind of diseases that they will become afflicted is that these may result in the presence of blood or bodily fluids (e.g. children with tuberculosis often cough blood). Charlene is personally at risk because she is taking care of many of the daily needs of children including bathing them, changing diapers and caring for some of their medical needs. For Charlene to be adequately protected she will need to use gloves whenever there is a risk that she will be in touch with blood or bodily fluids. She will also need to be very careful about any external lesions or wounds that she has.



Exercise 12

Read the example below and then answer the four short questions below.

Helping out ...

On his way to a beach two days ago, Albert had to interrupt his journey because a traffic accident had just taken place. Albert was the first to arrive on the scene and helped evacuate the two people who had been badly injured in the accident to the local hospital. Only later did Albert recall that he had made a deep cut in his finger that morning while preparing breakfast. He fears the open wound and the amount of blood he came into contact with may have exposed him to the HIV virus.

i) Is this a high or low **potential** risk setting?

High

Low

ii) Is this a high or low **personal** risk setting?

High

Low

iii) Now that this has happened, should Albert be taking any preventive/protective measures?

Yes

No

iv) If yes, what would you recommend he do?

Feedback

The answers to this final question are found on the answer sheet. I hope you felt comfortable answering this question and that you did well. It is possible that you may have faced difficulties on one of the four parts of this exercise. If so, make sure you go back to the relevant section and review the material.

Good work! You have now concluded this module, which means that you are now able to identify potential high-risk HIV situations, assess your personal risk in these situations and decide on appropriate preventive measures that you will need to take. I hope that working through the material in this module will prove to be a worthwhile and rewarding experience.

I will end with a quote from a book recently published by a South African journalist, Charlene Smith (2001)

HIV is a clever virus... HIV recognizes no race, colour, religion or class; it does not discriminate on the basis of gender or sexual preference; it does not care if you are rich or poor, a sex worker or a managing director. If you ignore its lesson it kills you.



Answer Sheet

Exercise 1

The objective of this exercise was simply to get you to start thinking about the issue of HIV/AIDS. Since responses will differ widely no feedback is provided for this particular question.

Exercise 2

- i) To answer this question correctly you need to mention two of the following features:
- HIV/AIDS is caused by a virus
 - HIV/AIDS has no cure
 - HIV/AIDS involves a gradual collapse of the human immune system.
- ii) HIV comes first and leads to AIDS

Exercise 3

Part 1: The correct answer is c)

Part 2: When a person is HIV positive their immune system is still largely intact. Once AIDS sets in the immune system are no longer able to protect the body against disease and the person will become sick.

Exercise 4

- i) Between 20 and 40%
- ii) Heterosexual adult females in general

Exercise 5

- i) It is not possible for me to guess what particular practical example you will have mentioned here. The key point is that the examples that you have chosen should in some way include the presence of blood or bodily fluids. Some possible examples include:
- Unprotected homosexual contact
 - Mother who is HIV positive breast feeding her child
 - Boxing or other extremely violent sports

- ii) Again, I cannot guess what you will have chosen as you examples but what is important is that you have recognized low risk situations will be those in which there is no presence of blood or bodily fluids. Some of my examples are:
- Friends socializing at a bar
 - Dancing lessons
 - Playing non-violent sports

Exercise 6

- i) This is a high risk situation
- ii) Because it involves blood

Exercise 7

A situation of high personal risk arises when in a potential high-risk situation a person is likely to come into contact with blood or bodily fluids. The risk of this person is greatly increased if he/she has any open wounds or lesions since this increases the chances of direct contact with HIV.

Exercise 8

I do not know what examples you have chosen to discuss here but any example that you include needs to imply presence of blood or bodily fluids and a particular person who is at risk of coming into contact with these. If you also mentioned that wounds or external lesions increase the chances of infection than you did a particularly good job! Examples of low personal risk situations may include presence of blood and bodily fluids but must make it implicit that the person concerned is in no chance of coming into contact with these.

Exercise 9

Supplies to purchase:

- Buy an adequate supply of condoms
- Buy an adequate supply of latex gloves
- Buy disposable needles as per recommendations of physician

The two other key preventive measures UNAIDS advises you to take are:

- i) Make sure you have a comprehensive insurance
- ii) If you have an STD get it treated.

Exercise 10

- a. Have gloves and condoms with you at all times
- b. Keep disposable needles in a place that is immediately accessible when you need them
- c. Find out about the local blood supply. If you need blood consider:
 - i. donating blood for your own use later
 - ii. finding a friend who is HIV negative and can donate blood for you
 - iii. using artificial plasma
- d. Register yourself at the US Embassy/Consulate and find out what their guidelines are with regard to HIV/AIDS.

Exercise 11

In case of possible direct exposure:

- Use a condom for any sexual intercourse
- Use gloves when in touch with blood and bodily fluids
- If you may have been exposed to HIV get the anti-retroviral drug treatment immediately and if your physician does not give you adequate support contact the Embassy/Consulate for help.

Exercise 12

- i) The presence of blood indicates that this is a high potential HIV risk setting.
- ii) The fact that Albert came in direct contact with blood and had an open wound makes this a high personal HIV risk setting.
- iii) Yes, Albert needs to protect himself from becoming HIV positive.
- iv) Albert needs to get in touch with his physician immediately to start the six-week course of anti-retroviral drugs, which will greatly reduce the chances that he becomes HIV, positive.

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