



This document contains two reviews (“HIV infection and AIDS” and a “Tale of two epidemics”) and a review on orphans and vulnerable children. It is followed by a quiz and answers to the questions.

HIV INFECTION AND AIDS: AN OVERVIEW

Extensively updated by Global Strategies for HIV Prevention 2008 (From the National Institutes of Health)

INTRODUCTION

AIDS (acquired immunodeficiency syndrome) was first reported in the United States in 1981 and has since become a major worldwide epidemic. AIDS is caused by HIV (human immunodeficiency virus). By killing or damaging cells of the body's immune system, HIV progressively destroys the body's ability to fight infections and certain cancers. People diagnosed with AIDS may get life-threatening diseases called opportunistic infections, which are caused by microbes such as viruses or bacteria that usually do not make healthy people sick.

More than 900,000 cases of AIDS have been reported in the United States since 1981. As many as 950,000 Americans may be infected with HIV, one-quarter of who are unaware of their infection. The epidemic is growing most rapidly among minority populations and is a leading killer of African-American males ages 25 to 44. According to the Centers for Disease Control and Prevention (CDC), AIDS affects nearly seven times more African Americans and three times more Hispanics than whites. In recent years, an increasing number of African-American women and children are being affected by HIV/AIDS. Approximately two-thirds of U.S. AIDS cases in both women and children are among African-Americans.

The number of new HIV infections in the US peaked in 1987 at approximately 120,000 with a progressive decrease to approximately 40,000 new infections/year for the past years. These results indicate that education and prevention effect behavior change.

WORLDWIDE EPIDEMIOLOGY OF HIV

More than 40 million people are estimated to be living with HIV infection, of which approximately 50% are women and 3 million are children. Approximately half of the infected population is between the ages of 15-24 years. In 2002, for the first time since the beginning of the epidemic, the number of women with HIV infection equaled that of men. The implications of this shift are significant. As more women become infected, especially those of childbearing age, the numbers of HIV-infected children and children orphaned by AIDS are likely to increase dramatically.

An estimated 5 million new HIV infections occur each year. The number of AIDS deaths was

estimated to be 3 million each year among men, women, and children. Two thirds of individuals with HIV infection reside in sub-Saharan Africa.

The prevalence of HIV has varied from region to region as it spreads throughout the world, but it is now believed that no country is free of the virus. Emerging epidemics are rapidly expanding in Central Europe, the former Soviet Union, and Asia. China has reported a steep increase in HIV infections related to migration, intravenous drug use, prostitution, and failure to adequately protect the blood supply. The number of HIV infections in India is the second highest in the world.

The highest prevalence of HIV infection is observed in sub-Saharan Africa, especially in Botswana, South Africa, and Zimbabwe, where as much as 30 to 40% of the population is infected. Outside Africa, the highest percentage of infected people (seroprevalence) is in the Dominican Republic (between 2.5 and 3%). A low seroprevalence may still represent a huge burden of illness in countries with large populations, and may not forestall an explosive increase in the spread of HIV, as has occurred among drug users in Eastern Europe. HIV/AIDS is the leading cause of death in Africa and the fourth leading cause of death worldwide.

PREVENTION

Education and prevention efforts have reduced the number of new HIV infections in many countries including Uganda, Kenya, Zambia, Zimbabwe, parts of India, China, Brazil, Thailand and the US. (See subsequent discussion on prevention.)

TRANSMISSION

Sexual

HIV is spread most commonly by having unprotected sex with an infected partner. The virus can enter the body through the lining of the vagina, vulva, penis, rectum, or mouth during sex.

Risky behavior

HIV can infect anyone who practices risky behaviors such as

- Sharing drug needles or syringes
- Having sexual contact, including oral, with an infected person without using a condom
- Having sexual contact with someone whose HIV status is unknown
- Infected blood

Blood and blood products

HIV also is spread through contact with infected blood. Before donated blood was screened for evidence of HIV infection and before heat-treating techniques to destroy HIV in blood products were introduced, HIV was transmitted through transfusions of contaminated blood or blood components. Today, because of blood screening and heat treatment, the risk of getting HIV from such transfusions is extremely small.

Contaminated needles

HIV is frequently spread among injection drug users by the sharing of needles or syringes contaminated with very small quantities of blood from someone infected with the virus.

It is rare, however, for a patient to give HIV to a health care worker or vice-versa by accidental sticks with contaminated needles or other medical instruments.

Mother to child

Women can transmit HIV to their babies during pregnancy or birth. Approximately one-quarter to one-third of all untreated pregnant women infected with HIV will pass the infection to their babies. HIV also can be spread to babies through the breast milk of mothers infected with the virus. If the mother takes certain drugs during pregnancy, she can significantly reduce the chances that her baby will get infected with HIV. If health care providers treat HIV-infected pregnant women and deliver their babies by cesarean section, the chances of the baby being infected can be reduced to a rate of 1 percent. HIV infection of newborns has been almost eradicated in the United States due to appropriate treatment.

A study sponsored by the National Institute of Allergy and Infectious Diseases (NIAID) in Uganda found a highly effective and safe drug for preventing transmission of HIV from an infected mother to her newborn. Independent studies have also confirmed this finding. This regimen is more affordable and practical than any other examined to date. Results from the study show that a single oral dose of the antiretroviral drug nevirapine (NVP) given to an HIV-infected woman in labor and another to her baby within 3 days of birth reduces the transmission rate of HIV by half compared with a similar short course of AZT (Azidothymidine). For more information on preventing transmission from mother to child, go to <http://aidsinfo.nih.gov/guidelines>.

Saliva

Although researchers have found HIV in the saliva of infected people, there is no evidence that the virus is spread by contact with saliva. Laboratory studies reveal that saliva has natural properties that limit the power of HIV to infect, and the amount of virus in saliva appears to be very low. Research studies of people infected with HIV have found no evidence that the virus is spread to others through saliva by kissing. The lining of the mouth, however, can be infected by HIV, and instances of HIV transmission through oral intercourse have been reported.

Scientists have found no evidence that HIV is spread through sweat, tears, urine, or feces.

Casual contact

Studies of families of HIV-infected people have shown clearly that HIV is not spread through casual contact such as the sharing of food utensils, towels and bedding, swimming pools, telephones, or toilet seats.

HIV is not spread by biting insects such as mosquitoes or bedbugs.

Sexually transmitted infections

Sexually transmitted infections (STI) such as syphilis, genital herpes, chlamydial infection, gonorrhea, or bacterial vaginosis appears, increase the susceptibility to getting HIV infection during sex with infected partners.

EARLY SYMPTOMS OF HIV INFECTION

Many people do not have any symptoms when they first become infected with HIV. They may, however, have a flu-like illness within a month or two after exposure to the virus. This illness may include

- Fever
- Headache
- Tiredness
- Enlarged lymph nodes (glands of the immune system easily felt in the neck and groin)

These symptoms usually disappear within a week to a month and are often mistaken for those of another viral infection. During this period, people are very infectious, and HIV is present in large quantities in genital fluids.

More persistent or severe symptoms may not appear for 10 years or more after HIV first enters the body in adults, or within 2 years in children born with HIV infection. This period of "asymptomatic" infection varies greatly in each individual. Some people may begin to have symptoms within a few months, while others may be symptom-free for more than 10 years.

Even during the asymptomatic period, the virus is actively multiplying, infecting, and killing cells of the immune system. The virus can also hide within infected cells and lay dormant. The most obvious effect of HIV infection is a decline in the number of CD4 positive T (CD4+) cells found in the blood-the immune system's key infection fighters. The virus slowly disables or destroys these cells without causing symptoms.

As the immune system worsens, a variety of complications start to take over. For many people, the first signs of infection are large lymph nodes or "swollen glands" that may be enlarged for more than 3 months. Other symptoms often experienced months to years before the onset of AIDS include:

- Lack of energy
- Weight loss
- Frequent fevers and sweats
- Persistent or frequent yeast infections (oral or vaginal)
- Persistent skin rashes or flaky skin
- Pelvic inflammatory disease in women that does not respond to treatment
- Short-term memory loss
- Some people develop frequent and severe herpes infections that cause mouth, genital, or anal sores, or a painful nerve disease called shingles. Children may grow slowly or be sick a lot.

WHAT IS AIDS?

The term AIDS applies to the most advanced stages of HIV infection. CDC developed official criteria for the definition of AIDS and is responsible for tracking the spread of AIDS in the United States.

CDC's definition of AIDS includes all HIV-infected people who have fewer than 200 CD4+ T cells per cubic millimeter of blood. (Healthy adults usually have CD4+ T-cell counts of 1,000 or more.) In addition, the definition includes 26 clinical conditions that affect people with advanced HIV disease. Most of these conditions are opportunistic infections that generally do not affect healthy people. In people with AIDS, these infections are often severe and sometimes fatal because the immune system is so ravaged by HIV that the body cannot fight off certain bacteria, viruses, fungi, parasites, and other microbes.

Symptoms of opportunistic infections common in people with AIDS include:

- Coughing and shortness of breath
- Seizures and lack of coordination
- Difficult or painful swallowing
- Mental symptoms such as confusion and forgetfulness
- Severe and persistent diarrhea
- Fever
- Vision loss
- Nausea, abdominal cramps, and vomiting
- Weight loss and extreme fatigue
- Severe headaches
- Coma

Children with AIDS may get the same opportunistic infections as do adults with the disease. In addition, they also have severe forms of the typically common childhood bacterial infections, such as conjunctivitis (pink eye), ear infections, and tonsillitis.

People with AIDS are also particularly prone to developing various cancers, especially those caused by viruses such as Kaposi's sarcoma and cervical cancer, or cancers of the immune system known as lymphomas. These cancers are usually more aggressive and difficult to treat in people with AIDS. Signs of Kaposi's sarcoma in light-skinned people are round brown, reddish, or purple spots that develop in the skin or in the mouth. In dark-skinned people, the spots are more pigmented.

During the course of HIV infection, most people experience a gradual decline in the number of CD4+ T cells, although some may have abrupt and dramatic drops in their CD4+ T-cell counts. A person with CD4+ T cells above 200 may experience some of the early symptoms of HIV disease. Others may have no symptoms even though their CD4+ T-cell count is below 200.

Many people are so debilitated by the symptoms of AIDS that they cannot hold a steady job or do household chores. Other people with AIDS may experience phases of intense life-threatening illness followed by phases in which they function normally.

A small number of people first infected with HIV 10 or more years ago have not developed symptoms of AIDS. Scientists are trying to determine what factors may account for their lack of progression to AIDS, such as

Whether their immune systems have particular characteristics

Whether they were infected with a less aggressive strain of the virus

If their genes may protect them from the effects of HIV

Scientists hope that understanding the body's natural method of controlling infection may lead to ideas for protective HIV vaccines and use of vaccines to prevent the disease from progressing.

DIAGNOSIS

Because early HIV infection often causes no symptoms, health care providers usually can diagnose it by testing blood for the presence of antibodies (disease-fighting proteins) to HIV. HIV antibodies generally do not reach noticeable levels in the blood for 1 to 3 months following infection. It may take the antibodies as long as 6 months to be produced in quantities large enough to show up in standard blood tests. Hence, to determine whether an individual has been recently infected (acute infection), the health care provider can screen the individual for the presence of HIV genetic material. Direct screening of HIV is extremely critical in order to prevent transmission of HIV from recently infected individuals.

Individuals exposed to the virus, should get an HIV test as soon as they are likely to develop antibodies to the virus-within 6 weeks to 12 months after possible exposure to the virus. By getting tested early, if infected, they can discuss with their health care provider when they should start treatment to help their immune system combat HIV and help prevent the emergence of certain opportunistic infections (see section on treatment below). Early testing also alerts them to avoid high-risk behaviors that could spread the virus to others.

Most health care providers can do HIV testing and will usually offer counseling at the same time. Of course, anyone can be tested anonymously at many sites if they are concerned about confidentiality.

Health care providers diagnose HIV infection by using two different types of antibody tests: ELISA and Western Blot. If an individual is highly likely to be infected with HIV but has been tested negative for both tests, their health care provider may request additional tests. They also may be told to repeat antibody testing at a later date, when antibodies to HIV are more likely to have developed.

Babies born to mothers infected with HIV may or may not be infected with the virus, but all carry their mothers' antibodies to HIV for several months. If these babies lack symptoms, a doctor cannot make a definitive diagnosis of HIV infection using standard antibody. Health care providers are using new technologies to detect HIV to more accurately determine HIV infection in infants between ages 3 months and 15 months. They are evaluating a number of blood tests to determine which ones are best for diagnosing HIV infection in babies younger than 3 months.

TREATMENT

When AIDS first surfaced in the United States, there were no medicines to combat the underlying immune deficiency and few treatments existed for the opportunistic diseases that resulted.

Researchers, however, have developed drugs to fight both HIV infection and its associated infections and cancers.

HIV infection

The Food and Drug Administration (FDA) has approved over 24 drugs for treating HIV infection. The first group of drugs used to treat HIV infection, called nucleoside reverse transcriptase (RT) inhibitors, interrupts an early stage of the virus making copies of itself. These drugs may slow the spread of HIV in the body and delay the start of opportunistic infections. This class of drugs, called nucleoside analogs, include for example:

Combivir	Epzicom	Trizivir	Videx	Ziagen
Emtriva	Hivid	Truvada	Viread	
Epivir	Retrovir	Videx EC	Zerit	

Health care providers can prescribe non-nucleoside reverse transcriptase inhibitors (NNRTIs), such as

Delavirdine
Nevirapine
Efavirenz

FDA also has approved a second class of drugs for treating HIV infection. These drugs, called protease inhibitors, interrupt the virus from making copies of itself at a later step in its life cycle. They include

Agenerase	Fortovase	Lexiva	Reyataz
Aptivus	Invirase	Norvir	Viracept
Crixivan	Kaletra	Prezista	

FDA also has introduced a third new class of drugs, known as fusion inhibitors, to treat HIV infection. Fuzeon (enfuvirtide or T-20), the first approved fusion inhibitor, works by interfering with HIV-1's ability to enter into cells by blocking the merging of the virus with the cell membranes. This inhibition blocks HIV's ability to enter and infect the human immune cells. Fuzeon is designed for use in combination with other anti-HIV treatment. It reduces the level of HIV infection in the blood and may be active against HIV that has become resistant to current antiviral treatment schedules.

FDA has introduced a fourth class of drugs termed entry inhibitors which block alternate HIV receptors on cells known as CCR5. The only approved drug in this class is called Selzentry.

Because HIV can become resistant to any of these drugs, health care providers must use a combination treatment to effectively suppress the virus. When multiple drugs (three or more) are used in combination, it is referred to as highly active antiretroviral therapy, or HAART, (also referred to simply as antiretroviral therapy or ART) and can be used by people who are newly infected with HIV as well as people with AIDS.

Researchers have credited HAART as being a major factor in significantly reducing the number of deaths from AIDS in this country. While HAART is not a cure for AIDS, it has greatly improved the health of many people with AIDS and it reduces the amount of virus circulating in the blood to nearly undetectable levels. Researchers, however, have shown that HIV remains present in hiding places, such as the lymph nodes, brain, testes, and retina of the eye, even in people who have been treated.

Side effects

Despite the beneficial effects of HAART, there are side effects associated with the use of antiviral drugs that can be severe. Some of the nucleoside RT inhibitors may cause a decrease of red or white blood cells, especially when taken in the later stages of the disease. Some may also cause inflammation of the pancreas and painful nerve damage. There have been reports of complications and other severe reactions, including death, to some of the antiretroviral nucleoside analogs when used alone or in combination. Therefore, health care experts recommend that individuals be routinely seen and followed by their health care provider if they are on antiretroviral therapy.

The most common side effects associated with protease inhibitors include nausea, diarrhea, and other gastrointestinal symptoms. In addition, protease inhibitors can interact with other drugs resulting in serious side effects. Fuzeon may also cause severe allergic reactions such as pneumonia, trouble breathing, chills and fever, skin rash, blood in urine, vomiting, and low blood pressure. Local skin reactions are also possible since it is given as an injection underneath the skin.

If individuals are taking HIV drugs, they should contact their health care provider immediately if they have any of these symptoms.

Opportunistic infections

A number of available drugs help treat opportunistic infections. These drugs include

Foscarnet and ganciclovir to treat CMV (cytomegalovirus) eye infections

Fluconazole to treat yeast and other fungal infections

TMP/SMX (trimethoprim/sulfamethoxazole) or pentamidine to treat PCP (Pneumocystis carinii pneumonia)

Cancers

Health care providers use radiation, chemotherapy, or injections of alpha interferon-a genetically engineered protein that occurs naturally in the human body-to treat Kaposi's sarcoma or other cancers associated with HIV infection.

PREVENTION

All means of HIV infection can be prevented. HIV is not transmitted casually.

Because no vaccine for HIV is available, the only way to prevent infection by the virus is to avoid behaviors that put individuals at risk of infection, sure a safe blood supply for transfusions, drugs

to prevent HIV transmission from infected mothers to their infants and to formula feed infants born to HIV infected mothers.

Prevention of sexual transmission of HIV

Many people infected with HIV have no symptoms. Therefore, there is no way of knowing with certainty whether a sexual partner is infected unless he or she has repeatedly tested negative for the virus and has not engaged in any risky behavior. Individuals should either abstain from having sex or use male or female latex condoms, which may offer partial protection, during oral, anal, or vaginal sex.

The ABC approach (abstinence, be faithful, condoms) has resulted in significant reduction of new infections. Individuals who abstain from sex or who practice mutual monogamy did not become infected with HIV. Reduction of the number of sexual partners and delay in sexual intercourse has also been shown to reduce new HIV infections. Male circumcision results in decrease infection of males but has no protective effect for females.

Although some laboratory evidence shows that spermicides can kill HIV, researchers have not found that these products can prevent individuals from getting HIV.

Blood transmission of HIV

Blood donors and blood products can be tested for HIV with sensitive methods to detect antibody or virus. In spite of the over 20-year availability of tests to detect HIV, blood transfusions may still be unsafe in developing countries where the percentage of HIV infections is high or where tests are either not performed or performed inaccurately. In addition, there is a "window" period during which an HIV infected individual may not test positive for HIV.

Prevention of HIV transmission from infected mothers to their infants

Treatment of HIV infected mothers during pregnancy and treatment of infants after birth can prevent from 50% to 95% of HIV infection of infants. The more drugs that are used and the longer the treatment, the more likely that infection will be prevented. In addition, Cesarean section may further reduce HIV infection by reducing the exposure of the infant to HIV in vaginal secretions. Infants born to HIV infected mothers should not be breast-fed providing that formula feeding can be provided safely. In resource poor countries where water supplies are unsafe and where breast-feeding substitutes are expensive, continued exclusive breast-feeding for up to five months is recommended. Recent clinical research suggests that treating mothers with antiretroviral drugs during breast-feeding may prevent HIV transmission through breast-feeding.

Post exposure prophylaxis

Healthcare workers, who care for HIV infected patients or who performed laboratory tests on patients, are at risk for acquiring HIV infection if they are accidentally injected with blood. When this occurs, prompt treatment with antiretroviral drugs for four weeks can prevent transmission of HIV infection. Similarly, a woman who is raped by an HIV infected man or a man of unknown HIV infection status, post exposure prophylaxis with antiretroviral drugs along with antibiotics can prevent HIV and other sexually transmitted diseases.

Needle and syringe exchange

Needle and syringe exchange programs are an effective means of preventing HIV infection in individuals who used drugs. There is no evidence that needle or syringe exchange increases drug addiction. Prevention of HIV infection is a compassionate response to individuals who are ready dealing with the complications of drug addiction reducing their burden of additional disease and also reducing the economic burden of treating a chronic diseases such as HIV and hepatitis.

MORE INFORMATION

Global Strategies for HIV Prevention

www.globalstrategies.org

Hope Walks

www.hopewalks.org

CDC

<http://www.cdc.gov>

HIV InSite

<http://hivinsite.ucsf.edu>

Women, Children, and HIV

<http://www.womenchildrenhiv.org>

UNAIDS

<http://www.unaids.org>

National Institutes of Health (NIAID)

<http://www.niaid.nih.gov>



hopewalks

A PROMISE TO CHILDREN OF THE EPIDEMIC

A Tale of Two Epidemics

Those who live in resource rich countries benefit from the remarkable scientific advances in HIV. With over 20 drugs to treat HIV infection, the lives of those who are infected have been extended for several decades; with knowledge of how to prevent all means of HIV transmission, new HIV infections have decreased significantly. Not so for those in resource poor countries – especially for children.

Never before have so many children been orphaned by a single disease. The HIV/AIDS epidemic has resulted in an estimated 15 million children who have lost one or both parents to AIDS. Every day, another 6,100 children are added to that number—a situation unprecedented in recorded history. Whether children have lost one parent or both, they are considered orphans or vulnerable children because the remaining parent is usually too ill to work or support the family. Among the millions of orphans are many children who are themselves infected with HIV.

Treatment of HIV-exposed or infected children in resource-poor countries lags behind developed countries where virtually all HIV-infected infants receive combination antiretroviral drugs and prophylactic antibiotics. At the end of 2005, less than 5 percent of the 2.3 million children living with HIV in resource-poor countries received treatment. Even cotrimoxazole, a generic antibiotic capable of reducing death from infectious complications of HIV by 40 percent, and costing less than \$3 per year per child, is not routinely used in most resource-poor countries. Yet the need to treat children is urgent, as HIV infection progresses to AIDS more rapidly in children than in adults. Without treatment, 30 percent of HIV-infected infants die within their first year of life and 60 percent die by age 5.

Children with HIV who live in rural areas or in foster parent/orphan care settings have minimal access to medical care or healthcare facilities. Healthcare workers often are not trained to recognize, diagnose and care for HIV-infected children. Even when healthcare workers are available, they are often overwhelmed with meeting basic needs and dealing with other serious and life-threatening diseases, such as malaria and tuberculosis. It would take 19 years in the US to reach the number of HIV infected infants born in one day in resource poor countries.

Why are there so many orphans and vulnerable children?

Increasing numbers of HIV infected women of child bearing age

The number of children orphaned by HIV/AIDS is increasing at an unprecedented rate – 6,100 each day. The rapidly growing number of orphans reflects the dramatic increase in HIV infection of women of childbearing age. Women now represent 50 percent of the people living with HIV infection. While 70 percent to 80 percent of infants born to HIV infected mothers escape infection, all are likely to become orphaned as their parents die from HIV complications or become too ill to support the family.

Lack of Highly Visible International Advocacy

The geographic isolation of orphaned children in resource-poor countries has created a physical and intellectual distance between their suffering and an understanding of the extent of the epidemic. Their physical, psychosocial and spiritual needs are seldom heard, so we do not see their pain. Because children cannot advocate for themselves, others must speak for them. We are reminded of the words of Marion Wright Edelman, easily adapted to resource-poor countries:

“Having lobbied for children’s rights issues in Washington, DC, over the past 18 years, I am convinced that the new direction will not come from inside the political process. Politicians love to make speeches about families and children, but when they get back to Washington and budget battles, kids are the last to cross their minds. Kids don’t vote. And political leaders respond to three things: threats to their reelection, potential embarrassment in the media, and the promise of campaign contributions. Children don’t make campaign contributions, and many of their parents are too busy struggling to make ends meet to get involved in campaigns. If change is to come, it will happen because people like you respond in an aggressive, sustained, and even outraged way.”

Inattention to physical, psychosocial and spiritual needs of OVC

Inattention leaves OVC vulnerable to exploitation. Gangs and rebel armies provide a substitute for families. Hamish Young from UNICEF described the plight of orphans as, “Putty in the hands of warlords.” Orphaned children deal with their own mortality as they lose their parents and siblings, often suffering in grief alone without any psychosocial or spiritual support. Older orphans, as they approach adulthood, face an uncertain future. Often they lack the maturity needed to make decisions about romantic relationships, sexual activity, experimentation with drugs and alcohol, advanced education and their own health. The pain of dealing with complex feelings of guilt, depression, and loneliness creates psychological and spiritual confusion. Without help and hope the consequences often are homelessness, migration, illiteracy, poverty, child labor, and unemployment when they reach adult life.

Inadequate infrastructure and trained healthcare workers

Children with HIV who live in rural areas or in foster parent/orphan care settings have minimal access to medical care or healthcare facilities. Healthcare workers often are not trained to recognize, diagnose and care for HIV-infected children. Even when

healthcare workers are available, they are often overwhelmed with meeting basic needs and dealing with other serious and life-threatening diseases, such as malaria and tuberculosis. Healthcare workers uneducated in HIV/AIDS may engage in discrimination and stigmatization that increases the suffering of orphan children.

Families Cannot Cope

The traditional extended family network, which normally cares for 90 percent of Africa's orphans and vulnerable children, is severely strained. Many households are headed by women only, grandparents or even children who are themselves orphans. Communities, once stable and able to provide for the needs of OVC find that they have lost many of their teachers, healthcare workers and leaders to HIV.

Stigma and Discrimination

Orphan children are easily stigmatized by their relatives, communities, schools and churches. HIV "blame" extends to the child, despite overwhelming evidence that HIV is not transmitted casually. Persistent mythology, due to lack of education, instills fear among potential caregivers, educators and even within orphan programs. Without protection, children are sometimes demonized and lose all of legal rights, including access to care and education. Education for those engaged in orphan care reduces the discrimination and stigma that needlessly increases an orphan's suffering.

Web sites

Women, Children and HIV

www.womenchildrenhiv.org/wchiv?page=wx-topic&topic=of&txid=of

Global Strategies for HIV Prevention

www.GlobalStrategies.org

From Faith to Action on the Firelight Foundation web site

www.firelightfoudation.org

References

Ammann AJ The ongoing HIV epidemic.

Student British Medical Journal 2002;10:441-484

Domek GJ. Social consequences of antiretroviral therapy: preparing for the unexpected futures of HIV-positive children.

Lancet. 2006 Apr 22;367(9519):1367-9.

Foster G, Makufa C, Drew R, Kambeu S, Saurombe K.

Supporting children in need through a community-based orphan visiting programme.

AIDS Care. 1996 Aug;8(4):389-403.

Volunteer Quiz

(Answers follow the end of the quiz)

The questions below relate to general HIV/AIDS knowledge and to issues of orphans and vulnerable children. While it is not the purpose of Hope Walks to have all volunteers become experts in HIV, it is important that you become familiar with some of the more frequently asked questions that participants in Hope Walks are likely to ask. Below are some resources that you might want to review prior to the Walk. The Age of AIDS can be seen in part on line or on the DVD that you can loan from your leader. Be certain to thoroughly read the Hope Walks brochure for accurate information concerning the sponsoring and beneficiary organizations and how funds raised through Hope Walks are utilized.

Please complete the quiz by circling the letter of the best answer. Your comments are welcome as well.

Information Resources

- **Volunteer counseling and testing**
<http://www.globalstrategies.org/resources/documents/VCTlaylanguage.pdf>
- **Perinatal HIV transmission overview**
<http://www.globalstrategies.org/resources/documents/PMTCToverviewweb06.pdf>
- **Orphans and Vulnerable Children; Tale of Two Epidemics**
<http://www.hopewalks.org/cause.html>
- **Age of AIDS National Public Broadcasting**
<http://www.pbs.org/wgbh/pages/frontline/aids/>

Questions Only (Answers on attached pages)

Circle the letter of the best answer for the following questions

- 1) HIV stands for:
 - A. Human immune virus
 - B. Herpes immunodeficiency virus
 - C. Human immunodeficiency virus

- 2) What is AIDS?
 - A. Accelerated Infectious Disease Syndrome
 - B. Acquired Immunodeficiency Syndrome
 - C. Acute Immunodeficiency Syndrome

- 3) HIV is transmitted by all of the following except:
- A. Sharing food
 - B. Blood
 - C. Breast Milk
- 4) Which of the following statements is not true?
- A. Drugs to treat HIV infection (antiretrovirals) can prolong the life of children by over 10 years.
 - B. The antibiotic cotrimoxazole can reduce death rates from opportunistic infection, as well as from malaria, in HIV infected children.
 - C. Ordinary penicillin is used to prevent opportunistic infections in HIV infected children.
- 5) Has anyone ever been cured of HIV?
- A. Yes, Magic Johnson
 - B. No, there is no cure for HIV
- 6) Approximately what percentage of children born to HIV infected mothers are themselves infected with HIV?
- A. 10% (1 out of 10)
 - B. 30% (3 out of 10)
 - C. Almost all children become infected
- 7) The cost of treatment of an HIV-infected orphan child is approximately:
- A. \$800 per year for the drugs to treat HIV infection and \$200 per year for drugs to prevent other infections
 - B. \$100 per year for the drugs to treat HIV infection and two dollars per year for drugs and prevent other infections
 - C. \$300 per year for drugs to treat HIV infection and six dollars per year for drugs to prevent other infections
- 8) Which most accurately reflects the current situation for the treatment of HIV-infected orphan children?
- A. Less than 5% of HIV-infected orphan children who need treatment for HIV actually receive it.
 - B. About 50% of HIV-infected orphan children who need treatment for HIV actually receive it.
 - C. Most countries now provide treatment for HIV-infected orphaned children.

- 9) Without treatment of HIV infection in developing countries:
- A. 70 percent of HIV-infected infants die within their first year of life and 95 percent die by age 5.
 - B. 30 percent of HIV-infected infants die within their first year of life and 60 percent die by age 5.
 - C. Less than 5 percent of HIV-infected infants die within their first year of life and less than 10 percent die by age 5.

10) *Orphans and vulnerable children or OVC refers to:*

- A. *Children who have lost both their mother and father.*
 - B. *Children who have lost either parent due to HIV or war.*
 - C. *Children who are poor.*
- 11) Worldwide, 40 million people are estimated to be infected with HIV. How many don't know they are infected?
- A. 40 percent
 - B. 50 percent
 - C. 90 percent

12) In a recent survey, how many Americans incorrectly believed that HIV can be transmitted through sharing a drinking glass with an HIV-positive person?

- A. 10 percent
- B. 23 percent
- C. 40 percent

13) Funds raised by Hope Walks are distributed to:

- A. Orphan programs only in Africa.
- B. Restricted to certain religious groups.
- C. Distributed to partner orphan non profit community and faith based groups throughout the world.

14) Global Strategies partners with beneficiary organizations to fund and ensure:

That all orphan children are tested for HIV, receive treatment if infected, and provide for general health care needs. (True or false)

15) Beneficiary organizations benefit from Hope Walks by receiving funds for:

Exclusive support of the educational needs of orphans and vulnerable children. (True or false)

Volunteer Quiz

Answers and Explanations

1) HIV stands for:

- A. Human immune virus
- B. Herpes immunodeficiency virus
- C. Human immunodeficiency virus

Answer: C

HIV stands for human immunodeficiency virus to differentiate it from other viruses that may cause immunodeficiency in animals.

2) What is AIDS?

- A. Accelerated Infectious Disease Syndrome
- B. Acquired Immunodeficiency Syndrome
- C. Acute Immunodeficiency Syndrome

Answer: B

Acquired immunodeficiency syndrome. HIV is the cause of AIDS and results in cancer, infection and other complications that are called AIDS.

3) HIV is transmitted by all of the following except:

- A. Sharing food
- B. Blood
- C. Breast Milk

Answer: A

HIV is transmitted by secretions that contain white blood cells such as semen, vaginal secretions and blood products. Simply sharing food, touching, kissing or hugging will not result in HIV transmission.

4) Which of the following statements is not true?

- A. Drugs to treat HIV infection (antiretrovirals) can prolong the life of children by over 10 years.
- B. The antibiotic cotrimoxazole can reduce death rates from opportunistic infection, as well as from malaria, in HIV infected children.
- C. Ordinary penicillin is used to prevent opportunistic infections in HIV infected children.

Answer: C

Penicillin is used for many ordinary bacterial infections that are common in uninfected adults and children. Cotrimoxazole is active against many opportunistic infectious organisms that typically target HIV infected persons, and is therefore given instead of penicillin. Cotrimoxazole is also active against malaria.

5) Has anyone ever been cured of HIV?

- A. Yes, Magic Johnson
- B. No, there is no cure for HIV

Answer: B

No one has been cured of HIV infection, even with treatment.

6) Approximately what percentage of children born to HIV infected mothers are themselves infected with HIV?

- A. 10% (1 out of 10)
- B. 30% (3 out of 10)
- C. Almost all children become infected

Answer: B

Although we do not understand why only 30% of infants born to HIV infected mothers are infected, it is important to remember that 70% are not infected and therefore have a normal life expectancy.

7) The cost of treatment of an HIV-infected orphan child is approximately:

- A. \$800 per year for the drugs to treat HIV infection and \$200 per year for drugs to prevent other infections
- B. \$100 per year for the drugs to treat HIV infection and two dollars year for drugs and prevent other infections
- C. \$300 per year for drugs to treat HIV infection and six dollars per year for drugs to prevent other infections

Answer: C

The cost for treatment of HIV infection has decreased with the availability of generic drugs. However, many of the drugs that are needed for children must be formulated in liquids to make them easier to swallow. As a result, treatment of children may be more expensive than that of an adult.

8) Which most accurately reflects the current situation for the treatment of HIV-infected orphan children?

- A. Less than 5% of HIV-infected orphan children who need treatment for HIV actually receive it.
- B. About 50% of HIV-infected orphan children who need treatment for HIV actually receive it.
- C. Most countries now provide treatment for HIV-infected orphaned children.

Answer: A

Children are not able to advocate for themselves. In addition, orphan children who have lost parents may fail to have representatives that advocate for their treatment. As a result, the treatment of children has lagged behind that of adults.

9) Without treatment of HIV infection in developing countries:

- A. 70 percent of HIV-infected infants die within their first year of life and 95 percent die by age 5.
- B. 30 percent of HIV-infected infants die within their first year of life and 60 percent die by age 5.
- C. Less than 5 percent of HIV-infected infants die within their first year of life and less than 10 percent die by age 5.

Answer: B

HIV infection in children progresses to AIDS more quickly than in adults. Without prompt treatment the mortality rate is high.

10) Orphans and vulnerable children or OVC refers to:

- A. Children who have lost both their mother and father.
- B. Children who have lost either parent due to HIV or war.
- C. Children who are poor.

Answer: B

Because of the severe poverty and economic hardship in resource poor countries the WHO defines orphans as children who have lost either parent as a result of HIV or war.

11) Worldwide, 40 million people are estimated to be infected with HIV. How many don't know they are infected?

- A. 40 percent
- B. 50 percent
- C. 90 percent

Answer: C

Ninety percent of HIV-positive people worldwide don't know that they have HIV. (In the United States, an estimated 1 million people are infected with HIV and approximately 25 percent don't know it.

12) In a recent survey, how many Americans incorrectly believed that HIV can be transmitted through sharing a drinking glass with an HIV-positive person?

- A. 10 percent
- B. 23 percent
- C. 40 percent

Answer: B

Twenty-three percent of Americans believe HIV can be transmitted by sharing a drinking glass with an HIV-positive individual, according to a May 2006 Kaiser Family Foundation survey.

13) Funds raised by Hope Walks are distributed to:

- A. Orphan programs only in Africa.
- B. Restricted to certain religious groups.
- C. Distributed to partner orphan non profit community and faith based groups throughout the world.

Answer: C

Hope Walks is a program of Global Strategies for HIV Prevention to educate and raise funds for non profit community and faith based groups that support the basic needs of orphans and vulnerable children throughout the world regardless of religious affiliations.

14) Global Strategies partners with beneficiary organizations to fund and insure that:

All orphan children are tested for HIV, receive treatment for HIV if infected and provide for general health care needs. (True or false)

Answer: True

Many organizations that support orphans and vulnerable children provide for food, shelter, clothing and education but do not provide treatment for orphans who are infected with HIV. Global Strategies for HIV Prevention not only provides funds for testing orphans for HIV but also for treatment of those who are infected. The experience of Global Strategies for HIV prevention provides the necessary expertise to ensure high quality treatment.

15) Beneficiary organizations benefit from Hope Walks by receiving funds for:

Exclusive support of the educational needs of orphans and vulnerable children. (True or false)

Answer: False

Hope Walks provides funds for all of the basic needs of orphans and vulnerable children including, food, shelter, clothing, education, health, psychosocial and spiritual support.