HIV/AIDS: State of Washington Mandatory 4 Hour Training
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**Answer Sheet: HIV/AIDS: State of Washington Mandatory 4 Hour Training**

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Introduction

Because the diagnosis of HIV infection or AIDS was a death sentence for many years until the highly active antiretroviral medications were discovered, the HIV virus and the diseases it causes continue to be greatly feared. Significant efforts have been made by researchers and clinicians to increase our knowledge of HIV, its diseases and effective prevention and treatment, since they were first identified in the 1980s. The massive public health effort to increase knowledge about HIV transmission and effective protective interventions certainly have helped to reduce the fear that initially gripped the US. The general public and healthcare workers have benefited from this collectively gained knowledge.

The State of Washington has a legal requirement that certain identified workers have training related to HIV and AIDS. Selection of topics may be made to meet specific licensing boards' requirements. Unless otherwise specified, all six topic areas must be covered for the 7-hour licensing requirements. Topic areas I, II, V, and VI must be covered for the 4-hour licensing requirements and for non-licensed health care facility employees (who have no specific hourly requirements). If you intended to take the 7 hour course, then please return to the Washington State section of our website and select HIV/AIDS: State of Washington Mandatory 7 Hour Training. Please consult the Department of Licensing at (360) 236-4700 with specific questions about hourly requirements.

Please note that these curriculum requirements may not fulfill the needs of your particular certification or licensure. Funeral directors and embalmers are under the jurisdiction of the Department of Licensing and may have additional requirements. Drug, Alcohol and Substance Abuse counselors are required to have additional, specialized training. Emergency Medical Services workers have additional annual training requirements. Please check with the entity that licenses or certifies you, or call the Department of Health's HIV/AIDS Hotline for referral at: 800-272-2437.

In 2002 the Know HIV Prevention Education: An HIV and AIDS Curriculum Manual, 5th Edition, was developed by M. Selecky and the Washington State Department of Health. The online course...
you are now taking utilizes the Selecky/Washington State Department of Health training manual to a great extent, but also has updated statistics and additional information in order to provide current, accurate information to the learner. This course meets the requirements of Washington State for HIV training. The 2002 KNOW Revision matches the outline of required topics for 4-hour and 7-hour licensing, HIV/AIDS education program. This course fulfills the 4 hour HIV training requirement in Washington State; it covers Parts 1, 2, 5, and 6 as required.

Part 1. Etiology and epidemiology of HIV and AIDS
- Definition of HIV, AIDS
- How HIV works in the body
- Reported HIV cases, reported AIDS cases in US and Washington State

Part 2. Transmission and Infection Control
- Transmission of HIV
- Behaviors that increase risk of HIV transmission
- Infection control precautions
- Factors affecting risk of transmission
- Risk for transmission to healthcare workers
- Other factors affecting transmission
  - Risk reduction
  - Bloodborne pathogens requirements
- Universal/Standard Precautions and Infection Control
- Reporting of on-the-job exposure
- Post-exposure prophylaxis
- Infection control in other settings

Part 3. Testing and Counseling (Part 3. is NOT covered in this 4 hour HIV course.)
- Types of HIV testing
  - HIV test information
  - "Window period"
- Pre-test counseling
- Post-test counseling
- Recommendations for testing related to sexual assault
- Partner notification

Part 4. Clinical Manifestations and Treatment (Part 4. is NOT covered in this 4hour HIV course.)
- Natural history of HIV infection
- AIDS case definition
- AIDS indicator conditions
- How HIV works in the body
- New drug therapies
- Case management/resources
  - Tuberculosis and HIV
  - Other sexually transmitted diseases and HIV
- Hepatitis B and HIV
- Hepatitis C and HIV
- Comparison Chart of HIV, HBV and HCV

Part 5. Ethical and Legal Issues
- Reporting requirements
- Confidentiality requirements
- Disability and discrimination
- Behaviors endangering the public
Part 6. Psychosocial Issues
- Personal impact
- The human response to death and dying
- Caregiver issues
- Select populations

Objectives

Upon completion of this course, the learner will be able to:

- Define HIV and AIDS.
- Discuss how HIV impacts the body.
- Describe behaviors that increase the risk of HIV infection.
- State how HIV is transmitted.
- Discuss Infection Control precautions, including Universal/Standard precautions.
- Describe the procedure for on-the-job exposure to HIV, HBV or HCV.
- State the HIV/AIDS reporting requirements in Washington State.
- Define confidentiality as it relates to HIV in Washington State.
- Discuss discrimination related to HIV/AIDS.
- Describe interventions related to the management of behaviors endangering the public.
- Discuss the human impact of HIV/AIDS on the patient and the caregiver.
- Describe typical stages of grief.
- Discuss select populations and their relationship to HIV/AIDS.

The looped red ribbon became the universal symbol of AIDS awareness. Courtesy of the National Institutes of Health.

Part 1. Etiology and Epidemiology of HIV and AIDS

Definition of HIV and AIDS

HIV and AIDS are not the same. Everyone who has AIDS has been infected with HIV; but everyone with HIV infection does not have AIDS.

The Human Immunodeficiency Virus (HIV) is a virus that attacks the immune system, the body's natural ability to protect itself against infections and diseases, damaging the body's ability to fight diseases and infections. Without a healthy, functioning immune system, a person is at risk of infections by bacteria, other viruses and disease-causing organisms. Some of these infections can cause life-threatening illnesses.
Acquired ImmunoDeficiency (sometimes Immune Deficiency) Syndrome (AIDS) is a complex of symptoms and diseases caused by the HIV virus as it impacts the immune system. It is an acquired disease; it is not hereditary. A person must come in contact with the virus; it enters the body through blood and body fluids. As HIV damages the immune system, infected persons become vulnerable to infections or diseases known as opportunistic diseases. These opportunistic infections generally do not pose a threat to persons with healthy functioning immune systems. Medical treatments, particularly the antiretroviral medications, have delayed the onset of AIDS in persons who are infected with HIV.

The diagnosis of AIDS requires a positive HIV antibody test or evidence of HIV infection and the appearance of some very specific conditions/diseases. Only a licensed medical provider can make an AIDS diagnosis. HIV infection is not necessarily the same thing as AIDS. All people diagnosed with AIDS have HIV, but not all people with HIV have reached an AIDS diagnosis.

HIV Strains and Subtypes

HIV has divided into two primary strains: HIV-1 and HIV-2. HIV-1 is found throughout the world. HIV-2 is found primarily in West Africa, where the virus may have been in circulation since the 1960s - 1970s.

Both HIV-1 and HIV-2 have several subtypes. It is virtually certain that more undiscovered subtypes are in existence now. It is also probable that more HIV subtypes will evolve in the future. As of 2001, blood testing in the United States can detect both strains and all known subtypes of HIV.

How HIV Impacts the Human Body

When HIV enters the bloodstream, the virus starts seeking a particular form of white blood cell (lymphocyte) essential to the functioning of the immune system. This cell is called a T-Helper lymphocyte. One of its functions is to “orchestrate” the immune system in the event of attack from harmful foreign invaders (bacteria, viruses, and other disease-causing organisms). It is also referred to as the T4 or the CD4 cell.

When the HIV makes contact with the T-cell, the T-cell sends signals to other cells which produce antibodies. Antibodies are produced by the immune system to help get rid of specific foreign invaders that can cause disease.

Producing antibodies is an essential function of our immune systems. The body makes a specific antibody for each disease. For example, if we are exposed to measles virus, the immune system will develop antibodies specifically designed to attack the measles virus. Polio antibodies fight polio virus. When our immune system is working correctly, it protects against these foreign invaders.
What is unusual and frustrating about HIV is that the antibodies produced to fight the virus are not able to do so, since HIV captures the cells that signal antibodies to be produced. This results in the eventual decline of the immune system.

**Time Frames Related to HIV Infection**

The *window period* is the period of time after the virus enters the body and attacks the T4 cells until the body produces antibodies to the virus. It may take between two weeks to six months for antibodies to develop. During this time, the person is infectious; s/he can pass the virus to someone else, and will remain infectious throughout life. However, the person may not have produced sufficient antibodies to be detectable on an HIV antibody test. A newly infected person can infect a partner *before* antibodies develop, when high amounts of virus in the blood are present.

The *incubation period* is the interval between HIV infection and the appearance of the first symptoms. It may be several months to many years before persistent symptoms occur.

The *latency period* is the time frame from HIV infection until the start of persistent symptoms of AIDS. Even without antiretroviral therapy, there is an average of ten years in the latency period. During this time, an HIV-infected person looks and feels fine, but the virus is replicating and slowly destroying T4 cells and the immune system.

At any time after infection, people can infect others through unprotected anal, vaginal or oral sexual intercourse and sharing of injection equipment. The virus can also be passed from an infected woman to her baby during pregnancy, the birth, or through breast-feeding.

**Epidemiology of HIV and AIDS**

*Epidemiology* is the study of how disease is distributed in populations and of the factors that influence or determine this distribution. Epidemiologists try to discover why a disease develops in some people and not in others.

Since HIV was first identified in 1983, researchers have worked to pinpoint the origin of the virus. The most commonly accepted theory is that HIV came from a simian (monkey) virus that spread to humans in Africa during the 1930's and 1940's.

The transmission of HIV has been driven by multiple changes in migration, housing, travel, sexual practices, drug use, war, and economics that have affected both Africa and the entire world since 1940.

AIDS was first recognized in the United States in 1981. In Washington State, the first reported case of AIDS was in 1982. Since then, the number of AIDS cases has continued to increase both in the U.S. and other countries. In 1983, the virus that we now know to be HIV was identified as the cause of AIDS.

People who are infected with HIV come from all races, all countries, sexual orientations, genders, and income levels. Globally, most of the people who are infected with HIV have not been tested, and are unaware that they are living with the virus. From 25-33% of people with HIV in Washington State do not know they are infected.
Reported AIDS Cases Worldwide

The number of HIV-infected people worldwide has grown dramatically. In 2005 there were 40 million people worldwide living with HIV; of those 40 million, 5 million were newly diagnosed in 2005 (OWH, 2006).

Reported AIDS Cases in the US

At the end of 2003, an estimated 1,039,000 to 1,185,000 persons in the United States were living with HIV/AIDS. In 2003, 32,048 cases of HIV/AIDS were reported from the 33 areas (32 states and the US Virgin Islands) with long-term, confidential name-based HIV reporting. When all 50 states are considered, CDC estimates that approximately 40,000 persons become infected with HIV each year (CDC, 2005a).

![The NAMES Project AIDS quilt, representing people who have died of AIDS, in front of the Washington Monument. Courtesy of the National Institutes of Health.](image)

Reported AIDS Cases in Washington State

The first case of AIDS in Washington State was diagnosed in 1982. By the end of February 2006, a cumulative total of 11,360 cases of AIDS have been reported. Of these people, 6,218 (55%) are known to be dead. In addition, 4,230 cases of HIV infection have been reported for a total of 15,590 HIV/AIDS cases (WADOH, 2006).

As therapies have improved, fewer people have died of AIDS each year. However, the treatments have not reduced the number of new infections. The Centers for Disease Control and Prevention (CDC) estimates that in the US, there are 40,000 new cases of HIV infections per year. This number has been steady for more than 5 years.

The discovery of antiviral "combination" medication therapies, the antiretrovirals (ART) in 1996 resulted in a dramatic decrease in the number of deaths due to AIDS among persons taking the drug therapies. The unfortunate truth is that many people who have access to the drug therapies may not benefit from them, or may not be able to tolerate the side effects. The medications are expensive and require strict dosing schedules. In developing countries, due to lack of access to healthcare systems and cost, many people with HIV have no access to the newer drug therapies.
HIV and AIDS Cases are Reportable

As previously mentioned, AIDS and symptomatic HIV infections have been reportable (meaning healthcare providers must confidentially report any cases among their patients) to the Washington State Dept. of Health since 1984 and 1993, respectively. Reporting of HIV/AIDS will be covered in more detail in the Legal section which appears later in this course. HIV cases reporting requirements vary from state to state. Reporting of new HIV infections has been required in Washington State since September, 1999.

Part 2. HIV Transmission and Infection Control

HIV and the Chain of Infection

HIV is a relatively fragile virus. It is not spread by casual contact. It is not easy to "catch"; it must be acquired. HIV is considered to be a fragile virus when exposed to air and room temperatures. Hepatitis B (HBV) and hepatitis C (HCV) are both considered "stronger" viruses that can remain infectious for a longer period of time. When these viruses are outside the human body, much depends on environmental factors such as heat, cold, exposure to oxygen, etc.). HBV and HCV will be discussed later in this course.

The Chain of Infection provides a model for understanding how any infection is spread. All of the components below must be present for an infection to occur.

The pathogenic microorganism is the micro-organism that causes infection such as bacteria, viruses, fungi and parasites.

The reservoir is the place where micro-organisms live, such as in humans and animals, in soils, food, plants, air or water. The reservoir must meet the needs of the pathogen in order for the pathogen to survive and multiply.

The means of escape are how the micro-organism leaves the reservoir.

The method of transmission is how the micro-organism moves from place to place.

The means of entry is how the micro-organism enters the host. There must be an adequate number of organisms to cause infection.

The host susceptibility is the person who may become infected.
All of these components together are considered to be the “chain of infection”. In the healthcare setting, all of these factors come into play in the spread or the control of infection. There are effective strategies of infection control that will prevent infection transmission by interrupting one or more links in the chain of infection (CDC, 2003).

As this chain of infection relates to HIV/AIDS:

- The pathogenic microorganism is the human immune deficiency virus, or HIV.
- The reservoir is blood or body fluids of the “source” patient; anyone with the virus can be an HIV source.
- The means of escape are how the blood or body fluids of the source patient exit the source patient. This includes infected blood, semen, vaginal secretions or breast milk.
- Mode of transmission is through direct contact with infected blood or body fluids noted above.
- The means of entry is through the non-intact skin that can occur through unprotected sex, injecting drug use, and rarely splashing onto mucous membranes.
- Host susceptibility is the person who may now become infected with HIV.

Anyone who is infected with HIV can be the HIV source. As above, transmission occurs primarily through **infected blood, semen, vaginal secretions or breast milk**. Sweat, tears, saliva, urine and feces are not capable of transmitting HIV unless visibly contaminated with blood. In settings such as hospital operating rooms, other fluids, like cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid and amniotic fluid **may** be considered infectious if the source is HIV positive. These fluids are generally not found outside the hospital setting, so we consider the most common fluids -- blood, semen, vaginal secretions and breast milk -- as infectious in the "real world." Again, outside of the laboratory or medical operation situations, **ONLY** blood, semen, vaginal fluids and breast milk are considered to be infectious for HIV.

Coming in contact with another person’s blood puts one at risk for these infectious fluids coming in contact with one’s own blood. There are some behaviors that put one at greater risk than other behaviors. The most common of the risk behaviors are

- unprotected sexual intercourse (anal, vaginal, oral) with an infected person,
- and the
- use of contaminated injection equipment for use in injecting drugs.

HIV transmission may occur during practices such as tattooing, blood-sharing activities such as "blood brothers" rituals, or any other type of ritualistic ceremonies where blood is exchanged or unsterilized equipment contaminated with blood is shared. HIV can also be transmitted from mother to infant during the birth process.

HIV transmission may also occur in occupational settings. HIV is not transmitted through casual contact in the workplace. Workplace exposures occur through an unintentional needlestick injury or potentially through a splash with potentially infectious blood or blood-contaminated material. This will be discussed later in this course.

HIV is transmitted through direct contact with infected blood or body fluids. HIV is not transmitted through the air. Sneezing, breathing and coughing do not transmit HIV. Touching, hugging and shaking hands do not transmit HIV. HIV transmission is not possible from food in a restaurant that is prepared or served by an HIV-infected employee.
No cases of HIV transmission have been linked to sharing computers, food, telephones, paper, water fountains, swimming pools, bathrooms, desks, office furniture, toilet seats, showers, tools, equipment, coffee pots or eating facilities. However, personal items which may be contaminated with blood, including but not limited to razors, toothbrushes and sex toys, should not be shared.

There have been no cases of HIV transmission by children playing, eating, sleeping, kissing and hugging.

To date, there have been less than a dozen known cases of HIV transmission that have occurred in household settings in the U.S. and other countries. Reports of these cases have been thoroughly investigated by the CDC. The researchers determined that the transmissions were caused by sharing a razor contaminated with infected blood, the exposure of infected blood to cuts and broken skin, and possibly deep kissing involving a couple who both had bleeding gums and poor dental hygiene. It is important to remember that these cases were extremely unusual. Sensible precautions with bleeding wounds and cuts and not sharing personal hygiene items would have prevented these cases of infection.

There are also isolated cases of transmission from health care workers to patients.

To date, there were three instances where transmission of HIV could only be tracked to the HIV-infected doctor, dentist or nurse treating the patient. At least one of these cases occurred prior to the implementation of strict equipment disinfection. However, the CDC reports that there has been one case of infection from healthcare worker to patient. That case involved a dentist.

Biting poses very little risk of HIV transmission. The possibility only exists if the person who is biting and the person who is bitten have an exchange of blood (such as through bleeding gums or open sores in the mouth.) Bites may transmit other infections, and should be treated immediately by thoroughly washing the bitten skin with soap and warm water, and disinfecting with antibiotic skin ointment.

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**Case Study #1**

Mr. R. is a middle-aged married male computer salesman who was transported to the ED after being found unresponsive in his apartment by a neighbor. Following a thorough exam the provider suspected a possible drug overdose, which was confirmed when a urine drug screen was positive for cocaine. Once stabilized, the staff offered him an HIV test. Mr. R. adamantly refused the test saying that he did not have any risk factors. The provider suspected this was not true and proceeded to perform a social history. Eventually, the provider was able to solicit answers that indicate Mr. R. is at risk for HIV: he has been sexually active since high school and has not always used condoms; while he is primarily heterosexual and has been married for almost 15 years, he has occasionally located men on the internet that he met for dates; he has never used intravenous drugs, but does share straws when using cocaine; he was incarcerated for assault when he was younger, and while in jail had used a common needle to give himself a tattoo.

Mr. R. thought that since he had only used drugs with people he knew and had sex with healthy looking men he did not have risk factors for HIV. He also thought that someone would have found out he was HIV positive during a recent hospital admission when he had labs drawn daily prior to and after major surgery.

The provider convinced Mr. R. that he should have an HIV test based on the results of his assessment. He provided him with education focusing on routes of transmission and appropriate barrier use. He explained the risk of having unprotected sexual relations and the fact that you cannot tell someone has HIV/AIDS by the way they look. The test results were negative, and the provider stressed the importance of retesting if he engaged in more high risk behaviors.
HIV Transmission

People may become infected with HIV if they engage in specific behaviors that put them at risk, or if they are exposed through needlestick injuries (usually in a healthcare setting). Other blood contact with mucous membranes or non-intact skin provides a possible, but not probable, chance of transmission.

HIV is transmitted through:

- Unprotected anal, vaginal and oral intercourse;
- Sharing needles or other injection equipment;
- A mother passing the virus to her baby either before or during birth;
- An infected woman breastfeeding her infant;
- Transfusion of HIV-infected blood or blood products (prior to 1986);
- Accidental needlestick injuries, or infected body fluid coming into contact with the broken skin or mucous membranes of another person (as with healthcare workers);
- Sharing razors or toothbrushes, if infected blood from one person is deposited on the toothbrush or razor, and the blood enters the bloodstream of another person.

Case Study #2

Ms. H. is a 20 year old African American female. She has been sexually active since she was 15, and has been treated several times in the past for sexually transmitted diseases (STDs). She recently presented to the STD clinic with c/o painful open sores on her vaginal area. She had several partners in the past two months, but she did not see any similar sores on any of them. The provider told Ms. H that it is important to use barriers when having sex to prevent STDs and also HIV. She explained that it increases the possibility of infection when someone has a break in their skin or mucous membranes, allowing the virus to pass more easily from one person to another. She also explained that, while most STDs can be treated, HIV has no cure. Ms. H. agreed to be tested for HIV as well as STDs. Unfortunately, her test results showed that she had genital herpes, but was negative for HIV. Her provider reminded her that she could have future outbreaks of herpes that would leave her vulnerable to infection with HIV because of the open areas on her skin. She was provided with both male and female condoms before leaving the clinic, and encouraged to tell her partners about the herpes before having sex.

The transmission of HIV depends upon:

- The availability of the infectious agent in sufficient quantity;
- The viability of the infectious agent (how strong it is);
- The virulence of the infectious agent (how infectious it is);
- The ability of the infectious agent to reach the bloodstream, mucous membranes; or broken skin of a potential host (i.e., getting into another person's body).

One of the predictors of how infectious an HIV-positive person is, is their viral load, which indicates how much HIV is present in the bloodstream. Studies show a clear connection between higher viral load in the blood and increased transmissibility of HIV.

Prior to the availability of a test for HIV antibodies, HIV was transmitted by:

- Artificial insemination;
- Blood or blood products transfusions;
- Organ transplants.

Testing for HIV began in 1985 has almost completely eliminated these risks for transmission in developed countries.
Probability of HIV Transmission

The CDC has estimated the following probabilities of infection following ONE exposure to HIV:

- Contaminated blood transfusion (prior to 1986) 95%

HIV infection rate:

- One intravenous syringe or needle exposure 0.67%
- One percutaneous exposure (e.g. a needlestick) 0.4%
- One episode of receptive anal sexual intercourse 0.1%-3%
- One episode of receptive vaginal intercourse 0.1%-0.2%
- One episode of insertive vaginal intercourse 0.03-.09%

A 1% risk means 1 chance in 100 for infection to occur. A .10% risk means 1 chance in 1,000. There are no published estimates of the risk for transmission from receptive oral sex or insertive anal sex.

Sexual Transmission of HIV

HIV can enter the bloodstream through mucous membranes, breaks, sores and cuts in the mouth, anus, vagina or penis. Anal, vaginal and oral intercourse (both receptive and penetrative) can transmit HIV from person to person.

Unprotected anal intercourse is considered to be the greatest sexual risk for transmitting HIV. Anal intercourse frequently results in tears of mucous membranes, which makes it very easy for the virus to enter the bloodstream. The receptive partner ("bottom") is considered to be at more risk of getting HIV, if the virus is present. Risks may vary for the insertive ("top") partner.

Unprotected vaginal intercourse with the exchange of semen, pre-ejaculate fluid (pre-cum), menstrual blood or vaginal fluids is also a risk for HIV transmission. Studies have shown that women are more likely to become infected with HIV through vaginal sex than a man. The larger amount of mucous membrane surface area of the vagina is a probable reason for women's greater rate of HIV infection from their male partners.

Oral sex (mouth to penis, mouth to vagina, mouth to rectum) is considered a risky behavior for HIV transmission because of the exchange of semen, menstrual blood, and/or vaginal fluids that may occur. Studies reported in February 2000 show that oral sex can definitively pass HIV from infected partner to uninfected partner. The person who places their mouth on the partner's genitals is at higher risk for HIV infection than is the "receiving" partner. The actual risk for HIV transmission to persons who are the receptive partner in unprotected oral sex is unclear.

Injecting Drug Use and HIV Transmission

Sharing injection needles, syringes, etc. with an HIV-infected person can put HIV directly into the user's bloodstream and is the behavior which most efficiently transmits HIV, as well as HBV and HCV.

Indirect sharing occurs when drug injectors share injection paraphernalia and/or divide a shared or jointly purchased drug while preparing and injecting it. The paraphernalia that carries the potential for transmission are the syringe, needle, "cooker", cotton, and/or rinse water. Sharing these items (sometimes called "works") may transmit HIV or other bacteria and viruses.

Examples of indirect sharing:

- Squirting the drug back (from a dirty syringe) into the drug cooker and/or someone else's syringe; and
- Sharing a common filter and/or rinse water.
HIV and Pregnancy

An HIV-infected woman may transmit the virus to her baby during pregnancy, during the birth process, and/or following pregnancy by breastfeeding. Again, one of the predictors of how infectious the woman will be to her baby is her viral load (how much HIV is present in her bloodstream). Women with new or recent infections, or people in later stages of AIDS tend to have higher viral loads and may be more infectious.

In 1994, researchers discovered that a course of the antiretroviral drug AZT (zidovudine) significantly reduced the transmission of HIV from woman to baby. Medications such as AZT and others are used during pregnancy and delivery to prevent transmission of HIV.

Currently, HIV is transmitted from an HIV-infected woman to her baby in about 25% of pregnancies if intervention with antiretroviral medications does not occur. Because of the widespread use of AZT by HIV-infected pregnant women in the U.S., the perinatal transmission rate has dropped dramatically, and is now less than 10% in the U.S., especially if the woman's health care is monitored closely and antiretroviral medications are used during pregnancy and/or delivery. In some pregnancies, cesarean section (C-section) may be recommended to reduce the risk of transmission from woman to baby. Advice about medications and C-section should be given on a case-by-case basis by a healthcare provider with experience in treating HIV positive pregnant women.

Washington state law requires pregnant women to be counseled regarding risks around HIV and offered voluntary HIV testing.

Breastfeeding is an established risk for HIV transmission. One study in Africa showed that the rate of transmission of HIV from infected mother to her child was 21% from breastfeeding. Data from New York Department of Health studies show that in the U.S., breastfeeding can add an additional 14% rate of transmission of HIV from an infected woman to her child.

In the U.S., doctors recommend that a woman who knows she is HIV-positive should not breastfeed her infant. Because of the lack of clean water and the cost of infant formula in developing countries, HIV-infected mothers in those areas may not have a choice whether or not to breastfeed their child(ren). More research is needed on ways to reduce the risk of maternal transmission through breastfeeding.

Transfusions of Blood or Blood Products

Transfusion by contaminated blood or blood products occurred in the United States before March, 1985. In 1999, about 1% of national AIDS cases were caused by transfusions or use of contaminated blood products. The majority of those cases were in people who received blood or blood products before 1985.
Upon recognizing that HIV could contaminate the blood supply, government scientists sought ways to keep it safe. Courtesy of National Institutes of Health.

Donor screening, blood testing and other processing measures have reduced the risk of transfusion-caused HIV transmission to between 1 in 450,000 to 1 case in 600,000 transfusions in the U.S. In the U.S., donating blood is always safe, because sterile needles and equipment are used.

At this time, HIV infection is lifelong, meaning that once a person becomes infected with HIV, their blood, semen, vaginal secretions and/or breast milk will always be potentially infectious.

Transmission of Multi-Drug Resistant Forms of HIV

There is evidence of transmission of multi-drug resistant forms of HIV. People who have been infected with HIV and have used a number of the available antiretroviral medicines may transmit forms of HIV that are resistant to some of these available drug therapies. This reduces the treatments available for the newly-HIV-infected person. It is believed that inconsistent use of antiretroviral medications can contribute to this multi-drug resistant HIV. A discussion of treatments for HIV will occur later in this course.

Factors Affecting HIV Transmission

Case Study #3

Ms. P. decided to have an HIV test after finding out that an old boyfriend had HIV. She was shocked to hear the news at first and went to the testing clinic knowing there was a chance of infection, but she was confident that she was in good health overall, and had not been sick or had any unusual symptoms. She had dated this boyfriend for about 3 months at least six years ago but they just didn’t “click.” Eventually, they went their own ways and began dating other people. Several years ago she moved to a nearby city and changed jobs. She only found out about his illness by chance when she happened to meet a mutual friend at an art festival.

When the test results came back positive she could not believe it at first. Then, all at once, she began to think about men she had been involved with since. How many had she infected?

Ms. P. was given an appointment at an HIV treatment center to discuss the need for antiretroviral th
Before beginning therapy, the provider ordered a genotype test to identify any possible viral resistance she might have. When the results were back, she was informed that she had been infected with a strain of virus that was multi-drug resistant (MDR). In other words, many of the commonly used medications for HIV would not provide effective treatment. The provider also explained that infection with HIV that is more common than many people realize. In one recent study in NY City, 10% of people diagnosed with HIV had MDR, and more than 25% had at least some resistance (Shet et al., 12th 2005). Medications would need to be carefully selected to provide the best treatment possible. Every infection with a strain of MDR HIV makes progression to AIDS and death more likely.

There are a number of factors which affect HIV transmission. These are:

- Presence of other STDs;
- Acute infection and/or high viral load;
- Multiple partners;
- Use of non-injecting drugs;
- Gender and equality issues.

The presence of other sexually transmitted diseases (STDs) increases the risk for HIV transmission, because the infected person may have a much larger number of white blood cells (infected with HIV) present at the sore or infected area(s).

The infected person's immune system may also be less able to suppress or combat the HIV infection. Additionally, the sores or lesions from STDs break down the protective surface of the skin or mucous membrane, which makes the infected person more vulnerable to other infections. More information on STDs can be found later in this course.

Acute HIV infection (the first few weeks after infection with HIV) is a time when a person may not know that s/he is infected. However, the amount of virus (or viral load) in her or his bloodstream can be extremely high. This may make their blood, semen, vaginal fluids and/or breast milk more infectious for HIV transmission. Antiretroviral therapy can reduce a person's viral load, if the correct combination is used and the person adheres to the dosing schedule.

Having multiple partners for drug injection and/or sexual intercourse increases the chances of being exposed to a person infected with HIV. Persons who have unprotected sex with multiple partners are considered to be at high risk for HIV infection. In some studies, the CDC defines multiple partners as six or more partners in a year. However, someone who has one partner may still be at risk if the person is HIV-positive, or if that one partner has sex with multiple other partners.

Case Study #4

Ms. M. was married to her husband for 32 years before he died from complications of coronary artery disease several years ago. It was difficult for her to stop grieving, and for the first year after his death seldom did anything socially with anyone except family members. Eventually she began attending functions at the senior citizen center and met Paul. He was very kind, interesting, funny, and they began dating. A year later, Paul became sick and died.

The senior center hosted a program on life insurance for seniors, and Ms. M. decided to apply for additional coverage for her funeral expenses. Part of the criteria was to have an HIV test, and she agreed to do so. She did not think anything else about the insurance until about one month later when she received a letter from the company denying the coverage and suggesting that she see her health care provider for a full examination. She was frightened by the news, and called immediately to make an appointment for the following week. She was convinced she had cancer.
Her provider was unable to find anything abnormal on exam or lab tests. With her permission he contacted the insurance company and was faxed the positive results of her HIV test. She had no idea how she was infected. Had her husband been infected with HIV? Did Paul have HIV? Did either of them even know they were infected? Did they know but did not tell her?

Ms. M’s provider made an appointment for counseling to help her work through her grief and loss. He also made an appointment with an HIV specialist for further tests and care. He thoroughly evaluated the possibility of self-harm before allowing her to leave his office. Finally, he called a trusted friend with her permission to drive her home.

Use of other substances, including alcohol and non-injected “street drugs,” can also put a person at risk for getting HIV. Impaired judgment may increase the likelihood that a person will take risks (having unprotected sex, sharing needles) or may place the person in unsafe situations. Additionally, some substances have physiological and biological effects on the body, including masking of pain and the creation of sores on the mouth and genitals, which can create additional “openings” for HIV and other sexually transmitted diseases.

Lack of power in a relationship can affect a person’s ability to insist on sexual protection, such as the use of condoms. Women are often socially and economically dependent upon men in many cultures. This can make them unable to “negotiate” condom use or leave a relationship that puts them at risk.

In some cultures, females are not encouraged to learn about their bodies, sex, birth control, or other sexuality topics. Some cultures promote the value of the male having multiple sexual partners, while discouraging the same behavior in females.

Risk Reduction Methods

Methods for reducing the risk of sexual and drug-related transmission of HIV include:

- Abstinence from sex;
- Monogamous relationships or limiting the number of partners;
- Safer sex practices;
- Avoidance of injecting drug use;
- Needle exchange programs;
- Cleaning drug works.
- Standard/Universal precautions and barrier protection.

Sexual abstinence means not engaging in anal, vaginal or oral intercourse or other sexual activities where blood, semen or vaginal fluid can enter the body. It is a completely safe and 100% effective method for preventing the sexual transmission of HIV.

Some people may choose to not have penetrative sexual intercourse (oral, anal or vaginal). This practice will not transmit HIV, provided that there is no exchange of blood, semen, vaginal fluids or breast milk in the sexual contact. However, non-penetrative sexual intercourse may still be a risk factor for the transmission of other sexually transmitted diseases.

Monogamous long-term relationships, that is having sex with only one person who only has sex with you, is another choice to prevent/reduce the risk of HIV infection. If neither partner is infected with HIV or other STDs, and neither has other sexual or injection equipment-sharing contacts, then neither partner is at risk of exposure to HIV or other STDs. It is crucial that both partners be tested for HIV and STDs and remain monogamous.

The decision to limit the number of sexual or drug-injecting partners may reduce the risk
of HIV transmission, but is not a guarantee of safety. The fewer the partners, the greater the reduction of risk.

**Safer sexual practices** include the use of latex barriers such as male and female condoms or dental dams. When used correctly and consistently during sexual activity (anal, vaginal and oral), they are highly effective in preventing the transmission of HIV.

The female/insertive condom is also made of latex; it fits inside the vagina or anus. It is made of polyurethane, which blocks sperm and viruses (like HIV). These condoms may be inserted several hours before intercourse.

Only water-based lubricants, not oil-based lubricants like petroleum jelly or cooking oils, should be used to prevent tearing of latex condoms. The use of **polyurethane condoms** also provides safer sex. These polyurethane male condoms are made of a soft plastic. They look like latex condoms but are thinner. Lab tests show that sperm and viruses (like HIV) cannot pass through polyurethane.

**Dental dams**, large pieces of new, unused, clear, non-microwaveable plastic wrap, and latex condoms may be used to provide a barrier to reduce the risk of HIV transmission during oral intercourse on a female. The latex condom should have the tip cut off, then cut down one side, before use. This results in a latex square. Water-based lubricant may be used with the dental dams, plastic wrap or cut-open condoms to enhance sensitivity and reduce friction.

**Natural membrane condoms** ("skins") are useful for preventing pregnancies and some STDs, such as syphilis. *They do not provide protection from HIV, HBV and some other STDs.*

Many people believe it's safe for two people who are both infected with HIV to have unprotected sex with each other. Using latex condoms even when both partners are HIV-positive is still advised. Each additional exposure to the virus may further weaken an immune system already damaged by HIV. There is also the possibility of passing other STDs through unprotected sex.

The **avoidance of injecting drugs** is another way to avoid the risk of transmission of HIV. If entering drug treatment or abstaining from using injecting drugs is not possible, then using a clean needle each time and not sharing injection equipment is better than sharing needles. This includes people who use needles to inject insulin, vitamins, steroids or prescription or non-prescription drugs.
Public support for needle or syringe exchange, has grown in recent years. People who trade in their used syringes/needles for clean syringes/needles significantly reduce their risk for sharing needles and becoming infected with HIV or hepatitis. Syringe exchanges are also referral sources for drug treatment. Many people who began trading syringes were able to access drug treatment through the intervention of the syringe exchange staff and are now no longer using drugs.

Many local health departments in Washington State, some in conjunction with other organizations, operate syringe exchanges in their communities. For more information, contact your local health department/district's HIV/AIDS Program.

If a drug user cannot avoid sharing syringes and needles, than thorough cleaning of works with full strength bleach and clean water has been recommended to kill HIV in syringes/needles. This method is not likely to prevent the transmission of HBV or HCV. These viruses are much stronger and are unlikely to be killed by a brief exposure to bleach.

Because the prevalence of HBV and HCV infection is high among injecting drug users, it is safest to always use new, sterile needles and syringes. They should also avoid sharing the cotton, cooker, water, spoons and other "works," which may also be contaminated with blood.

If there is no possible way to obtain new needles and syringes, the directions for using bleach to clean needles and syringes follows:

- Fill the syringe completely with water. Shake and tap it vigorously to loosen any blood clots. Shoot out the bloody water. Continue this rinsing procedure until there is no "pinkness" or visible blood inside the syringe.
- Completely fill the syringe with fresh bleach. Make certain that the bleach touches all the inside surface of the syringe. Keep the bleach inside the syringe for a minimum of 30 seconds. Shake the syringe, then squirt out the used bleach.
Repeating Step 2 may provide additional benefit.
Rinse out the syringe with clean water. Shake the syringe, then squirt out the water.

It is important to follow these steps exactly, because inadequate cleaning can result in the possibility of HIV infection. **Always do the final rinse with water!**

**Bloodborne Pathogen Standard**

The following standards are mandated by the Occupational Safety and Health Administration (OSHA) and Washington Industrial Safety and Health Act (WISHA). They are enforced by the Department of Labor and Industries (L&I), following recommendations by the CDC.

Please check with your employing agencies to make sure you are in compliance with the requirements mandated by Washington Administrative Code (WAC) 296-62-08001. Failure to comply may result in citations or penalties. WISHA Regional Directive (WRD) 11.40, effective in 2000, requires that all employers comply with the following standards. This is a brief summary, and is not meant to replace or supplant required Bloodborne Pathogens training. For more information or assistance, contact a L&I consultant in your area. Check the blue government section of the phone book for the office nearest you, or call L&I’s 24-hour toll-free line 1-800-4-BE-SAFE. For Internet access, go to www.lni.wa.gov/WISHA.

**Scope of WISHA Enforced Procedures**

The enforcement procedures contained in WRD 11.40 are used to inspect any employer where employees’ jobs involve potential exposure to blood and other potentially infectious materials (OPIM). Occupational groups that have been widely recognized as having potential exposure to bloodborne pathogens such as HIV/HBV/HCV include, but are not limited to:

- healthcare workers,
- law enforcement personnel,
- fire fighting personnel,
- ambulance personnel, and
- other emergency response and public service employees.

WRD 11.40 establishes policies and provides clarifications to ensure uniform procedures are followed during inspections and consultations for the Occupational Exposure to Bloodborne Pathogens Standard, Part J, (WAC) 296-62-08001.

While HBV and HIV are specifically identified in the standard, “Bloodborne Pathogens” include any pathogen present in human blood or other potentially infectious materials (OPIM) that can infect and cause disease in people exposed to the pathogen. Bloodborne pathogens may also include HCV, Hepatitis D, malaria, syphilis, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever, Creutzfeldt-Jakob disease, adult T-cell leukemia/lymphoma (caused by HTLV-I), HTLV-I associated myelopathy, diseases associated with HTLV-II, and viral hemorrhagic fever.

According to the CDC, HCV infection is the most common chronic bloodborne infection in the United States. HCV is a viral infection of the liver transmitted primarily by exposure to blood. HCV will be covered in more detail later in this course.

**Exposure Control Plan**

Each employer covered under WAC 296.62.08001 must develop an Exposure Control Plan. The plan requires the employer to identify those tasks and procedures in which occupational exposure may occur. It also requires the employer to identify the individuals who will receive the training, protective equipment, vaccination, and other benefits of the standard.
This Exposure Control Plan shall contain at least the following elements:

- Those job classifications and tasks in which employees have the potential for or documented occupational exposures. The exposure determination shall have been made without taking into consideration the use of personal protective clothing or equipment. It is important to include those employees who are required or expected to administer first aid.
- The schedule and method of implementation for WAC 296-62-08000(4) through 08001(8) in a manner appropriate to the circumstances of the particular workplace.

Universal Precautions/Standard Precautions

Case Study #5

The HIV coordinator was used to having staff and patients walk into her office with questions. However, the day Julie showed up crying at her door she was slightly surprised. She did not know Julie well, but did not expect that she would be the type to cry unless something was very wrong. She escorted her into the office, closed the door, and asked what had happened. Julie explained that she delivers supplies to different locations within the hospital including the autopsy room. She always wears protective foot gear, gloves, and eye glasses. The day after she restocked supplies in the autopsy suite, someone told her that the procedure that day was on a patient with HIV. She became very upset, and demanded to know why she wasn't warned before entering the room. She was afraid that she may have contracted HIV from the air or from walking in any blood or tissue left on the floor (although she did not remember anything visible to her at the time). Her worst worry was taking something home to infect her husband and children. By the time the whole story unfolded she was sobbing.

The coordinator explained the routes of HIV infection and the probability of infection even with a needlestick. She reassured her that HIV could not be spread by aerosolized particles or from stepping on blood or tissue when wearing shoes. She discussed the limited viability of HIV outside the body. She complimented her on using universal precautions while she worked, and assured her that doing so would provide adequate protection. Julie felt much more reassured about her own health when she left, and confident that she had not exposed her family to the virus.

Universal precautions, as defined by CDC, are designed to prevent transmission of bloodborne pathogens in healthcare and other settings. Under universal precautions, blood/OPIM of all patients should always be considered potentially infectious for HIV and other pathogens.

Standard Precautions is a newer definition that hospitals and other healthcare settings are moving toward. Standard Precautions include all recommendations made for Universal Precautions plus body substance isolation (BSI) when OPIM is present.

Bodily fluids that have been recognized as OPIM and linked to the transmission of HIV, HBV and HCV, and to which Standard Precautions and Universal Precautions apply are: blood, semen, blood products, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid, and specimens with concentrated HIV, HBV and HCV viruses.

Although the terms are not interchangeable, most people are more familiar with the term Universal Precautions. For this course, the term Standard Precautions will be used, although there may be some settings (like daycare) where body substance isolation may not be needed.

Personal Protective Equipment

Universal and Standard Precautions involve the use of protective barriers to reduce the risk of exposure of the employee's skin or mucous membranes to blood and OPIM. It is also recommended
that all healthcare workers take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices. Both Universal and Standard Precautions apply to blood and OPIM listed above.

Gloves, masks, protective eyewear and chin-length plastic face shields are examples of personal protective equipment (PPE). PPE shall be provided and worn by employees in all instances where they will or may come into contact with blood or OPIM. This includes, but is not limited to dentistry, phlebotomy or processing of any bodily fluid specimen, and postmortem (after death) procedures.

Traditionally, latex gloves have been used when dealing with blood or OPIM. However, there have been documented cases of people with allergies to latex. In most circumstances, nitrile and vinyl gloves meet the definition of “appropriate” gloves and may be used in place of latex gloves. Employers are required to provide PPE alternatives to employees with latex and other sensitivities.

Engineering and Work Practice Controls

Engineering and work practice controls must be used in preference to personal protective equipment to minimize or eliminate employee exposure. There are now many safer needle devices available. Since these laws became effective, employers have been required to use needless syringes, or syringes that have protective devices built into their use. Employers must include employees in ongoing evaluation of engineering controls and implement appropriate engineering controls whenever feasible. Evaluation and implementation of these controls must be documented in the Exposure Control Plan.

Hand Hygiene

The most common way that infection is spread throughout the healthcare system is through hand contact. Indeed, handwashing and hand hygiene are the single most effects means of limiting the spread of infection. Employers must provide handwashing facilities which are accessible to employees. According to the Bloodborne Pathogens Standard, handwashing must be performed:

- After removal of gloves and/or other protective equipment.
- Immediately after hand contact with blood or other infectious materials.
- Upon leaving the work area.

It is also recommended that handwashing be performed before and after patient contact and after using restroom facilities.

Proper handwashing technique involves the following:

- Using soap, warm (almost hot) water, and good friction, make sure to scrub the top, back, and all sides of the fingers.
- Lather well and rinse for at least 10 seconds. When rinsing, begin at the fingertips, so that the dirty water runs down and off the hands from the wrists. It is preferable to use a pump-type of liquid soap instead of bar hand soap.
- Dry hands on paper towels. Use the dry paper towels to turn off the faucets (don't touch with clean hands).

In 2002, the CDC developed new hand hygiene guidelines. These guidelines include the following indications for handwashing and hand antisepsis (CDC, 2002):

- When hands are visibly dirty or contaminated with proteinaceous material or are visibly soiled with blood or other body fluids, wash hands with either a non-antimicrobial soap and water or an antimicrobial soap and water.
• If hands are not visibly soiled, use an alcohol-based hand rub for routinely decontaminating hands in clinical situations. Alternatively, wash hands with an antimicrobial soap and water in clinical situations.
• Decontaminate hands before having direct contact with patients.
• Decontaminate hands before donning sterile gloves when inserting a central intravascular catheter.
• Decontaminate hands before inserting indwelling urinary catheters, peripheral vascular catheters, or other invasive devices that do not require a surgical procedure.
• Decontaminate hands after contact with a patient's intact skin (e.g., when taking a pulse or blood pressure, and lifting a patient).
• Decontaminate hands after contact with body fluids or excretions, mucous membranes, nonintact skin, and wound dressings if hands are not visibly soiled.
• Decontaminate hands if moving from a contaminated-body site to a clean-body site during patient care.
• Decontaminate hands after contact with inanimate objects (including medical equipment) in the immediate vicinity of the patient.
• Decontaminate hands after removing gloves.
• Before eating and after using a restroom, wash hands with a non-antimicrobial soap and water or with an antimicrobial soap and water.
• Antimicrobial-impregnated wipes (i.e., towelettes) may be considered as an alternative to washing hands with non-antimicrobial soap and water. Because they are not as effective as alcohol-based hand rubs or washing hands with an antimicrobial soap and water for reducing bacterial counts on the hands of healthcare workers, they are not a substitute for using an alcohol-based hand rub or antimicrobial soap.
• Wash hands with non-antimicrobial soap and water or with antimicrobial soap and water if exposure to Bacillus anthracis is suspected or proven. The physical action of washing and rinsing hands under such circumstances is recommended because alcohols, chlorhexidine, iodophors, and other antiseptic agents have poor activity against spores.
• No recommendations were made regarding the routine use of nonalcohol-based hand rubs for hand hygiene in healthcare settings; this remains an unresolved issue.

Hand-hygiene technique recommendations of the guidelines include (CDC, 2002):

1. When decontaminating hands with an alcohol-based hand rub, apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers, until hands are dry. Follow the manufacturer's recommendations regarding the volume of product to use.
2. When washing hands with soap and water, wet hands first with water, apply an amount of product recommended by the manufacturer to hands, and rub hands together vigorously for at least 15 seconds, covering all surfaces of the hands and fingers. Rinse hands with water and dry thoroughly with a disposable towel. Use towel to turn off the faucet. Avoid using hot water, because repeated exposure to hot water may increase the risk of dermatitis.
3. Liquid, bar, leaflet or powdered forms of plain soap are acceptable when washing hands with a non-antimicrobial soap and water. When bar soap is used, soap racks that facilitate drainage and small bars of soap should be used.
4. Multiple-use cloth towels of the hanging or roll type are not recommended for use in healthcare settings.
Recommendations for other aspects of hand hygiene in the Guidelines include (CDC, 2002):

- Do not wear artificial fingernails or extenders when having direct contact with patients at high risk (e.g., those in intensive-care units or operating rooms).
- Keep natural nails tips less than 1/4-inch long.
- Wear gloves when contact with blood or other potentially infectious materials, mucous membranes, and nonintact skin could occur.
- Remove gloves after caring for a patient. Do not wear the same pair of gloves for the care of more than one patient, and do not wash gloves between uses with different patients.
- Change gloves during patient care if moving from a contaminated body site to a clean body site.
- No recommendations were made regarding wearing rings in healthcare settings; this remains an unresolved issue.

Sharp instruments and disposable items must be properly handled and disposed. Needles are NOT to be recapped, purposely bent or broken, removed from disposable syringes or otherwise manipulated by hand. After they are used, disposable syringes and needles, scalpel blades and other sharp items are to be placed in puncture-resistant, labeled containers for sharps disposal. It is important that these containers be conveniently located, as close as possible to where they will be used. Additionally, it is important to not overfill the sharps containers as placing items into these containers poses risk when the container is overflowing with needles, syringes and other sharp objects.

Housekeeping is important to maintain the work area in a clean and sanitary condition. The employer is required to determine and implement a written schedule for cleaning and disinfection based on the location within the facility, type of surface to be cleaned, type of soil present and tasks or procedures being performed. All equipment, environmental and working surfaces must be properly cleaned and disinfected after contact with blood or OPIM.

Potentially contaminated broken glassware must be removed using mechanical means, like a brush and dustpan or vacuum cleaner. Specimens of blood or OPIM must be placed in a closeable, labeled or color-coded leakproof container prior to being stored or transported.

Chemical germicides and disinfectants used at recommended dilutions must be used to decontaminate spills of blood and other body fluids. Consult the Environmental Protection Agency (EPA) lists of registered sterilants, tuberculocidal disinfectants, and antimicrobials with HIV efficacy claims for verification that the disinfectant used is appropriate. The lists are available from the National Antimicrobial Information Network at (800) 447-6349 or http://ace.orst.edu/info/nain.lists.htm.

Laundry that is or may be soiled with blood or OPIM, and/or may contain contaminated sharps, must be treated as though contaminated. Contaminated laundry must be bagged at the location where it was used, and shall not be sorted or rinsed in patient-care areas. It must be placed and transported in bags that are labeled or color-coded (red-bagged) as required by WISHA.

Laundry workers must wear protective gloves and other appropriate personal protective clothing when handling potentially contaminated laundry. All contaminated laundry must be cleaned or laundered so that any infectious agents are destroyed.

Waste disposal procedures must be carefully followed. All infectious waste must be placed in closeable, leakproof containers or bags that are color-coded (red-bagged) or labeled as required by
WISHA to prevent leakage during handling, storage and transport. Disposal of waste shall be in accordance with federal, state and local regulations.

**Tags or labels** must be used as a means to prevent accidental injury or illness to employees who are exposed to hazardous or potentially hazardous conditions, equipment or operations which are out of the ordinary, unexpected or not readily apparent. Tags must be used until the identified hazard is eliminated or the hazardous operation is completed.

All required tags must have the following:

- Tags must contain a signal word or symbol and a major message. The signal word shall be "BIOHAZARD", or the biological hazard symbol. The major message must indicate the specific hazardous condition or the instruction to be communicated to the employee.
- The signal word must be readable at a minimum of five feet or such greater distance as warranted by the hazard.
- The tag's major message must be presented in either pictographs, written text, or both.
- The signal word and the major message must be understandable to all employees who may be exposed to the identified hazard.
- All employees will be informed as to the meaning of the various tags used throughout the workplace and what special precautions are necessary.

**Personal activities** such as eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in laboratories and other work areas where blood or OPIM are present.

**Food and drink** must not be stored in refrigerators, freezers or cabinets where blood or OPIM are stored, or in other areas of possible contamination.

**Bloodborne Pathogen Training**

All new employees or employees being transferred into jobs involving tasks or activities with potential exposure to blood/OPIM shall receive training in the Bloodborne Pathogen Standard at the time of initial assignment to the tasks where occupational exposure may occur. This training will include information on the hazards associated with blood/OPIM, the protective measures to be taken to minimize the risk of occupational exposure, and information on the appropriate actions to take if an exposure occurs.

Retraining is required annually, or when changes in procedures or tasks affecting occupational exposure occur. As previously mentioned, the limited information in this section does not qualify for the full training.

All employees whose jobs involve participation in tasks or activities with exposure to blood/OPIM shall be offered the start of the **Hepatitis B vaccination** series within 10 working days of employment and/or new assignment. The vaccine will be provided free of charge. Serologic testing after vaccination (to ensure that the shots were effective) is recommended for all persons with occupational exposures.

**Bloodborne Pathogen Transmission in Water or Sewage**

HIV, HBV and HCV are not transmitted by water. Any bloodborne pathogen introduced into a water source would be greatly diluted, making it noninfectious. One study found that HIV did survive in wastewater for up to 12 hours. However, the transmissibility of HIV in this situation is profoundly unlikely. There has never been a documented case of HIV transmission due to wastewater exposure.

Plumbers or other workers who are working on the plumbing of a clinic or hospital sewage system or "immediately downstream" should use protective equipment appropriate for bloodborne pathogen exposure. Plumbers working on a sewage line elsewhere are probably not at risk for exposure to
bloodborne pathogens. However, sewage contains many other health hazards or pathogens besides HIV/HBV/HCV. Because of this, plumbers and other workers must be provided with protective equipment for that work.

**Occupational Exposure In Healthcare Settings**

The CDC states that the risk of infection for HIV, HBV or HCV in the healthcare setting varies from case by case. Factors influencing the risk of infection from occupational exposure are:

- Whether the exposure was from a hollow-bore needle or other sharp instrument;
- To intact skin or mucus membranes (such as the eyes, nose, mouth);
- The amount of blood that was involved and
- The amount of virus present in the source's blood

The risk of HIV infection to a healthcare worker through a needlestick is less than 1%. Approximately 1 in 300 exposures through a needle or sharp instrument result in infection. The risks of HIV infection through splashes of blood to the eyes, nose or mouth is even smaller - approximately 1 in 1,000. There have been no reports of HIV transmission from blood contact with intact skin. There is a theoretical risk of blood contact to an area of skin that is damaged, or from a large area of skin covered in blood for a long period of time. In 2001, the CDC reported 56 documented cases and 138 possible cases of occupational exposure to HIV since reporting started in 1985.

The risk of getting HBV from a needlestick or cut is between 6-30%, unless the person exposed has been vaccinated to hepatitis B. There are only a few studies regarding the risk of getting HCV from occupational exposure. The risk of getting HCV from a needlestick or cut is between 2-3%. The risk of getting HBV or HCV from a blood splash to the eyes, nose or mouth is possible but believed to be very small. As of 1999, about 800 health care workers a year are reported to be infected with HBV following occupational exposure. There are no exact estimates on how many healthcare workers contract HCV from an occupational exposure. To put this in perspective, the risk of a healthcare worker contracting HCV from an accidental needlestick is 20-40% greater than their risk of contracting HIV.

**Treatment After a Potential Exposure**

It is important to follow the protocol of your employer. The CDC recommends that as soon as safely possible, wash the affected area(s). Application of antiseptics should not be a substitute for washing. It is recommended that any potentially contaminated clothing be removed as soon as possible. It is also recommended that you familiarize yourself with existing protocols and the location of emergency eyewash or showers and other stations within your facility.

**Mucous Membrane Exposure**

If the exposure is to the eyes, nose or mouth, flush them continuously with water, saline or sterile irrigants for at least five minutes. The risk of contracting HIV through this type of exposure is estimated to be 0.09%

**Needlestick Injuries**

Wash the exposed area with soap and clean water. Do not "milk" or squeeze the wound. There is no evidence that shows using antiseptics (like hydrogen peroxide) will reduce the risk of transmission for any bloodborne pathogens. In the event that the wound needs suturing, emergency treatment should be obtained. The risk of contracting HIV from this type of exposure is estimated to be 0.3%.
Bite or Scratch Wounds

Exposure to saliva is not considered substantial unless there is visible contamination with blood. Wash the area with soap and water, and cover with a sterile dressing as appropriate. All bites should be evaluated by a healthcare professional.

Exposure to Urine, Vomit, or Feces

Exposure to urine, feces, vomit or sputum is not considered substantial unless the fluid is visibly contaminated with blood. Follow normal procedures for cleaning these fluids.

Reporting the Exposure

Follow the protocol of your employer. The following general guidelines taken from the CDC are not meant to replace an existing protocol. After cleaning the exposed area as recommended above, report the exposure to the department or individual at your workplace that is responsible for managing exposure.

Obtain medical evaluation as soon as possible. Discuss with a healthcare professional the extent of the exposure, prophylaxis/prevention of other bloodborne pathogens, the need for a tetanus shot and other care.

Post-exposure Prophylaxis

Post-exposure prophylaxis (PEP) provides anti-HIV medications to someone who has had a substantial exposure, usually to blood. PEP has been the standard of care for occupationally-exposed healthcare workers with substantial exposures since 1996. Animal models suggest that cellular HIV infection happens within 2 days of exposure to HIV. Virus in blood is detectable within 5 days. Therefore, PEP should be started as soon as possible, optimally within 2 hours, preferably within 24 hours of the exposure or as soon as possible and continued for 28 days. However, PEP for HIV does not provide prevention of other bloodborne diseases, like HBV or HCV.

HBV PEP for susceptible persons would include administration of hepatitis B immune globulin and HBV vaccine. This should occur as soon as possible and no later than 7 days post-exposure. There are currently no recommendations for HCV exposure.

Because of the frequent advances in treatment, doses and medications are not listed here. Post-exposure prophylaxis can only be obtained from a licensed healthcare provider. Your facility may have recommendations and a chain of command in place for you to obtain PEP. After evaluation of the exposure route and other risk factors, certain anti-HIV medications may be prescribed.


PEP is not as simple as swallowing one pill. The medications must be started within the first 2 hours if possible, and continued for 28 days. Many people experience significant medication side effects.

It is very important to report occupational exposure to the department at your workplace that is responsible for managing exposure. If post-exposure treatment is recommended, it should be started as soon as possible.

In rural areas, police, firefighters and other at-risk emergency providers should identify a 24-hour source for PEP. The national bloodborne pathogen hotline provides 24-hour consultation for
clinicians who have been exposed on the job. Call 1-888-448-4911 for the latest information on prophylaxis for HIV, hepatitis, and other pathogens.

In addition, Washington state workers have a right to file a worker’s compensation claim for exposure to bloodborne pathogens. Industrial insurance covers the cost of post-exposure prophylaxis and follow-up for the injured worker.

**HIV/HBV/HCV Testing Post-exposure**

If a healthcare professional determines that you have sustained an exposure which puts you at risk, you will be offered antibody testing for HIV, HBV and HCV, and HBV vaccine if needed. The HIV test does not show presence of HIV, rather it looks for antibodies (your body's reaction to HIV). It usually takes your body between two weeks and three months to produce antibodies to HIV. The initial test serves as a **baseline**; it will show whether you were infected with HIV before the exposure. You will need to retest in order to make sure you have not been infected. In 2001, the CDC recommended retesting at six weeks, 3 and 6 months after exposure. Testing for up to 12 months may be recommended for high risk exposures or when the source is documented to be infected with HIV. You should also discuss the need for a Hepatitis B titer test (if you have been vaccinated for HBV), tests for elevated liver enzymes and other available testing for other bloodborne pathogens.

There are situations where healthcare workers and others are not aware of the HIV status of the individual to whose blood they have been exposed. Usually, you can't force someone to test for HIV and reveal their results to you.

The Revised Code of Washington 70.24.340 provides for HIV antibody testing of a "source" - someone whose bodily fluids have come into contact with a law enforcement officer, fire fighter, healthcare provider or healthcare facility staff, and certain other professions.

If you experience an occupational substantial exposure to another person’s blood or OPIM, you can request HIV testing of the source individual through your employer or local health officer. Before the health officer will issue a health order for HIV testing of the source individual, s/he will first make the determination of whether a substantial exposure occurred, and if the exposure occurred on the job. Depending on the type of exposure and risks involved, the health officer may make the determination that source testing is unnecessary.

In the case of occupationally exposed healthcare workers, if the employer is unable to obtain permission of the source individual, the employer may request assistance from the local health officer provided the request is made within 7 days of the occurrence.

Source testing does not eliminate the need for baseline testing of the exposed individual for HIV, HBV, HCV and liver enzymes. Provision of PEP should also not be contingent upon the results of a source’s test. Current wisdom indicates immediate provision of PEP in certain circumstances, with discontinuation of treatment based upon the source’s test results.

**Non-occupational Exposure to HIV**

PEP for occupational exposure is standard, and its effectiveness has been documented. PEP for sexual exposure (assault or consenting) or for needle-sharing is not standard medical practice in many communities. Depending on your location in Washington State, providers may not even be familiar with the idea of providing PEP to people who have post-sexual exposure to HIV. The University of California at San Francisco has operated a PEP clinic for non-occupational exposure since 1997. For more information, call (415) 487-5538 or (415) 514-4PEP after hours.

Good places to start PEP include your local emergency room. In Seattle and Western Washington there are clinics that specifically treat HIV-positive people. You can get information about these clinics through Public Health Seattle-King County’s website: www.metrokc.gov/health/news.
If your healthcare provider has questions, s/he can call PEPLine, the University of California at San Francisco's hotline for clinicians - 1-888-HIV-4911. This is NOT a hotline for answering basic questions about HIV.

PEP should never be used for primary prevention of HIV. Unlike emergency contraception to prevent pregnancy, there are no good studies to show that PEP works for post-sexual exposure. It is a complicated combination of medicines that sometimes have serious side effects. Advice for counseling and PEP related to sexual assault is found in the Counseling and Testing section of this course.

**Bloodborne Pathogen, Sanitary and Food Preparation Procedures for Homes and Home-like Settings**

People who live or work in homes and home-like settings should practice good hygiene techniques in preparing food, handling body fluids and medical equipment. Cuts, accidents, or other circumstances can result in spills of blood/OPIM. These spills may be deposited upon carpeting, vinyl flooring, clothing, on a person's skin, or other surfaces. It is important that everyone, even young children, have a basic understanding that they should **not** put their bare hands in, or on, another person's blood. This section outlines practices for some commonly encountered situations.

**Gloves**

Some people have allergies to latex. Therefore, latex, nitrile or vinyl gloves may be used. Gloves should be worn in the following situations:

- Caretakers should wear gloves when they anticipate direct contact with any body substances (blood or OPIM)
- People should wear gloves when they anticipate contact with any non-intact skin.
- When you are through, carefully pull the gloves off, inside-out, one at a time, so that the contaminated surfaces are inside and you avoid contact with any potentially infectious material.
- Gloves are not necessary for general care, or during casual contact (serving food, bathing intact skin.)
- Gloves should be changed, and hands washed as soon as possible between children, patients, etc.
- Never rub the eyes, mouth or face while wearing gloves.
- Latex gloves should never be washed and reused.

**Handwashing Technique**

Correct handwashing is extremely important. The steps to follow for good handwashing technique include:

- Use soap, warm (almost hot) water, and good friction, making sure to scrub the top, back, and all sides of the fingers.
- Lather well and rinse for at least 10 seconds. When rinsing, begin at the fingertips, so that the dirty water runs down and off the hands from the wrists. It is preferable to use a pump-type of liquid soap instead of bar hand soap.
- Dry hands on paper towels. Use the dry paper towels to turn off the faucets (don't touch with clean hands).

A waterless handwashing product should be made available for immediate use if a suitable sink is not readily available in the home or work setting. This product does not replace proper handwashing with soap and water. Refer to the manufacturer's directions for use.
People who have been exposed to body fluids should wash their hands **before**, as well as after, using the toilet. The paper towel that was used to dry the hands may also be used to open the bathroom door, if necessary, before disposing of the towel.

**Precautions With Personal Hygiene Items**

People **should not share** razors, toothbrushes, personal towels or washcloths, dental hygiene tools, vibrators, enema equipment or other personal care items.

**Cleaning Blood/OPIM From Skin Surfaces**

Wear appropriate gloves. Use sterile gauze or other bandages, and follow normal first-aid techniques to stop the bleeding. After applying the bandage, remove the gloves slowly, so that fluid particles do not splatter or become aerosolized. Hands should be washed using good technique as soon as possible.

**Cleaning Body Fluid Spills on Vinyl Floors**

Any broken glass should be swept up using a broom and dustpan, **never bare hands**. Empty the dustpan in a well-marked plastic bag or heavy-duty container. The body fluid spill may be pre-treated with full-strength liquid disinfectant or detergent. Next, wipe up the body fluid spill with either a mop and hot, soapy water, or appropriate gloves and paper towels. Dispose of the paper towels in the plastic bag. Use a good disinfectant (e.g., household bleach 5.25% mixed fresh with water 1:10) to disinfect the area that the spill occurred. If a mop was used for the cleaning, soak it in a bucket of hot water and disinfectant for the recommended time. Empty the mop bucket water in the toilet, rather than a sink. Sponges and mops used to clean up body fluid spills should not be rinsed out in the kitchen sink, or in a location where food is prepared.

Pour dry kitty litter or other absorbent material on the spill to absorb the body fluid. Then pour full-strength liquid detergent on the carpet, which helps to disinfect the area. If there are pieces of broken glass present, the broom and dustpan method can be used next to sweep up the kitty litter and visible broken glass. Use carpet-safe liquid disinfectant instead of diluted bleach on the carpeting. Pour this carefully on the entire contaminated area; let it remain there for the time recommended by the manufacturer. Follow this by absorbing the spill with paper towels and sturdy rubber gloves. Vacuum normally afterwards.

Any debris, paper towels, or soiled kitty litter should be disposed of in a sealed plastic bag that has been placed inside another plastic garbage bag. Twist and seal the top of the second bag as well.

**Cleaning Clothes or Other Laundry in Home Settings**

Clothes, washable uniforms, towels or other laundry that have been stained with blood/OPIM should be cleaned and disinfected before further use. If possible, have the person remove the clothing, or use appropriate gloves to assist with removing the clothes. If it is a distance to the washing machine, transport the soiled clothing items in a sturdy plastic bag. Next, place the items in the washing machine, and soak or wash the items in cold, soapy water to remove any blood from the fabric. Hot water permanently sets blood stains. Use hot soapy water for the next washing cycle, and include sufficient detergent, which will act as a disinfectant, in the water. Dry the items using a clothes dryer.

Wool clothing or uniforms may be rinsed with cold soapy water, then dry cleaned to remove and disinfect the stain.
Diaper Changes

Care providers should use a new pair of appropriate gloves to change diapers. Gloves should be removed carefully and discarded in the appropriate receptacle. Hands should be washed immediately after changing the diaper. Disinfect the diapering surface afterwards. Cloth diapers should be washed in very hot water with detergent and a cup of bleach, and dried in a hot clothes dryer.

Cleaning Sponges and Mops

Sponges and mops that are used in a kitchen should not be used to clean body fluid spills or bathrooms. All sponges and mops should be disinfected routinely with a fresh bleach solution or another similar disinfectant.

Toilet/bedpan Safety

It is safe to share toilets/toilet seats without special cleaning, unless the surface becomes contaminated with blood/OPIM. If this occurs, disinfect the surface by spraying on a solution of 1:10 bleach. Wearing gloves, wipe this away with disposable paper towels. Persons with open sores on their legs, thighs, or genitals should disinfect the toilet seat after each use.

Urinals and bedpans should not be shared between family members, unless they are thoroughly disinfected beforehand.

Thermometers

Electronic thermometers with disposable covers do not need to be cleaned between users, unless they are visibly soiled. Wipe the surface with a disinfectant solution if necessary. Glass thermometers should be washed with soap and warm water before and after each use. If it will be shared between family members, the thermometer should be soaked in 70-90% ethyl alcohol for 30 minutes, then rinsed under a stream of warm water between each use.

Pet Care Precautions

Certain animals may be health hazards for people with compromised immune systems. These animals include turtles, reptiles, birds, puppies and kittens under the age of eight months, wild animals, pets without current immunizations, and pets with illnesses of unknown origin.

Pet cages and cat litter boxes can harbor infectious, sometimes aerosolized organisms. These pet items should be cared for only by someone who is not immunocompromised. If this is not possible, a mask with a sealable nose clip, and disposable latex gloves should be worn each time pet care is done. Follow all pet care with thorough handwashing.

Animals may carry a variety of diseases harmful to people with weakened immune systems. Some of these diseases may be passed by the animal licking their person's face or open wounds. Wash hands after stroking or other contact with pets. Keep cats' and dogs' nails trimmed. Wear latex gloves to clean up a pet's urine, feces, vomit, etc. The soiled area should be cleaned with a fresh solution of 1:10 bleach.

Pet food and water bowls should be regularly washed in warm, soapy water, and then rinsed. Cat litter boxes should be emptied out regularly and washed at least monthly. Fish tanks should be kept clean. It is possible to order disposable latex "calf-birthing" gloves from a veterinarian for immunocompromised individuals. These gloves should offer protection from the organisms that are present in the fish tank.

Do not let your pet drink from the toilet, eat another animal's feces, any type of dead animal or garbage. It is best to restrict cats to the indoors only. Dogs should be kept indoors or on a leash.
Many communities have volunteer groups and veterinarians that will assist people with HIV take care of their pets, if needed. Do not hesitate to consult your veterinarian with your questions.

Kitchen Safety and Proper Food Preparation Skills

- Wash hands thoroughly before preparing food.
- Use care when tasting food. Use a clean spoon to taste food. Wash the spoon after using it once.
- Persons with HIV infection should avoid unpasteurized milk, raw eggs or products that contain raw eggs, raw fish, and cracked or non-intact eggs. Cook all meat, eggs and fish thoroughly to kill any organisms that may be present in them. Wash fruits and vegetables thoroughly before eating.
- Disinfect countertops, stoves, sinks, refrigerators, door handles and floors regularly. Use window screens to prevent insects from entering the room.
- Discard food that has expired or is past a safe storage date, shows signs of mold or smells bad.
- Use separate cutting boards for meat and for fruits and vegetables. Disinfect cutting boards frequently. Avoid wood cutting boards if possible.
- Kitchen garbage should be contained in a leak-proof, washable receptacle that is lined with a plastic bag. Seal the garbage liner bags and remove the garbage frequently.

How to Deal With Blood and Used Syringes in Parks, Public Restrooms, and other Public Settings

Over the years, it has become apparent that people in both rural and urban parts of Washington State are finding used syringes and other potentially infectious material in parks and public restrooms. Blood spills in public restrooms have caused great concern for the staff person(s) who have been asked to clean up the dangerous and unpleasant mess that is left behind. Here are some recommendations for safely dealing with these situations.

Found Syringes in Parks and Other Public Locations

Used syringes that are tossed aside in parks, along roadsides, in laundromats, etc., present a real danger for accidental needlesticks. Unfortunately, young children in particular have been the recipients of needlesticks from used syringes.

Parents and other caregivers should make sure children understand two key points:

- Syringes are needed for the medical providers who give them injections to keep them healthy, or for pain medication. This is a proper use of syringes.
- If a child finds a syringe s/he should never touch it, but instead should immediately tell a responsible adult who is nearby. Used syringes are dangerous and are not toys!

Anyone with an accidental needlestick requires an assessment by a healthcare professional. The medical professional should make certain that the injured person had been vaccinated against Hepatitis B and tetanus; s/he may also recommend testing for HIV, HCV, and HBV.

If a child is involved and the parent or guardian is absolutely certain that the child did not have a needlestick, testing for HIV is not necessary, since handling a syringe is not a risk for HIV transmission. The risk of HIV infection to a healthcare worker from a needlestick containing HIV-positive blood is about 1 in 300, according to CDC data. Risks for infection with found syringes will depend on a variety of factors, including the amount of time the syringe was left out, presence of blood and the type of injury (scratch versus puncture).
Safe Disposal of Found Syringes

Found used syringes or needles present a risk for HIV, HBV, HCV and other pathogens. Police and public health departments are not available to dispose of these. The following method should provide protection for the person who is cleaning up and disposing of used syringes:

- Keep children away from the area of the used syringe until it is safely disposed of. Make certain that no other syringes are also in the area.
- If possible, spray the syringe first with a mixture of 1:10 bleach and water, or alternately, pour fresh bleach on the syringe to help disinfect its outer surface.
- Find a suitable disposal container with at least a one-inch opening, and that has a lid that will seal tightly, to place the syringe into. This could be an empty plastic laundry detergent, shampoo, pickle, oil or similar bottle or jar. If a glass jar is used, it should be placed into another plastic bucket or container that has a tight-fitting lid. Soda cans are not good containers to use for this purpose, because people often try to recycle discarded cans.
- It is best to wear a heavy pair of leather gloves and to use a pair of needle-nose, or similar pliers, to pick up the used syringe. The person who is picking up the syringe should hold it as far away from their body as is practical; they should also take extra care not to lose their grip and drop the syringe! The pliers offer distance from the syringe; the gloves offer some physical protection from the needle.
- After the syringe is placed in the bottle or jar, seal the lid tightly. It is preferable to find a disposal site that takes biohazardous waste - many drugstores and some hospitals will allow you to dispose of found needles. The sealed container should not be placed where children might open it.

Part 5. Ethical and Legal Issues

AIDS and HIV are reportable conditions in Washington State, by statutes RCW 70.24 and WAC 246-101-010. AIDS (medically diagnosed) and symptomatic HIV infection have been reportable conditions in Washington since 1984 and 1993 respectively. In 1999, asymptomatic HIV infection also became reportable.

Reporting of HIV and AIDS cases assists local and state officials in tracking the epidemic. It also allows for effective planning and intervention to be provided in the effort to reduce the transmission of HIV to other people.

In the case of AIDS or symptomatic HIV infection, providers who diagnose a person with AIDS must submit a confidential case report to the local health jurisdiction within 3 days. In the case of HIV, providers receiving a confirmed HIV positive diagnosis must report the positive test to the local health jurisdiction, by name, within 3 days. In some local health jurisdictions the state Department of Health fills this function for local authorities. The local health jurisdiction then has 90 days after the case report is completed to assign a computer-generated code (a combination of letters and numbers) and remove any reference to the individual's name. Partner notification, case management and other services will be offered to the individual. The case report, using the coded identifier, is then forwarded to the Washington State Department of Health.

Positive HIV results obtained through anonymous testing are not reportable. However, once a patient with positive results seeks medical care for conditions related to HIV or AIDS, the provider is required to report the case to the local health departments.

Spousal Notification

Federal Public Law 104-146 (1996) requires that states take action to require that a "good faith effort" be made to notify all spouses of HIV-infected persons. A "spouse" is defined as anyone
who is or has been the **marriage partner** of an HIV-infected individual within 10 years prior to the HIV diagnosis.

**Notification** means that spousal information will be discussed with individuals prior to their HIV test. If the test result is positive, the individual will be given the choice to notify his/her spouse(s), to allow the health care provider to notify the spouse(s) or refer to the local health jurisdiction for assistance in notifying the spouse(s). More information on spousal notification can be found in the Testing and Counseling Section, covered earlier in this course.

**Confidentiality**

All medical records are confidential and must be maintained in a manner that protects that confidentiality. There are special requirements around HIV and AIDS, found in WAC 246-101 and RCW 70.24.105.

Confidentiality of medical information means that information that can be related to the specific patient may not be disclosed to ANYONE except under specific circumstances. Usually, this means that the individual signs a release of information form, but there are exceptions. The most common circumstances are:

- If there is a separate, signed release of information form
- To another health care provider for related on-going medical care
- In a life or death emergency
- To a third party payor (insurance provider)
- In the case of reporting notifiable conditions to the local health jurisdiction or the DOH

Violation of the above-mentioned laws is a misdemeanor and may result in civil liability actions for reckless or intentional disclosure up to $10,000 or actual damages, whichever is greater. It is the responsibility of the county’s health officer to investigate potential breaches of confidentiality of HIV identifying information and report those to the DOH.

Some areas of the medical record have additional confidentiality requirements because disclosure of the information to the wrong person or agency could mean additional harm to the patient. It has been determined that there exists a level of prejudice, fear and discrimination directed at people with these medical conditions. Therefore, there is a balance between civil protection and information access.

**Disability and Discrimination**

People with AIDS and HIV are also protected by federal law under the Americans with Disability Act (1990) and Section 504 of the Federal Rehabilitation Act of 1973, as amended. Washington law RCW 49.60 regulates disabled status.

Persons with HIV infection and/or AIDS who feel discriminated against on the basis of their disease may file a complaint with the Office for Civil Rights (OCR) of the U.S. Department of Health and Human Services, or the Washington State Human Rights Commission. OCR will investigate anonymous reports.

HIV infection and AIDS are medical conditions that are considered disabilities under the Washington State Law Against Discrimination (RCW 49.60) and the federal Americans with Disability Act (ADA).

The law means that it is illegal to discriminate against someone who has AIDS or is HIV infected. It is also illegal to discriminate against someone who is ‘believed’ to have AIDS or HIV infection, even though that person is not, in fact, infected. The areas covered in the law are:
Healthcare, legal services, home repairs, and other personal services available to the general public;
Applying for a loan or credit card, or other credit transactions;
Certain insurance transactions.

Employers may not discriminate against persons with HIV infections or AIDS in:

- Employment
- Recruitment
- Hiring
- Transfers
- Layoffs
- Terminations
- Rate of pay
- Job assignments
- Leaves of absence, sick leave, any other leave or fringe benefits available by virtue of employment

Employers are required to provide and maintain a working environment free of discrimination. They must assure that no harassment, intimidation or personnel distinction is made in terms and conditions of employment. If a worksite situation develops that poses the threat of discrimination, employees must be given education and supervision to end harassment, the use of slurs and/or intimidation.

Employers are responsible for providing reasonable worksite accommodations which will enable a qualified, disabled employee or job applicant to perform the essential tasks of a particular job. Reasonable accommodation means relatively inexpensive and minimal modifications, such as:

- Providing special equipment
- Altering the work environment
- Allowing flex-time
- Providing frequent rest breaks
- Allowing the person to work at home (telecommute)
- Restructuring the job

When a person goes for a job interview or is hired, the employer:

- Cannot ask questions directed at the perception or presence of HIV infection or AIDS, unless based on a “bona fide” occupational qualification, which at this time, according to CDC and WAC 246-100-206(11), does not exist.
- Cannot require a blood test to determine HIV infection, unless HIV status limits the ability to perform the work, i.e. overseas assignment in country that requires HIV certification.
- Cannot require a physical exam directed to identify HIV infection, except for exams necessary to evaluate the need for, or nature of, reasonable accommodation or specific job-related conditions.
- Cannot ask questions about lifestyle, living arrangements, or sexual orientation.

Exceptions to this are applicants for the U.S. Military, the Peace Corps, the Job Corps, and persons applying for U.S. citizenship.
Behaviors Endangering the Public Health

Washington State law (RCW 70.24) and rules (WAC 246-100 and 246-101) gives state and local health officers the authority and responsibility to carry out certain measures to protect the public health from the spread of sexually transmitted disease (STD), including HIV.

The local health officer is the physician hired to direct the operations of the local county's health department or health district. Included in the broad responsibilities of the health officer is the authority to:

- Interview persons infected with an STD;
- Notify sexual or needle-sharing partners of exposure to disease;
- Order persons suspected of being infected to receive examination, testing, counseling or treatment;
- Issue orders to cease and desist from specific conduct that endangers the public health of others.

Court enforcement of these orders can be sought. State law delineates the standards that must be met before action by the health officer may be taken.

For HIV, Washington State law permits an additional step - the detention of an HIV-infected person who continues to endanger the health of others. After all less restrictive measures have been exhausted, a person may be detained for periods up to 90 days after appropriate hearings and rulings by a court.

By state law and rule, health care providers are required to provide instruction on infection control measures to the patient who is diagnosed with a communicable disease. They are also required to report certain information to the local health officer where there are either impediments to or refusal to comply with prescribed infection control measures.

For example, health care providers who have knowledge that a specific patient is failing to comply with infection control measures (e.g., acquisition of a new STD, sex without disclosure of HIV status prior to sexual partners, failure to disclose HIV status to needle-sharing partners, or donating or selling HIV-infected blood, etc.) should contact the local public health officer to discuss the circumstances of the case and to determine if the name of the person should be reported for investigation and follow-up.

The health officer or other authorized representative will investigate the case if credible evidence exists that an HIV-infected person is engaging in conduct endangering the public health.

There are also other laws and regulations concerning behaviors endangering and occupational exposures. These may be specific to professions and to the jurisdictions of public health officers. For more specific information, talk with public health officials in your area, call the Washington State Hotline at 1-800-272-2437, or ask a knowledgeable person to provide the information to your group.

Part 6. Psychosocial Issues

Washington State has a system to link people with HIV infection and AIDS to care services. Case managers in the HIV/AIDS Programs, which can usually be found by contacting the local health department or health district, are the primary contact people for services. HIV infected, or affected persons can be linked with medical care, insurance programs, volunteer groups, hospice, and other types of care that may be needed during the course of a person, or family's, time of living with HIV. To find a case manager, contact the HIV/AIDS Program in your county's health department or district, or call the Washington State DOH at 1-800-272-2437, option 2.

Persons with HIV and their families and friends face a multitude of difficult realities:
• Even with the advent of antiretroviral drugs, persons with AIDS still die prematurely.
• Persons who are HIV-infected can live 10-12 years or more without developing symptoms.
• Men who have sex with men, and injection drug users, who may already be stigmatized and subjected to social and job-related discrimination, may encounter even more societal pressure and stress with a diagnosis of AIDS.
• 90% of all adults with AIDS are in the prime of life and may not be prepared to deal with death and dying.
• The infections and malignancies that accompany AIDS along with some of the medications, can diminish and disfigure the body.
• People who are living with HIV face the need to practice "safer sex" and take medications for the remainder of their lives.

The emotional response to learning that one is HIV positive can range from relief to devastation; from acceptance of a chronic illness, to fear of a death sentence.

One thing that characterizes the grief around AIDS is the repetition of deaths that one person may experience. Many people working with or living with AIDS for years have gone to countless funerals and have seen a succession of their friends pass away. This is sometimes termed "chronic grief."

Chronic grief intensifies when one realizes that, before the grieving process for one death is complete, many more people may have died.

HIV often produces many losses:

• Loss of physical strength and abilities
• Loss of mental abilities/confusion
• Loss of income and savings
• Loss of health insurance
• Loss of job/work
• Loss of housing, personal possessions, including pets
• Loss of emotional support from family, friends, co-workers, religious and social institutions
• Loss of self-sufficiency and privacy
• Loss of social contacts/roles
• Loss of self esteem

People who are experiencing multiple losses may not have enough time to work through the grief process for each person. People experiencing multiple losses may feel:

• Guilt
• Grief
• Helplessness
• Rage
• Numb

The physical weakness and pain can diminish the person's ability to cope with psychological and social stresses.

Infection with HIV can cause distress for those who have HIV, for those who are their caregivers, family, lovers and friends. Grief can manifest itself in physical symptoms, including clinical depression, hypochondria, anxiety, insomnia, and the inability to get pleasure from normal daily activities. Dealing with these issues may lead to self-destructive behaviors, such as alcohol or drug abuse.
The idea of "cumulative" multiple loss or grief saturation is not new. The emotions felt by long-term survivors of HIV and the HIV-negative friends and families are similar to the emotions of the survivors of the Holocaust, survivors of natural disasters (earthquakes, tornadoes, etc.), and to battle fatigue described by soldiers.

Disbelief, numbness, and inability to face facts occur for some. The "fear of the unknown," the onset of infections, swollen lymph nodes, or loss of weight (or unusual weight gain) can be accompanied by fear of developing AIDS, or of getting sicker.

Rejection by family, friends, and co-workers is often experienced. In some cases, guilt develops about the disease, about past behaviors, or about the possibility of having unwittingly infected someone else.

People living with HIV may feel as though their "normal" lives have completely ended, as they must plan detailed medication schedules and medical appointments. The cost of the medications for HIV may result in financial hardship, even if the person has medical coverage.

Sadness, hopelessness, helplessness, withdrawal, and isolation are often present. Anger is common: at the virus, at the effects of the medications, or the failure of some of the medications, at the prospect of illness or death, and at the discrimination that can often be encountered.

Some people with HIV consider suicide, some attempt suicide, and some may kill themselves.

Often feelings experienced by the caregiver will mirror those of the patient, such as a sense of vulnerability and helplessness. Caregivers may experience the same isolation as the person with HIV infection. Finding a support system, including a qualified counselor, can be just as important for the caregiver as for the person who has HIV disease. Support from co-workers can be especially important.

Grief has been described in a variety of forms. It may be best understood as a process that doesn't involve a straight line. People do not move predictably step-by-step through the various stages of their grieving, but progress at their own speed. There seem to be discreet phases of grief, including:

- shock and numbing
- yearning and searching
- disorganization and despair
- some degree of reorganization

The length of time it takes to move between these stages is determined by the individual, his or her values and cultural norms. In "uncomplicated grief," an individual is able to move through these stages and come out of the grieving process.

"Complicated grief" is described as an exaggeration or distortion of the normal process of grieving. People experiencing multiple losses are more at risk for complications. If an individual has been impacted by multiple deaths, it may be difficult for them to reorganize or "move on" with the process.

Caregiver Issues

Caregiving, can be a multifaceted positive experience for the caregiver. However, caregiving requires a great deal of energy and effort in the face of significant challenges. Caregivers often benefit from acknowledging their own experiences and feelings when dealing with all aspects of this disease. Good self-care for the caregiver is important.

- DO meet with a support person, group, or counselor on a regular basis to discuss your experiences and feelings.
- DO set limits in care-giving time and responsibility, and stick to those limits.
- DO allow yourself to have questions. Let "not knowing" be okay.
- DO get the information and support you deserve and need.
DO discuss with your employer strategies of performing your job in ways that reduce stress and burnout.
DO remember that UNIVERSAL and STANDARD PRECAUTIONS are for the patient's health and welfare, as well as your own.

DON'T isolate yourself.
DON'T try to be all things to all people.
DON'T expect to have all the answers.
DON'T deny your own fears about AIDS or dying.
DON'T continue to work in an area where you "can't cope."
DON'T dismiss UNIVERSAL AND STANDARD PRECAUTIONS because you "know" the patient.

There are other issues for people who share a home with, or provide home care for persons with HIV or AIDS. Please refer back to the section on Transmission and Infection Control for more information.

Case Study #6

Mary had a friend who died from AIDS when she was in college, and decided then that she wanted to work in that field when she graduated as a nurse. Her first position was on the HIV ward, a area that had a large turn over of staff. After several years she decided to try a new position as a visiting nurse on the HIV team. She liked the flexibility of her position, but soon realized that seeing patients several times a week in their home was much different than caring for them in the hospital. She met spouses/partners and families. She thought nothing of stopping to pick up something she knew George, who was very wasted, would like at the grocery store, lending a new movie to John who had recently fallen and fractured his hip so wasn’t able to get around, or making a copy of relaxing music for Fred, the perpetual insomniac. When possible, she would take a couple of extra minutes at the end of her day to read to Josh, a young man who lost his eye sight to CMV. Everything about the new position led to a sense of intimacy with her patients. When each died she attended the funeral.

After several years in the field Mary noticed that she often felt tired. She did not seem to see many of her old friends as often, and in the evening went straight home, had a late supper and spent an hour flicking through channels on the television without really watching anything special. She noticed that she started to dread going to the home of patients who were getting close to death. Co-workers noticed the change in her work habits and were concerned that she was burned out. Her supervisor suggested she attend a support group for HIV staff, and take some time off for a vacation. After several months in the group she realized that she was suffering from “cumulative loss.” She was eventually able to make changes in her practice that allowed her to still provide good care for her patients while keeping a safe space between her job and her personal life. She planned outings with old friends, and decided to take art classes at a local community college in the evening. By learning to take care of herself and set limits for her job, she was able to remain active in a field that she loved.

Select populations

Although HIV infection affects people from all ethnic groups, genders, ages, and income levels, some groups have been significantly affected by the AIDS epidemic. These groups have included men who have sex with men, injecting drug users, people with hemophilia, women and people of Color. The difference with the grief process associated with HIV and AIDS can be the social and emotional issues associated with contracting the disease. The following information details how these different populations may be uniquely affected by the AIDS epidemic.
Men Who Have Sex With Men

American society has issues with homosexuality. Grief may not be validated when relationships are considered "unacceptable." An example of this may be the reaction of churches to those who are living with, or have families living with AIDS. Many congregants report that they do not get the support they need from their church families because of the stigma attached to HIV, AIDS and homosexuality.

Self-esteem issues and psychological issues (including depression, anxiety, diagnosed mental illness and risk-taking behaviors) may also complicate the lives of these men. Additionally, there are the issues with HIV-negative men who have sex with men. Most of the attention, resources and services are focused on HIV-positive gay men. As with any behavior change people can become "tired" with safer sex messages, and may make choices that place them at risk. Some may feel that HIV infection is inevitable (although it is not) and purposely engage in unprotected sex.

Men who have sex with both men and women (who do not exclusively self-identify as "gay") face additional challenges. Most of the HIV-prevention activities are more successful at reaching those who identify themselves as "gay." Bisexual men face many of the same challenges as "gay" men but may not have the social and community resources they need.

Injecting Drug Users

American society also has issues with illegal drug use and the way we view marginalized individuals such as those in poverty and the homeless. Drug users are also stigmatized. People who continue to use injecting drugs, despite warnings and information about risks, may be viewed by some as "deserving" their infection. However, it is important to remember that addiction is an illness and rarely does "just say no" work to stop the addiction; indeed it trivializes the seriousness of addiction.

Harm reduction measures like syringe exchange programs, have been proven to reduce the transmission of blood-borne pathogens like HIV, HBV, and HCV. These programs are controversial because some people believe that providing clean needles and a place to exchange used needles constitutes "approval" of injection drug use.

In addition to poverty, self-esteem issues and psychological issues, including depression, anxiety, diagnosed mental illness and risk-taking behaviors, may also complicate the lives of injection drug users. The desire to stop using illegal drugs and the ability to do so may be very far apart. The reality about inpatient treatment facilities is there are very few spaces available for the demand. Many substance abusers are placed on "waiting lists" when they want treatment, and by the time there is a place for them, the individual may be lost to follow-up.

People with Hemophilia

Hemophiliacs lack the ability to produce certain blood clotting factors. Before the advent of antihemophilic factor concentrates (products like "factor VIII" and "factor IX," which are clotting material pooled out of donated blood plasma), hemophiliacs could bleed to death. These concentrates allowed hemophiliacs to receive injections of the clotting factors that they lacked, which in turn allowed them to lead relatively normal lives. Unfortunately, because the raw materials for these concentrates came from donated blood, many hemophiliacs were infected with HIV prior to the advent of blood testing.

During the 1980's, prior to routine testing of the blood supply, 90% of severe hemophiliacs contracted HIV and/or HCV through use of these products. There is anger within this community because there is evidence to show that the companies manufacturing the concentrates knew their products might be contaminated, but continued to distribute them anyway.
While some people considered hemophiliacs to be “innocent victims” of HIV, there had been significant discrimination against them. The Ryan White Care Act, funding HIV services, and the Ricky Ray Act, which provides compensation to hemophiliacs infected with HIV, were both named after HIV-positive hemophiliacs who suffered significant discrimination (arson, refusal of admittance to grade school, etc.) in their hometowns.

Women With HIV

The number of women with HIV (human immunodeficiency virus) infection and AIDS (acquired immunodeficiency syndrome) has been increasing steadily worldwide. By the end of 2003, according to the World Health Organization (WHO), 19.2 million women were living with HIV/AIDS worldwide, accounting for approximately 50 percent of the 40 million adults living with HIV/AIDS (NIAID, 2004).

Table 2. Proportion of AIDS Cases among Female Adults and Adolescents, by Transmission Category 2003—United States (CDC, 2005e)

CDC estimates that 71% of the 11,498 AIDS cases diagnosed among female adults and adolescents in 2003 can be attributed to heterosexual transmission: 13% of these cases are from heterosexual contact with an injection drug user and 58% from sexual contact with high-risk partners such as bisexual men or HIV-infected men with unidentified risk factors (CDC, 2005e).

Of the cases in female adults and adolescents, 27% were attributed to injection drug use and 2% to other or unidentified risk factors (CDC, 2005e).

Worldwide, more than 90 percent of all adolescent and adult HIV infections have resulted from heterosexual intercourse. Women are particularly vulnerable to heterosexual transmission of HIV due to substantial mucosal exposure to seminal fluids. This biological fact amplifies the risk of HIV transmission when coupled with the high prevalence of non-consensual sex, sex without condom use due to some women’s inability to negotiate safer sex practices with their partners, and the unknown and/or high-risk behaviors of their partners (NIAID, 2004).

Younger women are also increasingly being diagnosed with HIV infection, particularly among African-Americans and Hispanics. Through December 2002, women aged 25 and younger accounted for 9.8 percent of the female AIDS cases reported to CDC (NIAID, 2004).
HIV disproportionately affects African-American and Hispanic women. Together they represent less than 25 percent of all U.S. women, yet they account for more than 82 percent of AIDS cases in women (NIAID, 2004).

Women suffer from the same complications of AIDS that afflict men but also suffer gender-specific manifestations of HIV disease, such as recurrent vaginal yeast infections and severe pelvic inflammatory disease, which increase their risk of cervical cancer. Women also exhibit different characteristics from men for many of the same complications of antiretroviral therapy, such as metabolic abnormalities (NIAID, 2004).

Frequently, women with HIV infection have great difficulty accessing healthcare; they may postpone taking medication, or going to their own medical appointments because of the heavy burden of caring for children and other family members who may also be HIV-infected. They often lack social support and face other challenges that may interfere with their ability to adhere to treatment regimens (NIAID, 2004). Women (and also men) may fear disclosing their HIV status to others, out of fear of losing their jobs, housing, or other forms of discrimination. Single parents with HIV may feel particularly fearful because of their lack of support.

Many women have problems with lack of transportation, lack of health insurance, limited education and low income. They may have child-care problems that prevent them from going to medical appointments.

Many women who have HIV infection do not consider this to be their "worst problem". Their symptoms may be mild and manageable for many years. Meanwhile, they may have more pressing concerns, such as their income, housing, access to medical care, possible abusive relationships, and concerns about their children.

People of Color

African Americans and Hispanics specifically have disproportionately higher rates of AIDS cases in the U.S., despite the fact that there are no biological reasons for the disparities.

Figure 2. below illustrates the distribution of AIDS cases reported in 2003 among racial/ethnic groups. The pie chart on the right shows the distribution of the US population (excluding US dependencies, possessions and associated nations) in 2003.

Non-Hispanic blacks and Hispanics are disproportionately affected by the AIDS epidemic in comparison with their proportional distribution in the general population. In 2003, non-Hispanic blacks made up 13% of the population but accounted for 48% of reported AIDS cases. Hispanics made up 14% of the population but accounted for 18% of reported AIDS cases.

Non-Hispanic whites made up 69% of the US population but accounted for 31% of reported AIDS cases.
Table 3. Proportion of Reported AIDS Cases and Population, by Race/Ethnicity, 2003—50 States and D.C. (CDC, 2005b)

There is not one single reason that stands out as to why the disparities exist. Multiple factors contribute to racial/ethnic health disparities, including socioeconomic factors (e.g., education, employment, and income), lifestyle behaviors (e.g., physical activity and alcohol intake), social environment (e.g., educational and economic opportunities, racial/ethnic discrimination, and neighborhood and work conditions), and access to preventive health-care services (e.g., cancer screening and vaccination) (CDC, 2005c). Both legacies of the past and current issues of race mean that many people of Color do not trust "the system" for a variety of reasons. Thus, even when income is not a barrier, access to early intervention and treatment may be limited. And HIV may be only one of a list of problems, which also include adequate housing, food, employment, etc.

Recent immigrants also can be at increased risk for chronic disease and injury, particularly those who lack fluency in English and familiarity with the U.S. healthcare system or who have different cultural attitudes about the use of traditional versus conventional medicine. Approximately 6% of persons who identified themselves as Black or African American in the 2000 census were foreign-born (CDC, 2005c).

Photograph by Lloyd Wolf for the U.S. Census Bureau, Public Information Office
For blacks in the United States, health disparities can mean earlier deaths, decreased quality of life, loss of economic opportunities, and perceptions of injustice. For society, these disparities translate into less than optimal productivity, higher health-care costs, and social inequity. By 2050, an estimated 61 million black persons will reside in the United States, amounting to approximately 15% of the total U.S. population (CDC, 2005c).

Another factor may be the diversities within these populations. Diversity is evident in immigrant status, religion, languages, geographic locations and, again, socioeconomic conditions. Getting information out in appropriate ways to these diverse populations has been difficult.

There is a significant amount of denial about HIV risk, which continues to exist in these communities. As with other groups, there may also be fear and stigmatization of those who have HIV. Prevention messages need to be tailored in ways that are culturally appropriate and relevant. The messages must be carried through channels that are appropriate for the individual community. These channels may include religious institutions or through respected "elders" in the community. Ironically, it may be these institutions or elders who, in the past, have contributed to the misinformation and stigma associated with HIV. Many HIV prevention programs are recognizing the need to work within these diverse communities to let the communities lead the way in prevention the transmission of HIV.

**HIV and Adolescents/Young Adults**

The effects of HIV and AIDS among adolescents and young adults (ages 13 to 24) in the United States continues to be an increasing concern. The CDC reported 38,490 cumulative cases of AIDS among people ages 13 to 24 through 2003. Since the epidemic began, an estimated 10,041 adolescents and young adults with AIDS have died and the proportion diagnosed with AIDS is increasing. Also, the proportion with an AIDS diagnosis among adolescents and young adults has increased from 3.9 percent in 1999 to 4.7 percent in 2003 (NIAID, 2005).

Moreover, African-American and Hispanic adolescents have been disproportionately affected by the HIV/AIDS epidemic. Between the ages of 13 and 19, African-Americans and Hispanics accounted for 66 percent and 21 percent, respectively, of the reported AIDS cases in 2003 (NIAID, 2005).

Because the average duration from HIV infection to the development of AIDS is 10 years, most adults with AIDS were likely infected as adolescents or young adults. In 2003, an estimated 3,897 were diagnosed with HIV/AIDS, while an estimated 13,752 were living with HIV/AIDS. Health experts estimate the number of adolescents and adults living with HIV infection, however, to be much higher (NIAID, 2005).

Most HIV-infected adolescents and young adults are exposed to the virus through sexual intercourse. Recent HIV surveillance data suggest that the majority of HIV-infected adolescent and young adult males are infected through sex with men. Only a small percentage of males appear to be exposed by injection drug use and/or heterosexual contact. The same data also suggest that adolescent and young adult females infected with HIV were exposed through heterosexual contact, with a very small percentage through injection drug use. In addition, there is an increasing number of children who were infected as infants that are now surviving to adolescence (NIAID, 2005).
Nationally, since the beginning of the epidemic, more than 3,100 adolescent males aged 13 to 19 years and approximately 23,000 young adult males aged 20 to 24 years have been reported with AIDS (CDC, 2005d).

The majority (65%) of males aged 20 to 24 with AIDS had a risk factor of male-to-male sexual contact and an additional 11% were among males who reported risk factors of male-to-male sexual contact and injection drug use (CDC, 2005d).

Approximately 25% of AIDS cases among adolescent males aged 13-19 were among those who had hemophilia and acquired their infection before blood products were heat treated to prevent HIV transmission. In contrast, 3% of AIDS cases among males aged 20-24 were attributed to receipt of blood products for hemophilia (CDC, 2005d).

Injection drug use is more common among the 20 to 24 year old males reported with AIDS than among adolescents with AIDS, but less common than among males over 24 years. Eight percent of AIDS cases among males aged 13 to 19 and 7% of cases among males aged 20-24 years were reported with heterosexual contact as their transmission category (CDC, 2005d).
Table 5. AIDS Cases among Female Adolescents and Young Adults, by Transmission Category Cumulative through 2003—United States (CDC, 2005d)

Approximately two-thirds of AIDS cases among adolescent and young adult females were attributed to heterosexual contact as the mode of exposure to HIV. Cases among adolescent females were less likely to be attributed to injection drug use than were cases among young adults (18% vs. 28% of cases) (CDC, 2005d).

Approximately 25 percent of cases of sexually transmitted infections (STIs) reported in the United States each year are among teenagers. This is particularly significant because the risk of HIV transmission increases substantially if either partner is infected with an STI. Discharge of pus and mucus as a result of STIs such as gonorrhea or chlamydia infection also increase the risk of HIV transmission three- to five-fold. Likewise, STI-induced ulcers from syphilis or genital herpes increase the risk of HIV transmission nine-fold (NIAID, 2005).

Adolescents and young adults tend to think they are invincible and, therefore, deny any risks. This belief may cause them to engage in risky behavior, delay HIV testing, and if they test positive, delay or refuse treatment. The inability to link them to medical care can lead to increased transmission of HIV. Healthcare providers report that many young people, when they learn they are HIV-positive, take several months to accept their diagnosis and return for treatment (NIAID, 2005).
Health care providers may be able to help young people understand their situation during visits by (NIAID, 2005):

- Ensuring confidentiality
- Explaining the information clearly
- Eliciting questions
- Emphasizing the success of newly available treatments

The U.S. Department of Health and Human Services (DHHS) has developed documents that address the standard of care for the treatment of HIV, including information about how to treat HIV in adolescents. The documents *Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents* and *Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection* are available from [AIDSinfo](#).

According to the *Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents*, adolescents exposed to HIV sexually or via injection drug use appear to follow a clinical course that is more similar to HIV disease in adults than in children. Most adolescents with sexually acquired HIV are in a relatively early stage of infection and are ideal candidates for early intervention that includes education and counseling, identifying high-risk behaviors, and recommended therapies and behavioral changes (NIAID, 2005).

Adolescents who were infected at birth or via blood products as young children, however, follow a unique clinical course that may differ from that of other adolescents and adults. Healthcare providers should refer to the treatment guidelines for detailed information about treating HIV-infected adolescents (NIAID, 2005).

**HIV and Persons Aged 50 and Older**

A growing number of older people now have HIV/AIDS. About 19 percent of all people with HIV/AIDS in this country are age 50 and older. Numbers of cases are expected to increase, as people of all ages survive longer due to triple-combination drug therapy and other treatment advances (NIA, 2005; NAHOF, nd).

But there may even be many more cases than we know about. Why? One reason may be that healthcare providers do not always test older people for HIV/AIDS and so may miss some cases during routine check-ups. Another may be that older people often mistake signs of HIV/AIDS for the aches and pains of normal aging, so they are less likely than younger people to get tested for the disease. Also, they may be ashamed or afraid of being tested. People age 50 and older may have the virus for years before being tested. By the time they are diagnosed with HIV/AIDS, the virus may be in the late stages (NIA, 2005).
Older people with HIV/AIDS face a double stigma: ageism and infection with a sexually-or-IV-drug transmitted disease (NAHOF, nd). The number of HIV/AIDS cases among older people is growing every year because (NIA, 2005):

- Older Americans know less about HIV/AIDS than younger people.
- They do not always know how it spreads or the importance of using condoms, not sharing needles, getting tested for HIV, and talking about it with their doctor or other healthcare provider.
- Healthcare workers and educators often do not talk with middle-age and older people about HIV/AIDS prevention.
- Older people are less likely than younger people to talk about their sex lives or drug use with their doctors or other healthcare providers.
- Doctors and other healthcare providers may not ask older patients about their sex lives or drug use, or talk to them about risky behaviors.

The number of cases of HIV/AIDS for older women has particularly been growing over the past few years. The rise in the number of cases in women of color age 50 and older has been especially steep. Most got the virus from sex with infected partners. Many others got HIV through shared needles (NIA, 2005).

Because women may live longer than men, and because of the high divorce rate, many widowed, divorced, and separated women are dating these days. Like older men, many older women may be at risk because they do not know how HIV/AIDS is spread. Women who no longer worry about getting pregnant may be less likely to use a condom and to practice safe sex. Also, vaginal dryness and thinning often occurs as women age; when that happens, sexual activity can lead to small cuts and tears that raise the risk for HIV/AIDS (NIA, 2005).

Conclusion

Most everyone has been impacted by HIV and AIDS since it made its debut in the US in the early 1980s. From the early days when little was known about the disease except that most people who were infected, died. With the tremendous gains in research and treatment, as well as the massive public health educational effort, HIV is not the automatic death sentence it once was.

Despite these gains, 40,000 people in the US per year continue to be infected with the HIV; worldwide, there seems to be no end to its reach. This significant chronic illness remains lethal for many people. Even those who are responding well to antiretroviral medications, there is significant challenge in dealing with this chronic illness.

Glossary

Acute (disease)  Of short duration, usually with an abrupt onset, and sometimes severe, as opposed to long-term (chronic) disease.

AIDS (Acquired Immunodeficiency Syndrome)  The most severe manifestation of infection with the human immuno deficiency virus (HIV). AIDS is a medical diagnosis referring to infection with HIV plus one or more defining illnesses or conditions and/or laboratory abnormalities.

AIDS Indicator Conditions  One or more of a list of illnesses which, in combination with a positive HIV test, indicates progression to AIDS.

Amniotic Fluid  The watery fluid that surrounds the unborn child in the uterus.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Anonymous Testing</td>
<td>The person who performs the HIV antibody test does not maintain a record of the name of the person they are testing. Positive results of anonymous tests are not reportable to local public health officials.</td>
</tr>
<tr>
<td>Antibody</td>
<td>Substances that a person’s immune system develops to help fight infection, or indicate that the body has been exposed to an antigen.</td>
</tr>
<tr>
<td>Antibody Positive</td>
<td>The result of a test or series of tests to detect antibodies in blood. An antigen causes the immune system to form antibodies to fight the antigen.</td>
</tr>
<tr>
<td>Antigen</td>
<td>Substance such as HIV that is foreign to a person's body. An antigen causes the immune system to form antibodies to fight an antigen like HIV.</td>
</tr>
<tr>
<td>Antiviral Drug</td>
<td>A drug that can interfere with the life cycle of a virus. Also called antiretroviral drugs.</td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>Having a disease but showing no outward sign of disease. The condition of testing positive for HIV antibodies without showing any HIV Seropositive symptoms of disease. Many people with HIV do not look or feel &quot;sick.&quot; A person who is HIV positive, even without symptoms, is capable of transmitting the virus to others.</td>
</tr>
<tr>
<td>AZT (Zidovudine)</td>
<td>The first FDA-approved drug used to treat AIDS and HIV infection. Also called ZDV.</td>
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<tr>
<td>Bloodborne</td>
<td>Any pathogen (like a virus or bacteria) present in blood or other Pathogens potentially infectious material</td>
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<tr>
<td>Bloodborne Pathogens</td>
<td>potentially infectious material. Bloodborne pathogen (BBP) standards are enforced by the Department of Labor and Industries. BBP training may be an annual requirement of certain jobs.</td>
</tr>
<tr>
<td>Bodily Fluids</td>
<td>Fluids produced by the body. In the context of HIV prevention, blood, semen, vaginal secretions and breast milk are considered infectious bodily fluids.</td>
</tr>
<tr>
<td>Carrier</td>
<td>A person who is apparently healthy, but who is infected with some disease-causing organism (such as HIV or HBV) that can be transmitted to another person.</td>
</tr>
<tr>
<td>CDC</td>
<td>The Centers for Disease Control and Prevention, a federal health agency which is a branch of the U.S. Department of Health and Human Services. The CDC provides national health and safety guidelines and statistical data on AIDS, sexually transmitted diseases (STDs), hepatitis and other diseases.</td>
</tr>
<tr>
<td>Chronic (disease)</td>
<td>Lasting a long time, or recurring often.</td>
</tr>
<tr>
<td>Confidential Testing</td>
<td>The patient gives their real name and the results of the HIV antibody test are known only to that individual and the health authorities.</td>
</tr>
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care provider performing the test. Positive results from confidential tests are now reportable to local public health officials.

Diagnosis
Identifying a disease by its signs, symptoms, course, and laboratory findings.

ELISA/EIA Test
A screening blood test for the presence of antibodies to HIV. A positive result from an ELISA/EIA test always needs to be confirmed by a second ELISA/EIA test and an FDA-approved confirmatory test, such as the Western Blot.

Epidemiology
The study of the incidence, distribution and control of a disease in a population.

Etiology
The causes or origins of a disease.

Exposure
The act or condition of coming in contact with, but not necessarily being infected by, a disease-causing agent.

False Negative
A negative antibody test result in a person who is, in fact, infected with HIV. Generally this occurs when the infected individual has not yet produced enough antibodies to be detected by the test. See “window period.”

HAART
Highly active antiretroviral therapy. The use of combinations of medicines to prevent the development of or treat AIDS in someone who is HIV-positive.

Helper/Suppressor T-Cells
White blood cells (lymphocytes) that are part of the immune system.

Hepatitis B (HBV)
One of several different viral infections affecting the liver. The effects of the disease on the liver can range from mild and even inapparent to severe or fatal. HBV is transmitted in the same way that HIV is transmitted. HBV is vaccine-preventable.

Hepatitis C (HCV)
Another of the hepatitis viruses that affect the liver. As with HBV, the effects of the disease vary by person. HCV is usually transmitted through infected blood. At this time, there is no vaccine for HCV.

High-Risk Behavior
A term that describes certain activities which increase the risk of transmitting HIV or HBV. These include anal, vaginal or oral intercourse without a condom and sharing injection equipment.

HIV Screening Test
Antibody A blood test that reveals the presence of antibodies to HIV.

HIV
Human Immunodeficiency Virus, the cause of AIDS.

HIV Antibody Negative
A test result indicating that antibodies to HIV have not been found. The test may be a “false negative” if the individual has been recently infected. Also referred to as HIV-negative.
<table>
<thead>
<tr>
<th>Term</th>
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</tr>
</thead>
<tbody>
<tr>
<td>HIV Antibody Positive</td>
<td>A test result indicating that antibodies to HIV are found. The person is infected with HIV and infectious to others for life. Also referred to as HIV-positive.</td>
</tr>
<tr>
<td>HIV Disease</td>
<td>The term which describes the spectrum of HIV infection. Time-wise, it is described as a progression from asymptomatic seropositive to AIDS.</td>
</tr>
<tr>
<td>HIV RNA/DNA Tests</td>
<td>Blood tests which may be done for people with documented exposure to HIV through unprotected sexual intercourse or needle sharing. The tests can be run during primary infection. These tests are expensive, not meant for general screening, and not used for the general public at this time.</td>
</tr>
<tr>
<td>Immune Status</td>
<td>The state of the body's immune system. Factors affecting immune status include heredity, age, diet, and physical and mental health.</td>
</tr>
<tr>
<td>Immune System</td>
<td>A body system that helps resist disease-causing germs, viruses or other infections.</td>
</tr>
<tr>
<td>Immunosuppressed</td>
<td>A condition or state of the body in which the immune system does not work normally.</td>
</tr>
<tr>
<td>Infection</td>
<td>A condition or state of the body in which a disease-causing agent has entered it.</td>
</tr>
<tr>
<td>Injection Drugs</td>
<td>Drugs injected by needle directly into a vein, skin or muscle.</td>
</tr>
<tr>
<td>Non-intact Skin</td>
<td>Skin that is chapped, abraded, weeping, has rashes or eruptions.</td>
</tr>
<tr>
<td>OPIM</td>
<td>Other potentially infectious material. As defined in the Bloodborne Pathogens standard, fluids other than blood that may transmit disease, including HIV.</td>
</tr>
<tr>
<td>Opportunistic Infections</td>
<td>Infections that are usually warded off by a healthy immune system. If the immune system is not strong and effective, these infections &quot;take the opportunity&quot; to harm the body.</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration.</td>
</tr>
<tr>
<td>p24 Antigen Test</td>
<td>Blood test measuring a core protein of HIV which presents during the first few weeks of infection, but may disappear as soon as antibodies to the virus are produced.</td>
</tr>
<tr>
<td>Pathogen</td>
<td>A disease-causing substance or organism.</td>
</tr>
<tr>
<td>Percutaneously</td>
<td>Entering the body through the skin; for example, by needlestick or on broken skin.</td>
</tr>
<tr>
<td>Pericardial Fluid</td>
<td>A clear fluid contained in the thin, membranous sac that surrounds the heart.</td>
</tr>
<tr>
<td>Perinatal</td>
<td>Happening just before, during or immediately after birth.</td>
</tr>
<tr>
<td>Peritoneal Fluid</td>
<td>Fluid contained in the membrane lining of the abdominal cavity.</td>
</tr>
</tbody>
</table>
Personal Hygiene Items: Any personal item, including but not limited to razors, toothbrushes, towels or other personal care items that may be contaminated with blood or other bodily fluids capable of transmitting HIV. Personal hygiene items should not be shared.

Personal Protective Equipment: Equipment including, but not limited to, gloves, masks, eyewear and face shields, which will be provided by an employer and worn by employees as appropriate when the employee will or may come into contact with bloodborne pathogens.

Pleural Fluid: Fluid contained in the membrane that covers the lung and lines the chest cavity.

Post-Exposure Prophylaxis (PEP): The provision of anti-HIV medications (antiviral medications) to someone who has had a substantial exposure, usually to the blood of another person. PEP should be started optimally within 2 hours of the exposure, preferably within 24 hours of exposure. PEP can only be provided by a medical practitioner and after evaluation of the possible exposure.

Primary HIV Infection: The first 4-6 weeks of HIV infection, when an individual may have some transient symptoms, including swollen lymph nodes, fever, and sore throat. These symptoms may be mistaken for other illnesses and usually pass quickly. It is usually possible to detect HIV at this stage, however, many people who are newly infected do not get tested and are unaware of their infection.

Prophylaxis: Any substance or steps taken to prevent something from happening (for example, condoms, vaccines and possibly antiretroviral therapy).

Protease Inhibitors: A group of medications used to treat HIV infection and AIDS. These medications target HIV at various points in its life cycle.

Reportable Diseases: Under State Board of Health rules, health care providers are required to confidentially notify public health officials of the diagnosis of certain diseases or conditions. AIDS cases and symptomatic infection are reported and maintained by patient name. Asymptomatic HIV infection is reported by name but maintained only by coded identifier.

"Safer Sex": Sexual practices that reduce or eliminate the opportunity for the exchange of blood, semen or vaginal secretions.

Seroconversion: The process in which a person previously known to be HIV antibody negative converts to testing positive for HIV antibodies.

Serologic Test: Any number of tests performed on blood. In this context, referring to a test that measures antibodies to HIV.

Seropositive: A condition in which antibodies to a disease-causing agent are found in the blood; a positive reaction to a blood test. The presence of antibodies indicates that a person has been exposed to the agent. See HIV antibody positive.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Intercourse</td>
<td>As defined in RCW 9A.44.010 - &quot;Sexual intercourse has its ordinary meaning and occurs upon any penetration, however slight; and also means any penetration of the vagina or anus, however slight, by an object, when committed on one person by another, whether such persons are the same or opposite sex, except when such penetration is accomplished for medically recognized treatment or diagnostic purposes; and also act of sexual contact between persons involving the sex organs of one person and the mouth or anus of another whether such persons are of the same or opposite sex.&quot; Referred to in this document as anal, vaginal and/or oral sex.</td>
</tr>
<tr>
<td>Sexually Transmitted Diseases</td>
<td>Refers to the more than 25 infectious organisms (bacteria, viruses, mites, protozoa and fungi) that can be spread through sexual activity.</td>
</tr>
<tr>
<td>Standard Precautions</td>
<td>Term used in hospitals and some other health care settings. These recommendations are designed to prevent the transmission of bloodborne pathogens in these settings. Standard Precautions include all recommendations for universal precautions (blood or other potentially infectious materials of all patients should always be considered potentially infectious) plus the component of body substance isolation. See &quot;universal precautions.&quot;</td>
</tr>
<tr>
<td>Sterilization</td>
<td>Destruction of microbial life by means of steam, gas or liquid agents.</td>
</tr>
<tr>
<td>Subcutaneous</td>
<td>Beneath or introduced beneath the skin (for example, subcutaneous injections).</td>
</tr>
<tr>
<td>Syndrome</td>
<td>A collection of signs and symptoms that occur together.</td>
</tr>
<tr>
<td>Tuberculosis (TB)</td>
<td>A bacterial infection caused by Mycobacterium tuberculosis. TB is usually transmitted when airborne droplets from someone with active infection are coughed or sneezed into the air and breathed in by someone who is susceptible to infection.</td>
</tr>
<tr>
<td>Universal Precautions</td>
<td>Term relating to procedures designed to prevent transmission of bloodborne pathogens in health care and other settings. Under universal precautions, blood or other potentially infectious materials of all patients should always be considered potentially infectious for HIV and other pathogens. Employees should take appropriate precautions using personal protective equipment like gloves to prevent contact with blood.</td>
</tr>
<tr>
<td>Vaccine</td>
<td>A substance that produces or increases immunity and protection against disease.</td>
</tr>
<tr>
<td>Viral Load Test</td>
<td>A test measuring the amount of HIV or hepatitis in an infected person's blood. Often used to measure the effectiveness of antiviral medications in treating infection.</td>
</tr>
<tr>
<td>Viral Resistance</td>
<td>When HIV becomes resistant to one or more of the classes of medication used to treat the infection. This may happen if the medications are not taken correctly.</td>
</tr>
</tbody>
</table>
Virus     An organism that can cause disease.

HIV Western Blot Assay  A test used to detect proteins specific to HIV. The test can be used to confirm ELISA/EIA test results (see ELISA/EIA test).

Window Period  The time it takes for an HIV-infected person to develop antibodies to HIV. With current testing methodologies, the window period may be 2-12 weeks after infection. The CDC still advises that a small number of people may take up to six months to show antibodies.

WISHA     Washington Industrial Safety and Health Act.

Works     The collective term for the syringe, needle, "cooker," cotton, and rinse water - elements of the injection drug user's paraphernalia.

Resources

National Resources

National AIDS Hotline (English) 1-800-342-2437
National AIDS Hotline (Hearing Impaired) 1-800-243-7889
National AIDS Hotline (Spanish) 1-800-344-7432
National AIDS Information Clearinghouse 1-800-458-5231
National STD Hotline 1-800-227-8922
National Association on HIV Over 50 (NAHOF) www.hivoverfifty.org

Curriculum Sources

Washington State Department of Health 1-800-272-2437
HIV Prevention & Education Services www.doh.wa.gov/cfh/hiv.htm
Department of Labor and Industries 1-800-423-7233, www.lni.wa.gov

Washington Resources

Washington State HIV Hotline 1-800-272-2437
Contact the State AIDS Hotline at 1-800-272-2437 for updated information on reported AIDS cases in Washington.
For current HIV and AIDS statistics, visit these websites:
  • http://www.doh.wa.gov/cfh/hiv.htm (go to Prevention & Education)
  • http://hivinsite.ucsf.edu/

Internet access can be obtained through local libraries. If you are unable to access the internet, contact the Washington State HIV/AIDS hotline at 1-800-272-2437.

Additional resources and community-based organizations may be identified by contacting the Washington State Regional AIDS Service Networks (AIDSNets)

Region 1 (509) 324-1551

Region 2 (509) 249-6503
Spokane County Health District Yakima Health District
West 1101 College Ave. 104 North First St.
Spokane, WA 99201-2095 Yakima, WA 98901-2667
Counties: Adams, Asotin, Columbia, Ferry, Counties: Benton, Chelan, Douglas, Garfield, Lincoln, Okanogan, Pend Oreille, Franklin, Grant, Kittitas, Klickitat and Spokane, Stevens, Walla Walla and Whitman Yakima

Region 3 (425) 339-5211

Region 4 (206) 296-4649
Snohomish Health District Public Health Seattle & King County
3020 Rucker Ave. Suite 208 400 Yesler Way Suite 300
Everett, WA 98201-3900 Seattle, WA 98104-2615
Counties: Island, San Juan, Skagit, Snohomish King County and Whatcom

Region 5 (253) 798-4791

Region 6 (360) 397-8086
Tacoma-Pierce County Health Department Clark County Health Department
3629 S. ''D'' St. MS: 062 PO Box 9825
Tacoma, WA 98418-6813 Vancouver, WA 98666-8825
Pierce and Kitsap Counties Counties: Clallam, Clark, Cowlitz
Grays Harbor, Jefferson, Lewis, Mason
Pacific, Skamania, Thurston and Wahkiakum

References


HIV/AIDS: State of Washington Mandatory 4 Hour Training Test

1. HIV is a
   A. Bacteria that is dispersed through the air on droplet nuclei.
   B. Fungus that is transmitted through direct contact.
   C. Virus that is transmitted through blood.
   D. None of the above.

2. All people who have HIV infection have AIDS.
   A. True.
   B. False.

3. Acquired Immune Deficiency Syndrome (AIDS) is diagnosed when the Western Blot confirmatory test is positive.
   A. True.
   B. False.

4. The cells that the HIV virus attacks in the blood are the:
   A. Tau in the tangles and paques
   B. Islets of Langerhans.
   C. The T-helper lymphocytes or CD4 cells.
   D. HIV does not attack cells in the blood.

5. The window period is the period of time
   A. After the virus enters the body and attacks the T4 cells until the body produces antibodies to the virus.
   B. Between HIV infection and the appearance of the first symptoms.
   C. From HIV infection until the start of persistent symptoms of AIDS.
   D. None of the above.

6. The incubation period is the period of time:
   A. After the virus enters the body and attacks the T4 cells until the body produces antibodies to the virus.
   B. Between HIV infection and the appearance of the first symptoms.
   C. From HIV infection until the start of persistent symptoms of AIDS.
   D. None of the above.

7. The latency period is the time frame:
   A. After the virus enters the body and attacks the T4 cells until the body produces antibodies to the virus.
   B. Between HIV infection and the appearance of the first symptoms.
   C. From HIV infection until the start of persistent symptoms of AIDS.
   D. None of the above.
8. High risk behaviors for HIV transmission include:
   A. Unprotected heterosexual contact where there may be an exchange of blood, semen or vaginal secretions.
   B. Unprotected homosexual contact where there may be an exchange of blood, semen or vaginal secretions.
   C. Sharing injecting drug equipment such as syringes and needles.
   D. All of the above.

9. HIV can be transmitted from someone who is HIV positive through the blood and body fluids to another person through the 2nd person’s skin abrasions and mucus membranes, such as might occur during sex.
   A. True.
   B. False.

10. Seroconversion:
   A. Occurs after infection; it is when antibodies are produced that would show positive on an HIV test.
   B. Is the time frame may vary from person to person, with most people having HIV antibodies detectable within the first 3-6 months of infection.
   C. Is detectable for life in most cases.
   D. All of the above.

11. All the following are true about opportunistic infections EXCEPT:
   A. They have a high potency ratio, making even one exposure a very high risk.
   B. These infections are more destructive because of HIV’s assaults on the immune system.
   C. These infections are not generally seen in persons with healthy immune systems.
   D. They are sometimes called AIDS defining illnesses.

12. Universal/Standard precautions requires that one always assumes that the blood or body fluids of another person could be positive for HIV (or other bloodborne pathogens), thereby always taking barrier precautions to avoid any infection through bloodborne transmission.
   A. True.
   B. False.

13. After occupational exposure to HIV in the workplace, the employee should:
   A. Follow facility protocols and policies.
   B. Obtain evaluation as soon as is possible; prophylactic treatment should begin within 2-24 hours.
   C. Obtain permission to test the source for HIV infection, if possible.
   D. All of the above.
14. When a licensed healthcare provider makes a diagnosis of AIDS, or receives a confirmed HIV positive test, a confidential case report must be submitted to the local health jurisdiction within 3 days.

A. True.
B. False.

15. Positive HIV results obtained through anonymous testing are:

A. Submitted to the local health jurisdiction within 3 days.
B. Required to initiate partner notification immediately.
C. Not reportable. However, once a patient with positive results seeks medical care for conditions related to HIV or AIDS, the provider is required to report the case to the local health departments.
D. None of the above.

16. Confidentiality of medical information means that information that can be related to the specific patient may not be disclosed to ANYONE except when the individual signs a release of information form. There are exceptions; the most common include all the following EXCEPT:

A. To another health care provider for related on-going medical care or to a third party payer (insurance provider).
B. Anonymous HIV testing results that are negative.
C. In a life or death emergency.
D. In the case of reporting notifiable conditions to the local health jurisdiction or the DOH.

17. Violations of Washington States confidentiality laws related to HIV:

A. Are considered a misdemeanor.
B. May result in civil liability actions for reckless or intentional disclosure up to $10,000 or actual damages, whichever is greater.
C. Are the responsibility of the county's health officer to investigate potential breaches of confidentiality of HIV identifying information and report those to the DOH.
D. All of the above.

18. HIV infection and AIDS are medical conditions that are considered disabilities under the Washington State Law Against Discrimination (RCW 49.60) and the federal Americans with Disability Act (ADA). This means that it is illegal to discriminate against someone who has AIDS or is HIV infected. It is also illegal to discriminate against someone who is ‘believed’ to have AIDS or HIV infection, even though that person is not, in fact, infected. The areas covered in the law are:

A. Employment; and rental, purchase or sale of apartment, house or real estate.
B. Places of public accommodation (restaurants, theaters, etc.); and applying for a loan or credit card, or other credit transactions.
C. Healthcare, legal services, home repairs, and other personal services available to the general public; and certain insurance transactions.
D. All of the above.
19. When a person goes for a job interview or is hired, the employer:

- Cannot ask questions directed at the perception or presence of HIV infection or AIDS, unless based on a “bona fide” occupational qualification, which at this time, according to CDC and WAC 246-100-206(11), does not exist.
- Cannot require a blood test to determine HIV infection, unless HIV status limits the ability to perform the work, i.e. overseas assignment in country that requires HIV certification.
- Cannot require a physical exam directed to identify HIV infection, except for exams necessary to evaluate the need for, or nature of, reasonable accommodation or specific job-related conditions.
- Cannot ask questions about lifestyle, living arrangements, or sexual orientation.

A. True.
B. False.

20. In Washington State, healthcare providers who have knowledge that a specific patient is failing to comply with infection control measures (e.g., acquisition of a new STD, sex without disclosure of HIV status prior to sexual partners, failure to disclose HIV status to needle-sharing partners, or donating or selling HIV-infected blood, etc.) should contact the local public health officer to discuss the circumstances of the case and to determine if the name of the person should be reported for investigation and follow-up.

A. True.
B. False.

21. Persons with HIV/AIDS and their families and friends face a multitude of difficult realities. Among them are:

A. Although with the advent of antiretroviral drugs, persons who are HIV infected, can live 10-12 years or more without developing symptoms, persons with AIDS still die prematurely. 90% of all adults with AIDS are in the prime of life and may not be prepared to deal with death and dying.
B. People who are living with HIV face the need to practice "safer sex" and take medications for the remainder of their lives; and the infections and malignancies that accompany AIDS along with some of the medications, can diminish and disfigure the body.
C. Men who have sex with men, and injection drug users, who may already be stigmatized and subjected to social and job-related discrimination, may encounter even more societal pressure and stress with a diagnosis of AIDS.
D. All of the above.
22. Grief may be best understood as a process that doesn't involve a straight line. People do not move predictably step-by-step through the various stages of their grieving, but progress at their own speed. There seem to be discreet phases of grief, including:

- shock and numbing
- yearning and searching
- disorganization and despair
- some degree of reorganization

A. True.
B. False.

23. The Centers for Disease Control and Prevention estimates that among women who have been infected with HIV:

A. The majority have become HIV positive through the use of injecting drug equipment.
B. More than 70% have become HIV positive through heterosexual sexual contact.
C. Women are more vulnerable to heterosexual transmission of HIV due to substantial mucosal exposure to seminal fluids.
D. Both B and C.

24. African Americans and Hispanics specifically have disproportionately lower rates of AIDS cases in the U.S., despite the fact that there are no biological reasons for the disparities.

A. True.
B. False.

25. Approximately two-thirds of AIDS cases among adolescent and young adult females were attributed to heterosexual contact as the mode of exposure to HIV.

A. True.
B. False.