Bloodborne Pathogens (2 hours)

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Lesson 1: <u>Education on the modes of transmission, infection control procedures, clinical management, and prevention of HIV and AIDS</u> (1 hour)

Outline

- Defining HIV and AIDS
- Modes of Transmission
- Clinical Management and Infection Control
- Preventing Transmission

Learning Objectives:

After completing this course you will be able to:

- Define: the Human Immunodeficiency Virus (HIV)
- Define: Acquired Immunodeficiency Syndrome (AIDS)
- Explain where the virus originated and how it was transmitted to humans
- List and describe the 3 stages of Human Immunodeficiency Syndrome
- List Opportunistic Infections
- Identify ways that HIV is and is not spread
- Identify risky behavior
- Explain viral load
- List known symptoms of initial infection

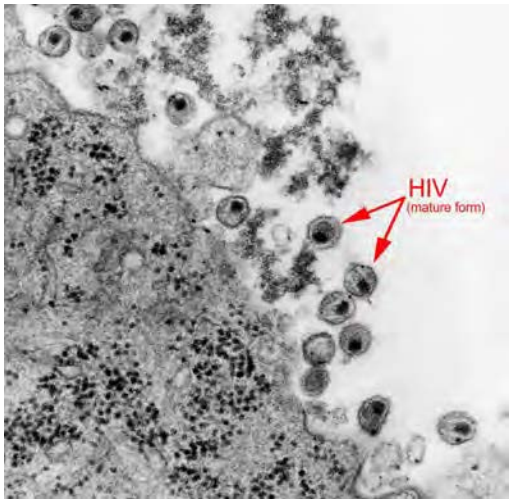
Introduction

Because salon professionals perform personal care services, it is very important to know health and safety issues regarding communicable diseases such as HIV.

The goal of this course is to enhance your knowledge by providing information derived from years of research and studies within the world of science and health.

Although many facts are now known about the virus and the syndrome, scientists are still searching for a cure for Acquired Immunodeficiency Syndrome (AIDs).

It is also hoped that an effective vaccine against the Human Immunodeficiency Virus (HIV) will be established.



This highly magnified image revealed the presence of mature forms of the human immunodeficiency virus (HIV) in a tissue sample.

Defining HIV and AIDS

Definition: the Human Immunodeficiency Virus (HIV)
HIV stands for human immunodeficiency virus. It weakens a person's immune system by destroying important cells that fight disease and infection.

Definition: Acquired Immunodeficiency Syndrome (AIDS)
If HIV is not treated, it can lead to AIDS (acquired immunodeficiency syndrome)
HIV attacks the immune system by destroying CD4+ T cells, a type of white blood cell that is vital to fighting off infection. The destruction of these cells can leave people with untreated HIV vulnerable to life-threatening infections and complications.

Since the first AIDS cases were reported in 1981, HIV/AIDS has been one of humanity's deadliest and most persistent epidemics. Although extraordinary progress has been made in the fight against new HIV cases and AIDS deaths, the HIV pandemic continues.

There is currently no effective cure for HIV. But with proper medical care, HIV can be controlled. Some groups of people in the United States are more likely to get HIV than others because of many factors, including their sex partners and risk
behaviors. .

Modes Of Transmission

The HIV virus can be transmitted during sexual intercourse; by sharing syringes; or prenatally during pregnancy, childbirth or breastfeeding. **You can only get HIV by coming into direct contact with certain body fluids** from a person with HIV who has a detectable viral load.
These fluids are:

- Blood
- Semen
- Rectal fluids
- Vaginal fluids
- Breast milk

For transmission to occur, the HIV in these fluids must get into the bloodstream of an HIV-negative person through a mucous membrane (found in the rectum, vagina, mouth, or tip of the penis); open cuts or sores; or by direct injection. People with HIV who take HIV medicine daily as prescribed and get and keep an undetectable viral load have effectively no risk of sexually transmitting HIV to their HIV-negative partners.

HIV can only be spread through specific activities.

In the United States, the most common ways are:

- Having vaginal or anal sex with someone who has HIV without using a condom or taking medicines to prevent or treat HIV. Anal sex is riskier than vaginal sex.

- Sharing injection drug equipment, such as needles, with someone who has HIV.

Less common ways are:

- From mother to child during pregnancy, birth, or breastfeeding. However, the use of HIV medicines and other strategies have helped lower the risk of mother-to-child transmission of HIV to 1% or less in the United States.

- Getting stuck with an HIV-contaminated needle or other sharp object. This is a risk mainly for health care workers. The risk is very low.

HIV is spread only in extremely rare cases by:

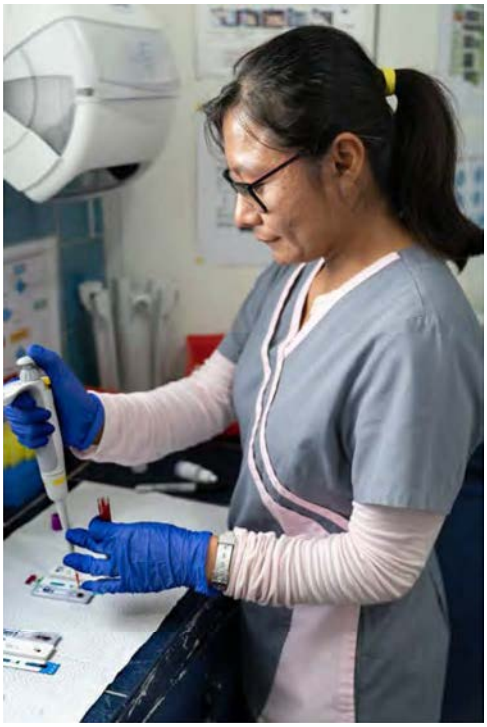
- Having oral sex. But in general, the chance that an HIV-negative person will get HIV from oral sex with an HIV-positive partner is extremely low.
- Receiving blood transfusions, blood products, or organ/tissue transplants that are contaminated with HIV. The risk is extremely small these days because of rigorous testing of the U.S. blood supply and donated organs and tissues.

- Being bitten by a person with HIV. Each of the very small number of documented cases has involved severe trauma with extensive tissue damage and the presence of blood. There is no risk of transmission if the skin is not broken.

- **Contact between broken skin, wounds, or mucous membranes and HIV-infected blood or blood-contaminated body fluids.**

- Deep, open-mouth kissing if both partners have sores or bleeding gums and blood from the HIV-positive partner gets into the bloodstream of the HIV-negative partner. HIV is not spread through saliva.

- Eating food that has been pre-chewed by a person with HIV. The contamination occurs when infected blood from a caregiver's mouth mixes with food while chewing. The only known cases are among infants.



Photographed in 2020, this lab technician at Colectivo Amigos Contra el SIDA, a free HIV prevention clinic, was performing a blood test.

Does HIV Viral Load Affect Getting or Transmitting HIV?

Yes.

Viral load is the amount of HIV in the blood of someone who has HIV. Taking HIV medicine (called antiretroviral therapy or ART) daily as prescribed can make the viral load very low— so low that a test can't detect it (this is called an undetectable viral load).

People with HIV who take HIV medicine daily as prescribed and get and keep an undetectable viral load have effectively no risk of transmitting HIV to an HIV-negative partner through sex.

HIV medicine is a powerful tool for preventing sexual transmission of HIV. But it works only as long as the HIV-positive partner gets and keeps an undetectable viral load.
Not everyone taking HIV medicine has an undetectable viral load.

To stay undetectable, people with HIV must take HIV
medicine every day as prescribed and visit their healthcare provider regularly to get a viral load test

Ways HIV Cannot Be Spread

HIV **is not** spread by:

- **Air or water**
- Mosquitoes, ticks or other insects
- Saliva, tears, or sweat that is not mixed with the blood of a person with HIV
- Shaking hands; hugging; sharing toilets; sharing dishes, silverware, or drinking glasses; or engaging in closed-mouth or "social" kissing with a person with HIV
- **Drinking fountains**
- Other sexual activities that don't involve the exchange of body fluids (for example, touching).
- HIV can't be passed through healthy, unbroken skin.

HIV & COVID-19
Response to the virus that causes COVID-19 is an evolving situation in which scientists are learning more each day. There is no evidence so far to determine whether people living with HIV are at a greater risk of acquiring the virus that causes COVID-19 or experiencing severe disease.

The Origins of the Virus

HIV infection in humans came from a type of chimpanzee in Central Africa. The chimpanzee version of the virus (called simian immunodeficiency virus, or SIV) was probably transmitted to humans when humans hunted these chimpanzees for meat and came in contact with their infected blood. Studies show that HIV may have transmitted from chimpanzees to humans as far back as the late 1800s.
Over decades, HIV slowly spread across Africa and later into other parts of the world. We know that the virus has existed in the United States since at least the mid to late 1970s.

Known Symptoms
Some people have flu-like symptoms within 2 to 4 weeks after infection. These symptoms may last for a few days or several weeks.

Possible symptoms include

- Fever,
- Chills,
- Rash,
- Night sweats,
- Muscle aches,

- Sore throat,
- Fatigue,
- Swollen lymph nodes, and
- Mouth ulcers.

These symptoms do not definitively mean that you have HIV, and some people may not feel sick at all during acute HIV infection.

The 3 Stages of Human Immunodeficiency Syndrome

Stage 1: Acute HIV Infection

- People have a large amount of HIV in their blood. They are very contagious.
- Some people have flu-like symptoms. This is the body's natural response to infection.
- But some people may not feel sick right away or at all.
- If you have flu-like symptoms and think you may have been exposed to HIV, seek medical care and ask for a test to diagnose acute infection.
- Only antigen/antibody tests or nucleic acid tests (NATs) can diagnose acute infection.

Stage 2: Chronic HIV Infection

- This stage is also called asymptomatic HIV infection or clinical latency.
- HIV is still active but reproduces at very low levels.
- People may not have any symptoms or get sick during this phase.
- Without taking HIV medicine, this period may last a decade or longer, but some may progress faster.
- People can transmit HIV in this phase.
- At the end of this phase, the amount of HIV in the blood (called *viral load*) goes up and the CD4 cell count goes down. The person may have symptoms as the virus levels increase in the body, and the person moves into Stage 3.
- People who take HIV medicine as prescribed may never move into Stage 3.

Stage 3: Acquired Immunodeficiency Syndrome (AIDS)

- The most severe phase of HIV infection.
- People with AIDS have such badly damaged immune systems that they get an increasing number of severe illnesses, called opportunistic infections.
- People receive an AIDS diagnosis when their CD4 cell count drops below 200 cells/mm, or if they develop certain opportunistic infections.
- People with AIDS can have a high viral load and be very infectious.
- Without treatment, people with AIDS typically survive about three years.

Opportunistic Infections (Ois)

Opportunistic infections are illnesses that occur more frequently and are more severe in people with HIV. This is because they have damaged immune systems.

Common Opportunistic Infections

Candidiasis	• Candidiasis is caused by infection with a fungus called *Candida*. • Candidiasis can affect the skin, nails, and mucous membranes throughout the body. • People with HIV often have trouble with *Candida*, especially in the mouth and vagina. • Candidiasis is only considered an OI when it causes severe or persistent infections in the mouth or vagina, or when it develops in the esophagus (swallowing tube) or lower respiratory tract, such as the trachea and bronchi (breathing tube), or deeper lung tissue.
Invasive cervical cancer	• Cervical cancer starts within the cervix (the lower part of the uterus at the top of the vagina) and spreads (becomes invasive) to other parts of the body. • Cervical cancer can be prevented by having your health care provider perform regular examinations of the cervix.
Coccidioidomycosis	• This illness is caused by the fungus *Coccidioides*. • It is sometimes called valley fever, desert fever, or San Joaquin Valley fever. • People can get it by breathing in fungal spores. • The disease is especially common in hot, dry regions of the southwestern United States, Central America, and South America.
Cryptococcosis	• This illness is caused by infection with the fungus *Cryptococcus neoformans*. • The fungus typically enters the body through the lungs and can cause pneumonia. • Cryptococcosis usually affects the lungs or the central nervous system (the brain and spinal cord), but it can also affect other parts of the body.
Cryptosporidiosis (Crypto)	• Crypto is a diarrheal disease caused by a tiny parasite called *Cryptosporidium*. • Symptoms include abdominal cramps and severe, chronic, watery diarrhea.

Cystoisosporiasis	• Formerly known as isosporiasis. • This infection is caused by the parasite *Cystoisospora belli* (formerly known as *Isospora belli*). • Cystoisosporiasis can enter the body through contaminated food or water. • Symptoms include diarrhea, fever, headache, abdominal pain, vomiting, and weight loss.
Cytomegalovirus (CMV)	• CMV can infect multiple parts of the body and cause pneumonia, gastroenteritis (especially abdominal pain caused by infection of the colon), encephalitis (infection) of the brain, and sight-threatening retinitis (infection of the retina at the back of eye). • People with CMV retinitis have difficulty with vision that worsens over time. CMV retinitis is a medical emergency because it can cause blindness if not treated promptly.
Encephalopathy, HIV-related	• This brain disorder can occur as part of acute HIV infection or can result from chronic HIV infection. • Its exact cause is unknown, but it is thought to be related to infection of the brain with HIV and the resulting inflammation.
Herpes simplex virus (HSV)	• HSV is a common virus that causes no major problems for most people. • HSV is usually acquired sexually or passed from mother-to-child during birth. • In most people with healthy immune systems, HSV is usually latent (inactive). • Stress, trauma, other infections, or suppression of the immune system, (such as by HIV), can reactivate the latent virus and symptoms can return. • HSV can cause painful cold sores (sometime called fever blisters) in or around the mouth, or painful ulcers on or around the genitals or anus. • In people with severely damaged immune systems, HSV can also cause infection of the bronchus (breathing tube), pneumonia (infection of the lungs), and esophagitis (infection of the esophagus, or swallowing tube).
Histoplasmosis	• Histoplasmosis is caused by the fungus *Histoplasma*. • *Histoplasma* most often develops in the lungs and produces symptoms similar to the flu or pneumonia. • People with severely damaged immune systems can get a very serious form of the disease called progressive disseminated histoplasmosis.

Kaposi's sarcoma (KS)	• KS is caused by a virus called Kaposi's sarcoma herpesvirus (KSHV) or human herpesvirus 8 (HHV-8). • KS causes small blood vessels to grow abnormally and can occur anywhere in the body. • KS appears as firm pink or purple spots on the skin that can be raised or flat. • KS can be life-threatening when it affects organs inside the body, such as the lung, lymph nodes, or intestines.
Lymphoma	• Lymphoma refers to cancer of the lymph nodes and other lymphoid tissues in the body. • There are many kinds of lymphomas. Some types, such as non-Hodgkin lymphoma and Hodgkin lymphoma, are associated with HIV.
Tuberculosis (TB)	• TB is caused by a bacterium called *Mycobacterium tuberculosis*. • TB can spread through the air when a person with TB coughs, sneezes, or speaks. Breathing in the bacteria can lead to infection in the lungs. • Symptoms of TB in the lungs include cough, tiredness, weight loss, fever, and night sweats.
***Mycobacterium avium* complex (MAC)**	• MAC is caused by infection with different types of mycobacterium: *Mycobacterium avium, Mycobacterium intracellulare*, or *Mycobacterium kansasii*. • These bacteria live in our environment, including in soil and dust particles. • Infections with these bacteria spread throughout the body and can be life threatening in people with weakened immune systems.
***Pneumocystis* pneumonia (PCP)**	• PCP is a lung infection caused by the fungus *Pneumocystis jirovecii*. • PCP occurs in people with weakened immune systems. • The first signs of infection are difficulty breathing, high fever, and dry cough.
Pneumonia	• Pneumonia is an infection in one or both lungs. • Many germs, including bacteria, viruses, and fungi, can cause pneumonia. • Symptoms include a cough (with mucous), fever, chills, and trouble breathing. • In people with immune systems severely damaged by HIV, one of the most common and life-threatening causes of pneumonia is an infection with the bacteria *Streptococcus pneumoniae*, also called

	Pneumococcus. People with HIV should get a vaccine to prevent infection with *Streptococcus pneumoniae.*
Progressive multifocal leukoencephalopathy	• This rare brain and spinal cord disease is caused by the JC (John Cunningham) virus. • It is seen almost exclusively in people whose immune systems have been severely damaged by HIV. • Symptoms may include loss of muscle control, paralysis, blindness, speech problems, and an altered mental state. • This disease often progresses rapidly and may be fatal.
***Salmonella* septicemia**	• *Salmonella* are bacteria that typically enter the body through eating or drinking contaminated food or water. • Infection with salmonella (called salmonellosis) can affect anyone and usually causes nausea, vomiting, and diarrhea. • *Salmonella* septicemia is a severe form of infection in which the bacteria circulate through the whole body and exceeds the immune system's ability to control it.
Toxoplasmosis	• This infection is caused by the parasite *Toxoplasma gondii*. • The parasite is carried by warm-blooded animals including cats, rodents, and birds and is released in their feces (stool). • People can develop it by inhaling dust or eating food contaminated with the parasite. • *Toxoplasma* can also occur in commercial meats, especially red meats and pork, but rarely poultry. • Infection can occur in the lungs, retina of the eye, heart, pancreas, liver, colon, testes, and brain. • Although cats can transmit toxoplasmosis, litter boxes can be changed safely by wearing gloves and washing hands thoroughly with soap and water afterwards. • All raw red meats that have not been frozen for at least 24 hours should be cooked through to an internal temperature of at least 150oF.
Wasting syndrome due to HIV	• **Wasting is defined as the involuntary loss of more than 10% of one's body weight** while having experienced diarrhea or weakness and fever for more than 30 days. • Wasting refers to the loss of muscle mass, although part of the weight loss may also be due to loss of fat.

Opportunistic Infection Prevention for HIV positive
Taking HIV medicine is the best way to prevent getting OIs. HIV medicine can keep your immune system strong and healthy.

Steps you can take to prevent getting OIs:

- Talk to your health care provider about medicines and vaccines that prevent certain OIs.
- Prevent exposure to other sexually transmitted diseases.
- Don't share needles, syringes, or other drug injection equipment (for example, cookers).
- Limit your exposure to germs that could make you very sick. This includes tuberculosis or germs found in the stools, saliva, or on the skin of animals.
- Don't consume certain foods, including undercooked eggs, raw milk and cheeses, unpasteurized fruit juices, or raw seed sprouts.
- Don't drink untreated water, such as water directly from lakes or rivers. Avoid drinking tap water in foreign countries. Use bottled water or water filters.
- Talk to your health care provider about things that could expose you to OIs at work, at home, and on vacation.

Clinical Management and Infection Control

The U.S. Government's CDC (Centers for Disease Control and Prevention) states that there are ways to prevent becoming infected with the HIV virus.

Preventing Transmission

Abstinence

- **Not having sex** (also known as being abstinent) is a 100% effective way to make sure you won't get HIV through sex.
- You can be abstinent at different times in your life for different reasons that may change over time.
- Not having sex also prevents other STDs and pregnancy.

Choose Activities With Little to No Risk

- Choose sexual activity that is less risky than anal or vaginal sex. There is little to no risk of getting HIV through oral sex.
- You can't get HIV from sexual activities that don't involve contact with body fluids (semen, vaginal fluid, or blood).

Use Condoms the Right Way Every Time

- Condoms are highly effective in preventing HIV and other sexually transmitted diseases (STDs), like gonorrhea and chlamydia.
- Use water-based or silicone-based lubricants to help prevent condoms from breaking or slipping during sex.
- Learn the right way to use an external condom (sometimes called a male condom) and an internal condom sometimes called a female condom).

Lesson 2: Discussion of attitudes towards HIV and AIDS as well as appropriate behavior in dealing with persons who may have the virus or syndrome (1 hour)

Outline

- Appropriate Behavior and A Health-focused Attitude
- Stigma and Discrimination
- Awareness and Prevention Programs
- Early History of HIV

Learning Objectives:
After completing this course you will be able to:

- Explain Stigma
- Describe the CDC's initiative "Cut for Life" program
- Describe the first official report of AIDS in the United States
- Identify various historic events that took place in the early years of discovering the virus
- Define the significance of the year 1992 for men in the United States

Appropriate Behavior And A Health-focused Attitude

Stigma And Discrimination

What is HIV stigma?
HIV stigma is negative attitudes and beliefs about people with HIV. It is the prejudice that comes with labeling an individual as part of a group that is believed to be socially unacceptable.

Here are a few examples:

- Believing that only certain groups of people can get HIV
- Making moral judgments about people who take steps to prevent HIV transmission
- Feeling that people deserve to get HIV because of their choices

What is discrimination?
While stigma refers to an attitude or belief, discrimination is the behaviors that result from those attitudes or beliefs. **HIV discrimination is the act of treating people living with HIV differently than those without HIV.**

Here are a few examples:

- A health care professional refusing to provide care or services to a person living with HIV
- Refusing casual contact with someone living with HIV
- Socially isolating a member of a community because they are HIV positive
- Referring to people as HIVers or Positives

What are the effects of HIV stigma and discrimination?

HIV stigma and discrimination affect the emotional well-being and mental health of people living with HIV. People living with HIV often internalize the stigma they experience and begin to develop a negative self-image. They may fear they will be discriminated against or judged negatively if their HIV status is revealed.

“Internalized stigma” or “self-stigma” happens when a person takes in the negative ideas and stereotypes about people living with HIV and start to apply them to themselves. HIV internalized stigma can lead to feelings of shame, fear of disclosure, isolation, and despair. These feelings can keep people from getting tested and treated for HIV.

Awareness and Prevention Programs

Cut for Life: Hairstylists and Barbers Against AIDS

An estimated 1.1 million people in the United States are living with HIV infection, and many are unaware of their infection. While great progress has been made in HIV prevention and treatment, there is much more work that must be done to address HIV.

Throughout the years, the Centers for Disease Control and Prevention (CDC) has led the fight in combating HIV by partnering with businesses to support various HIV awareness programs through the **Business Responds to AIDS (BRTA)** Program. One unique BRTA initiative is **Cut for Life: Hairstylists and Barbers Against AIDS.**

Cut for Life engages hair care professionals across the country in HIV awareness and prevention in communities most impact by HIV. As a salon or barbershop, your business is the heartbeat of your community. It is the gathering place where your clients hold conversations, debates, or dialogue on topics that cross personal and political spectrums. Hair care professionals have always been a reliable fixture in communities.

As a trusted and respected professional, you create relationships of trust with your clients, and they may be more likely to listen to what you say about HIV.

Benefits

Giving back provides many benefits including a healthy boost to your self-confidence, self-esteem, and life satisfaction. Doing good for others and the community, which provides a natural sense of accomplishment.

- Helps save lives: HIV is 100% preventable
- Shows that you care about your community
- Protects your clients, staff, and business
- Provides community recognition
- Connects with a national movement

Hosting a Shop Talk

As a respected professional, what you say and what you do is often of great value to your clients. You can choose a variety of ways to educate your clients about HIV, such as sponsoring a Shop Talk event. Clients, community leaders, and healthcare professionals can be invited to your establishment to receive and/or exchange information about HIV, as well as discuss what can be done to stop AIDS.

The following outlines ways you can organize and produce your own Shop Talk event. This listing of steps is meant to provide a general course of action in planning your event. Feel free to add additional steps to personalize your event to fit the needs of your community and/or client base.

1. Plan your conversation or event around the needs of your clients. You know who they are and what messages they need most to hear.
2. Determine the best forum for reaching your clients. Is it one-on-one dialogue as you service them or a group session with several clients at once?
3. Determine the information and tools you will need on hand to help guide the conversation at the event. Visit CDC's HIV/AIDS website to make sure that your conversation or event provides the most accurate and up-to-date information about HIV.
4. Consider partnering with your local health department to offer additional information and onsite testing.
5. Display materials such as *Let's Stop HIV Together* campaign posters or quick tips posters on your work station mirror to spark conversation and promote your event.
6. Encourage your clients to participate in the program via emails, social media, posters, palm cards, etc.
7. Obtain feedback from participants so that you can plan future conversations and events.
8. Encourage your clients to locate testing sites, get more information, and to learn more about HIV.

Partnering with BRTA

Becoming a **Business Responds to AIDS (**BRTA) partner.
Complete the online engagement card form. After you submit your form, a BRTA representative will contact you to provide information about your partnership commitment.

Some of the benefits of BRTA a partnership include:

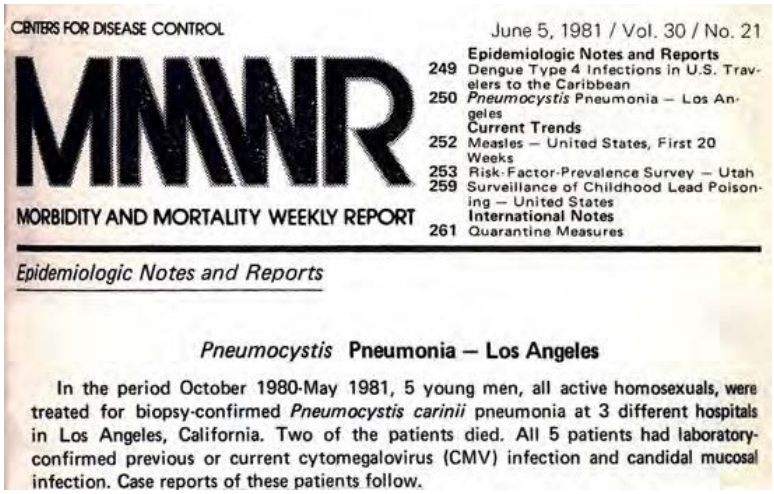
- **Visibility** — The program provides a national platform for businesses to showcase their efforts in addressing HIV in the workplace.
- **Productivity** — By retaining employees, businesses increase productivity by reducing direct costs associated with extended absence due to illness, turnover, recruitment, separation, and lost institutional knowledge.
- **Profitability** — By demonstrating a commitment in the fight against HIV, businesses garner respect and brand loyalty that can generate financial returns, align to stakeholder needs, and attract positive consumer responses.
- **Accessibility** — BRTA provides access to accurate, timely, and relevant HIV information, resources and peer-based technical assistance.
- **Connectivity** — Initiative facilitates access to a diverse network of like-minded businesses and stakeholders.

Early History of HIV
(1980-1992)

Early 1980s

A new disease appears. Research shows it can be transmitted sexually, through donated blood, injection drug use, and from pregnant women to their babies. International effects are recognized.

1981



CENTERS FOR DISEASE CONTROL

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MMWR

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Epidemiologic Notes and Reports

Pneumocystis **Pneumonia — Los Angeles**

In the period October 1980-May 1981, 5 young men, all active homosexuals, were treated for biopsy-confirmed *Pneumocystis carinii* pneumonia at 3 different hospitals in Los Angeles, California. Two of the patients died. All 5 patients had laboratory-confirmed previous or current cytomegalovirus (CMV) infection and candidal mucosal infection. Case reports of these patients follow.

- **June 5: First official reporting of what will be known as AIDS.** A report described Pneumocystis pneumonia in previously healthy, gay men in LA. This is the first official reporting of what will be known as the AIDS epidemic.
- **June: CDC forms Task Force on Kaposi's Sarcoma and Opportunistic Infections.** About 30 Epidemic Intelligence Service officers and staff participated.
- **July 3: Report of Kaposi's Sarcoma and Pneumocystis pneumonia** in 26 homosexual men in New York and California.

1982

- **September 24: CDC uses the term "AIDS" for the**
- **first time** and releases the first case definition for AIDS.
- **December 10: Report of AIDS likely from blood transfusion.**
  CDC reports a case of AIDS in an infant who received a blood transfusion.
- **December 17: Reports of AIDS hinting of perinatal transmission.**
  MMWR (Morbidity and Mortality Weekly Report) reports 22 cases of unexplained immunodeficiency and opportunistic infections in infants

1983

- **CDC establishes** the National AIDS Hotline to respond to public inquiries about the disease.
- **January 7: Report of AIDS in female sexual partners of males with AIDS.**
- **March 4: CDC announces most cases of AIDS** have been among homosexual men, injection drug users,

In this 1983 photograph, Rosemary Ramsey, a Centers for Disease Control and Prevention (CDC) research chemist, was shown here, conducting chromatography tests on biological fluids from AIDS patients.

Haitians, and people with hemophilia.

MMWR suggests that AIDS may be caused by an infectious agent that is transmitted sexually or through exposure to blood or blood products and issues recommendations for preventing transmission.

- **September 2: CDC publishes first recommendations** to prevent occupational exposure for healthcare workers.
- **September 9: CDC identifies all major routes of transmission;** says HIV not transmitted through casual contact, food, water, air, or environmental surfaces.

1984

- **July 13: Needle-sharing identified as transmission method.**

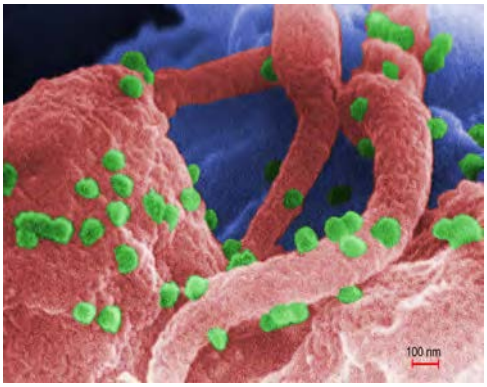
  CDC states that avoiding injection drug use and reducing needle-sharing "should also be effective in preventing transmissions of the virus."
- **Project SIDA begins in Africa.**

  CDC, along with colleagues from Zaire and Belgium, establishes Project SIDA, which would become the largest HIV/AIDS research project in Africa in the 1980s.

1985-1989

CDC issues safeguards for the nation's blood supply. National and international response grows. US government orchestrates massive public outreach.

1985



This digitally colorized image revealed the presence of the green, spherical, human immunodeficiency virus (HIV-1), which had been co-cultivated with human lymphocytes.

- **January 11: Revised AIDS case definition notes AIDS is caused by HIV.** Blood screening guidelines issued.
- **First presentation about AIDS in Africa** at CDC-hosted first International Conference on AIDS in Atlanta, GA.

1986

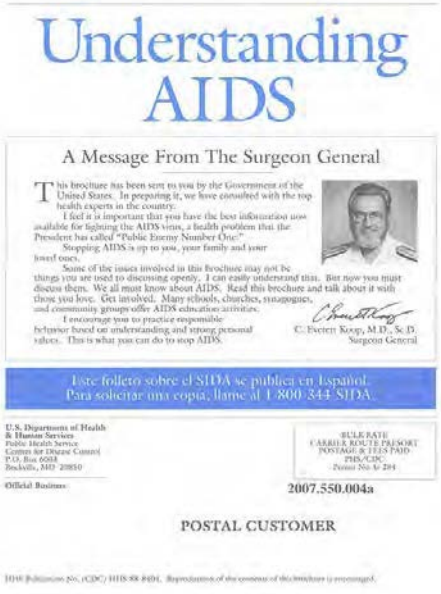
- **October 22: Surgeon General, C. Everett Koop, issues the Surgeon General's Report on AIDS.** The report makes it clear that HIV cannot be spread casually and calls for a nationwide education campaign (including early sex education in schools), increased use of condoms, and voluntary HIV testing.

1987

- **August: CDC holds the first national conference** on HIV and Communities of Color in New York.
- **August 14: CDC issues Perspectives in Disease Prevention and Health Promotion:** Public Health Service Guidelines for Counseling and Antibody Testing to Prevent HIV Infections and AIDS.
- **CDC launches first AIDS-related public service announcement,** "America Responds to AIDS."
- **CDC expands work in Africa.**

  CDC begins working in Côte d'Ivoire, establishing a field station in Abidjan and launching the Retrovirus Côte d'Ivoire (CDC Retro-CI).

1988



Understanding AIDS

A Message From The Surgeon General

This brochure has been sent to you by the Government of the United States. In preparing it, we have consulted with the top health experts in the country.

I feel it is important that you have the best information now available for fighting the AIDS virus, a health problem that the President has called "Public Enemy Number One!"

Stopping AIDS is up to you, your family and your loved ones.

Some of the issues involved in this brochure may not be things you are used to discussing openly. I can easily understand this. But now you must discuss them. We all must know about AIDS. Read this brochure and talk about it with those you love. Get involved. Many schools, churches, synagogues, and community groups offer AIDS education activities.

I encourage you to practice responsible behavior based on understanding and strong personal values. This is what you can do to stop AIDS.

C. Everett Koop, M.D., Sc.D.
Surgeon General

Este folleto sobre el SIDA se publica en Español.
Para solicitar una copia, llame al 1-800-344-SIDA.

U.S. Department of Health & Human Services
Public Health Service
Centers for Disease Control
P.O. Box 6003
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- **The brochure "Understanding AIDS" is sent to every household in the US** — 107 million copies in all.

1989

- **June 16: CDC issues first guidelines** for preventing *Pneumocystis carinii* pneumonia (PCP).
- **June 23: CDC releases Guidelines for** Prevention and Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Health-Care and Public-Safety workers.

1990-1994

HIV transmission from healthcare worker reported. CDC issues recommendations for healthcare workers with HIV and for organ transplantation. AIDS deaths increase. CDC expands prevention efforts into businesses, labor, and community organizations.

1990

- **July 27: CDC reports possible transmission of HIV to a patient through a dental procedure performed by a dentist living with HIV.**

1991

- **July 12: CDC issues recommendations for healthcare workers with HIV.**
- **Congress enacts a law** requiring states to adopt the CDC restrictions or to develop and adopt their own.

1992

- **AIDS becomes the number one cause of death for US men aged 25-44.**

From 1992 to present, there have been national and global organizations formed to address the ongoing HIV pandemic. Medical Science continues the search for additional treatments with a determined goal of finding a cure, as well as possibly developing a vaccine.

Summary

In this course, we have studied many topics and issues related to HIV and AIDS. We can now clearly identify many clinical aspects of this disease, such as causes of transmission, and the effect on the human body. We have also learned how behaviors can alleviate the spread of this pandemic. We now understand the early progression of events involving transmission that led to the global outbreak. Thank you for your participation in this course. We encourage you to continue your education to maintain excellence in the personal care service industry.

Credits, References, and Resources

articles and reports
Center for Disease Control and Prevention (CDC):
https://www.cdc.gov accessed January 3, 2021; reaccessed February 1, 2023
Business Responds to AIDS Program (BRTA):
https://www.cdc.gov accessed January 5, 2021
National Institute of Allergy and Infectious Diseases (NAID):
https://www.niaid.nih.gov accessed January 3, 2021
HIV.gov: https://www.hiv.gov accessed January 3, 2021
Library of Congress: https://www.loc.gov accessed January 4, 2021
U.S. Department of Health and Human Services https://www.hhs.gov accessed January 3, 2021
Florida Health: http://www.floridahealth.gov accessed January 8, 2021; reaccessed February 1, 2023

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a Centers for Disease Control and Prevention (CDC) research chemist. accessed January 3, 2023