

Basic Presentation HIV/AIDS

For Use by Students,
Teachers and the Public
Seeking Basic
Information About
HIV/AIDS

Objectives-

- ◆ Define and understand the difference between HIV Infection and AIDS
- ◆ Describe the progression of HIV from initial infection to disease
- ◆ Understand the modes of transmission of HIV
- ◆ Describe ways to prevent HIV infection
- ◆ Discuss issues relating to HIV testing

Objectives- continued

- ◆ Describe issues relating to the treatment of HIV infection and AIDS
- ◆ Discuss the legal and psychological impact of HIV/AIDS
- ◆ Know where to find current statistics and additional resources about HIV/AIDS

Definitions

- ◆ HIV - The acronym for Human Immunodeficiency Virus.
 - This virus causes HIV infection and AIDS
 - The HIV infected person may, or may not have AIDS.
 - They may, or may not, have signs or symptoms of illness but are still infectious to others.

Signs/ symptoms of HIV Infection

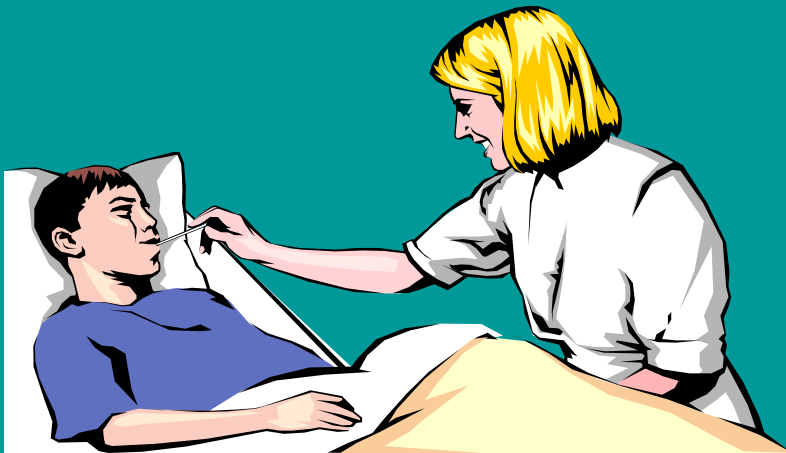
◆ Usually – none

- Early warning signs might include fever, skin rash, diarrhea, swollen glands, night sweats, fatigue, cough, oral problems, repeated vaginal infections, and/or weight loss.
- (Remember, other illnesses can cause similar symptoms.)

Definitions

- ◆ AIDS - The acronym for Acquired Immune Deficiency Syndrome.
 - AIDS is a disease which has the following elements:
 - A confirmed positive test for HIV/AIDS.
 - Immuno-compromised status (demonstrated by a low T cell count).
 - The presence of either an opportunistic infection or AIDS related cancer.

The Clinical Syndrome - HIV



- ◆ Immune deficiency
- ◆ Opportunistic Infections
 - Pneumocystis Carini
Pneumonia(PCP), /
Cytomegalovirus / Herpes
- ◆ Malignancies
 - Kaposi's Sarcoma(KS), /
Lymphomas
- ◆ Neurological Deficits
 - Dementia

The Clinical Syndrome



- ◆ Plus UNEXPLAINED and CHRONIC
 - Weight loss
 - Fever
 - Night Sweats
 - Diarrhea
 - Fatigue
 - Adenopathy

From Infection to Disease (Pathophysiology)

- ◆ Infected body fluids are introduced into the body of an uninfected person
- ◆ The HIV virus crosses into the T-4 White Cell (Immune Cells)
- ◆ The virus uses the genetic mechanisms of the cell to produce millions of new viruses
- ◆ The cell dies and the new viruses are released into the blood to infect new uninfected cells
- ◆ The T-4 are killed and the patient becomes immunodeficient
- ◆ The person becomes susceptible to opportunistic infections or AIDS related cancers.

Entry

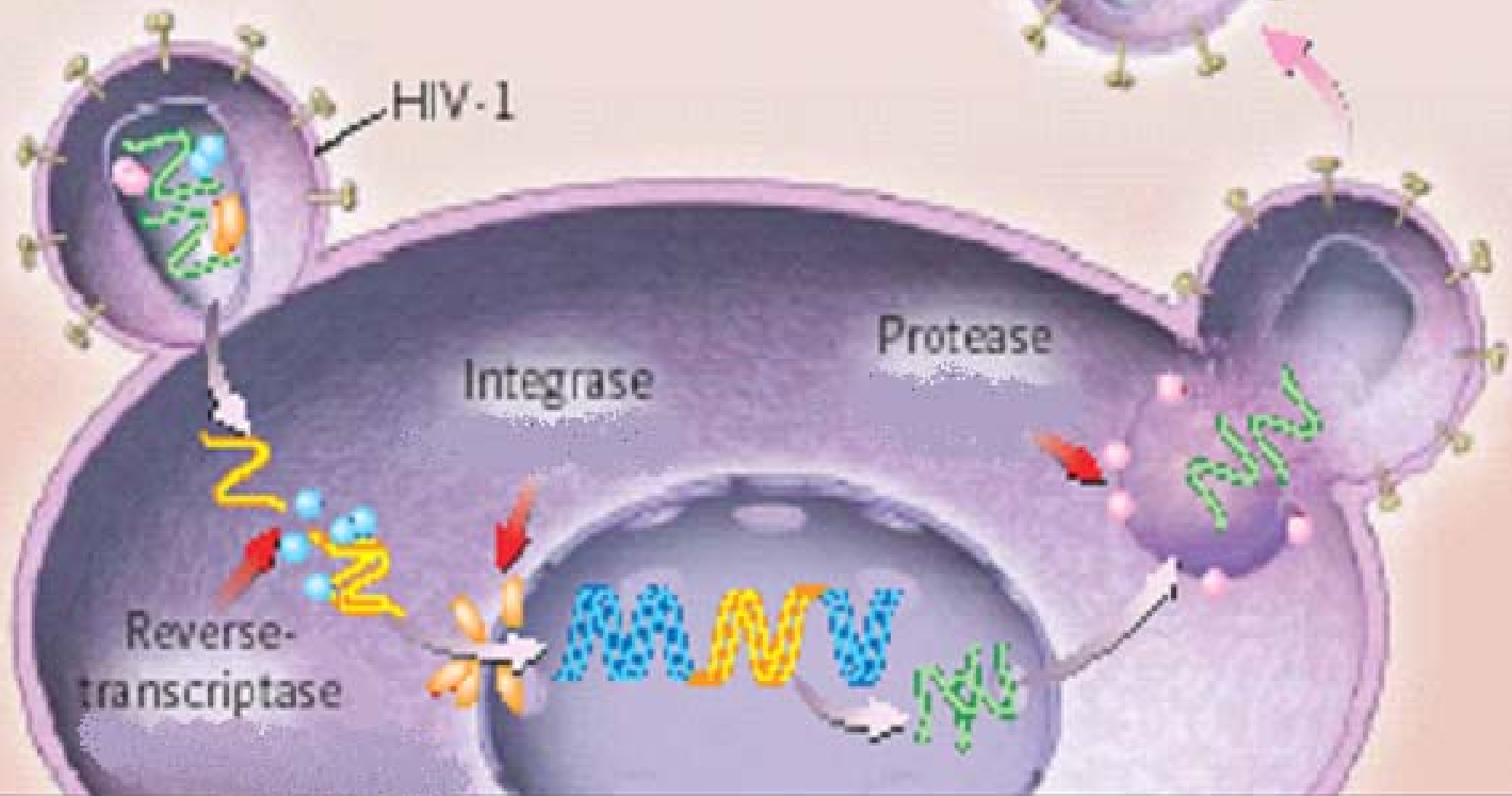
Mature virus

HIV-1

Integrase

Protease

Reverse-transcriptase

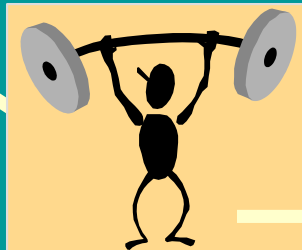


Progression of HIV (4 stages)

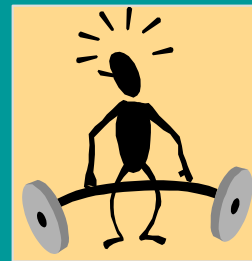
Exposure
Infection



3 Weeks
to 3 months



HIV (+)
AIDS (-)
Asymptomatic
5-10 years



HIV (+)
AIDS (-)
Symptomatic
1-3 years



HIV (+)
AIDS (+)
1-2 years

Transmission of HIV -Concept-

- ◆ *HIV is spread when an infected body fluid is introduced directly into the blood stream of a non-infected individual*

Examples of Modes of transmission

- ◆ Sexual
- ◆ Sharing IV equipment and drugs
- ◆ Perinatal (Mother to child at birth)
- ◆ Blood
- ◆ Health Care workers

Not by casual contact

The Risk of HIV Transmission is dependant on:

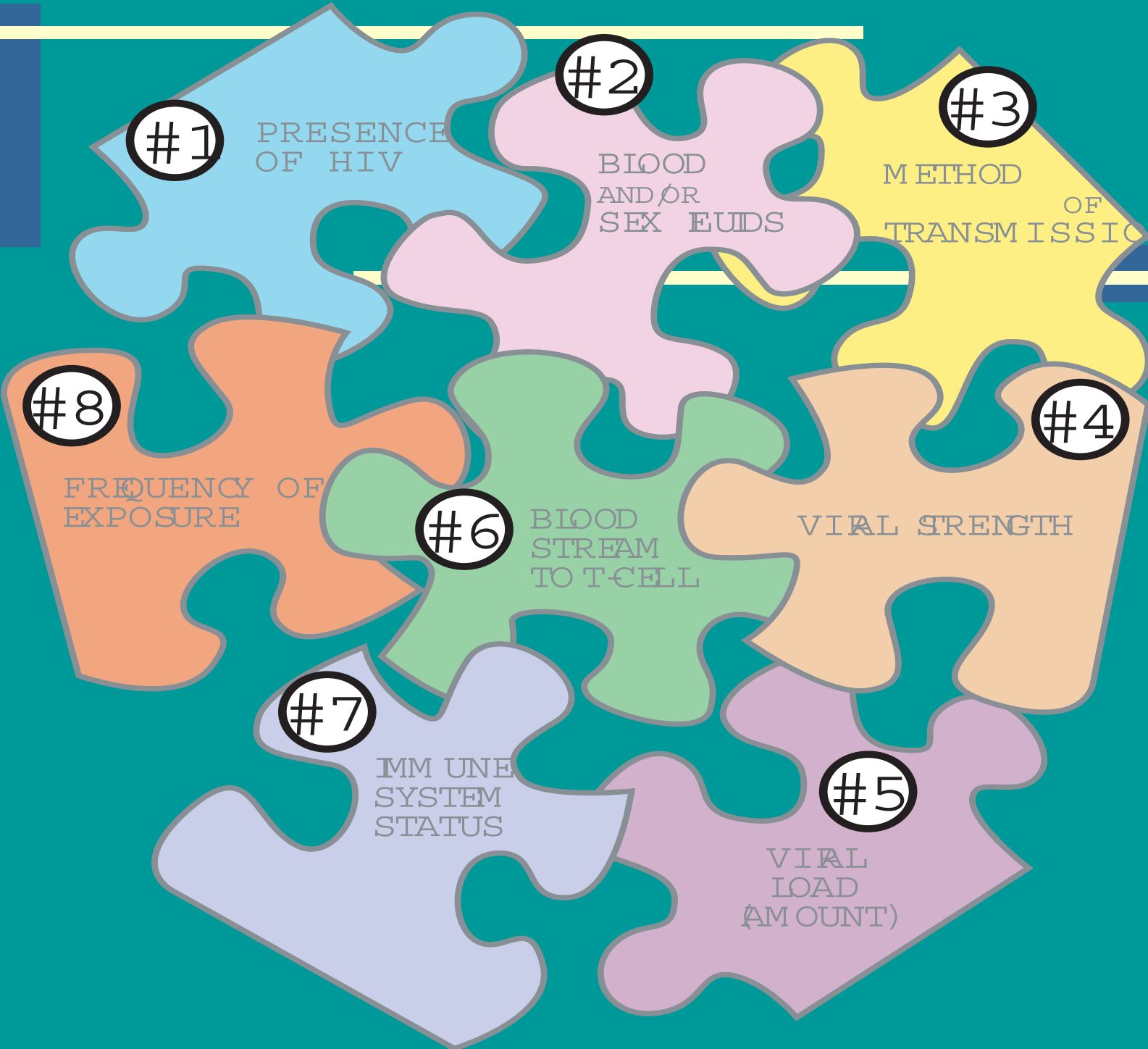
- ◆ The concentration of HIV in the infected fluid
- ◆ The QUANTITY of fluid introduced into the body
- ◆ The ACCESS of the infected fluid to the T4 cell

Fluids with HIGH Concentration of HIV (& HIGH risk of transmission)

- ◆ Semen
- ◆ Blood & Blood components
- ◆ Menstrual Flow
- ◆ Vaginal Secretions
- ◆ Pre-Ejaculatory Fluid
- ◆ Breast Milk
- ◆ Cerebral Spinal Fluid

Fluids with LOW Concentration of HIV (& LOW risk of transmission)

- ◆ Pus
- ◆ Saliva
- ◆ Tears
- ◆ Urine
- ◆ Feces
- ◆ Vomit
- ◆ Nasal Mucous



Prevention - Abstinence

- ◆ Abstinence from all HIV related risky behaviors (such as sexual intercourse, sharing of IV needles, body piercing, or tattooing using non sterile needles, etc) is the only 100% effective way to prevent transmission of HIV.

Alternatives to risky behaviors

- Hugging
- Holding hands
- Going to the movies
- Touching your own body
- Outercourse

Ways to reduce risk

- ◆ **Universal Precautions** (all body fluids are treated as if they are infectious)
- ◆ **Safer Sex** (involves sexual activities that limit/reduce the exchange of potentially infected body fluids.)
- ◆ **Barrier Methods** (Use of condoms, latex gloves)
- ◆ **Spermicides** (Now called “Microbicides”)
- ◆ **Avoidance of Alcohol/drug use**
- ◆ **Use Negotiation and Communication**
- ◆ **Resisting negative peer pressure**

Condom Considerations

- ◆ **Always use latex or polyurethane**
- ◆ **(Animal skin condoms are porous!)**
- ◆ **Check the expiration date**
- ◆ **Check for a lot #**
- ◆ **Feel for an air pocket**
- ◆ **Use water based lubricants**
- ◆ **Never keep them in a wallet or purse for a long time**
- ◆ **Use microbicides or spermicides**

Testing

- ◆ Types of tests
 - Blood/saliva/
 - Lab/home
 - Screening/confirmatory (Both must be positive for true infection)
- ◆ The Window Period – (the time between infection and when a person tests positive. During this time a person is infectious even though their tests are negative)

Why is testing important

1. Why should someone get tested?

- Increases access to medical care
- Protects others from getting HIV infected
- Keeping the HIV infected person away from infectious diseases (Healthier lifestyle)

Treatment

- ◆ No cure exists
- ◆ Effective, complex, expensive drug treatments are available
- ◆ Maintenance of healthy lifestyle improves quality of life
- ◆ Psychological, family planning, economic, and social counseling are very important

Therapeutic Approach

- ◆ Counseling required
- ◆ Medications – Triple drug therapy most effective
- ◆ Vaccines – Not yet available
- ◆ Prevention is effective
- ◆ Drug Rehabilitation if needed
- ◆ Safer SEX & healthy lifestyle crucial
- ◆ Education about Risk Behaviors



Epidemiology of HIV

- ◆ Current statistics available on line
- ◆ Trends
 - Worldwide
 - National
 - Local
- See: www.flaaids.com

Worldwide trends:

- Massive numbers still being infected
- Large numbers dying in developing countries
- Disruption of family units and national economies
- Effective therapy not available in developing countries
- HIV/AIDS awareness increasing in more countries
- Governments starting to address the AIDS epidemic

National Trends

- Rates in youth are increasing
- Heterosexual transmission is increasing
- Rates of infection amongst minority females is increasing
- Effective treatments increasing life span of infected people
- Funding has remained constant or has decreased
- Effective treatments have caused an inappropriate decrease in the concern about HIV transmission

Local Trends (S. FLA.)

- People over 50 demonstrate double the national average for the number of new HIV cases reported
- Half of new HIV infections are 25 or younger
- Rates in youth, minority women, and heterosexuals reflect the national trends
- Special challenges exist in HIV education and prevention in the Deaf and Hard of Hearing population
- Rates of new HIV infection amongst minority populations is greater than their percentage in the general population

Psychological Aspects of HIV Infection

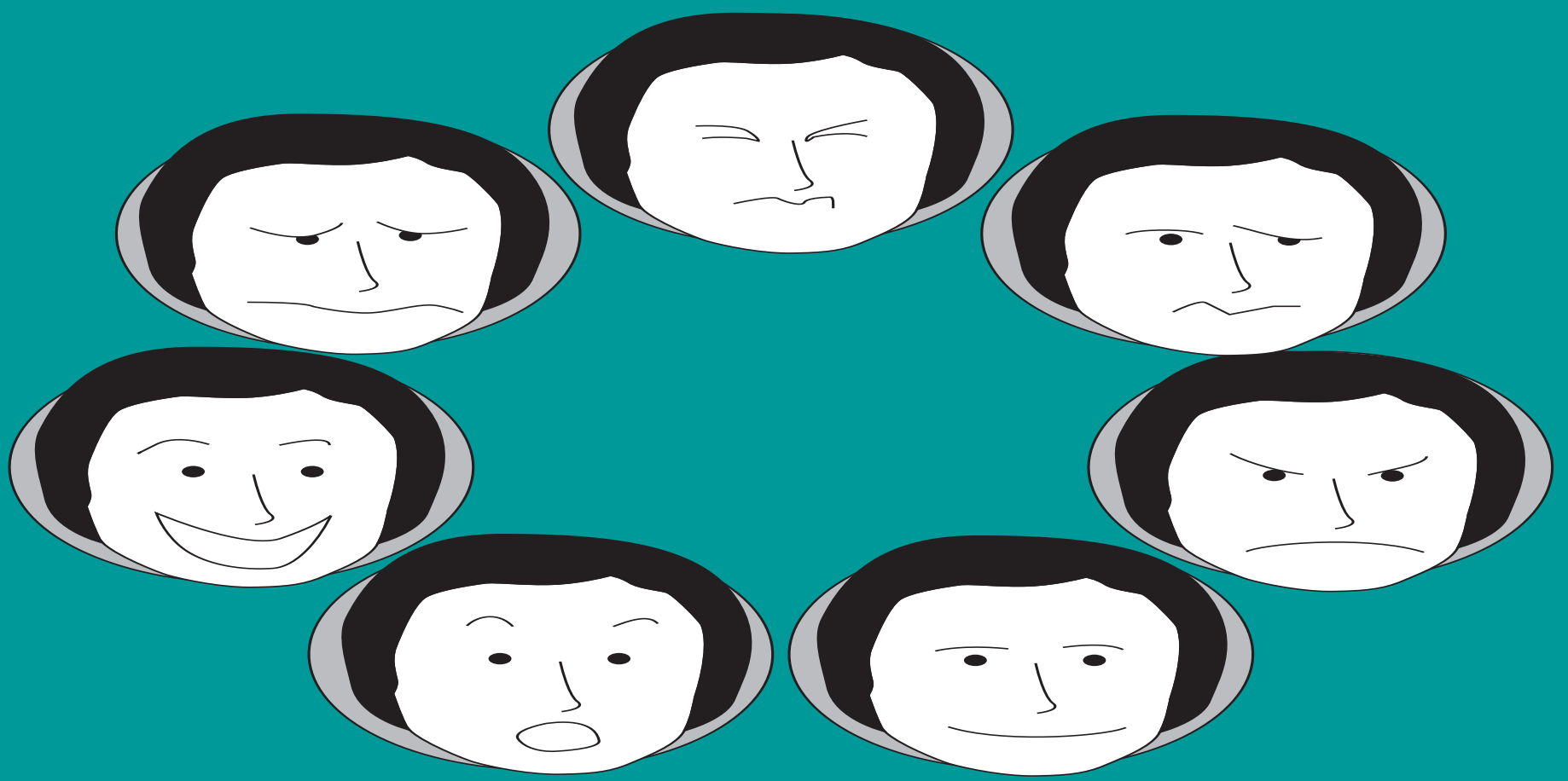
- ◆ HIV infection has a major psychological impact on:
 - The infected person
 - The infected person's family
 - The infected person's friends
 - The economic status of affected persons

Examples of Psycho-Social Issues associated with HIV

- ◆ Isolation
- ◆ Denial
- ◆ Guilt
- ◆ Bereavement
- ◆ Anger
- ◆ Fear
- ◆ Confusion

HIV/AIDS

COMMON FEELINGS



Myths and misconceptions

You cannot get HIV if you:

- ◆ Stand up during sex
- ◆ Have unprotected oral sex
- ◆ Have sex for the first time
- ◆ Have sex with a virgin
- ◆ Are not gay/bisexual
- ◆ Do not have sex during a woman's period
- ◆ If you douche/cleanout/pee after sex
- ◆ Do a little bit of sex and pull out
- ◆ Already have HIV or AIDS
- ◆ Do not have an orgasm

Legal Considerations:

- ◆ AIDS is a “disability” under ADA (Americans with Disabilities Act)
- ◆ The Following are mandated by law
 - Confidentiality of test results & HIV status
 - Reporting and follow up by Public Health Department
 - Criminal liability for knowingly transmitting infection

See: www.onlinesunshine.org
www.leg.state.fl.us/statutes

HIV/AIDS 101

- ◆ What resources are available to help answer your questions?



For More Information:

- ◆ World Health Organization
- ◆ www.cdc.gov
- ◆ www.myflorida.org
- ◆ Health Department
- ◆ <http://aidseducation.dadeschools.net>

Do you have any

◆ QUESTIONS?

