



Sexually Transmitted Infections Prevention: What you need to know...

Jim Thacker, MPH
Health Education Manager
University of Kentucky

Faculty Disclosure

- I have no conflicts to disclose.

Educational Need/Practice Gap

Gap = Risks Reduction Specialist/Associates are not usually prepared to assess and address the risk of STI/HIV transmission among the population they serve. This training will prepare them meet that need.

Need = Participants in Harm Reduction programs seldom understand their risks for contracting STIs and/or HIV.

Objectives

Upon completion of this educational activity, you will be able to:

- Identify at least 3 vectors of transmission for STIs
- Explain differences between viral and bacterial STIs
- Discuss ways to prevent STI infections
- Explain how to properly use barrier protections during sex

Expected Outcome

- Staff will be able to assess a program participant's risk of STI/HIV infection and educate them about how to reduce their risk of infection.

Overview

- Definition of STIs: “What are they?”
- Transmission: “How are they spread?”
- Types of infection:
 - Bacterial (Chlamydia, LGV, Gonorrhea, Syphilis)
 - Viral (HSV, Hepatitis B & C, HIV, HPV)
 - Parasitic (Pubic lice, scabies, trichomoniasis)
- Prevention: “How can I protect myself?”
- Testing: “Where can I go for help?”

Sexually Transmitted Infections

- Infections that are most commonly passed through sexual contact:
 - Oral
 - Vaginal
 - Anal
 - Skin-to-skin

BODY FLUIDS: Which one's are considered infectious?

- Semen
- Vaginal fluid
- Anal fluid
- Blood
- Breast milk
- Fluid in sores or blisters
- Saliva
- Tears
- Sweat
- Urine

METHODS OF TRANSMISSION: High Risk

- Sexual Intercourse
 - vaginal
 - anal
 - oral
- Blood-to-blood contact
- Sharing needles or other drug-use equipment
- Tattoo or body piercing
- Infected mother to her baby



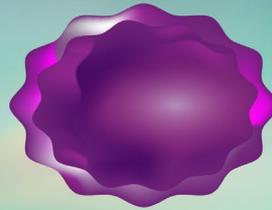
National STI Rates

STDs IN THE UNITED STATES



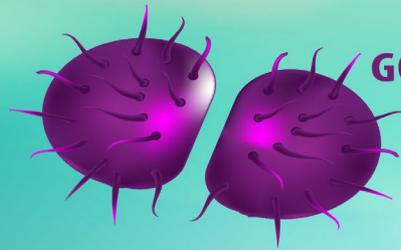
STDs tighten their grip on the nation's health as rates increase for a fifth year.

Source: U.S. Centers for Disease Control and Prevention



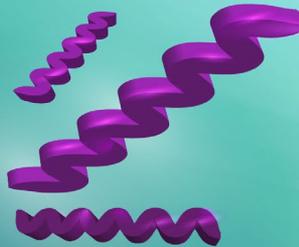
CHLAMYDIA 1,758,668

TOTAL CASES IN 2018
2.9% INCREASE SINCE 2017



GONORRHEA 583,405

TOTAL CASES IN 2018
5.0% INCREASE SINCE 2017



SYPHILIS 115,045

TOTAL CASES IN 2018
13.3% INCREASE SINCE 2017

CONGENITAL SYPHILIS 1,306

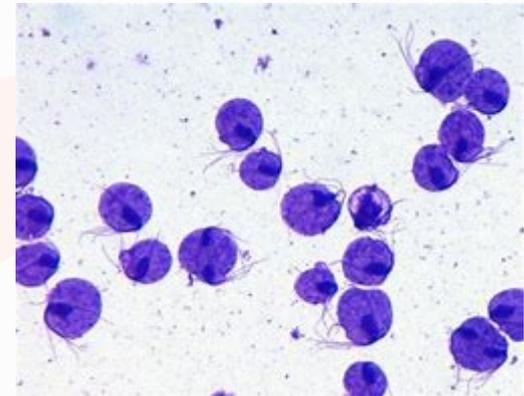
TOTAL CASES IN 2018
39.7% INCREASE SINCE 2017

PRIMARY AND SECONDARY SYPHILIS 35,063

TOTAL CASES IN 2018
14.4% INCREASE SINCE 2017

Parasitic: Trichomoniasis - “Trich”

- Caused by infection with a protozoan parasite called *Trichomonas vaginalis*.
- During sex, the parasite usually spreads from a penis to a vagina, or from a vagina to a penis. It can also spread from a vagina to another vagina.
- About 70% of infected people do not have any signs or symptoms



Bacterial vs. Viral Sexually Transmitted Infections

- Bacterial STI's include Chlamydia, Gonorrhea & Syphilis
- Can be treated and cured with antibiotics
- Untreated infection can cause PID, infertility, & epididymitis
- Viral STI's include HPV, HIV, Herpes, & Hepatitis A, B, & C
- There is NO cure (except Hep C)
- Medication available to treat *symptoms* only
- Can pass onto others for the rest of your life

Bacterial STIs

Chlamydia

- The **most** common bacterial STI
- Greatest number of infections found in people 15 to 24 years old
- Untreated, it can affect the cervix and urethra, and occasionally the rectum, throat and eye
- 50% have **NO** symptoms - men and women
- Can be treated with antibiotics

Many youth do not know they're infected because STIs often have no symptoms

Data are cases among youth ages 15-24



Bacterial STIs

Gonorrhea

Female

- Increased vaginal discharge
- Painful urination
- Lower abdominal pain
- Bleeding after sex and between periods
- Pain during sex



Gonorrhoea pharyngeal infection

Male

- Thick, yellowish-green discharge from penis
- Painful urination
- Testicular pain or swelling
- Rectal pain, discharge or itching

Many youth do not know they're infected because STIs often have no symptoms

Data are cases among youth ages 15-24



Bacterial STIs

Syphilis

- A bacterial infection that progresses in stages
 - **Primary:** (3 days – 3 months) starts as a small, painless sore called a chancre; goes away on it's own
 - **Secondary:** (2 – 24 weeks) rash on the body, palms of hands & soles of feet, hair loss, feeling sick
 - **Latent:** lesions or rashes can recur



Bacterial STIs

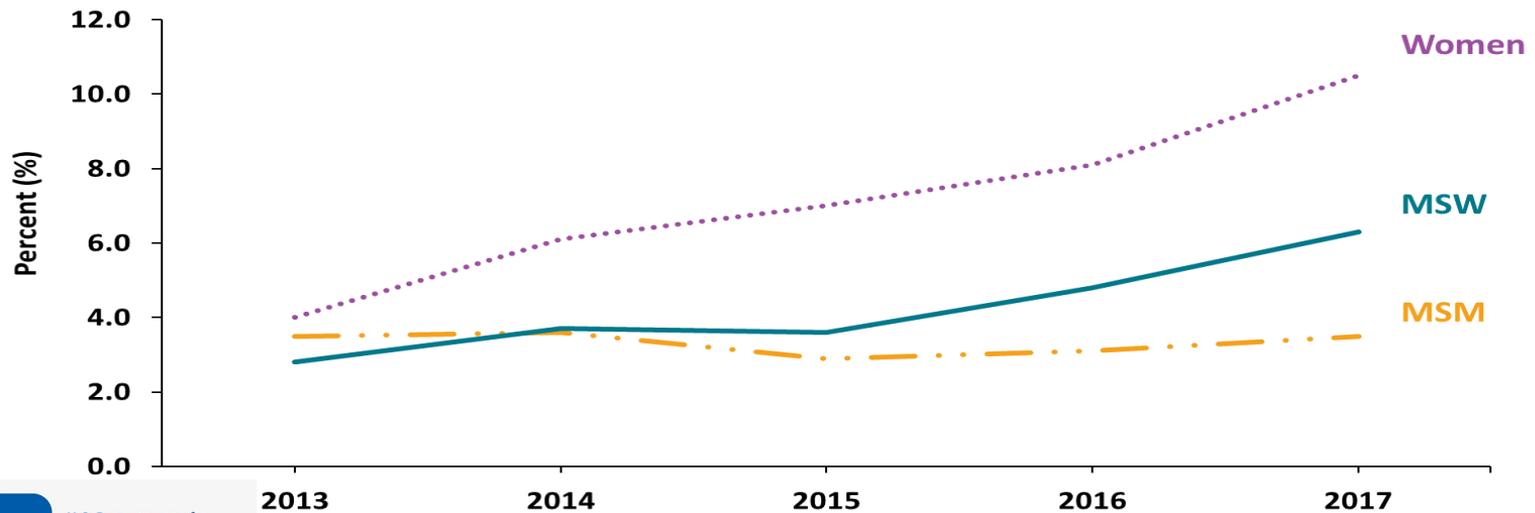
Syphilis

- Untreated syphilis may lead to ***tertiary syphilis***, which can damage:
 - The cardiovascular system (heart & blood vessels)
 - The neurological system
 - Other major organs of the body
 - Complications may lead to death

Bacterial STIs

Syphilis

Reported Injection Drug Use* Among Reported Primary and Secondary Syphilis Cases by Sex and Sexual Behavior, United States, 2013–2017



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

Viral STIs



Photo Courtesy of
WebMD

Genital Herpes

- Two types: HSV-1, causing cold sores, and HSV-2, causing genital herpes
- It is a viral infection causing outbreaks of painful sores and blisters (external or internal)
- Spread through direct vaginal, oral or anal sexual contact with an infected partner
- Also transmitted by receiving oral sex from a partner with a history of cold sores
- *Symptoms* can be treated with antiviral medications, but **NO CURE**

Viral STIs

Hepatitis B (HBV) & Hepatitis C (HCV)

- Virus that attacks the liver
- Some infected people (10%) naturally produce antibodies to fight the disease, but most develop chronic HBV & HCV and will carry the virus for the rest of their life
- Chronic infection can lead to liver damage, cirrhosis, and cancer
- There is NO CURE for HBV, but vaccination can prevent infection
- There is NO VACCINE for HCV, but there is a cure



Viral STIs

HPV – Human Papillomavirus

- HPV is one of the most common STIs
- About 75% of people will have at least one HPV infection during their lifetime
- There are over 100 types of HPV
- Low-risk HPV types cause genital warts
- High-risk HPV types may cause cancer of the cervix
- There is NO CURE, but vaccination is available to prevent certain types of HPV

HPV CANCER PREVENTION

1 HPV VACCINE IS CANCER PREVENTION
HPV vaccine protects against HPV types that most commonly cause anal, cervical, oropharyngeal, penile, vaginal, and vulvar cancers.
Every year in the U.S., 27,000 people get cancer caused by HPV. That's 1 person every 20 minutes of every day, all year long.
Most of these cancers can be prevented by HPV vaccine.

2 HPV VACCINE IS RECOMMENDED AT THE SAME TIME AS OTHER TEEN VACCINES
Preteens need three vaccines at 11 or 12. They protect against whooping cough, cancers caused by HPV, and meningitis.
Vaccines for your 11-12 year old:
✓ Tdap
✓ HPV
✓ Meningococcal

3 HPV VACCINE IS BEST AT 11-12 YEARS
Preteens have a higher immune response to HPV vaccine than older teens.
While there is very little risk of exposure to HPV before age 13, the risk of exposure increases thereafter.

Parents and healthcare professionals are the key to protecting adolescents from HPV cancers.

VACCINATE YOUR 11-12 YEAR OLDS.

www.cdc.gov/vaccines/teens



Viral STIs

HIV – Human Immunodeficiency virus

- HIV is a virus that destroys the immune system over time, robbing the body of its ability to fight other infections and illnesses
- Once the immune system is weakened, other infections occur and AIDS develops (the fatal stage of HIV infection)
- The virus is present in blood, semen, vaginal secretions & breast milk



Preventing HIV

PrEP - Pre-exposure prophylaxis

- The PrEP pills approved by the FDA for daily use are called Descovy® & Truvada®. The meds work by blocking important pathways HIV uses to set up an infection.
- If PrEP is not taken every day, there may not be enough medicine in the bloodstream to block the virus.
- PrEP can only be prescribed by a healthcare provider.
- Before beginning PrEP a person must take an HIV test to be sure they don't already have HIV and a repeat HIV test every three months while taking it.



Preventing HIV



Who's at risk for HIV and eligible for PrEP?

- PrEP is for people who are likely to be exposed to HIV repeatedly through ongoing, high risk sex or illicit drug use.
- For sexual transmission this includes people who are
 - in an ongoing relationship with a partner who has HIV,
 - not in a mutually monogamous relationship with a partner who recently tested HIV-negative,
 - a gay or bisexual man who has had anal sex without a condom or been diagnosed with an STD in the past six months, or
 - a heterosexual man or woman who does not regularly use condoms during sex with partners of unknown HIV status at substantial risk of HIV infection (e.g., people who inject drugs or have bisexual male partners).

Preventing STIs

- Only sure-fire way is abstinence, or monogamous relationship btwn 2 uninfected people
- Get tested for STIs, insist that your partner do too
- Communicate w/partners about safe sex
 - Inform a partner if you have an STI
- Avoid sex w/multiple partners or w/individuals at high risk for STIs
- Use condoms or oral dams
- If you use injected drugs, do not share needles



Preventing STIs

Proper use of condoms

- Store condoms in a cool, dry place away from direct sunlight
- Throw away condoms past expiration date or condoms in damaged packages
- Put on a condom before any genital contact occurs
- Be sure that the condom is adequately lubricated--if you add lube, use only water-based or silicone lube (oil-based lubes deteriorate latex)
- Unroll condom directly onto erect penis; if penis is uncircumcised, pull back foreskin before putting on condom
- After ejaculation, hold base of condom before withdrawal so condom does not slip off
- Note: rates of condom slippage and breakage are higher during anal intercourse than vaginal intercourse, so be extra careful during anal penetration



Preventing STIs

A condom is a condom, right?

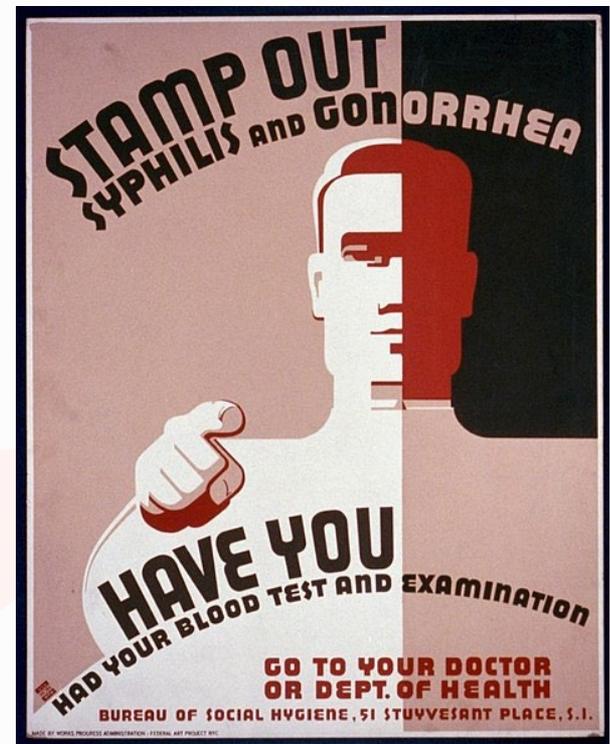
- No, not really. There are several different types:
- The most common material is **Latex**. However, there are others made of both synthetic and natural materials.
 - Polyurethane
 - Polyisoprene
 - Lambskin
 - Do not protect against STIs



Preventing STIs

When should I get tested?

- Once you become sexually active, you need a check-up & STI testing once a year
- You also need an STI test if:
 - You didn't use a condom or the condom broke
 - Your partner has an STI
 - Your partner is having sex with someone else
 - You have ever injected drugs
 - You or your partner have any STI symptoms
 - You have been raped or sexually assaulted



Questions

