

STI 101: An Overview of Sexually Transmitted Infections

- **Discuss some of the most common Sexually Transmitted Infections (STIs)**
 - Chlamydia
 - Gonorrhea
 - Syphilis
 - Human Immunodeficiency Virus (HIV)
 - Trichomoniasis
 - Genital Herpes
 - Human Papillomavirus (HPV)
 - Hepatitis B
- **Discuss Risk Reduction Strategies**
- **Discuss Testing and Community Resources**

What is an STI?

- **An infection that can be transmitted through sexual contact with an infected individual**
 - Sometimes called sexually transmitted diseases (STDs)
- **STIs can be transmitted many different ways, but most can be passed by:**
 - Vaginal sex
 - Anal sex
 - Oral sex
 - Skin-to-skin contact
 - Mother-to-child (pregnancy and/or breastfeeding)

Why are STIs Important?

About 20 million new infections each year in the United States

More than 50% of all people will have an STI
at some point in their lifetime

Often no signs or symptoms



People are unaware of infection and don't receive treatment



Long-term damage



May have passed infection to others

True or False?

- You can get an HIV/STI from oral sex. ✓
- Birth control protects against pregnancy and STIs. ✗
- Once you've had an STI, you cannot get it again. ✗
- Anal sex has a higher risk of spreading STIs than other types of sex. ✓
- You cannot get an STI if your partner is a virgin. ✗
- You cannot get HIV from mosquitoes. ✗
- Only promiscuous or "trashy" people get STIs. ✗
- You can have two STIs at once. ✓
- You can get an STI from a toilet seat. ✗
- If your partner has an STI, you will know/see it. ✗
- If you're straight and don't inject drugs, you cannot get HIV. ✗
- Women are more likely to get tested for STIs. ✓
- Lesbians cannot get STIs. ✗
- If you and your partner are both HIV-positive, you don't need condoms. ✗

Are STIs Curable?

- **Antibiotics can cure bacterial/parasitic STIs, but cannot reverse the long-term damage**
 - Chlamydia
 - Gonorrhea
 - Syphilis
 - Trichomoniasis (parasitic protozoan)
- **Antivirals can improve the lives of many people living with viral STIs, but there is currently NO CURE**
 - HIV
 - Herpes
 - HPV
 - Hepatitis B

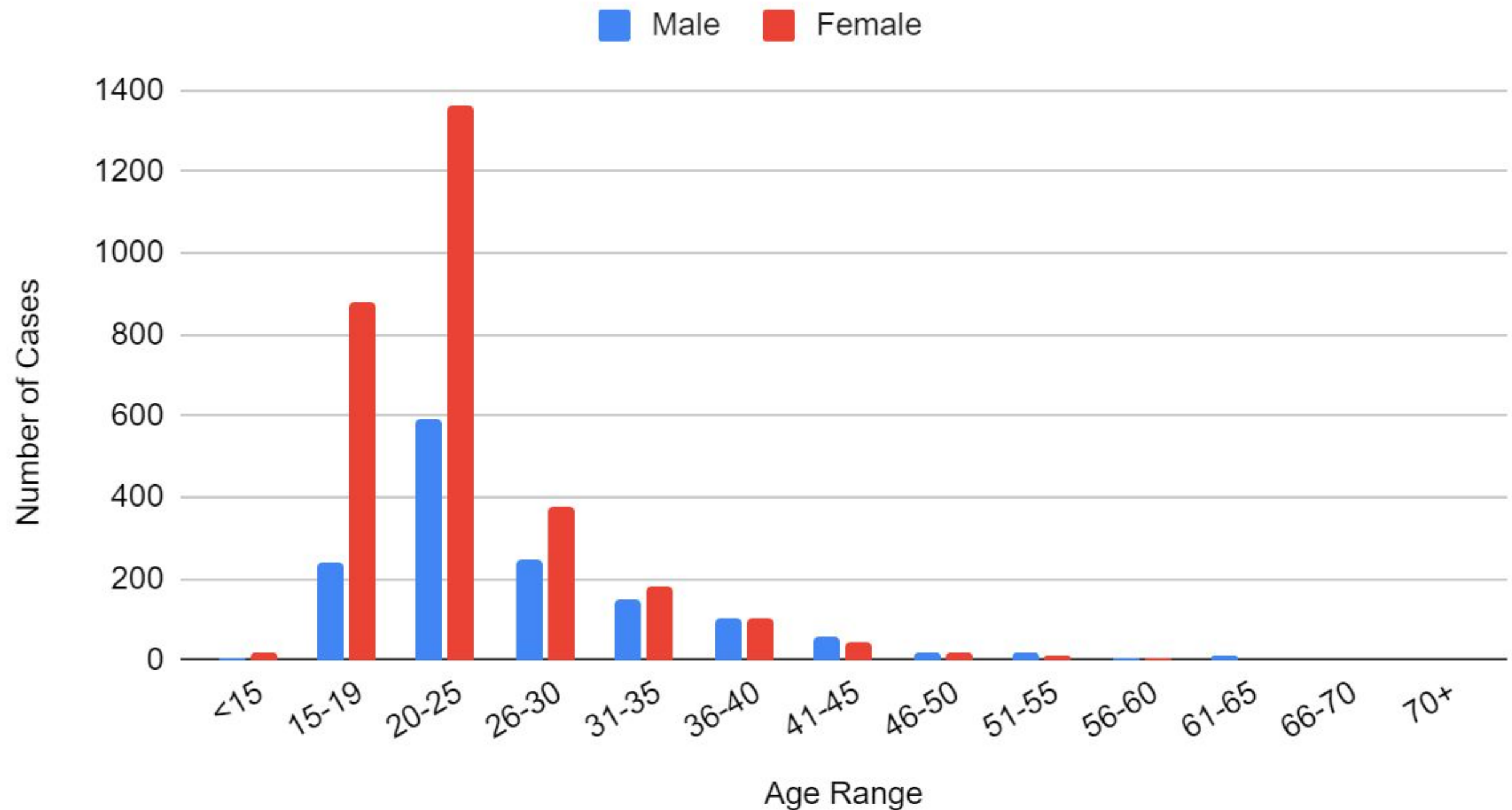
- **Chlamydia trachomatis is the most commonly reported STI**
 - United States: 1.65 million new cases in 2022
 - West Virginia: 4,450 new cases reported in 2022
- **How is it spread?**
 - Vaginal, anal, or oral sex with someone who has chlamydia
 - A pregnant person can pass the infection to their baby during pregnancy or childbirth
- **Slang terms:**
 - “The Clam”
 - “Gooney Stuff”



- **Possible symptoms include:**
 - Abnormal vaginal/penile discharge
 - Burning sensation when urinating
 - Rectal pain, discharge, or bleeding
 - Pain/swelling in one or both testicles (less common)
 - Sore throat
- **Long-term infection (without treatment) can lead to:**
 - Sterility or infertility
 - Infection of tube that carries sperm to/from the testicles (pain and/or fever)
 - Pelvic Inflammatory Disease (PID)
 - Long-term abdominal/pelvic pain
 - Scar tissue formation in fallopian tubes
 - Ectopic pregnancy

Chlamydia, by Sex and Age

Chlamydia Cases by Sex and Age, West Virginia, 2022



Chlamydia, by Race/Ethnicity

Chlamydia by Race and Ethnicity, West Virginia, 2022

RACE	ETHNICITY			Total By Race
	NON-HISPANIC	HISPANIC	UNKNOWN	
White	1990	38	729	2757
Unknown	9	1	507	517
Multi-Race	284	14	157	455
Black or African American	420	5	148	573
Other Race	30	17	57	104
American Indian or Alaska Native	1	0	1	2
Asian	15	0	5	20
Native Hawaiian or Other Pacific Islander	1	0	1	2
Total By Ethnicity	2750	75	1605	

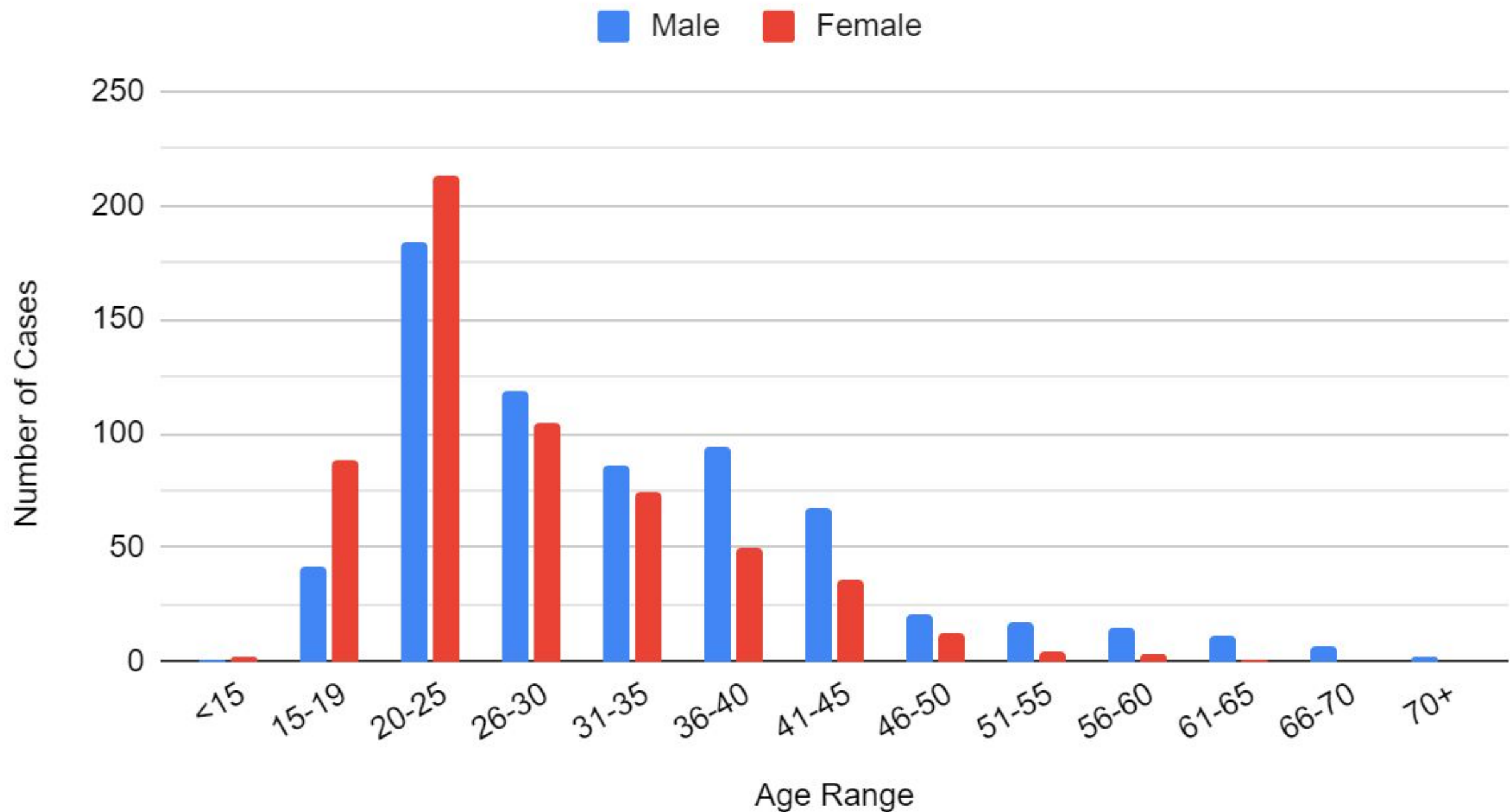
- **Neisseria gonorrhoeae is the second most commonly reported STI**
 - United States: 648,056 new cases in 2022
 - West Virginia: 1,258 new cases in 2022
- **How is it spread?**
 - Vaginal, anal, or oral sex with someone who has gonorrhea
 - A pregnant person can pass the infection to their baby during childbirth
- **Slang terms:**
 - “The Clap”
 - “The Drip”



- **Possible symptoms include:**
 - Painful or burning sensation when urinating
 - Abnormal vaginal/penile discharge (white, yellow, or green)
 - Rectal discharge, itching, soreness, bleeding
 - Vaginal bleeding between periods
 - Painful or swollen testicles (less common)
 - Sore throat
- **Long-term infection (without treatment) can lead to:**
 - Sterility or infertility
 - Disseminated infection (rash, arthritis, fever, meningitis, etc.)
 - Painful infection of tubes attached to the testicles
 - Pelvic Inflammatory Disease (PID)
 - Scar tissue formation in fallopian tubes
 - Ectopic pregnancy
 - Inability to get pregnant
 - Long-term pelvic/abdominal pain

Gonorrhea, by Sex and Age

Gonorrhea Cases by Sex and Age, West Virginia, 2022



Gonorrhea, by Race/Ethnicity

Gonorrhea by Race and Ethnicity, West Virginia, 2022

RACE	ETHNICITY			Total By Race
	NON-HISPANIC	HISPANIC	UNKNOWN	
White	531	3	198	732
Unknown	3	0	150	153
Multi-Race	57	2	32	91
Black or African American	192	2	64	258
Other Race	4	6	5	15
American Indian or Alaska Native	0	0	0	0
Asian	3	0	2	5
Native Hawaiian or Other Pacific Islander	0	0	1	1
Total By Ethnicity	790	13	452	

- Bacterial infection caused by *Treponema pallidum*
 - United States: 203,500 reported in 2022
 - West Virginia: 563 reported in 2022
- **How is syphilis spread?**
 - Direct contact with a syphilis sore/chancere during vaginal, anal, or oral sex (can include skin-to-skin contact)
 - Can be spread from an infected pregnant person to the unborn baby
- **Occurs in stages:**
 - Primary
 - Secondary
 - Latent
 - Tertiary
- Also known as “The Great Imitator”



Diagnosed by the presence of a chancre (syphilis sore)

- Firm, round, and usually painless
- Appears within 2-6 weeks after exposure usually, but can take up to three months
- Found on the part of the body exposed to the infection
 - Commonly on the penis, vagina, anus/rectum, lips/mouth
 - Often goes unnoticed or is misdiagnosed as something else
- Typically disappears after a few weeks, even **without treatment** (still progresses to next stage)
- **Most contagious stage of infection**



Secondary Syphilis

Secondary signs appears about four weeks after chancre heals

- Still contagious (especially in moist environments)
- Goes away without treatment, but infection will progress
 - Followed by period of latency (no signs/symptoms)



Non-itchy rash with rough red or reddish-brown spots



Alopecia or patchy hair loss

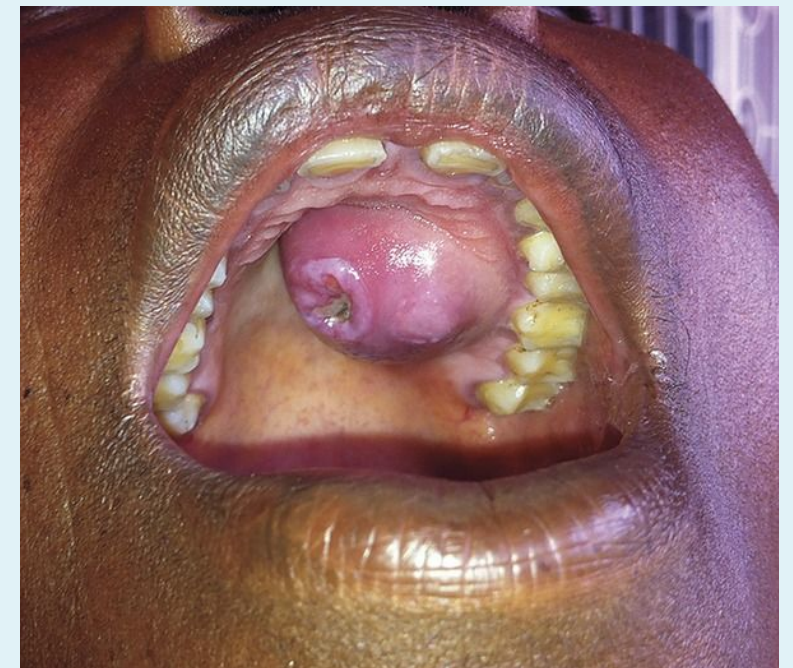


Mucous Patches usually in the mouth, vagina, or anus

Late (Tertiary) Syphilis

Typically occurs 10-30 years after infection

- Can damage almost any part of the body including the heart, brain, spinal cord, eyes, and bones
- **Can result in mental illness, blindness, deafness, heart disease, and death**
- **Gumma: soft, gummy tumor**
- **Types of tertiary syphilis**
 - Cardiovascular syphilis
 - Late Benign syphilis



Neurosyphilis can happen at any stage of syphilis

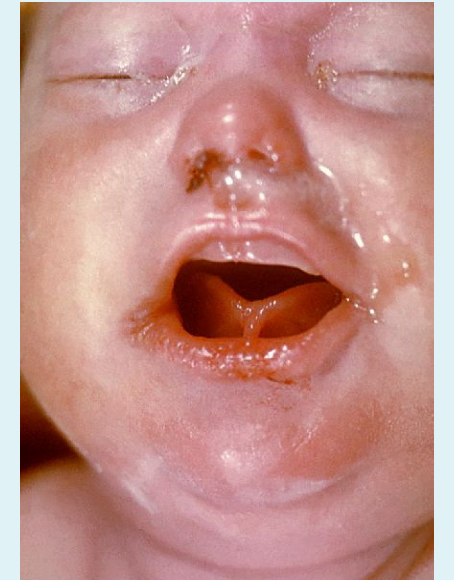
- Neurosyphilis manifestations can include:
 - Hearing related - very sudden **hearing loss**, ringing in the ears, **vertigo**
 - Eyesight related - blurring vision, double vision, missing vision, **sharp eye pain at the back of the eye**
 - Mentally related - headache that will not go away with medication, **stroke-like symptoms, sudden confusion**
- If not treated properly, neurosyphilis can **permanently damage the eyes, ears, or brain**



Congenital Syphilis

When a pregnant person passes syphilis to their unborn baby

- United States: 3,755 cases reported in 2022
- West Virginia: 13 cases reported in 2022
- Estimated 40% of pregnancies will result in miscarriage, stillbirth, or death soon after delivery
- **Transmission can occur during any stage of syphilis and during any trimester of pregnancy**
- **Can cause:**
 - Premature labor
 - Birth defects
 - Hutchinson's teeth
 - Osteochondritis
 - Developmental delays



What is HIV?

Human Immunodeficiency Virus

- HIV is a virus that replicates inside the human body, so it must invade a healthy cell in the body to survive
 - United States: approximately 32,100 new infections in 2021
 - West Virginia: 153 new infections reported in 2021
- HIV attacks specific cells of the immune system (CD4 cells or T cells)
- If left untreated, HIV will lead to Acquired Immunodeficiency Syndrome (AIDS), and ultimately death due to severe Opportunistic Infection (OI)
- There is no cure for HIV, but there are many treatment options available to prevent progression to AIDS

How is HIV Spread?

- **HIV is passed from person to person through the exchange of body fluids:**

- Blood
- Semen (includes pre-seminal fluid)
- Vaginal fluid
- Rectal fluid
- Breastmilk



- **The most common ways to contract HIV:**

- Unprotected sex (anal, vaginal, or oral) with People Living With HIV (PLWH)
- Blood to blood contact (such as sharing needles/works)
- Exposure to HIV before/during birth or through breastfeeding

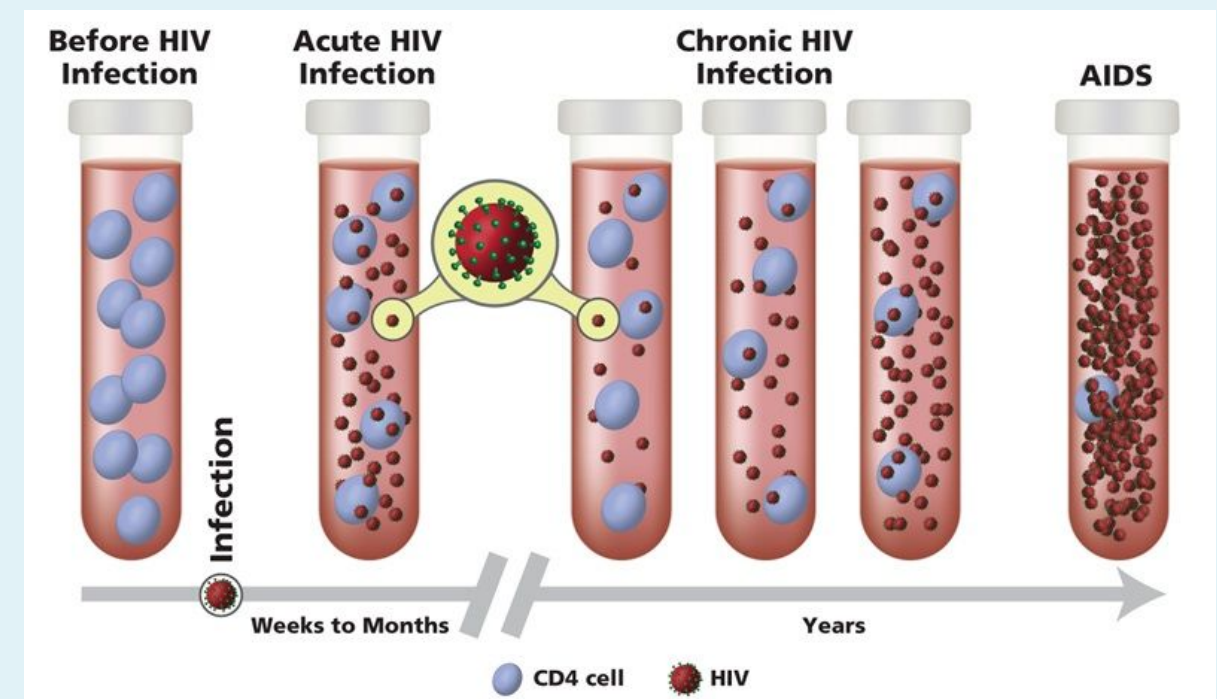
Progression of HIV to AIDS

HIV Stage 1: Acute Infection

- Symptoms vary from person to person, but some report having flu-like symptoms 2-4 weeks after exposure
 - Examples include: fever, chills, rash, night sweats, muscle aches, sore throat, fatigue, swollen lymph nodes, and mouth ulcers
- Approximately 1.2 million people were living with HIV in the United States at the end of 2021 (of those, only about 87% knew their status)

HIV Stage 2: Chronic Infection

- The virus is multiplying in the body
- No signs/symptoms, but the virus is still passed from person to person



Progression of HIV to AIDS (cont'd)

HIV Stage 3: AIDS

- Without treatment, the virus will attack and weaken the immune system
- Common symptoms often can be related to other illnesses
 - Examples include rapid weight loss, recurring fever or night sweats, extreme fatigue, prolonged swelling of lymph glands in armpits/groin/neck, sores of the mouth/anus/genitals, diarrhea, pneumonia, etc.
- Diagnosed when CD4 count is less than 200 cells/mm³
- An estimated 50 million people have died from AIDS-related illnesses since the start of the epidemic



Protozoan parasite passed during sex (usually vaginal sex)

- Estimated more than two million infections in 2018 nationwide
 - Not a reportable disease, so exact prevalence is unknown
- Estimated 70% of infected people have no signs/symptoms
- **Possible symptoms** (can come and go):
 - Itching, burning, redness or soreness of the genitals
 - Burning with urination or ejaculation
 - Thin discharge (can be clear, white, yellowish, or greenish)
 - Can produce unusual or foul smell
- Infection usually occurs in the **lower genital tract** (vulva, vagina, penis or urethra)
- Greatly increases the risk of getting or spreading other STIs



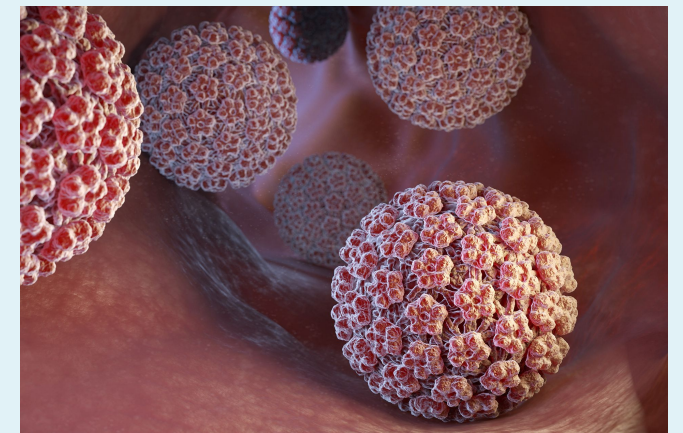
Herpes Simplex Virus (HSV-1 and HSV-2)

- **How is it Spread?**
 - Vaginal, oral, anal sex, OR skin-to-skin contact with someone who has the virus
- **Symptoms:**
 - One or more blisters on/around the genitals, rectum, or mouth
 - Blisters break & leave painful sores that take weeks to heal
 - Symptoms often referred to as “having an outbreak”
 - Usually characterized by no or very mild symptoms
- **There is NO CURE for genital herpes**
- Not a reportable disease, so prevalence is unknown
 - Estimated one in eight people aged 14-49 years are infected
- Many have HSV and do not know it, because they never had symptoms



Human Papillomavirus (HPV)

- Mainly transmitted through vaginal and anal sex, but can also occur through oral sex and regular skin-to-skin contact
- **Most** people with HPV **do not know** they are infected and never develop symptoms or health problems
- Vaccines are available to help prevent specific strains
 - Recommended for males and females ages 9-45
- **There is no treatment for HPV, but there are treatments for the health problems that HPV causes:**
 - Genital warts
 - Cervical pre-cancer
 - Other HPV-related cancers
- **HPV is not a reportable disease, but it is common**
 - Estimated 80% sexually-active men/women will get at least one type of HPV at some point in their lives



Hepatitis means “inflammation of the liver”

- Most common types are A, B, and C (D and E also possible)

	Hepatitis A	Hepatitis B	Hepatitis C
How is it spread?	Person ingests <u>infected fecal matter</u> from contact with contaminated objects/food, or possibly through anal sex	<u>Blood, semen, or other body fluids</u> from a person with the virus enters the body of a non-infected person	<u>Blood</u> from a person infected with the virus enters the body of a non-infected person
How long does it last?	A few weeks to several months	Mild illness (a few weeks) but results in lifelong or chronic condition	Mild illness (a few weeks) but results in lifelong

Hepatitis A, B, and C

Hepatitis A Virus (HAV)

- Vaccine available and recommended starting at age one
- More common in countries without modern sanitation
- Estimated 11,500 new infections in 2021 nationwide
- 43 acute HAV cases reported in West Virginia in 2021

Hepatitis B Virus (HBV)

- Vaccine available and recommended at birth (or anytime after)
- The leading cause of liver cancer
- Estimated 13,300 new infections in 2021 nationwide
 - Estimated 640,000 adults living with chronic HBV in the United States
- 413 acute/chronic HBV cases reported in West Virginia in 2021

Hepatitis C Virus (HCV)

- Medication to cure is now available, but currently no vaccine
- Leading cause of liver transplants
- Estimated 69,800 new infections in 2021 nationwide
 - Estimated 2.2 million adults living with HCV in the United States
- 4,888 acute/chronic HCV cases reported in West Virginia in 2021

How can someone reduce their risk of getting an STI?

No Risk:

- Abstinence from sex
- Abstinence from injection drugs
- Mutual monogamy w/ partner who has tested negative

Reduced Risk:

- Protected sex “correctly and consistently”
- Fewer sexual partners
- Never sharing needles or “works”
- Take medication to prevent new infection
- Regular HIV/STI testing

External (Male) Condoms

- Often referred to as “rubbers”
- More than 98% effective when used correctly and consistently
- Condoms come in a variety of shapes, sizes, colors, flavors, etc.
- Condoms can be made of different materials
 - Latex: Most common and most effective
 - Non-Latex: Polyurethane or polyisoprene options (for those with latex allergy)
 - Natural Membrane: Lambskin (does not protect against HIV/STIs)





Condom Tricks and Tips

Do:

- Keep condoms in a cool, dry place
- Put condom on an erect/hard penis before genital contact
- Hold the condom in place at the base of the penis before withdrawing (pulling out)
- Throw the condom away after use
 - Wrap in a tissue so animals and/or children do not mess with it
 - Avoid flushing condoms which cause plumbing problems
- Use lubrication to reduce potential tears
 - Water-based or silicone-based lube (apply as often as needed)

Condoms
External / male condoms



- 1 Check the expiration date. Carefully tear open one end of the condom package.
- 2 Make sure the condom is placed rolled side out.
- 3 Place the unrolled condom on the head or tip of the erect penis. Leave 1/4 inch of room at the tip.
- 4 Squeeze the air out of the top to form an empty nipple to collect the sperm.
- 5 Unroll the condom all the way to the base of the penis.

Condom Tricks and Tips (cont'd)

Do Not:

- Reuse condoms
- Use more than one condom at a time ('double wrapping')
- Use expired condoms
- Unroll the condom prior to use
- Expose condoms to hot or cold temperatures (wallet, car, etc.)
- Use oil-based products with latex condoms
 - Oil-based lube, baby/cooking oil, lotion, Vaseline, coconut oil, etc.
- Use your fingernails, scissors, or teeth to open the wrapper



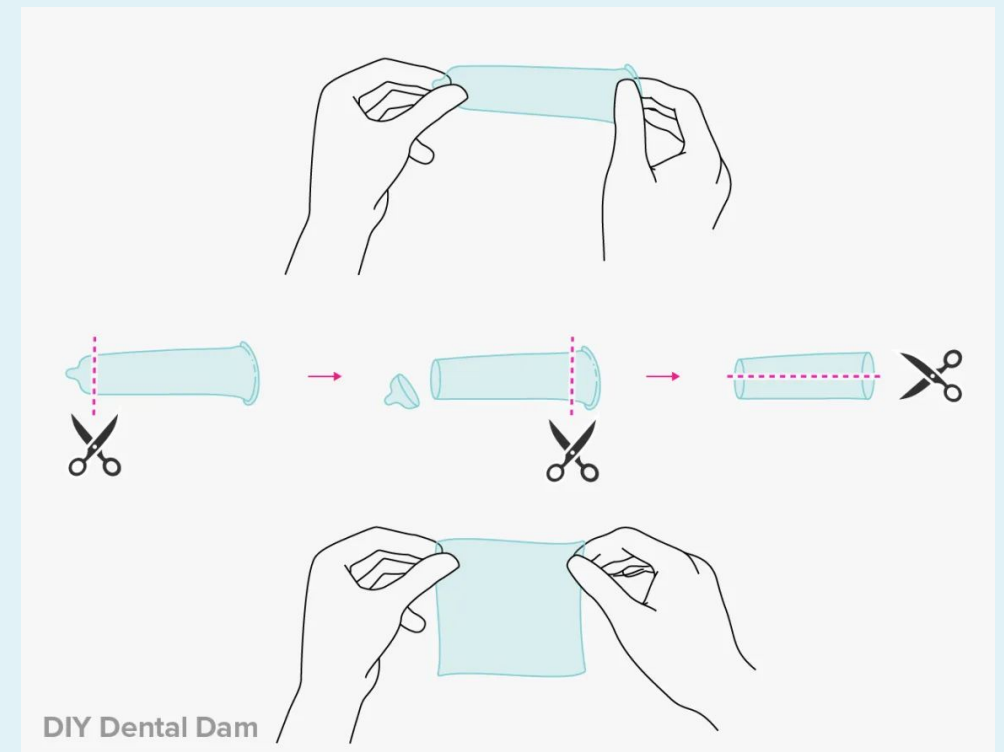
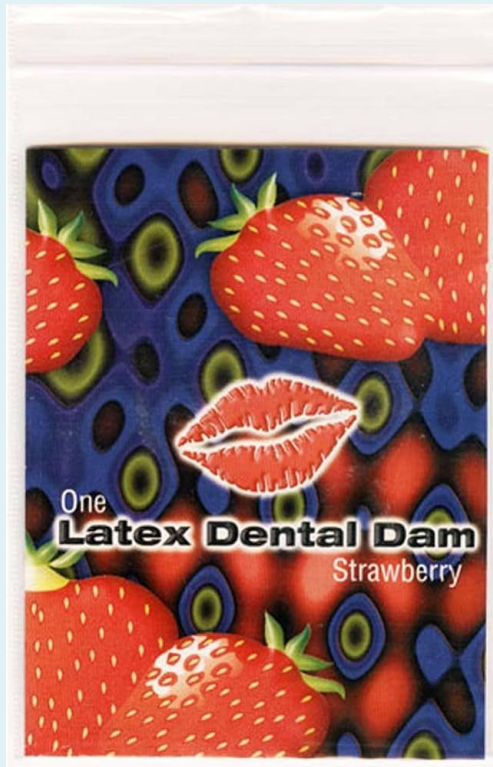
Internal (Female) Condom

- Worn inside the vagina or anus
- Thicker, more tear-resistant
- Always latex-free (more expensive)
- Wider opening covers more of the external area
 - Better protection against HSV, HPV, syphilis, etc.
- Can be inserted up to 24 hours prior to sexual activity



Dental Dams

- Thin, square pieces of latex (usually flavored)
- Used for oral sex (on a vagina or anus)
- Can make your own dental dam (from a condom, latex glove, or non-microwavable plastic wrap)
- One-time use only, and one-side use only



Pre-Exposure Prophylaxis (PrEP) for HIV

- If taken regularly, can stop HIV from replicating in the body
 - Is not prescribed for people who are HIV-positive
- Prescribed for HIV-negative people at ongoing risk for HIV
- Currently available in two forms:
 - A once daily pill
 - An injection that lasts for 1-2 months

Doxycycline for Pre-Exposure Prophylaxis (DoxyPEP)

- Reduces infection of chlamydia, gonorrhea, and syphilis
 - Should not be taken for any other infections
- Oral pill taken within 24-72 of unprotected sex
 - Only one dose needed per day when sexually active
 - Do not need to take when not sexually active
- Currently only approved for cisgender men and transgender women

Get Yourself Tested

Everyone ages 13-64 should get tested at least once, and more often if in a high-risk category

- Sexually active - *every 12 months*
- Partner with an STI - *immediately*
- Men who have sex with men (MSM) - *every 3-6 months*
- People who inject drugs (PWID) - *every 3-6 months*
- Survival Sex - *every 3-6 months*
- Pregnancy - *during first and third trimester (or more)*



Find testing near you

- gettested.cdc.gov
- stdcheck.com
- gytnow.org

Youth bear disproportionate share of STIs

Americans ages 15-24 make up just **27%** of the sexually active population

But account for **50%** of the **20M** new **STIs** in the U.S. each year



Resources

www.cdc.gov

www.oeps.wv.gov/std

www.hiv.gov

www.healthfinder.gov

www.sexetc.org

www.gytnow.org

www.stophiv.org

www.asexualhealth.org

www.iwannaknow.org

www.nakedtruth.org

Contact Information



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