

## Sexually Transmitted Diseases (STDs)

Wyoming Department of Health
Communicable Diseases
307-777-8939

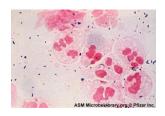
# Wyoming Department of Health Commit to your health.

## STDs

- •STDs are transmitted through all forms of unprotected sex:
  - •Oral
  - Vaginal
  - •Anal
- •Some STDs can be transmitted through blood to blood contact and from mother to child
- •More than **\$6 billion** is spent each year to diagnose and treat STDs and their complications-not including HIV
- •1 in 2 sexually active individuals will get an STD by age 25, most won't know it...
- •Under 50% of adults age 18-44 have ever been tested for an STD other than HIV



## STDs



#### **Bacterial**

- ${ullet}$  Chlamydia
- ${}^{\bullet}Gonorrhea$ 
  - $\bullet$ Syphilis



#### <u>Viral</u>

- •Viral Hepatitis
- •Genital Herpes
  - $\bullet HPV$
  - •HIV/AIDS



#### **Other**

- •Trichomoniasis
  - •Pubic Lice

ullet This presentation will focus on all reportable STD infections

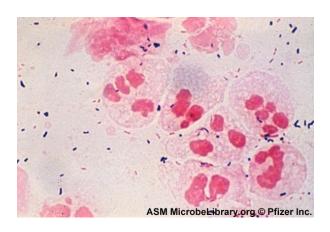


# Chlamydia



# What is Chlamydia?

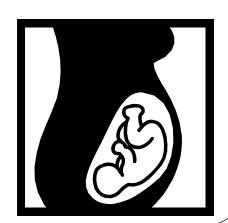
- •A bacterial infection caused by *Chlamydia trachomatis*
- •It is transmitted through unprotected sex:
  - •Oral
  - •Anal
  - Vaginal
- •Can also infect the eyes
- •Can be transmitted from a mother to an infant during delivery causing an eye infection called Ophthalmic Chlamydia, and some forms of pneumonia





# Symptoms

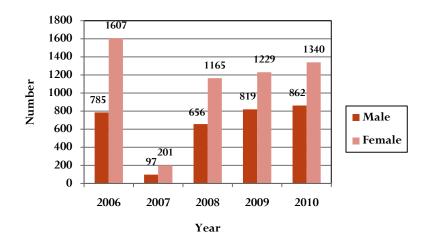
- •75% of women and 50% of men do not show any symptoms!
  - •Symptoms may include:
    - •Discharge
    - •Painful Urination
    - •Abdominal Pain
    - Pain During Sex
    - •Pelvic Pain
    - •Swollen Testicles
    - •And more...
  - •If untreated Chlamydia can lead to:
    - •Pelvic Inflammatory Disease (PID)
    - Infertility
    - •Ectopic Pregnancy
    - •Urethritis
    - •Epididymitis





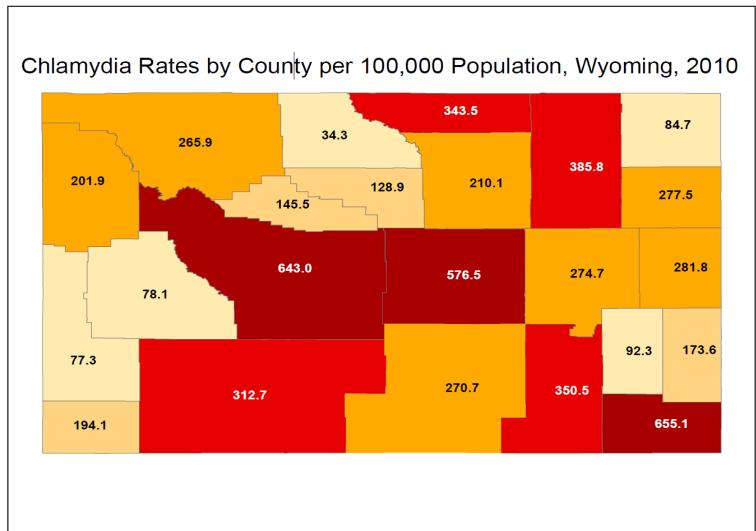
### **Statistics**

- •Chlamydia is Wyoming's most prevalent reportable infection
- •The majority of cases are in individuals aged 15-24 years
- •Women account for more cases than men because women are targeted for screening
- •WY has the 26<sup>th</sup> highest rate of chlamydia in the US!
- •In 2010, 2202 cases of Chlamydia were reported in the state of Wyoming.
  - •The number of Chlamydia cases has been increasing since 2007





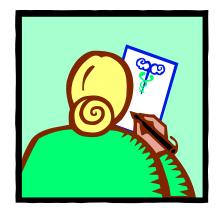
#### **Statistics**







- •Getting tested for Chlamydia is the only way to know your status for sure
- •Tests can be performed by:
  - •Urine sample
  - •Vaginal swab (self-collected or collected by a provider)
- •Testing can be performed at:
  - •Family Planning Clinics
  - •Public Health Nursing Offices
  - •STD Clinics
  - •Private Physicians' Office
  - •Hospitals
- •Chlamydia test results are often available within a few days
- •FREE STD/HIV testing vouchers and testing sites can be found at knowyo.org







#### Treatment

- •Chlamydia is treated with antibiotics
  - •Azithromycin
  - Doxycycline
  - •Amoxicillin

#### •EPT:

- •Is a method of prevention in which the infected patient is given medication to give to their sexual partners
- •Has been established as an effective means of treating partners who would otherwise not seek testing/treatment
- •Is a recommended practice of the CDC (For more information visit <a href="http://www.cdc.gov/std/ept/">http://www.cdc.gov/std/ept/</a>)





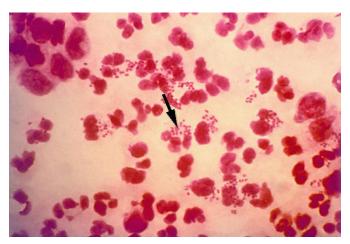
# Gonorrhea



## What is Gonorrhea?

A bacterial infection caused by Neisseria gonorrhoeae

- •It is transmitted through unprotected sex:
  - •Oral
  - Anal
  - $\bullet$ Vaginal
- •Can also infect the eyes
- •Can be transmitted from a mother to an infant during delivery causing an eye infection that can lead to blindness
- •Some strands are <u>drug-resistant</u>



http://textbookofbacteriology.net/pathogenesis\_3.htm



# Symptoms

Symptoms for gonorrhea tend to be more severe than chlamydia, though many women can be asymptomatic.

- •Symptoms include:
  - •Greenish-colored discharge
  - •Odor
  - •Penile Pain
  - Pain during urination
  - •Pain during sex
  - •Swollen testicles
- •If untreated gonorrhea can lead to:
  - •Pelvic Inflammatory Disease (PID)
  - •Infertility
  - •Epididymitis

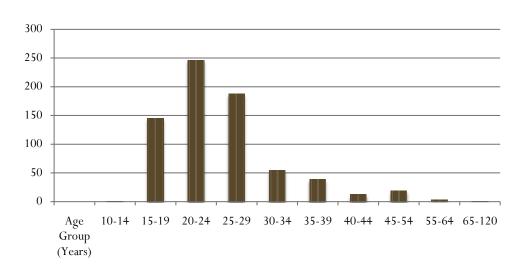




### **Statistics**

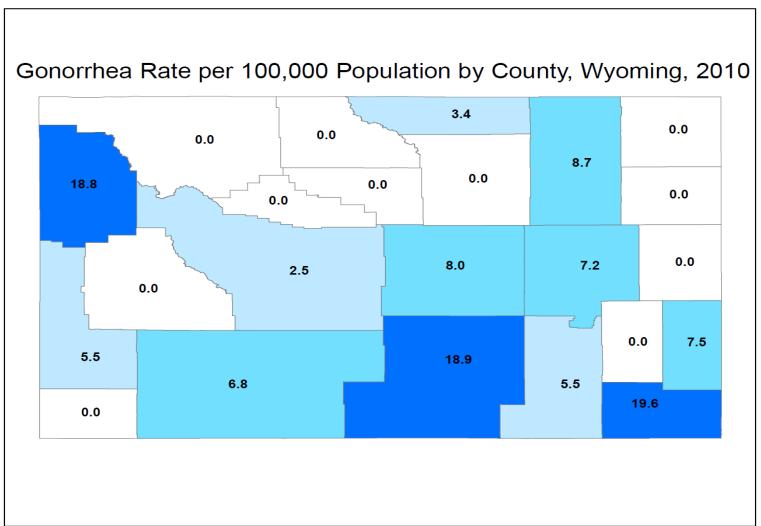
Individuals aged 15-29 accounted for most gonorrhea cases in Wyoming from 2005-2010.

## Gonorrhea Cases by Age Group, Wyoming, 2005-2010





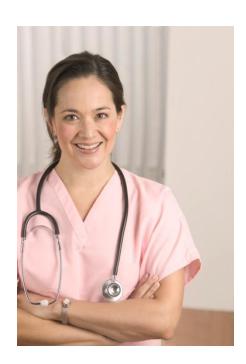
## Statistics





# Testing

- •Getting tested for gonorrhea is the only way to know your status for sure
- •Tests can be performed by:
  - •Urine sample
  - •Vaginal swab (self-collected or collected by a provider)
- •Testing can be performed at:
  - •Family Planning Clinics
  - •Public Health Nursing Offices
  - •STD Clinics
  - •Private Physicians' Office
  - •Hospitals
- •Gonorrhea test results are often available within a few days



•FREE STD/HIV testing vouchers can be found at





# Drug-Resistant Gonorrhea

- •Drug-resistant gonorrhea infection is a growing public health concern
- •In an effort to prevent drug-resistant gonorrhea, dual therapy is recommended for treatment
- •Treatment of gonorrhea relies on the effectiveness of antibiotics
- •If treatment for gonorrhea infection fails, it should be reported to Wyoming Department of Health
- •Gonorrhea cultures should be done in the event a drug-resistant strain is suspected





#### Treatment

- •Gonorrhea can be cured by dual antibiotic therapy which includes ceftriaxone and azithromycin or doxycycline
- •Gonorrhea is often treated with a shot of antibiotics (Ceftriaxone)
- •It is important to abstain from sex while you are taking your medication and for 7 days after completing the medication
- •In some cases, your provider may be able to give expedited partner therapy (EPT) to treat your partners



# Screening Recommendations for Chlamydia and Gonorrhea



- •All sexually active women under age 25
- •Women age 25 and older with one or more of the following:
  - •New sex partner in the last 60 days.
  - •Multiple sex partners in the last 60 days.
  - •MPC
  - Cervical friability
  - •PID
  - •Positive for chlamydia or gonorrhea in the last 12 months



# Prevention of Chlamydia and Gonorrhea Infection



- •The only way to protect against any STD 100% is abstinence
- •Condoms
- •Female Condoms
- Dental Dams
- •Reducing the number of sex partners
- •Knowing your partner's status
- •Knowing your own status for all STDs
- •Prevention materials can be found free of charge at Family Planning Clinics and Public Health Nursing offices.





# Syphilis





- •A bacterial infection caused by *Treponema pallidum*
- •Transmitted through unprotected:
  - •Anal Sex
  - •Oral Sex
  - •Vaginal Sex
  - •Mother to child during childbirth
- •Can also be transmitted through skin to skin contact!
- •Multiple Stages
  - Primary
  - •Secondary-results from untreated primary
  - •Late/Latent-results from untreated infection





# Symptoms

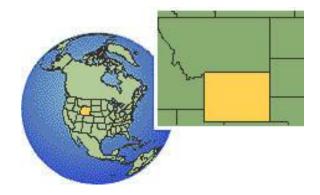
- Primary Syphilis
  - •A single Chancre that appears 10-90 days after infection
    - Painless
    - •May be hard to see (on the vaginal wall, in the mouth)
    - •Lasts for 3-6 weeks
    - •Heals without treatment
- Secondary Syphilis
  - •Rash on the palms of the hands or bottoms of the feet
    - •Rash is typically red or reddish-brown and rough
    - •Can be faint and not noticed
    - •Can develop while the chancre is healing or several weeks after
    - •Does not itch
  - •Fever, headache, swollen glands, sore throat, and patchy hair loss
- •Latent Syphilis
  - •Can last for years
  - •Occurs in 15% of people with untreated primary and secondary syphilis infections
  - •Difficulty coordinating muscle movement, dementia, paralysis & blindness
  - •Causes damage to organs such as the brain, eyes, heart, bones & joints





## **Statistics**

- •In the US, 13,997 cases of Syphilis were reported corresponding to a case rate of 4.6 cases per 100,000 population.
- In 2009 the rate of Syphilis in Wyoming was 0.6 per 100,000 population<sup>4</sup>.





# Screening Recommendations

- •Testing is recommended for
  - •Any individual who is symptomatic
  - •All pregnant women
  - •All individuals who are at increased risk of syphilis infection
- •Routine screening is not recommended for asymptomatic individuals who are not at increased risk of infection





### Prevention

- •Condoms- when they cover the affected area
  - •If the condom does not cover the affected area (chancre) it is best to not engage in sex
- •Know your partner
  - •If you believe your partner may be infected, do not engage in sex
- •Check for any sores or chancres in the mouth, vagina, anus, and on the genitals
- •If you believe you may have been infected or have symptoms, get tested





# Testing

- •Blood Tests
  - •Intravenous blood draw
- Dark Field Microscopy
  - •Only done when Chancre is present
  - •Chancre is cleaned and swabed
  - •Swabed contents collected on glass slide and evaluated under the microscope
  - •Test is limited to the ability of the individual reading the slide
  - •Blood tests should always be done to confirm or deny diganosis









- •A shot of penicillin for individuals with syphilis for less than 1 year
- •Additional doses for individuals with syphilis for more than 1 year
- •Other antibiotics can be used for individuals who are allergic to penicillin





# Other STDs



## Other STDs

#### **Genital Herpes**:

- •Caused by Herpes Simplex Virus 1 or 2
- •There is no cure for genital herpes
- •Symptoms:
  - •Sores or blisters around the genitals or rectum that last 2-4 weeks
  - •No symptoms if there is no current outbreak
  - •Typically, an infected individual will have 4 to 5 outbreaks a year
- •1 out of 6 individuals aged 14-49 is estimated to have genital herpes
- Testing/Diagnosis
  - •Genital herpes can be detected through visual examination and swab of the sores/blisters
  - •Blood tests can be use if there is no current outbreak
- Treatment
  - •Antiviral medications can help reduce the number and lengthen the duration of outbreaks
- Prevention
  - •Correct and consistent condom use when no sores are present
  - •When sores are present, do not engage in sex
  - •Antivirals may also help reduce transmission of the virus to partners
- •Genital Herpes is <u>not</u> a reportable condition in Wyoming.





#### **Human Papillomavirus (HPV)**

- •Most common STD in the US
- •More than 40 different variations of the virus
- Symptoms:
  - •No symptoms
  - •Genital Warts
  - •Warts in the throat
  - •Cancer of the Cervix, Vulva, Vagina, Penis, Anus and Oropharynx
- •50% of sexually active men and women will get HPV at least once in their lifetime
- •Testing/Diagnosis
  - •There is not standard test for HPV in men or women
  - •HPV can be detected through an abnormal or atypical pap smear
- Treatment
  - •There is not treatment for the virus
  - •Treatments are provided for the diseases HPV can cause
- Prevention
  - Consistent and Correct condom use
- Vaccination
  - •Gardasil is recommended for all women AND men age 9-26 and protects against 4 strains of HPV that cause the majority of cervical cancers and genital warts
- •HPV is not a reportable disease in Wyoming







#### **Trichomoniasis**

- •A curable infection caused by a single-celled protozoan parasite called *Trichomonas vaginalis*
- •Most commonly found in the Vagina for females and Urethra for males
- •Symptoms
  - •No symptoms
  - •Irritation
  - •Discharge
  - •Burning after urination
- ullet7.4 million women are infected with Trichomoniasis in the US each year
- •Testing/Diagnosis
  - •Laboratory Test
- •Treatment
  - •Metronidazole
  - •Tinidazole
- Prevention
  - •Abstinence
  - •Consistent and Correct condom use
  - •Know your and your partner's STD status
- •Trichomoniasis is <u>not</u> a reportable infection in Wyoming





## Other STDs

#### Pubic Lice "Crabs"

- •Parasitic insects found on the genital area of humans spread through sexual contact
- Symptoms
  - •Itching in the genital area
  - •Visible lice eggs or lice in the pubic hair
- •Diagnosis
  - •Finding lice in the pubic area
- •Treatment
  - •Pubic lice can be treated with a lice-killing lotion
- Prevention
  - •Do not have sex with an infected person
  - Wash bedding and clothing
  - Do not share clothing
  - •Get examined if you believe you have come in contact with pubic lice
- •Pubic lice is **NOT** a reportable condition in Wyoming





## References

Center for Disease Control and Prevention. (2011, November 17). Sexually Transmitted Diseases. www.cdc.gov/std