

Sexually Transmitted Diseases (STDs)

Wyoming Department of Health
Communicable Diseases
307-777-8939

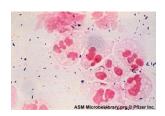
Wyoming Department of Health Commit to your health.

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

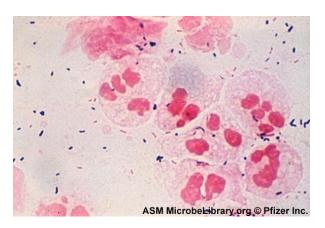


Chlamydia



What is Chlamydia?

- •A bacterial infection caused by *Chlamydia trachomatis*
- •It is transmitted through unprotected sex:
 - •Oral
 - Anal
 - Vaginal
- •Incubation period is 7-21 days
- •Re-infection is common
- Highly Transmissible
- •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
 - •Mother to child transmission results in conjunctivitis for 30%-50% of exposed babies





Symptoms

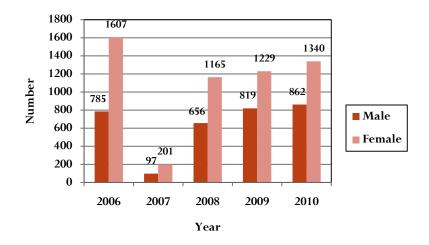
- •75% of women and 50% of men do not show any symptoms!
- •Symptoms may include:
 - •Discharge
 - •Painful Urination
 - •Abdominal Pain
 - Pain During Sex
 - •Pelvic Pain
 - •And more...

- •If untreated Chlamydia can lead to:
 - •Pelvic Inflammatory Disease (PID)
 - •Infertility
 - Ectopic Pregnancy
 - •Urethritis
 - •Epididymitis
 - Perihepatitis
 - •Reiter's syndrome



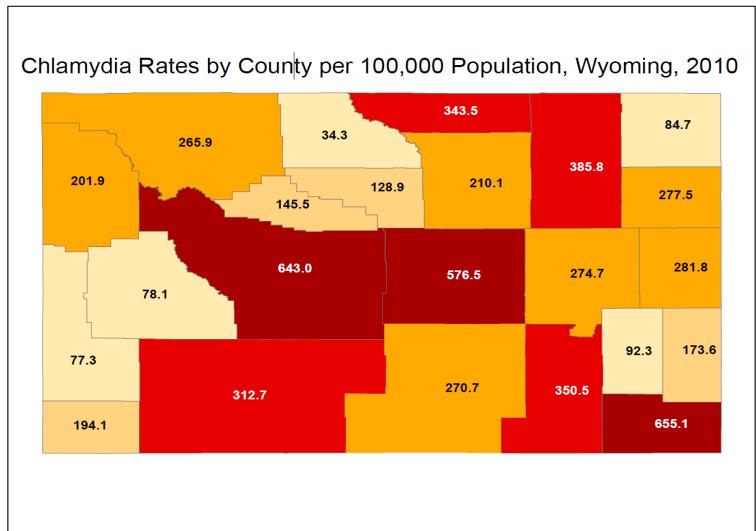
Statistics

- •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 screening is targeted at females
- ullet Though Wyoming is the 50th state in terms of population, WY has the 26th 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





Screening Recommendations

- •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 in the last 12 months



Prevention

- The only way to protect against any STD 100% is abstinence
- •Condoms
- •Female Condoms
- Dental Dams
- ulletReducing 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.



Testing



- Testing
 - •Culture
 - •Non-culture
 - •Nucleic Acid Amplification Tests (NAATs)*
 - •Detect DNA or RNA of specific organism
 - •Significantly more sensitive than cultures
- •NAAT Tests are FDA recommended to be performed with:
 - •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



Treatment

- •Chlamydia is treated with antibiotics
 - •Azithromycin- recommended
 - •1 g orally, single dose
 - Doxycycline
 - Amoxicillin
- •For the 2010Treatment guidelines go to http://www.cdc.gov/std/treatment/
- •Sexual Partners are encouraged to get tested
- •EPT:
 - •Is a method of prevention in which the infected patient is given medication to give to the 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 on EPT visit http://www.cdc.gov/std/ept/







- •Repeat testing is recommended for:
 - •Non-pregnant women
 - •Non-compliance
 - •Suspect re-infection
 - •Symptoms remain
 - •3-4 months after treatment
 - •Re-infection can increase the risk of PID
 - •Pregnant women
 - •Re-test 3 weeks after medication is completed





Reporting

- •Chlamydia is reportable in the state of Wyoming within 24 hours of diagnosis by **both**
 - •The laboratory
 - •The provider
- •Providers are encouraged to utilize **PRISM** for reporting
 - •PRISM- a data system used to store, analyze, and track STD data
 - •For more information contact Julie Tarbuck at 307-777-7953 or julie.tarbuck@wyo.gov
- •If the use of PRISM is not feasible, providers should report using the ECDR
 - •https://prismdata.health.wyo.gov/





Gonorrhea



What is Gonorrhea?

A bacterial infection caused by Neisseria gonorrhoeae

- •It is transmitted through unprotected sex:
 - •Oral
 - Anal
 - •Vaginal
- •Can also infect the eyes (Gonococcal Ophthalmia)
- •Can be transmitted from a mother to an infant during delivery causing an eye infection that can lead to blindness
- •Gonorrhea infection has been associated with an increased susceptibility to and increased risk of transmission of HIV
- •Some strands are <u>drug-resistant</u>
 - •20% of isolates are resistant to penicillin, tetracycline, or both
 - •3% of isolates have decreased susceptibility to azithromycin



Symptoms

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

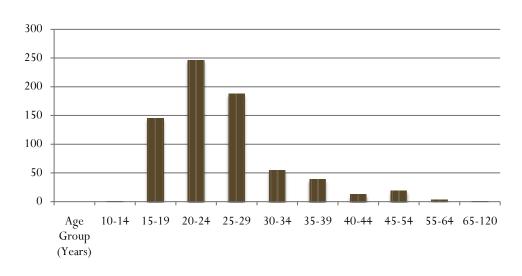
- •Symptoms include:
 - •Greenish-colored discharge
 - •Odor
 - •Penile Pain
 - Pain during urination
 - •Pain during sex
 - •Swollen testicles
- •If untreated gonorrhea can lead to:
 - •Pelvic Inflammatory Disease (PID)
 - Infertility
 - •Epididymitis



Statistics

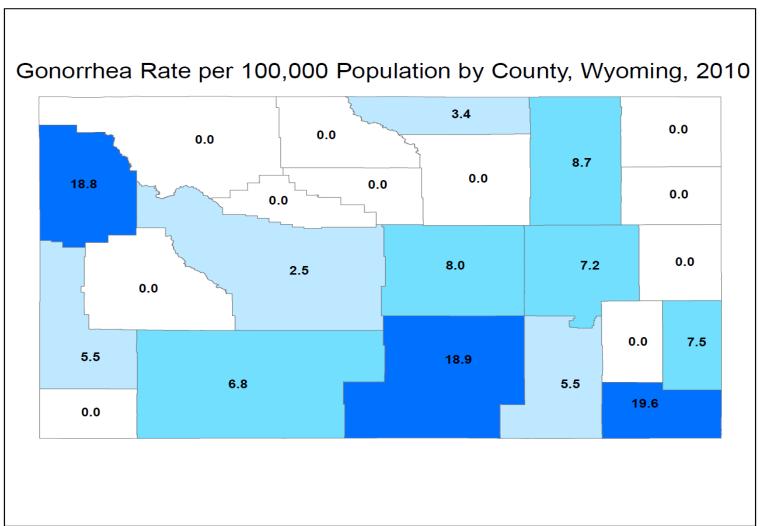
Individuals aged 15-29 accounted for most gonorrhea cases in Wyoming from 2005-2010.

Gonorrhea Cases by Age Group, Wyoming, 2005-2010





Statistics







- •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 gonorrhea in the last 12 months







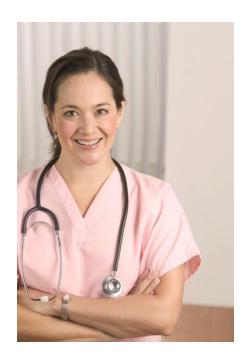
- •The only way to protect against any STD 100% is abstinence
- •Condoms
- •Female Condoms
- Dental Dams
- •Reducing the number of sex partners
- •Knowing your partner's status
- •Knowing your own status for all STDs
- •Prevention materials can be found free of charge at Family Planning Clinics and Public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





Testing

- •Getting tested for gonorrhea is the only way to know your patient's status for sure
- •Tests can be performed using by NAAT with:
 - •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





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 a dual antibiotic therapy of ceftriaxone and azithromycin or doxycycline
- •It is important the patient abstains from sex while taking the medication and for 7 days after completing the medication
- •In some cases, expedited partner therapy (EPT) can be used to treat sexual partners who would otherwise not seek care
- •If symptoms persist or re-infection is suspected, a re-test should be done 3 months after treatment





Reporting

- •Gonorrhea must be reported to the Wyoming Department of health within 24 hours of diagnosis by **both** of the following:
 - •Laboratories
 - Providers
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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

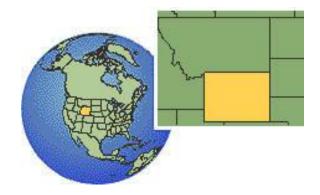
- Primary Syphilis
 - •A single Chancre that appears 10-90 days after infection
 - Painless
 - •May be hard to see (on the vaginal wall, in the mouth)
 - •Lasts for 3-6 weeks
 - •Heals without treatment
- Secondary Syphilis
 - •Rash on the palms of the hands or bottoms of the feet
 - •Rash is typically 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 population⁴.





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, anus, vagina, or on the genitals
- •If you believe you may have been infected or have symptoms, get tested





Testing

- •Blood Tests
 - •RPR (Rapid Plasma Reagin)-will need a confirmation
 - •EIA (Enzyme Immuno Assay) -confirmatory test
- Possible scenarios
 - <u>Positive RPR</u>, <u>Negative EIA</u>-Patient is most likely not infected
 - Positive RPR, Positive EIA Patient is infected
 - <u>Negative RPR</u>, <u>Negative EIA</u>-Patient is not infected (can't rule out recent infection)
 - <u>Negative RPR, Positive EIA</u>-Patient has previously been infected and treated
- •All individuals who are positive for syphilis should be tested for HIV







- •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





Reporting

- •Syphilis is a reportable disease in Wyoming in which the following have to report within 24 hours of diagnosis:
 - •Laboratories
 - Physicians
- •Providers are encouraged to utilize **PRISM** for reporting
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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 <u>not</u> 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