

SEXUALLY TRANSMITTED DISEASE PREVENTION PROGRAM MANUAL

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Sexually Transmitted Disease Prevention Program

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UTAH DEPARTMENT OF
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INTRODUCTION

The Sexually Transmitted Disease (STD) Prevention Program at the Utah Department of Health (UDOH) in partnership with local health departments (LHDs) and health care providers is responsible for the implementation of the [Utah Administrative Code Communicable Disease Rule \(R386-702\)](#), which outlines a multidisciplinary approach to communicable and infectious disease control. The purpose of this rule is to focus the efforts of STD control on disease elimination.

While Utah is considered a low incidence state nationally, the burden of identifying, interviewing, and treating STDs remains significant. STD morbidity is fairly concentrated in the Wasatch Front urban area of the state. While urban areas experience STDs more frequently, rural areas may not have sufficient capacity and capital to address cases in their area. Cases among men who have sex with men (MSM) continue to account for the majority of cases in Utah.

Through technical assistance and capacity building, the program works closely with local health departments (LHDs) throughout the 13 health districts in Utah to provide resources and expertise to ensure that individuals with STD diagnoses are interviewed and treated. The Program continues to support the Utah Public Health Laboratory (UPHL) in order to strengthen capacity and to provide timely and reliable STD laboratory services.

This manual describes policies, protocols, and recommendations for the State of Utah. The protocols cover common as well as complex issues that arise in the control of STDs. These protocols are based on recommendations of the Centers for Disease Control and Prevention (CDC) and the opinions of local and national experts in STD diagnosis, treatment, and control. Clinicians are strongly encouraged to seek consultation for issues related to individual cases that may not be fully discussed in this manual.

UTAH'S STD EPIDEMIC

Utah is made up of 13 health jurisdictions. The urban jurisdictions are along the Wasatch Front, which consist of Davis County, Salt Lake County, Utah County, and Weber/Morgan Counties. This area is where the majority of Utah's population resides.

Of the more than 75 Utah reportable communicable diseases, chlamydia was the most frequently reported disease in 2016 with 9,459 cases; and gonorrhea was third with 2,100 cases. STDs in Utah have consistently increased over the past 10 years. These two infections along with syphilis make up the big three STDs in Utah.

Chlamydia

Chlamydia trachomatis (CT) infections continue to be the most frequently reported communicable disease in both Utah and the United States. In 2016, 9,459 cases of chlamydia were reported in Utah. Between 2007 and 2016, Utah's chlamydia rate was 59% of the United States (U.S.) rate. Utah's chlamydia rate increased 40.8% from 220.1 cases per 100,000 population in 2007 to 310.0 cases per 100,000 population in 2016. The increase in chlamydia rates may be an actual increase in disease trends or due to increased screening efforts, use of increasingly sensitive diagnostic tests, increased reporting by providers and laboratories, and/or improved information systems for reporting.

Over the past 10 years, chlamydia rates in Utah females have averaged twice that of males in Utah; most likely a result of higher rates of screening in women for this usually asymptomatic infection. Females with chlamydial infection are at risk for developing pelvic inflammatory disease (PID), and both men and women may become infertile as a result of untreated chlamydial infections. Susceptibility to more serious infections, such as the human immunodeficiency virus (HIV), increases when an individual is infected with chlamydia. In addition, pregnant women with chlamydia can pass the infection to their infants during delivery, potentially resulting in pneumonia or neonatal ophthalmia.

During the 2007-2016 time period in Utah, chlamydia rates increased in all age groups between 15-64 years of age with rate increases ranging from 27% in the 15 to 19 year old age group to more than 250% in all age groups between 45-64 years of age. Although the rates in older adults are not as high as in younger age groups, this demonstrates the need to target prevention messages to a wide range of age groups.

In 2016, the highest chlamydia rates among the major racial and ethnic groups in Utah were reported among non-Hispanic blacks (1,307.2 cases per 100,000 population) and Pacific Islanders (770.6 cases per 100,000 population), followed by Hispanics and American Indian/Alaska Natives (554.9 and 522.8 cases per 100,000 population, respectively). In comparison, rates among non-Hispanic Whites were 223.4 cases per 100,000 population. These rates are disproportionate since the majority

of Utah's population is White, non-Hispanic. If looking at sheer numbers, the majority of the disease burden lies within the White, non-Hispanic population.

Gonorrhea

In 2016, 2,100 cases of *Neisseria gonorrhoeae* (GC) were reported in Utah. Gonorrhea was the third most frequently reported communicable disease in Utah and the second most reported disease in the U.S. Utah's gonorrhea rate has increased to 47.2% the U.S. rate in 2016. This is up from 9.5% the U.S. rate in 2011. Following a 40% increase of Utah's gonorrhea rate from 2004 to 2006, when the rate peaked at 35.2 cases per 100,000 population, Utah's gonorrhea rate decreased annually to the lowest rate reported of 9.8 in 2011. The rate increased to 68.8 cases per 100,000 population in 2016, an increase of 602% from the 2011 rate. Gonorrhea rates among males in Utah have consistently been higher than among females over the past 10 years.

Untreated gonorrhea infections can damage the reproductive system in both males and females. Females with gonorrhea infection are at risk for developing PID. Gonorrhea can spread to joints and become systemic (disseminated gonorrhea). Susceptibility to infections, such as HIV, increases in individuals infected with gonorrhea. Furthermore, pregnant women with gonorrhea can pass the infection to their infant during delivery, potentially resulting in ophthalmia neonatorum.

In 2016, the highest gonorrhea rate among the major racial and ethnic groups in Utah was reported among non-Hispanic Blacks (555.0 cases per 100,000 population), followed distantly by non-Hispanic Pacific Islanders, Hispanics, and non-Hispanic American Indians/Alaska Natives (130.7, 110.8, and 72.8 cases per 100,000 population, respectively). These rates are disproportionate since the majority of Utah's population is White, non-Hispanic. If looking at sheer numbers, the majority of the disease burden lies within the White, non-Hispanic population.

To address Utah's increasing gonorrhea case rate, the UDOH in conjunction with five LHDs, implemented an electronic gonorrhea outbreak investigation form utilizing Utah's integrated electronic surveillance system, UT-NEDSS.

The gonorrhea outbreak investigation form was implemented in April of 2014 and concluded in October of 2014. Additional interview questions gathered information regarding symptoms, health insurance status, student status, places sex partners were met, anonymous sex partners, drug and alcohol use, sex work, and the sex of partners.

Results from these analysis revealed that programmatic activities should be targeted to individuals who are known or suspected drug users and those who have been incarcerated or have had a sex partner who has been incarcerated in the past 12 months. Additional investigation is needed to further understand the rise in gonorrhea rates, but due to significant funding restraints, no further investigation has been conducted by the UDOH.

Syphilis

Syphilis is a complex sexually transmitted disease comprised of several stages throughout the duration of infection. The initial stage, primary syphilis, is characterized by a highly infectious, painless open sore at the site of infection called a chancre. Syphilis is passed from person to person through direct contact with the chancre. Sexual transmission can also occur during the secondary stage of syphilis during which there is widespread hematogenous spread of the organism throughout the body. An infant can acquire syphilis through the placenta if the mother is infected, and untreated syphilis in pregnant women may result in stillbirth and perinatal death. In later stages of the disease, the bacteria move throughout the body, damaging many organs over time. Significant complications typically occur when syphilis is untreated. Due to the open nature of the syphilitic sores, untreated syphilis facilitates the transmission of HIV.

The primary and secondary (P&S) stages of syphilis are considered to be the most infectious stages and are the focus of this report. In 2016, 93 cases of primary and secondary syphilis were reported in Utah compared with 66 cases in 2015. There was an average of 49 cases each year in the previous 10 years. The P&S syphilis rate in Utah in 2016 was 3.0 cases per 100,000 population.

P&S syphilis rates in males were significantly higher than in females throughout the past decade as reported in Utah. No cases of P&S syphilis were diagnosed among females in four of the past 10 years.

The highest P&S syphilis rates in Utah in 2016 were among men 50-54 years of age (15.9 cases per 100,000 population). P&S syphilis cases were reported in all age groups 15-59 years of age. This highlights the need to target prevention messages to a wide range of age groups.

Of the 93 cases of P&S syphilis reported in Utah in 2016, the breakdown among racial and ethnic groups was as follows: 67 cases (72.0%) were among non-Hispanic whites; 16 (17.2%) cases among Hispanics; and four cases (4.3%) were among non-Hispanic blacks, and one or two cases each among non-Hispanic Asians and non-Hispanic American Indian or Alaska Natives, non-Hispanic Pacific Islanders, and the other/unknown category. These rates are disproportionate since the majority of Utah's population is White, non-Hispanic. If looking at sheer numbers, the majority of the disease burden lies within the White, non-Hispanic population.

Since 2009, over 80% of the P&S cases in men have been among MSM. In 2016, 88.5% of P&S cases in men were among MSM. Co-morbidity data has shown that this population is adversely affected by HIV as well, suggesting the need for increased education for those who test positive for syphilis potentially keeping them HIV negative.

The following are of particular note:

- 2016 rates of chlamydia, gonorrhea, and P&S all represent 10-year highs.
- The majority of infections are reported along the more populous Wasatch Front:
 - 84% of chlamydia infections,
 - 92% of gonorrhea infections, and
 - 91% of P&S syphilis infections in 2016.
- Racial and ethnic minorities continue to shoulder a disproportionate burden of STDs in Utah.
- The rate of chlamydia has increased 41% since 2007 to a rate of 310 cases per 100,000 population.
- Almost two-thirds of the chlamydia cases reported in 2016 were among people aged 15-24 years of age.
- The rate of gonorrhea has increased 602% since 2009 (the lowest rate reported in the time frame).
- In 2016, 63% of gonorrhea cases were among people aged 20-34 years of age.
- The rate of syphilis has increased 275% since 2007 to a rate of 3 cases per 100,000 population.
- Since 2009, more than 80% of P&S cases in men have been among MSM.

To read the comprehensive Ten Year Surveillance Report, please visit http://health.utah.gov/epi/data/stdsurveillance/Utah_STD_Surv_Rpt.pdf.

UDOH GOALS

The STD Prevention Program lies within the Prevention, Treatment and Care Program (PTCP). The PTCP is in the Bureau of Epidemiology which is within the Disease Control and Prevention Division.

The primary roles of the STD Prevention Program are to offer technical assistance (TA) to providers, LHDs, and clinics across the state. The STD Prevention Coordinator navigates the majority of TA requests which typically consist of:

- Recommended or alternate treatment advice - There are recommended treatment guidelines from the CDC, but for those with allergies or contraindicated diseases or pregnancy, there are alternate treatments. These are communicated with LHD Disease Intervention Specialists (DIS) and providers as well.
- Morbidity reporting - LHDs contact the STD Prevention Coordinator needing assistance determining the jurisdiction in which a morbidity lies (i.e., the county/state counting the infection in their reports). Typically where someone lives at the time of testing determines morbidity, but some are tested out of state on vacation, living away for an extended period of time, or moving in the middle of treatment.
- Provider education - This consists of providers calling about staging syphilis infections, sending letters to those treating improperly, and less frequently, in-person educational presentations.
- Testing requirements - Some providers are unsure how to screen for specific STDs. Extra-genital screening, or screening in the throat and rectum, are often an overlooked area when testing for STDs. The CDC recommends getting tested where any exposure to sexual fluids takes place, or where there could be a skin-to-skin transfer.
- Screening guidelines - Enforcing CDCs Screening Guidelines is an important role for public health. Utah's conservative climate can hinder certain requirements due to unfamiliarity and discomfort of both the provider and patient.
- Staging of syphilis infections - Syphilis is a notoriously difficult infection to diagnose. Many DIS and providers call for help with staging and treatment. Advanced syphilis infections tend to be more complicated, but the Epidemiology Manager, and STD Epidemiologist are well versed in syphilis staging and are a reliable resource for our community.

The Program also provides training to LHD employees conducting disease investigations. This training includes in-depth modules created by the CDC, database system training, and circumstantial training. The Program is developing a statewide DIS training manual set to be released in 2019 which will include CDCs recommendations, needs of the state, and best practices for data management.

Disease plans created by the Program are instructions outlining the laboratory identification guidelines for each reportable infection. These can be found on UDOH's bureau website as follows:

- <http://health.utah.gov/epi/diseases/chlamydia/plan.pdf>
- <http://health.utah.gov/epi/diseases/gonorrhea/plan.pdf>
- <http://health.utah.gov/epi/diseases/syphilis/plan.pdf>.

The PTCP supports 12 out of 13 jurisdictions throughout the state by assisting DIS enabling LHDs to conduct interviews for positive chlamydia, gonorrhea, and syphilis investigations. The PTCP also supplies laboratory funds for the same 12 jurisdictions via the UPHL. This funding support CT and GC testing for 15-24 females, their partners, and MSM.

The PTCP manages a federal grant from the CDC, “Improving Sexually Transmitted Disease Programs through Assessment, Assurance, Policy, Development, and Prevention Strategies” (STD AAPPS) grant. The PTCP strives to address STD issues and rate increases in a comprehensive and collaborative manner. Funding awarded to UDOH for this grant cycle (2014-2018) was variable year to year, but averaged \$523,376 during the five year grant. Thirteen percent was required to go to Title X providers and LHDs, but the PTCP continually distributed between 22%-23% to those entities allowing them to better utilize funds in the field.

Additionally, the Program generates surveillance reports for reporting purposes, legislative purposes, and for other requested organizations. The Program promotes CDC’s screening guidelines and STD treatment guidelines

The PTCP has focused on increasing capacity for safety net services within the state. These services rely on organizations who target uninsured or underinsured populations who do not qualify for Medicaid and do not have adequate health insurance. The Program has dedicated time towards data collection, improving our database system, and acting as technical advisors for the LHDs. We have increased our treatment rates, interview rates, and screening rates during this grant cycle and hope to continue to improve larger scale projects in the years to come. The Program continues to work with LHDs to understand barriers to conducting effective investigations, and offering treatment to positive clients and their partners.

The CDC has announced the 2019-2023 grant application titled “Strengthening STD Prevention and Control for Health Departments” (PCHD), which the PTCP applied for in the summer of 2018. Key strategies include surveillance, disease investigation and intervention, screening, diagnosis and treatment, promotion of STD prevention and policy, data utilization, and program improvement.

The requirements within STD AAPPS are as follows:

Assessment: Surveillance

- Ensure confidentiality and security guidelines for the collection, storage, and use of all surveillance data according to NCHHSTP guidance.

- Improve the quality of case-based data collection to include routinely obtaining information on gender of sex partners, pregnancy status, HIV status, treatment given, patient address and provider information.
- Geocode case-based surveillance data to target interventions to providers serving a high volume of patients with STDs and to populations in geographic areas with high numbers of reported infections.
- Conduct automated matching of STD and HIV cases for identification of syndemics and for targeting partner services for co-infected individuals to identify new HIV infections and other HIV infected individuals who are not in care.

Assessment: Assess Gaps in Safety Net Services

- Determine where uninsured clients, or underinsured, at-risk clients are receiving safety net services.
- Identify the clinical and prevention service gaps for at-risk individuals who are receiving care.

Assessment: Monitor Antibiotic-Resistant Gonorrhea, Congenital Syphilis, and Other Emerging STD Threats

- Assess the proportion of GC cases that are treated correctly according to current CDC STD Treatment Guidelines, stratified by provider type.
- Determine the number of private or public health laboratories in the jurisdiction that have the capacity to conduct *N. gonorrhoeae* culture and AST. Specify the transport/culture media used. If AST is done, specify whether the method is disk diffusion (Kirby-Bauer), Etest, or agar dilution.
- Applicants with jurisdictions with high number of congenital syphilis cases are required to:
 - Assess congenital syphilis cases to determine the epidemiologic and health care factors associated with the cases to inform interventions.

Assurance: Screening & Treatment per CDC Guidance

- Increase chlamydia screening rates among young females (15-24 years) seen in Medicaid programs and Title X and other family planning clinics, using the chlamydia HEDIS measure.
- Provide assistance (at least 13.5% of the overall award amount) to non-profit organizations that have demonstrated their ability to provide such safety net STD clinical preventive services.
- Increase syphilis and rectal gonorrhea screening rates among MSM seen in high-volume HIV care settings.
- Increase the proportion of patients with GC that are correctly treated according to current CDC guidelines in areas of high GC morbidity.

Assurance: Partner Services/Outreach Services/Linkage to Care

- Increase the provision of targeted and effective health department DIS partner services for: primary and secondary syphilis cases.
- Increase syphilis and rectal gonorrhea screening rates among MSM seen in high-volume HIV care settings.

- Increase the proportion of patients with GC that are correctly treated according to current CDC guidelines in areas of high GC morbidity.

Assurance: Partner Services/Outreach Services/Linkage to Care

- Increase the provision of targeted and effective health department DIS partner services for: primary and secondary syphilis cases.
- Increase the provision of targeted and effective health department DIS partner services for HIV co-infected GC and syphilis cases.
- Increase the provision of targeted and effective health department DIS partner services for GC cases with possible GC treatment failure or suspected or probable cephalosporin-resistant *N. gonorrhoeae* isolate using the criteria in the Cephalosporin-Resistant *N. gonorrhoeae* Public Health response Plan.
- Link STD contacts newly diagnosed with HIV to HIV care.

Assurance: Health Promotion & Prevention Education

- Maintain a website where surveillance information and basic information about STDs is available to the public, health care providers, health planners and policy makers.
- Collaborate with other organizations to implement STD health promotion and prevention education activities for safety net or other clinical providers who see many at-risk patients.

Policy Development

- Monitor and evaluate impact of relevant policies.
- Educate public, providers and key stakeholders on the positive potential or proven impacts of policies on reducing sexually transmitted infections.
- Work with external partners and other agencies within the executive branch of state or local governments to improve access and quality of STD prevention services through enhanced collaboration with primary care.

CATCH THE ANSWERS

In 2009, the UDOH was given a state grant to create a social media campaign titled “Catch the Answers” to promote STD prevention, debunk myths about STDs, and educate the population about STD questions. This encompassed social media, radio, bus, and bus stop ads relating to questions about STDs. The Program worked with an advertising agency to create a website dedicated to helping people get answers to their STD questions in real time via a Q&A feature on the website. Members of the community could ask questions and within a few working days, receive an answer. There were three populations targeted for this campaign; young adults, parents, and providers.

Young adults submitted the majority of questions which typically were centered around different ‘what if’ scenarios. Parents’ questions were primarily about obtaining correct information and how to talk to their teens. Provider questions were more focused on proper screening and treatment. Unfortunately, without renewed funding the website could not be maintained and was no longer managed by the state.

In the spring of 2017, the STD Prevention Program resurrected the website and utilized the information on the website to re-educate the public. The Q&A from the previous website was consolidated, given a new look, and relaunched in May of 2018. The new website is now available to the public and managed by the STD Prevention Program. The website is available to access at <https://catchtheanswers.utah.gov/>.

LOCAL HEALTH DEPARTMENTS

In collaboration with the 13 LHDs throughout the state, each STD case is investigated and partner services are provided. DIS benefit public health by promoting prompt treatment and partner notification, interrupting the chain of disease transmission. DIS also promote HIV testing, provide HIV pre-exposure prophylaxis (PrEP) referrals, deliver sexual health education, and collect the data used to compile UDOH's surveillance reports. The findings in those reports are utilized to identify priority populations for sexual health interventions.

In Utah, DIS primarily work in LHDs and clinical settings. The DIS role was initially established to work in the field of STD prevention. However, these public health professionals have ground-level investigative skills that have also become key components of tuberculosis outbreak response; HIV exposure notification; other infectious disease control efforts; and emergency response. DIS have expertise in essential skills such as communication, interviewing, counseling, case analysis, and provider and community engagement. As the health care landscape evolves, DIS are needed even more as patient navigators and network builders to ensure patients are linked to care through expanded relationships with health care providers. DIS are a critical part of the public health infrastructure and in building the link to health care.

The PTCP worked with the California Prevention Training Center (CPTC), an extension training site funded by the CDC, in 2017 to deliver a quality, in-house training for DIS. The CPTC has many different engagements throughout the country. The PTCP plans on hosting these trainings every few years to accommodate new DIS growth.

The PTCP manages contracts with 12 of the 13 LHDs throughout the state. Those contracts outline personnel funding amounts, lab funding amounts, and special provisions for both the LHDs and PTCP. These contracts are managed and monitored by the STD Prevention Coordinator. Bi-annually, PTCP performs contract monitoring along with a snapshot of the LHDs jurisdiction.

STDs, SYMPTOMS, AND SIDE EFFECTS

There are many STDs that can be transmitted to sexual partners. Chlamydia, gonorrhea, and syphilis are reportable, and since CT and GC are such highly reported infections in Utah and the U.S., they will continue to be the main focus in this manual.

There are many different side effects and symptoms surrounding STDs. Asymptomatic (showing no symptoms) infection is common among both men and women with many STDs. To detect sexually transmitted infections, health-care providers frequently rely on screening tests.

Chlamydia

C. trachomatis or chlamydia is a common [sexually transmitted disease](#) and the most prevalent in Utah affecting both men and women. It can cause infections in the genitals, rectum, and throat. It is a very common infection, especially among young people ages 15-24 years of age. Any sexually active person can get chlamydia through unprotected vaginal, anal, or oral sex.

Sexually active individuals should have an honest and open talk with their health care provider and ask whether they should be tested for STDs. Sexually active men who are gay, bisexual, or who have sex with other men, should be tested for STDs every year. Sexually active woman younger than 25 years of age or woman with risk factors such as new or multiple sex partners, or a sex partner who has a sexually transmitted infection, should be tested for chlamydia every year.

Most of those infected with chlamydia will not show any symptoms, such as burning with urination, an abnormal drip or discharge from the penis or vaginal area, abnormal vaginal bleeding, abdominal pain, testicular pain, a need to urinate more often, rectal pain/discharge/bleeding, or itching or pain around urethra. Even when chlamydia causes no symptoms, it can still damage the reproductive system. The initial damage caused by chlamydia may often go unnoticed. However, if left untreated, chlamydia can lead to serious health problems.

For females, untreated chlamydia can spread to the uterus and fallopian tubes (tubes that carry fertilized eggs from the ovaries to the uterus). This can cause [pelvic inflammatory disease](#) (PID).

Men rarely have health problems linked to chlamydia. Infection sometimes spreads to the tube that carries sperm from the testicles, causing epididymitis. Rarely, chlamydia can prevent a man from being able to have children. [Untreated chlamydia may also increase the chances of getting or giving HIV – the virus that causes AIDS.](#)

Pregnancy and chlamydia

In pregnant women, untreated chlamydia has been associated with pre-term delivery, as well as ophthalmia neonatorum (conjunctivitis) and pneumonia in the newborn. In published prospective studies, chlamydial conjunctivitis has been identified in 18-44%, and chlamydial pneumonia in 3-16%, of infants born to women with untreated chlamydial cervical infection at the time of delivery. Neonatal prophylaxis against gonococcal conjunctivitis routinely performed at birth does not effectively prevent chlamydial conjunctivitis.

Screening and treatment of chlamydia in pregnant women is the best method for preventing neonatal chlamydial disease. All pregnant women should be screened for chlamydia at their first prenatal visit. Pregnant women under 25 years of age and those at increased risk for chlamydia (i.e., women who have a new or more than one sex partner) should be screened again in their third trimester. Pregnant women with chlamydial infection should be retested three weeks and three months after completion of recommended therapy.

Gonorrhea

N. gonorrhoeae or gonorrhea is a [sexually transmitted disease](#) that can infect both men and women. It can cause infections in the genitals, rectum, and throat. It is a very common infection, especially among young people ages 15-24 years of age. Any sexually active person can get gonorrhea through unprotected vaginal, anal, or oral sex.

Most of those who are infected with gonorrhea will not show any symptoms, such as burning with urination, a white, yellow, or green drip or discharge from the penis or increased discharge from the vaginal area, abnormal vaginal bleeding, abdominal pain, testicular pain, a need to urinate more often, rectal pain/discharge/bleeding, painful bowel movements, or itching or pain around urethra. Even when GC causes no symptoms, it can still damage the reproductive system. The initial damage caused by GC may often go unnoticed. However, if left untreated, GC can lead to serious health problems.

Disseminated gonorrhea is gonorrhea that has gotten into the blood stream and settled in different areas of the body, such as the joints, or the skin. This can lead to sores on the skin, can mimic arthritic pain in joints and can be life threatening.

Gonorrhea has progressively developed resistance to the antibiotic drugs prescribed to treat it. This means the bacteria are no longer treated by a drug previously used to kill them. The bacteria are then free to keep multiplying. Gonorrhea has developed resistance to nearly all of the antibiotics used for its treatment. The U.S. is currently down to one last recommended and effective class of antibiotics, cephalosporins, to treat this common infection. This is an urgent public health threat because gonorrhea control in the U.S. largely relies on its ability to successfully treat the infection.

Gonorrhea is skilled at outsmarting the antibiotics that are used to kill it. For this reason, there must be continuous monitoring for antibiotic resistance. The CDC is working on research and development of new drugs for gonorrhea treatment. The PTCP has worked to identify laboratories offering Antimicrobial Susceptibility Testing (AST). The Program stays up to date by continuing to update this list of laboratories annually.

Pregnancy and gonorrhea

If a [pregnant](#) woman has gonorrhea, she may give the infection to her baby as the baby passes through the birth canal during delivery. This can cause blindness, joint infection, or a life-threatening blood infection in the baby. Treatment of gonorrhea as soon as it is detected in pregnant women will reduce the risk of these complications. Pregnant women should consult a health care provider for appropriate examination, testing, and treatment, as necessary.

Syphilis

[Syphilis](#) is a sexually transmitted infection that is caused by the bacterium *Treponema pallidum*. Syphilis can cause serious health problems if not treated. Syphilis is divided into stages (primary, secondary, latent, and tertiary). There are different signs and symptoms associated with each stage. A person with **primary syphilis** generally has a sore or sores at the original site of infection. These sores usually occur on or around the genitals, around the anus or in the rectum, or in or around the mouth. These sores are usually (but not always) firm, round, and painless. Symptoms of **secondary syphilis** include skin rash, swollen lymph nodes, and fever. The signs and symptoms of primary and secondary syphilis can be mild, and they might not be noticed. During the **latent stage**, there are no signs or symptoms. **Tertiary syphilis** is associated with severe medical problems. A doctor can usually diagnose tertiary syphilis with the help of multiple tests. It can affect the heart, brain, and other organs of the body.

Primary Stage

The appearance of a single chancre marks the primary (first) stage of syphilis symptoms, but there may be multiple sores. The chancre is usually (but not always) firm, round, and painless. It appears at the location where syphilis entered the body. These painless chancres can occur in locations that make them difficult to notice (e.g., the vagina, cervix, or anus). The chancre lasts 3-6 weeks and heal regardless of whether a person is treated or not. However, if the infected person does not receive adequate treatment, the infection progresses to the secondary stage.

Secondary Stage

Skin rashes and/or mucous membrane lesions (sores in the mouth, vagina, or anus) mark the second stage of symptoms. This stage typically starts with the development of a rash on one or more areas of the body. Rashes associated with secondary syphilis can appear when the primary chancre is healing or several weeks after the chancre has healed. The rash usually does not cause itching. The characteristic rash of secondary syphilis may appear as rough, red, or reddish brown spots both on

the palms of the hands and the bottoms of the feet. However, rashes with a different appearance may occur on other parts of the body, sometimes resembling rashes caused by other diseases. Sometimes rashes associated with secondary syphilis are so faint that they are not noticed. Large, raised, gray or white lesions, known as condyloma lata, may develop in warm, moist areas such as the mouth, underarm or groin region. In addition to rashes, symptoms of secondary syphilis may include fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and fatigue. The symptoms of secondary syphilis will go away with or without treatment. However, without treatment, the infection will progress to the latent and possibly tertiary stage of disease.

Latent Stage

The latent or hidden stage of syphilis is a period of time when there are no visible signs or symptoms of syphilis. Without treatment, the infected person will continue to have syphilis in their body even though there are no signs or symptoms. *Early latent syphilis* is latent syphilis where infection occurred within the past 12 months. *Late latent syphilis* is latent syphilis where infection occurred more than 12 months ago. Latent syphilis can last for years.

Tertiary Syphilis

Tertiary syphilis is rare and develops in a subset of untreated syphilis infections; it can appear 10-30 years after infection was first acquired, and it can be fatal. Tertiary syphilis can affect multiple organ systems, including the brain, nerves, eyes, heart, blood vessels, liver, bones, and joints. Symptoms of tertiary syphilis vary depending on the organ system affected.

Neurosyphilis and Ocular Syphilis

Syphilis can invade the nervous system at any stage of infection, and causes a wide range of symptoms, including headache, altered behavior, and difficulty coordinating muscle movements, paralysis, sensory deficits, and dementia. This invasion of the nervous system is called neurosyphilis. Like neurosyphilis, ocular syphilis can occur at any stage of infection. Ocular syphilis can involve almost any eye structure, but posterior uveitis and panuveitis are the most common. Symptoms include vision changes, decreased visual acuity, and permanent blindness. Clinicians should be aware of ocular syphilis and screen for visual complaints in any patient at risk for syphilis (i.e., MSM, persons living with HIV, others with risk factors and persons with multiple or anonymous partners). A 2015 [Clinical Advisory](#) and a [MMWR: Notes from the Field](#) discuss recent reported cases and provide information for clinicians on the diagnosis and management of ocular syphilis.

Pregnancy and syphilis

When a pregnant woman has syphilis, the infection can be transmitted to her unborn baby. All pregnant women should be tested for syphilis at the first prenatal visit. For women who are at high risk for syphilis, live in areas of high syphilis morbidity, are previously untested, or had a positive screening test in the first trimester, the syphilis screening test should be repeated during the third trimester (28 to 32 weeks gestation) and again at delivery. Any woman who delivers a stillborn infant after 20 weeks gestation should also be tested for syphilis.

Depending on how long a pregnant woman has been infected, she may have a high risk of having a stillbirth or of giving birth to a baby who dies shortly after birth. Untreated syphilis in pregnant women results in infant death in up to 40% of cases.

An infected baby born alive may not have any signs or symptoms of disease. However, if not treated immediately, the baby may develop serious problems within a few weeks. Untreated babies may become developmentally delayed, have seizures, or die. All babies born to mothers who test positive for syphilis during pregnancy should be screened for syphilis and examined thoroughly for evidence of congenital syphilis.

For pregnant women only penicillin therapy can be used to treat syphilis and prevent passing the disease to her baby. Treatment with penicillin is extremely effective (success rate of 98%) in preventing mother-to-child transmission. Pregnant women who are allergic to penicillin should be referred to a specialist for desensitization to penicillin.

Common Side Effects of Untreated STDs

Pelvic Inflammatory Disease

Untreated STDs can cause pelvic inflammatory disease (PID), a serious condition in females. PID is an infection of a woman's reproductive organs. It is a complication often caused by CT and GC and other non STD infections. One in eight women diagnosed with PID will experience difficulties getting pregnant.

There are no tests for PID. A diagnosis is usually based on a combination of medical history, physical exam, and other test results. One may not realize they have PID because their symptoms may be mild, or they may not experience any symptoms. However, if symptoms are present, they may be pain in the lower abdomen; fever; an unusual discharge with a bad odor from the vagina; pain and/or bleeding when having sex; burning sensation when urinating; or bleeding between periods.

PID can be treated with antibiotics, but treatment will not reverse any permanent damage caused by PID. If left untreated, some long-term side effects are scar tissue on both the inside and outside of the fallopian tubes, ectopic pregnancy, long-term pelvic or abdominal pain, infertility which is the [inability to get pregnant](#), and [potentially deadly ectopic pregnancy](#) (pregnancy outside the uterus).

Epididymitis

Acute epididymitis is a clinical syndrome consisting of pain, swelling, and inflammation of the epididymis that lasts less than six weeks. A high index of suspicion for testicular torsion must be maintained in men who present with a sudden onset of symptoms associated with epididymitis, as this condition is a surgical emergency.

Among sexually active men less than 35 years of age, acute epididymitis is most frequently caused by chlamydia or gonorrhea. Acute epididymitis caused by sexually transmitted enteric organisms (i.e., *Escherichia coli*) also occurs among men who are the insertive partner during anal intercourse. Sexually transmitted acute epididymitis usually is accompanied by urethritis, which frequently is asymptomatic. Other non-sexually transmitted infectious causes of acute epididymitis are uncommon and should be managed in consultation with a urologist.

In men ≥ 35 years of age who do not report insertive anal intercourse, sexually transmitted acute epididymitis is less common. In this group, the epididymis usually becomes infected in the setting of bacteriuria secondary to bladder outlet obstruction (i.e., benign prostatic hyperplasia).

Testing

The Program has developed a [Resource Guide](#) which is a living document that outlines STD testing providers and clinics. This comprehensive guide lists a brief overview of common STDs, online resources, clinical address, phone, hours, rates, types of tests offered, insurance information, treatment fees, and other testing offered. The Program is currently working to update this guide to include more STD clinics and providers, especially in rural areas, to increase options for people who may be deterred from testing due to being uncomfortable with their current provider.

STD SCREENING GUIDELINES

The CDC recommends STD screening guidelines for anyone testing for STDs. STDs can show up in different areas of the body. There is not one test that will check for every site. Site specific testing is recommended depending on what type of sexual exposure a person has. In addition to a urine test, oral, rectal, and cervical swabs are available, and recommended if one has contact in those areas.

Due to the convenience of a dual test, chlamydia and gonorrhea are typically ran together, therefore, their recommendations are similar. Listed below are the current guidelines for chlamydia, gonorrhea, and syphilis.

Chlamydia

Women	<ul style="list-style-type: none"> Sexually active women under 25 years of age Sexually active women 25 years of age and older if at increased risk Retest approximately 3 months after treatment
Pregnant women	<ul style="list-style-type: none"> All pregnant women under 25 years of age Pregnant women, 25 years of age and older if at increased risk Retest during the 3rd trimester for women under 25 years of age or at risk Pregnant women with chlamydial infection should have a test-of-cure 3-4 weeks after treatment and be retested within 3 months
Men	<ul style="list-style-type: none"> *Consider screening young men in high prevalence clinical settings or in populations with high burden of infection (i.e., MSM)
Men who have sex with men (MSM)	<ul style="list-style-type: none"> At least annually for sexually active MSM at sites of contact (urethra, rectum) regardless of condom use Every 3 to 6 months if at increased risk
Persons with HIV	<ul style="list-style-type: none"> For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter More frequent screening for might be appropriate depending on individual risk behaviors and the local epidemiology

Gonorrhea

Women	<ul style="list-style-type: none"> Sexually active women under 25 years of age Sexually active women 25 years of age and older if at increased risk Retest 3 months after treatment
Pregnant women	<ul style="list-style-type: none"> All pregnant women under 25 years of age and older women if at increased risk Retest 3 months after treatment
Men who have sex with men (MSM)	<ul style="list-style-type: none"> At least annually for sexually active MSM at sites of contact (urethra, rectum, pharynx) regardless of condom use Every 3 to 6 months if at increased risk
Persons with HIV	<ul style="list-style-type: none"> For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter More frequent screening for might be appropriate depending on individual risk behaviors and the local epidemiology

Syphilis

Pregnant women	<ul style="list-style-type: none"> All pregnant women at the first prenatal visit Retest early in the third trimester and at delivery if at high risk
Men who have sex with men (MSM)	<ul style="list-style-type: none"> At least annually for sexually active MSM Every 3 to 6 months if at increased risk
Persons with HIV	<ul style="list-style-type: none"> For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter More frequent screening might be appropriate depending on individual risk behaviors and the local epidemiology

The U.S. Preventative Services Task Force recommends screening of all adults and adolescents 5-65 years of age. To see the full screening guidelines and references for all STDs, please visit: <https://www.cdc.gov/std/tg2015/screening-recommendations.htm>.

STD TREATMENT GUIDELINES

The CDC has prepared a document for STD treatment guidelines that UDOH follows and encourages all providers in the state of Utah to follow. [The 2015 Sexually Transmitted Diseases Treatment Guidelines](#) addresses all treatments for STDs including: the recommended treatment regimen; alternative treatment regimens, and special treatment regimens due to pregnancy, co-infection, allergies, etc. Listed below are the most common treatments for CT, GC, and syphilis.

Chlamydia

Recommended Regimens

- Azithromycin 1gm orally in a single dose
OR
- Doxycycline 100mg orally twice a day for 7 days

Alternative Regimens

- Erythromycin base 500MG orally four times a day for 7 days
OR
- Erythromycin ethylsuccinate 800mg orally four times a day for 7 days
OR
- Levofloxacin 500mg orally once daily for 7 days
OR
- Ofloxacin 300mg orally twice a day for 7 days

Gonorrhea

Recommended Regimen

- Ceftriaxone 250mg IM in a single dose
PLUS
- Azithromycin 1gm orally in a single dose

Alternative Regimen

- Cefixime 400mg orally in a single dose
PLUS
- Azithromycin 1gm orally in a single dose

Syphilis

Early syphilis treatment (Primary, Secondary, and Early non-primary, and Early non-secondary)

Recommended Regimen

- Benzathine penicillin G 2.4 million units IM in a single dose

Alternative Regimen

- Doxycycline 100mg twice a day for 14 days
- OR**
- Tetracycline 500mg orally four times a day for 14 days

Latent syphilis treatment (Latent syphilis, unknown duration)

Recommended Regimen

- Benzathine penicillin G 2.4 million units IM in 3 doses each at 1 week intervals (7.2 million units total)

Alternative Regimen

- Doxycycline 100mg twice a day for 28 days
- OR**
- Tetracycline 500mg orally four times a day for 28 days

UTAH PUBLIC HEALTH LABORATORY

The Utah Public Health Laboratory (UPHL) performs a nucleic acid amplification test (NAAT) or a polymerase chain reaction (PCR) in specimens submitted by private health care providers and public agencies for the detection of chlamydia or gonorrhea. Syphilis is determined by running a reverse sequence screening. In order for syphilis to be determined, there must be two positive tests; a rapid plasma reagin (RPR) in addition to a treponemal test. The treponemal test detects biomarkers that are released during cellular damage that occurs from the syphilis bacteria, a spirochete. The RPR will give a 1:x dilution by detecting the nonspecific antibodies that the body produces to fight the infection.

Submitting Specimens

Specimens should be delivered to the Utah Public Health Laboratory at 4431 South 2700 West, Taylorsville, Utah either by courier or U.S. mail as soon as possible after collection. The main laboratory phone number is 801-965-2400.

CONFIDENTIALITY IN STD CONTROL

The STD Prevention Program recognizes confidentiality is an essential issue in many different aspects of STD control. All information pertaining to individual clients shall be maintained in strict confidentiality according to the written policy.

Health care workers need to be aware of their agency policies on confidentiality, as well as those that are relevant to client health care worker encounters. The collection, management, and sharing of data gathered on STD clients must be held in the strictest confidence.

Reasonable safeguards and policies should be in place to protect an individual's privacy, such as: staff orientation to HIPAA laws and signing of a confidentiality agreement, locked files (preferably behind a locked door), encrypted communications, password protection of electronic information, shredding of paper containing sensitive data.

The PTCP requires all users of UT-NEDSS to take annual security training in order to continue to operate within the database.

In addition to training and storing of information, DIS cannot legally tell any partners or patients of contacts names. Those whose names were given to the DIS to contact about a possible disease transmission are protected by law and cannot be communicated to the client. Those who do not abide by this law can lose their job, and potentially face criminal charges.

UTAH'S AGE OF CONSENT LAWS

Utah's laws on sexual consent and age are displayed below:

Age	Consent law
Age 13 years and under	Cannot consent to any sexual activity
Age 14 or 15 years of age	Cannot consent to intercourse, sodomy, or penetration. Can consent to folding/sexual touching if partner is not 7+ years older
Age 16 or 17 years of age	Can consent to any sexual activity if partner is not 10+ years older

This is only a summary regarding age relating to [Utah's Consent Law](#). Please visit the website for detailed information.

All DIS are mandated reporters which are people who have regular contact with vulnerable populations such as children, disabled persons, and senior citizens, and are therefore legally required to ensure a report is made when abuse is observed or suspected.

Mandated reporters are required to make a report of they suspect abuse when they have reasonable cause that a vulnerable person is being victimized. Specific to STDs, any sexual abuse of a minor or unlawful sexual contact must be reported to the Division of Children and Family Services (DCFS), Utah Adult Protective Services (APS), or law enforcement immediately. Utah's mandatory reporting requirements can be found [here](#).

Failure to report is a Class B misdemeanor punishable by imprisonment for a term not exceeding six months, a fine of \$1,000, or both. Action for failure to report must be commenced within four years from the date of knowledge of the offense and the willful failure to report.

REQUIRED REPORTS

The STD Prevention Program is required by the CDC to submit the following reports:

- Administrative Report
- STD AAPPS work plan- Mid-year and full year
- Performance outcome measures (POMs)
- Targeted Evaluation Plan (TEP)

These reports are submitted directly to grants.gov and/or to the point person overseeing the project at the CDC, including Utah's CDC project officer.

In addition, the UDOH is responsible for publishing an annual STD surveillance report to disseminate current data and identified trends. UDOH publishes [this report](#) to our website, and distributes it to providers throughout the state utilizing the Epi listserv.

Utah has six annual calls with the Utah project officer at the CDC to check in on the following topics:

- Morbidity- GC, CT, syphilis
- Work plan progress- provide updates (successes, challenges, barriers) on activities conducted
- Program updates
- Budget updates
- Project officer updates

DATA QUALITY PRACTICES

The PTCP has collaborated with our internal Informatics Program to establish an auto-close feature with all CT and GC cases within our database (UT-NEDSS) if they meet the minimum data set (MDS) requirements that have been established by the CDC, grant necessities, and PTCP requirements. All cases that do not auto-close are missing essential information which requires a manual evaluation by a member of the Program. These cases are then edited to improve data quality.

The Epidemiology manager and the STD Epidemiologist run quarterly quality assurance (QA) reports. These reports alert DIS to missing MDS fields within their cases. They are then fixed by the DIS and resent for review and closure.

As part of PTCP's contract monitoring process, the surveillance program pulls detailed 'snapshots' for all LHDs. These 'snapshots' help LHDs understand how their DIS are performing. The reports consist of funding amounts, medication allotment, cases investigated, percent of cases interviewed, percent of cases receiving treatment within 60 days, reason cases are not interviewed, percent of MSM provided PrEP education, percent of cases closed within 60 days. These are all compared to the state average.

340B DRUG DISCOUNT PROGRAM

The 340B Drug Discount Program is a U.S. federal government program created in 1992 that requires drug manufactures to provide outpatient drugs to eligible health care organizations and covered entities at significantly reduced prices. This program enables covered entities to stretch scarce Federal resources as far as possible, reaching more eligible patients and providing more comprehensive services.

Eligible health care organizations are defined in statute and include Health Resources and Services Administration (HRSA) supported health centers, Ryan White clinics, State AIDS Drug Assistance programs, Medicare/Medicaid, certain hospitals, and other safety net providers. To participate, eligible organizations must register and be enrolled with the 340B program and comply with all 340B requirements. Once enrolled, they are assigned an identification number that venders verify before allowing the purchase of discounted drugs. All LHDs in Utah are registered with 340B allowing them to treat Utah communities more affordably.

Sexually Transmitted Disease Prevention Program

Physical Address: 288 North 1460 West Salt Lake City, UT 84116

Mailing Address: Box 142104 Salt Lake City, UT 84114-2104

Phone: 801-538-6191

Fax: 801-538-9913

Website: <http://health.utah.gov/epi/diseases/std/>



UTAH DEPARTMENT OF
HEALTH