

**SEXUALLY  
TRANSMITTED  
DISEASE  
SURVEILLANCE  
UTAH  
2007-2016**

April 2018



UTAH DEPARTMENT OF  
**HEALTH**  
Bureau of Epidemiology

## Acknowledgments

The Utah Department of Health (UDOH) would like to recognize the efforts of local health department personnel throughout the state of Utah who play a critical role in case investigation and data collection on cases of sexually transmitted diseases.

Sexually transmitted disease data for Utah are published by the UDOH Bureau of Epidemiology. Please direct questions or comments to:

UDOH Bureau of Epidemiology  
Box 142104  
Salt Lake City, Utah 84114-2104  
Phone: (801) 538-6191

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## Executive Summary

*Sexually Transmitted Disease Surveillance, Utah, 2007-2016* is a summary of surveillance data for the following reportable sexually transmitted diseases (STDs) in Utah: chlamydia, gonorrhea, and primary and secondary (P&S) syphilis. Of the more than 75 Utah reportable communicable diseases, chlamydia was the most frequently reported disease in 2016 with 9,459 cases. Gonorrhea was third with 2,100 cases.<sup>1</sup>

In collaboration with the 13 local health departments (LHDs) throughout the state, each STD case is investigated and partner services are provided. Disease investigation specialists (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 and sexual health education, and collect the data used to compile this report. The findings in this report should be utilized to identify priority populations for sexual health interventions.

Among the findings of this report, 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 persons
- Almost two-thirds of the chlamydia cases reported in 2016 were among people aged 15-24
- 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
- The rate of syphilis has increased 275% since 2007 to a rate of 3 cases per 100,000 persons
- Since 2009, more than 80% of P&S syphilis cases in men have been among men who have sex with men (MSM)

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<sup>1</sup>Utah Department of Health (2017). [Top 10 Communicable Diseases Report Utah, 2016](https://health.utah.gov/epi/data/topdiseases/2016_Top_10.pdf). health.utah.gov/epi/data/topdiseases/2016\_Top\_10.pdf

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## Introduction

This report consists of five sections: One section each for chlamydia, gonorrhea, and P&S syphilis; a section specific to chlamydia and gonorrhea in adolescents aged 15 to 19 and young adults aged 20 to 24; and a section with tables. Each disease-specific section contains text and figures that summarize data and display trends. The “Adolescents and Young Adults” section takes a more detailed look at the chlamydia and gonorrhea incidence in this vulnerable age group. The “Tables” section includes data for STDs by age group, sex, race/ethnicity, geography, sexual orientation in males, and testing data. Finally, the appendix contains a map of the 13 LHDs and a table listing the counties in each district’s service area.

## Technical Notes

The Utah Communicable Disease Rule requires that health care providers and laboratories report cases of chlamydia, gonorrhea, and syphilis to their LHD or the Utah Department of Health (UDOH), Bureau of Epidemiology within three working days of identification.<sup>2</sup> Upon receipt, these reports are entered into UT-NEDSS, a secure statewide disease surveillance system which was launched in 2009. This database, along with STD\*MIS (Sexually Transmitted Disease Management Information System), a legacy database provided by the Centers for Disease Control and Prevention (CDC), is the source for much of the data provided in this report. The variable “men who have sex with men (MSM)” was introduced into UT-NEDSS in 2009; therefore, charts and tables pertaining to this variable begin in 2009. The cases in this report are classified by CDC’s *Morbidity and Mortality Weekly Report (MMWR)* year unless otherwise noted.

Chlamydia and gonorrhea testing data referenced in this report are limited to data provided by the UDOH’s Utah Public Health Laboratory (UPHL). In 2013, the UPHL changed its name from Unified State Laboratories: Public Health (USL:PH), the name used in previous reports. The UPHL data includes testing conducted at adult and youth correctional facilities, community and family planning clinics, LHDs, a small number of private providers, and student health centers throughout the state. Testing data from other laboratories are currently unavailable.

Population data used to calculate rates were obtained from the Population Estimates Query Module from the UDOH, Center for Health Data and Informatics, Indicator-Based Information System for Public Health (IBIS-PH). Population estimates are provided by the National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Census Bureau.

In this report, missing and unknown age group, sex, and race/ethnicity data were not redistributed; therefore, incidence rates may be underestimated, particularly rates by race/ethnicity.

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<sup>2</sup>Utah Code Annotated. R386-702 Communicable Disease Rule. <http://www.rules.utah.gov/publicat/code/r386/r386-702.htm>



## Chlamydia

*Chlamydia trachomatis* infections continue to be the most frequently reported communicable disease in both Utah and the United States.<sup>3</sup> In 2016, 9,459 cases of chlamydia were reported in Utah. Between 2007 and 2016, Utah's chlamydia rate was an average of 59% of the U.S. rate (Figure 1).<sup>4</sup> 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 females in Utah have averaged twice that of males in Utah (Figure 2), 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 old 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 old (Table 2). 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.

<sup>3</sup>Utah Department of Health (2016). Top 10 Communicable Diseases Report, Utah, 2016.

[http://health.utah.gov/epi/data/topdiseases/2016\\_Top\\_10.pdf](http://health.utah.gov/epi/data/topdiseases/2016_Top_10.pdf).

<sup>4</sup>Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2016*. Atlanta: U.S. Department of Health and Human Services; 2017.

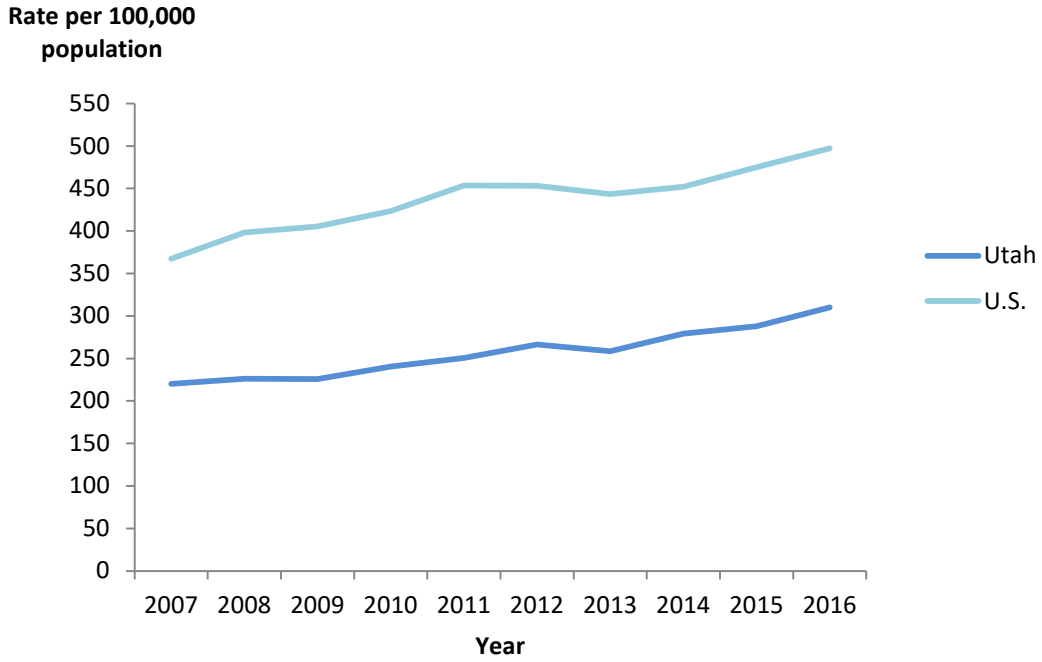
Nearly two-thirds of the chlamydia cases reported in Utah in 2016 were among people aged 15-24. The highest rates of infection were reported among females aged 20-24 (1,837.6 cases per 100,000 population) and aged 15-19 (1,621.5 cases per 100,000 population). The highest rate of infection reported in males was among men aged 20-24 (810.7 cases per 100,000 population) (Figure 3).

In 2016, three LHDs in Utah had chlamydia rates higher than the state rate: Salt Lake County Health District (452.3 cases per 100,000 population), Weber-Morgan Health District (351.4 cases per 100,000 population), and San Juan Health District (313.7 cases per 100,000 population) (Figure 4). Similar to prior years, the majority of chlamydial infections were identified in the four counties along the Wasatch Front: Salt Lake (53.6% of cases), Utah (10.7% of cases), Davis (10.0% of cases), and Weber-Morgan (9.6% of cases).

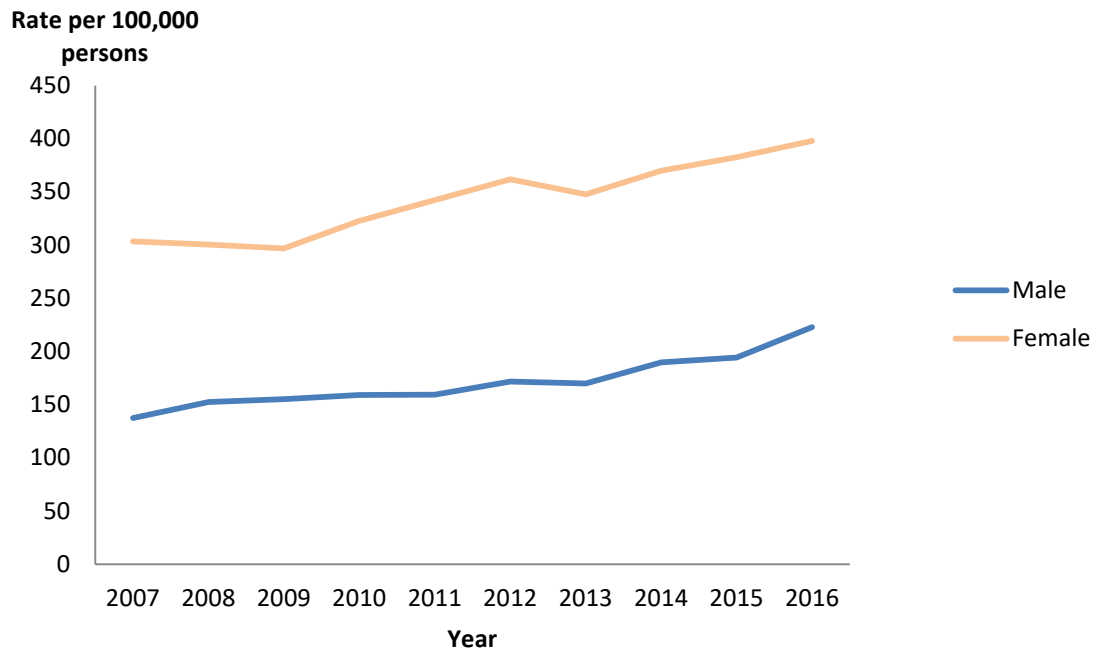
In 2016, the highest chlamydia rates among the major racial and ethnic groups in Utah were reported among non-Hispanic blacks (1,307.2 cases per 100,000 population) and Pacific Islanders (770.6 cases per 100,000 population), followed by Hispanics and American Indian/Alaska Natives (554.9 and 522.8 cases per 100,000 population, respectively) (Figure 5). Racial/ethnic minorities continued to be disproportionately affected by chlamydia in 2016. In comparison, rates among non-Hispanic whites were 223.4 cases per 100,000 population.

Chlamydia screening tests administered by adult and youth correctional facilities, community and family planning clinics, LHDs, a small number of private providers, and student health centers throughout the state are processed at the UPHL. The number of chlamydia results reported by the UPHL increased 48% between 2007 and 2016 (Figure 6). Consistent with screening recommendations, over 40% more chlamydia tests during this ten-year period were administered to female patients compared with male patients and males have consistently had a higher positivity rate than females. Testing data from other laboratories are currently unavailable.

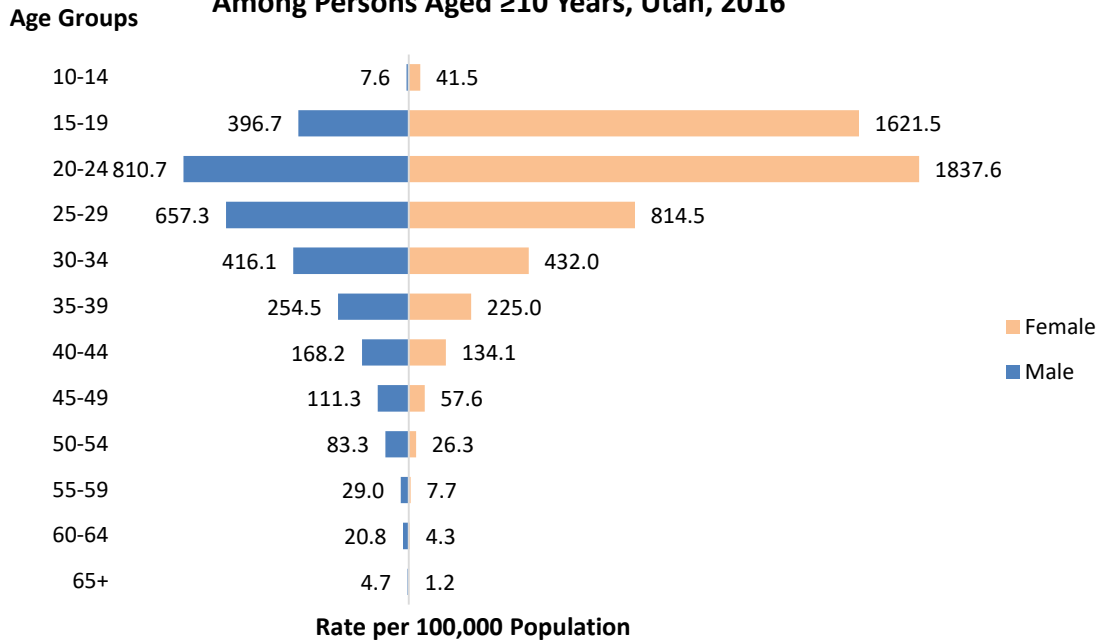
**Figure 1. Chlamydia Rates, Utah and United States, 2007-2016**



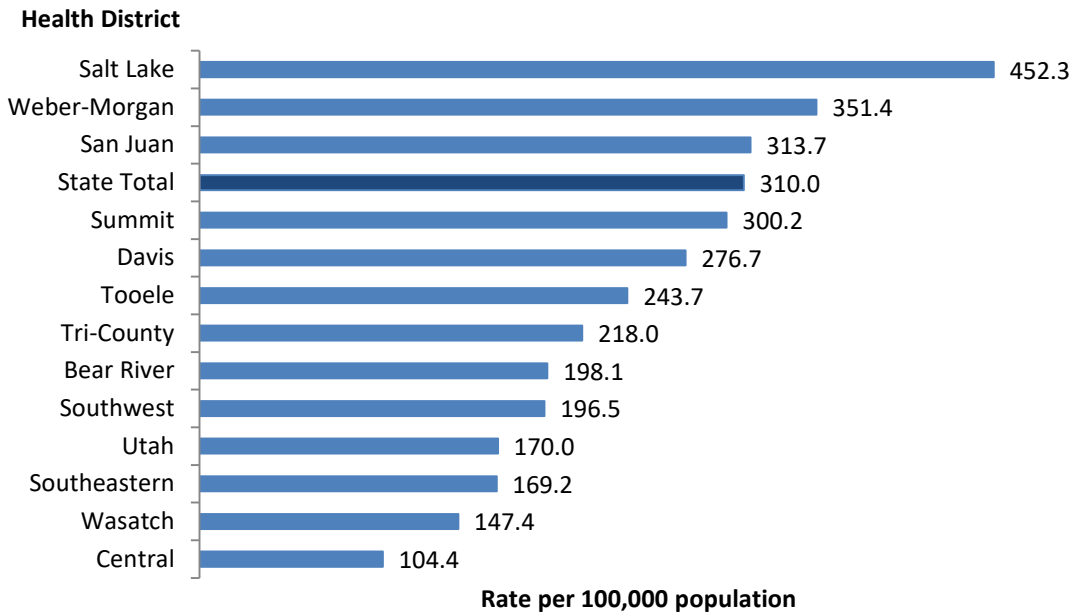
**Figure 2. Chlamydia Rates by Sex, Utah, 2007-2016**



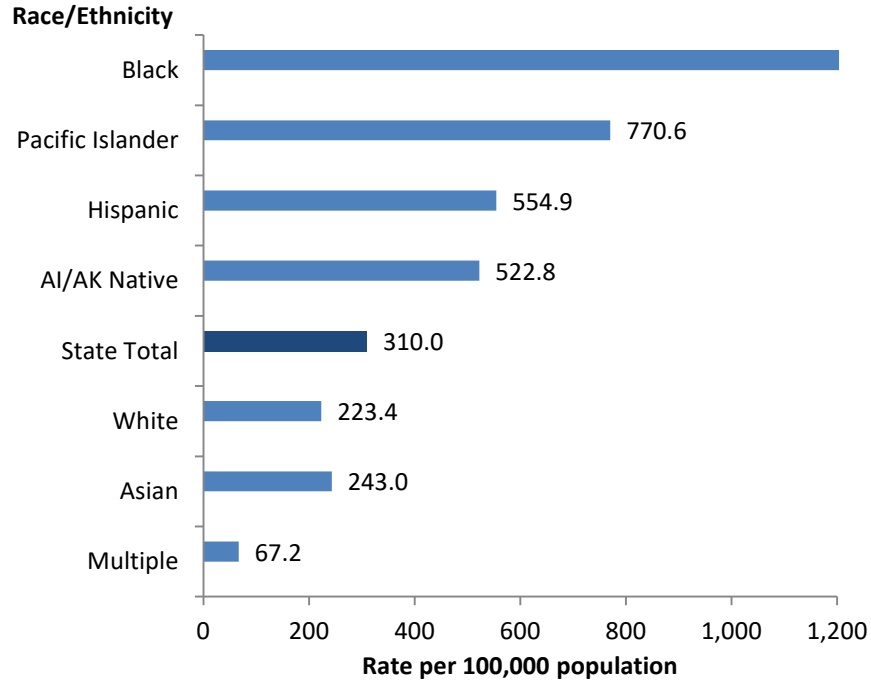
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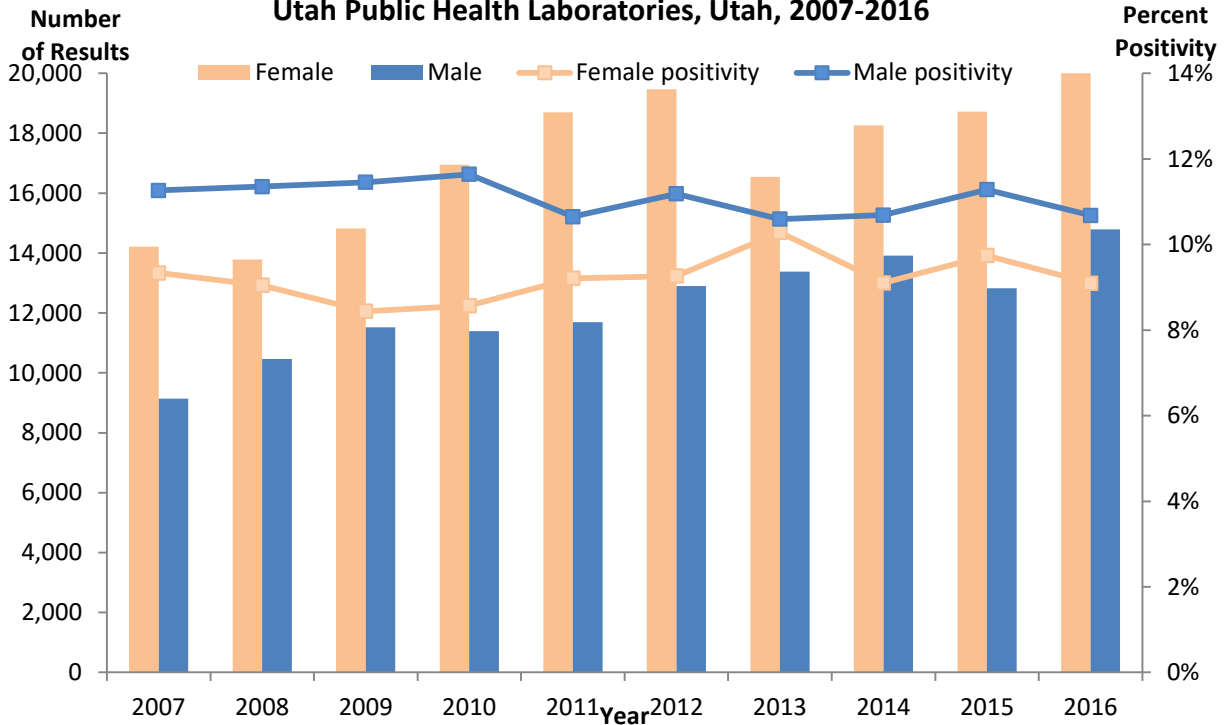
**Figure 4. Chlamydia Rates by Local Health District, Utah, 2016**



**Figure 5. Chlamydia Rates by Race/Ethnicity, Utah, 2016**



**Figure 6. Number of Chlamydia Test Results and Percent Positivity by Sex, Utah Public Health Laboratories, Utah, 2007-2016**



## Gonorrhea

In 2016, 2,100 cases of gonorrhea were reported in Utah. Gonorrhea was the third most frequently reported communicable disease in Utah and the second most reported disease in the United States.<sup>5, 6</sup> Utah's gonorrhea rate was 47.2% the U.S. rate in 2016, up from 9.5% of the U.S. rate in 2011 (Figure 7). Following a 40% increase of Utah's gonorrhea rate between 2004 and 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 (Figure 8); from 2009 to 2012, males had rates at least 2.5 times higher than females. However, in 2013 and 2014 rates among males were only 1.5 times higher due to a large increase of gonorrhea in females. Rates among males were about 2 times higher than females in 2015 and 2016. Two-thirds of male gonorrhea cases in 2009 and 2010 were among men who have sex with men (MSM). This percentage has decreased, from 62% in 2011 to 39% in 2016; however, the percentage of cases associated with unknown sexual orientation has increased from 15% in 2011 to 25% in 2016 (Figure 12).

Untreated gonorrhea infections can damage the reproductive system in both males and females. Females with gonorrhea infection are at risk for developing pelvic inflammatory disease (PID). Gonorrhea can spread to joints and become systemic (disseminated gonorrhea). Susceptibility to infections, such as the human immunodeficiency virus (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, 63% of the reported gonorrhea cases in Utah were among people aged 20-34. In males, the highest rates of infection were in the 25-29 year old age group (269.8 cases per 100,000 population) followed by the 30-34 year old age group and the 20-24 year old age group (230.4 and 218.7 cases per 100,000 population, respectively) (Figure 9). In females, the highest rate of infection was among 20-24 year olds (144.8 cases per 100,000 population). Although the rates were lower, the largest percentage rate increase from 2014 to 2015 was among people aged 60 to 64.

In 2016, two local LHDs in Utah had gonorrhea rates higher than the state rate: Salt Lake County Health District (127.0 cases per 100,000 population) and Weber-Morgan Health District (81.9 cases per 100,000 population) (Figure 10). Similar to prior years, more than 90% of the cases were identified in four LHDs along the Wasatch Front: Salt Lake (67.8%), Weber-Morgan (10.1%), Utah (7.5%), and Davis (6.2%).

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) (Figure 11).

Gonorrhea screening tests administered by adult and youth correctional facilities, community and family planning clinics, LHDs, a small number of private providers, and student health centers throughout the state are processed at the UPHL. The lab adopted a dual chlamydia/gonorrhea test in late 2004. The number of gonorrhea results reported by the UPHL increased 44% between 2007 and 2016 (Figure 13). Consistent with screening recommendations, 42% more tests were administered to women compared with men in 2016. Males had positivity rates that are

<sup>5</sup>Utah Department of Health (2017). Top 10 Communicable Disease Report, Utah, 2016.  
[http://health.utah.gov/epi/data/topdiseases/2016\\_Top\\_10.pdf](http://health.utah.gov/epi/data/topdiseases/2016_Top_10.pdf)

<sup>6</sup>Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2017*. Atlanta: U.S. Department of Health and Human Services; 2017.

consistently higher than females in this 10 year time period. In, 2016, males and females had positivity rates of 4.8% and 1.2% respectively. Testing data from other laboratories are currently unavailable.

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

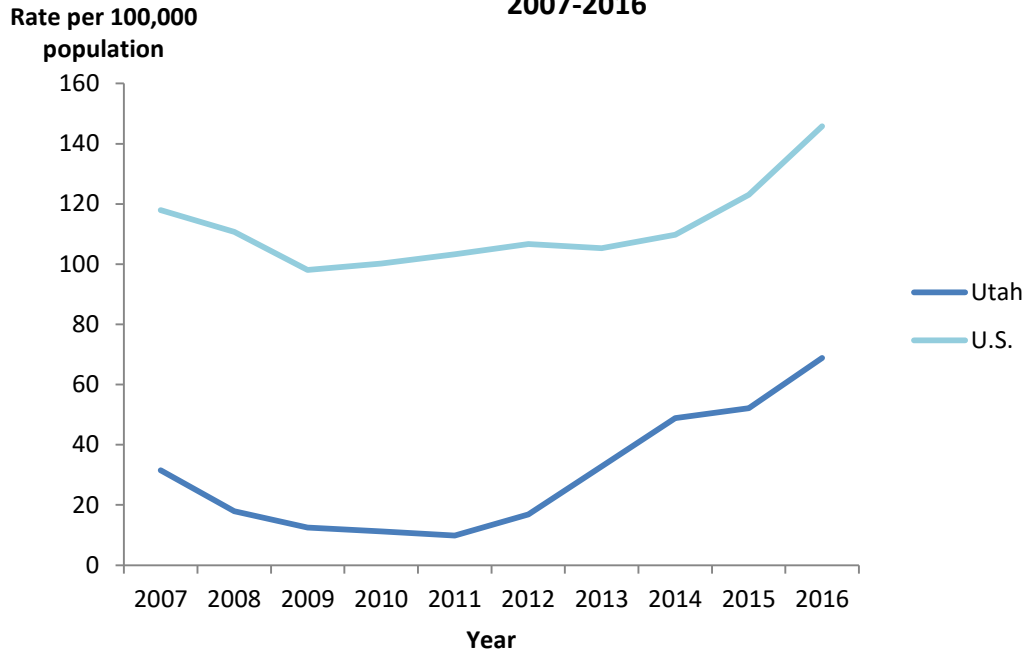
The gonorrhea outbreak investigation form was implemented in April of 2014 and concluded in October of 2014. Additional interview questions

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.

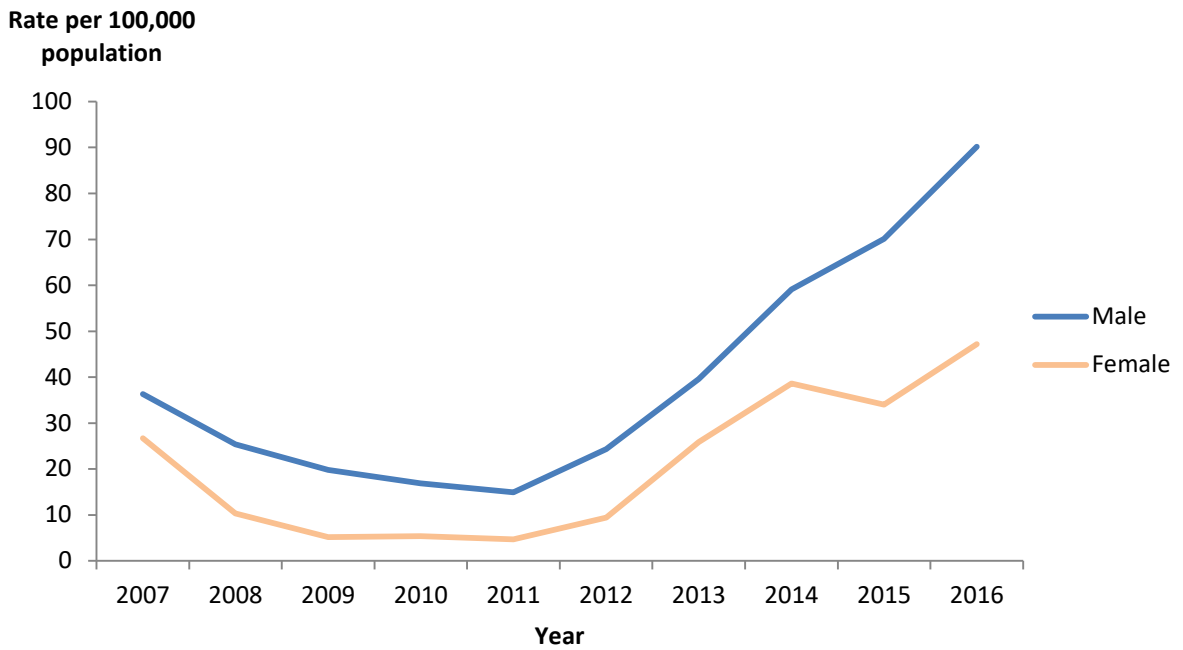
Results from these analyses showed that programmatic activities should be targeted to individuals who are known or suspected drug users and those who have been incarcerated or have had a sex partner who has been incarcerated in the past 12 months.

Further investigation is needed to further understand the rise in gonorrhea rates.

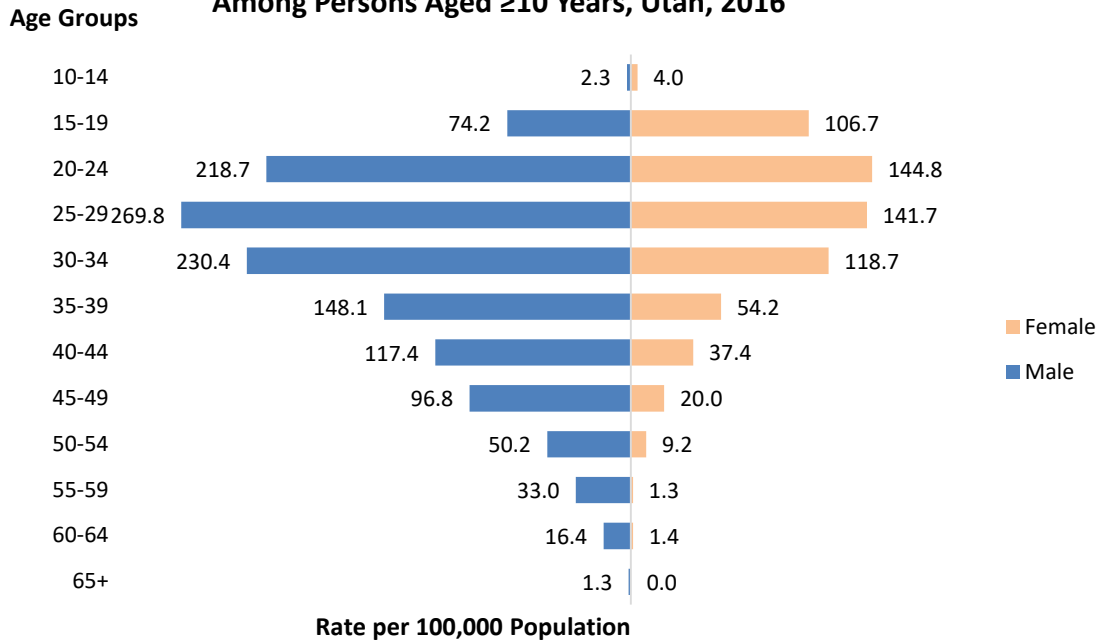
**Figure 7. Gonorrhea Rates, Utah and United States, 2007-2016**



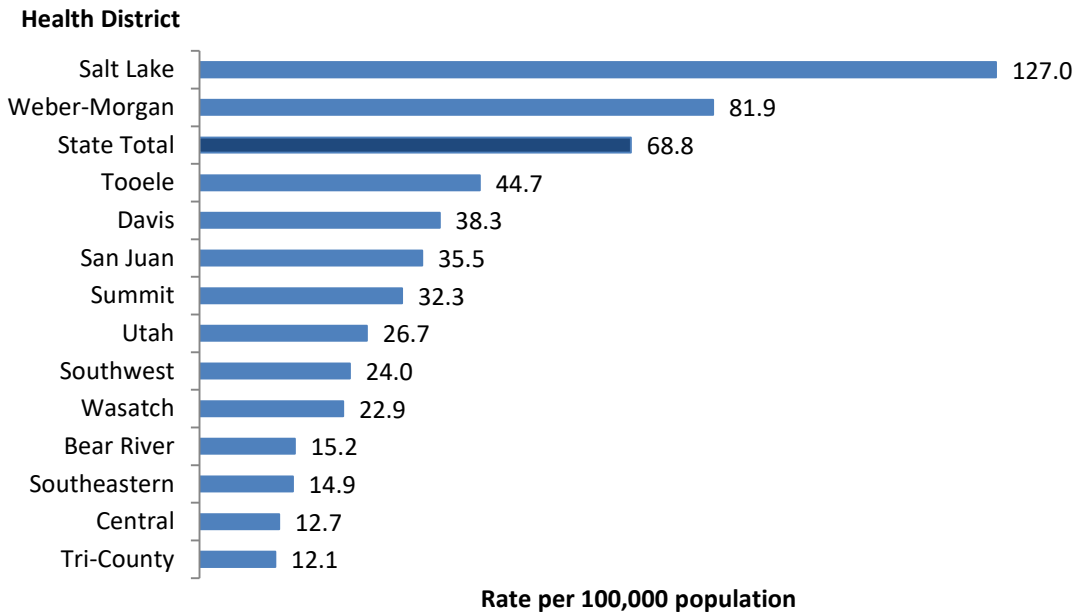
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**Figure 9. Gonorrhea Rates by Age Group and Sex Among Persons Aged ≥10 Years, Utah, 2016**

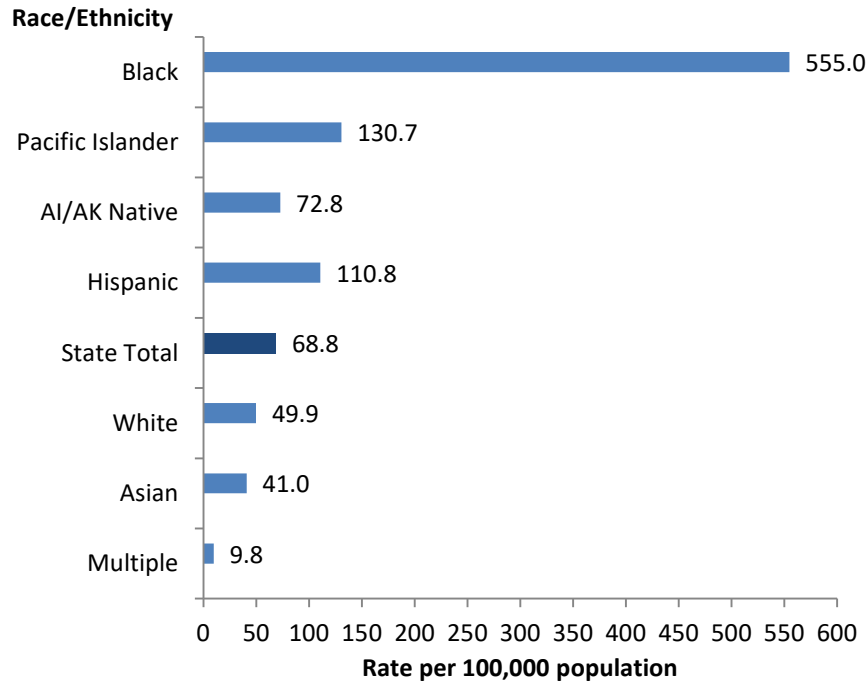


**Figure 10. Gonorrhea Rates by Local Health District, Utah, 2016**

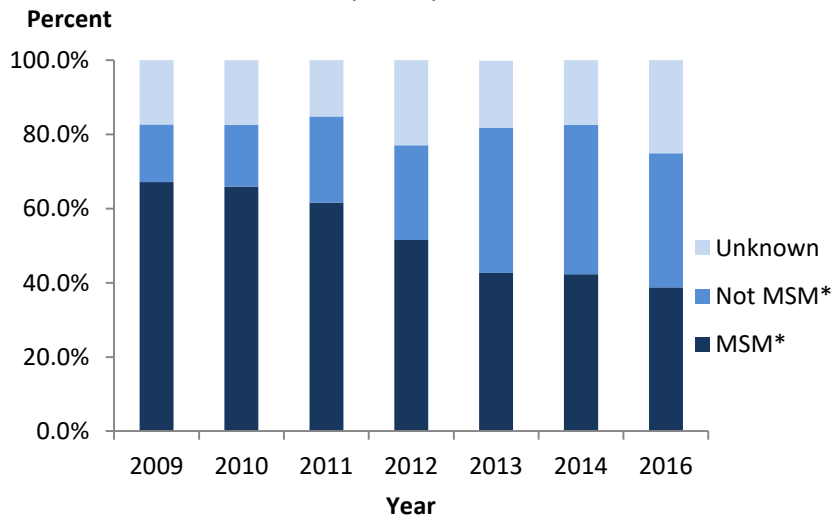




**Figure 11. Gonorrhea Rates by Race/Ethnicity, Utah, 2016**

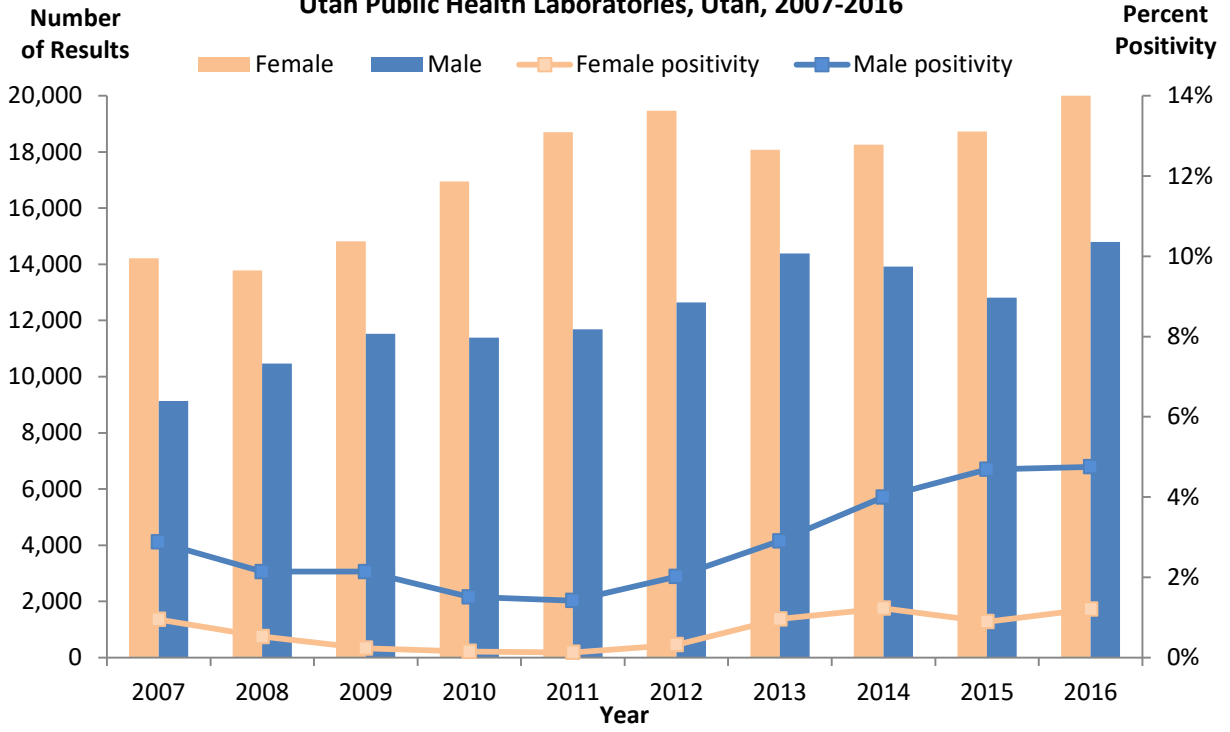


**Figure 12. Percent of Male Gonorrhea Cases by Sexual Orientation, Utah, 2009-2016**



\*MSM = Men Who Have Sex with Men

**Figure 13. Number of Gonorrhea Test Results and Percent Positivity by Sex, Utah Public Health Laboratories, Utah, 2007-2016**



## Primary and Secondary 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 the human immunodeficiency virus (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 has been an average of 49 cases each year in the previous ten years. The P&S syphilis rate in Utah in 2016 was 3.0 cases per 100,000 population.

The P&S syphilis rate in Utah has risen and fallen over the past 10 years. The rate of P&S syphilis in Utah increased from 0.8 cases per 100,000 population in 2006 to 2.3 in 2010. The increase was particularly steep from 2008 to 2010, which was inconsistent with the national trend during the same time period when rates leveled off (Figure 14). In 2011, the rate decreased to 0.5 cases per 100,000 population but has increased since. In 2016, the rate increased to 3.0 cases per 100,000 population, the highest in the past 10 years. In 2016, Utah's P&S syphilis rate was 35% the national rate.<sup>7</sup>

P&S syphilis rates in males were significantly higher than in females throughout the past decade

in Utah (Figure 15). 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 aged 50-54 (15.9 cases per 100,000 population) and men aged 20-24 years (Figure 16). P&S syphilis cases were reported in all age groups 15-59 years old. This highlights the need to target prevention messages to a wide range of age groups.

In 2016, seven LHDs in Utah reported P&S syphilis cases: Salt Lake County Health District, Utah County Health District, Davis County Health District, Southwest Utah Health District, Weber-Morgan Health District, Bear River Health District, and Summit County Health District (Figure 17). Salt Lake County Health District accounted for three fourths of the P&S cases in Utah in 2016 with a rate of 6.2 cases per 100,000 population.

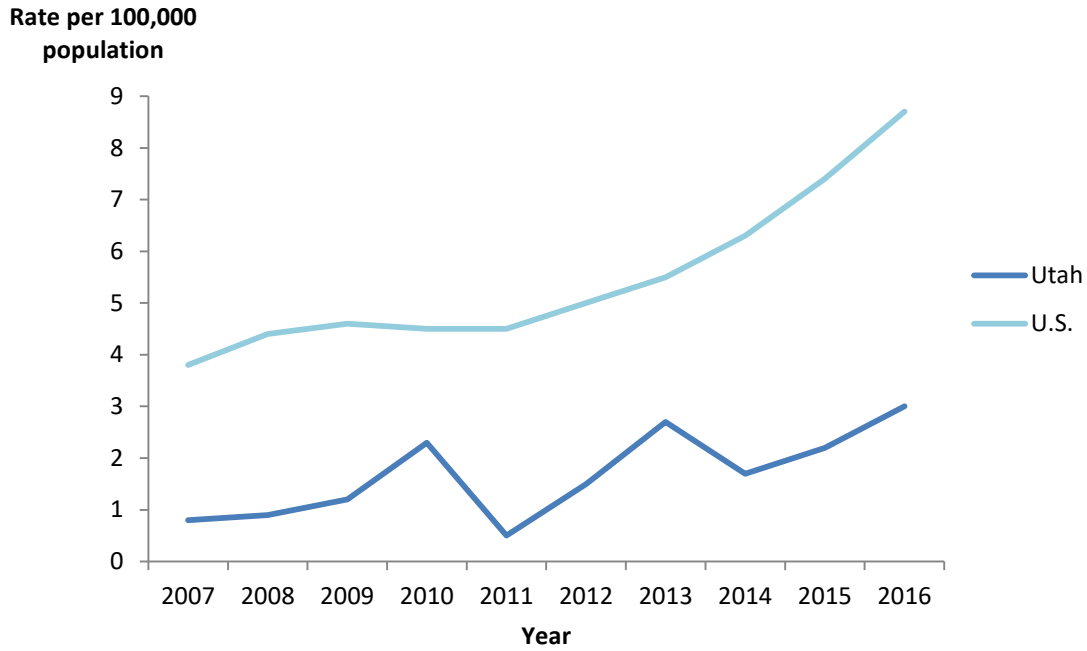
Of the 93 cases of P&S syphilis reported in Utah in 2016, the breakdown among racial and ethnic groups was as follows: 67 cases (72.0%) were among non-Hispanic whites; 16 cases (17.2%) were among Hispanics; 4 cases (4.3%) were among non-Hispanic blacks, and 1 or 2 cases each among non-Hispanic Asians, non-Hispanic American Indian or Alaska Natives, non-Hispanic Pacific Islanders, and the other/unknown category.

Since 2009, more than 80% of the P&S cases in men have been among men who have sex with men (MSM) (Figure 18). In 2016, 88.5% of P&S cases in men were among men who have sex with men.

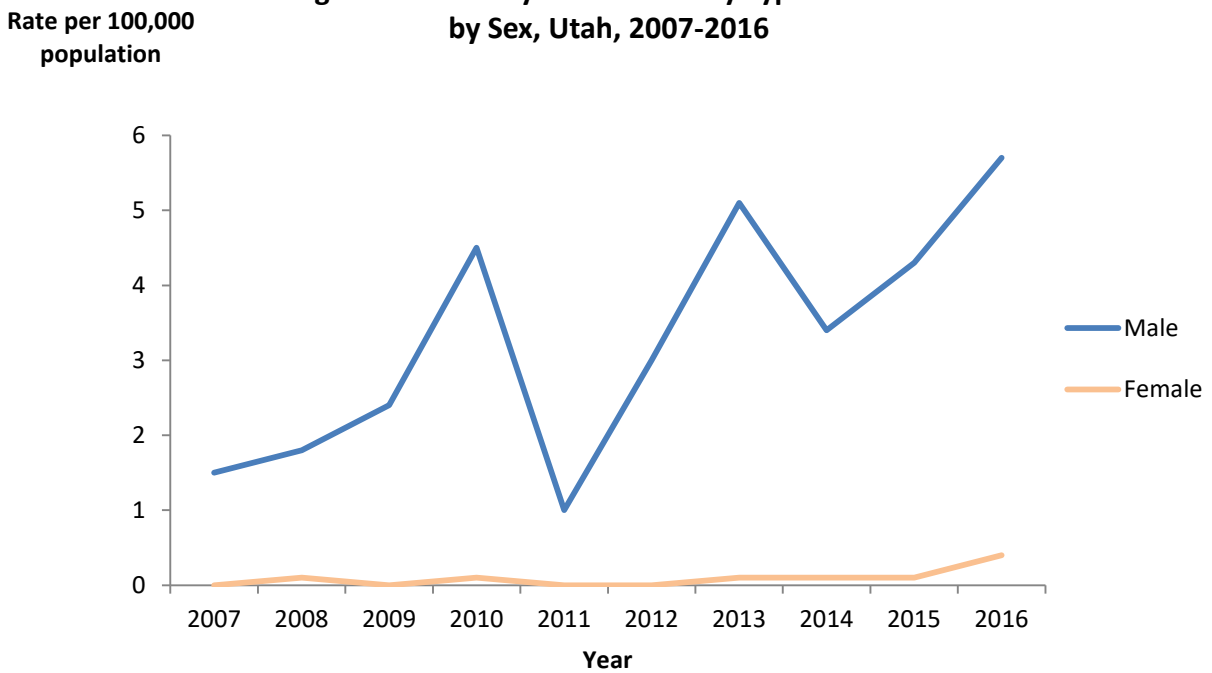
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<sup>7</sup> Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2016*. Atlanta: U.S. Department of Health and Human Services; 2017.

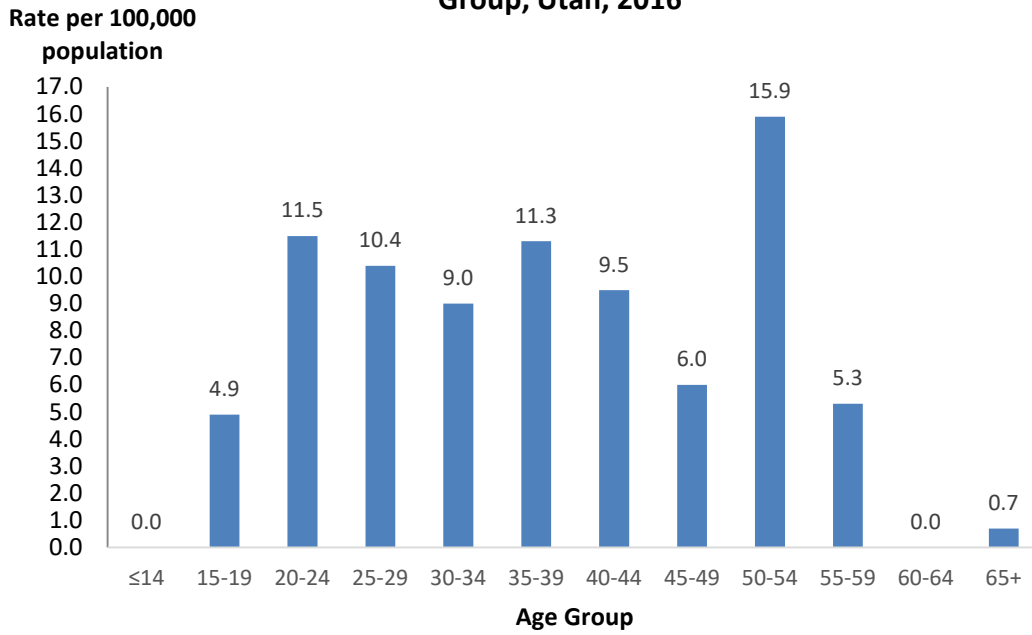
**Figure 14. Primary and Secondary Syphilis Rates, Utah and United States, 2007-2016**



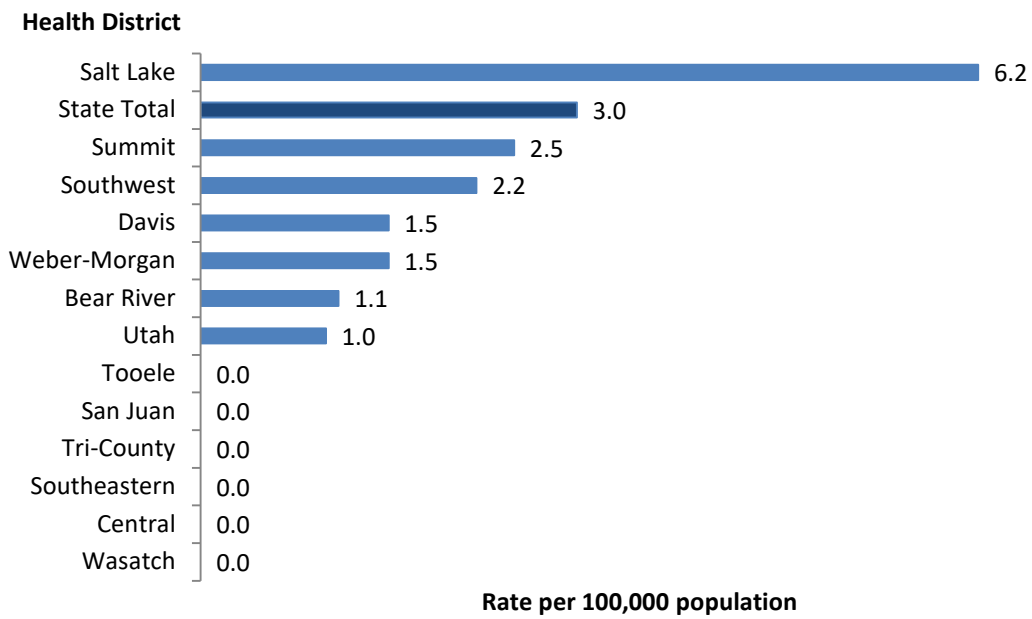
**Figure 15. Primary and Secondary Syphilis Rates by Sex, Utah, 2007-2016**



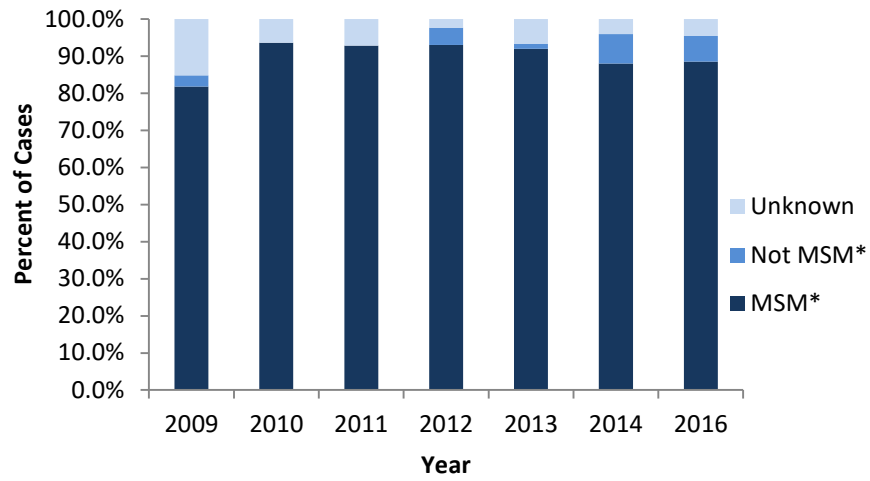
**Figure 16. Primary and Secondary Syphilis Rates in Males by Age Group, Utah, 2016**



**Figure 17. Primary and Secondary Syphilis Rates by Local Health District, Utah, 2016**



**Figure 18. Percent of Male Primary and Secondary Syphilis Cases by Sexual Orientation, Utah, 2009-2016**



\*MSM = Men Who Have Sex with Men

\*MSM=Men Who Have Sex with Men

## Chlamydia and Gonorrhea in Adolescents and Young Adults

In both Utah and the United States, adolescents 15 to 19 years of age and young adults aged 20 to 24 have higher incidences of chlamydia and gonorrhea.<sup>8</sup> In 2016, people aged 15 to 24 represented 16% of Utah's population; yet, this population accounted for 60% of reported chlamydia cases and 33% of gonorrhea cases. The increased rate of STDs can be attributed to increased risky sexual behavior among adolescents and young adults, anatomical vulnerabilities increasing transmission rates, and increased screening among this age group.

### Chlamydia

*Chlamydia trachomatis* infection rates steadily increased in people aged 15-19 and 20-24 from 2007 to 2016 (Figure 19). During this 10-year period, the chlamydia rate increased 43% in males aged 15-19, 47% in males aged 20-24, 24% in females aged 15-19, and 50% in females aged 20-24. Throughout this period, the rate in females aged 15-19 was about four times that in males of the same age; and in people aged 20-24, the female rate was about twice that of males.

In 2016, the distribution of morbidity in adolescents and young adults varied by age. Adolescents 15 and 16 years old had the lowest rates of chlamydia in both males and females (Figure 20). The rates increased with age and peaked in females at age 19 (2,938.7 cases per 100,000 population) and in males at age 20 (982.7 cases per 100,000 population). The rate of chlamydia in females was greater than that of males at every age; and the rate ratios generally decreased with age. Females had rates five times higher than males in 15-, 16-, and 18-year-olds, three times higher in 13- and 19-year-olds, and about two times higher in 20- to 24-year-olds.

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<sup>8</sup> Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2016*. Atlanta: U.S. Department of Health and Human Services; 2015.

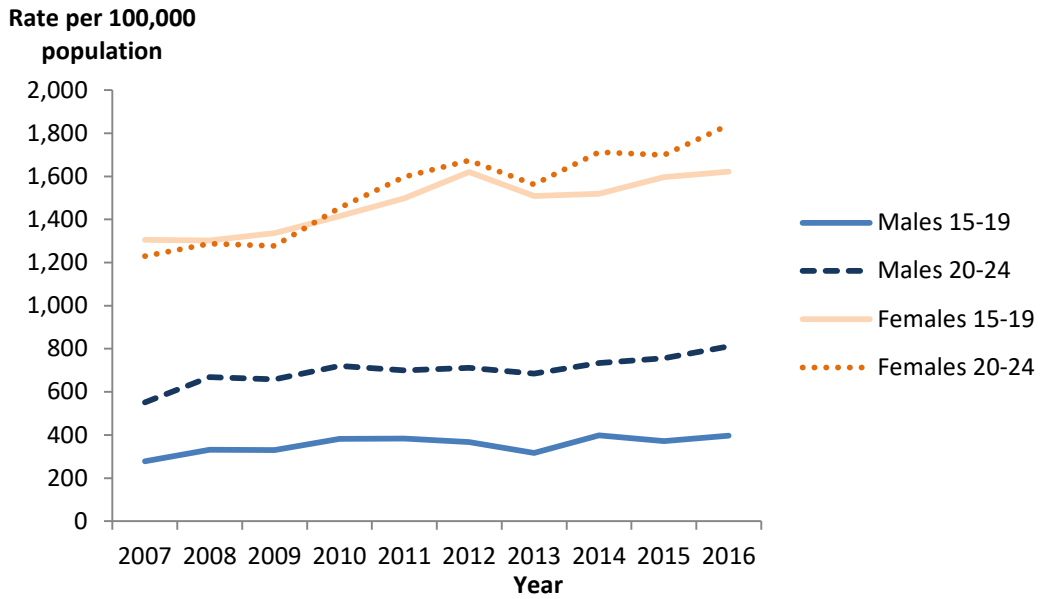
### Gonorrhea

Gonorrhea rates peaked in 2006 for those aged 20-24 (133.1 cases per 100,000 population) and in 2007 for those aged 15-19 (69.7 cases per 100,000 population) (Figure 21). Since then, both age groups declined steadily until 2012, when rates in both age groups increased. Rates continued to increase in both age categories from 2011 through 2016; rates in both 15-19 year olds and 20-24 year olds increased more than 400%. From 2015 to 2016, male rates in 15-19 year olds and 20-24 year olds increased 33% and 24% respectively. During this same time frame, the rates increased 69% in females aged 15-19 and 24% in females aged 20-24.

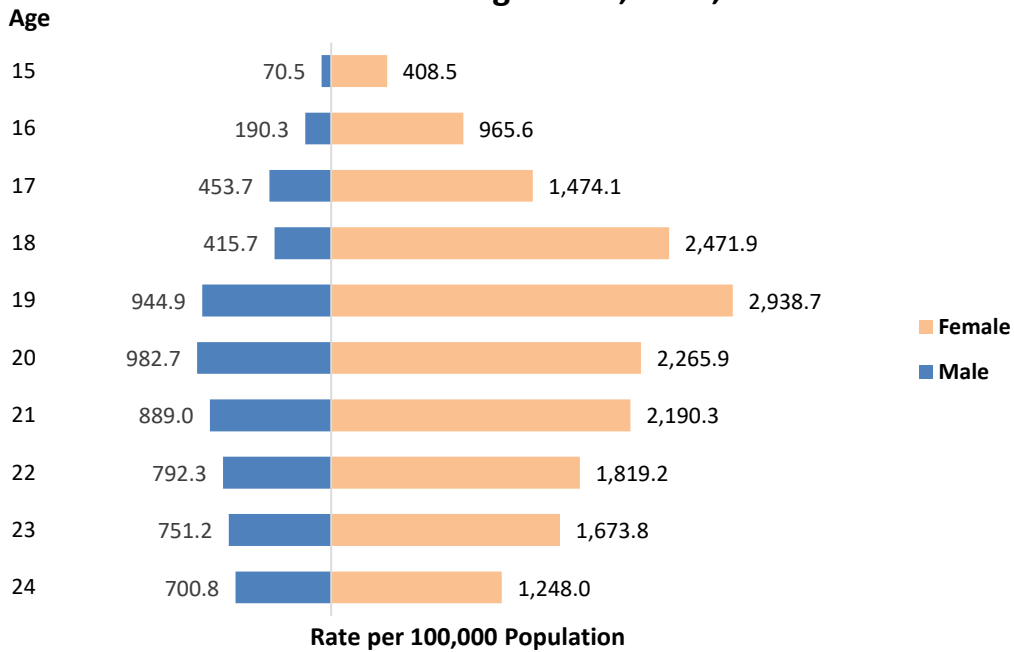
Rates among males and females 15-19 years old have fluctuated in the past 10 years. In 2007, females aged 15-19 had gonorrhea rates more than twice that of males in this same age group (Figures 21). The rates between the sexes in this age group were similar between 2008 and 2011; males had a rate twice that of females in 2012; and females had higher rates from 2013 to 2016. Among males and females aged 20-24, males have consistently had higher rates of gonorrhea. Between 2008 and 2011, male rates in this age group were two to three times that of female rates; however, in 2012, the gonorrhea rate of females aged 20-24 doubled and, in 2013, almost tripled, rendering the male and female rates similar. Since 2013, rates in females in this age group have not increased at the same rate as males. Consequently, in 2016, rates among males were 1.5 times higher than the rates among females.

In 2016, the distribution of morbidity in adolescents and young adults varied by age (Figure 22). Adolescent males and females aged 15-17 had the lowest gonorrhea rates. Rates in males were higher than in females of the same age in people 20 years or older. The highest rate in males was among adolescents 22 years old (259.3 cases per 100,000 population) and the highest rate in females was among young women 19 years old (232.2 cases per 100,000 population).

**Figure 19. Chlamydia Rates by Age Group and Sex in Adolescents and Young Adults, Utah, 2007-2016**

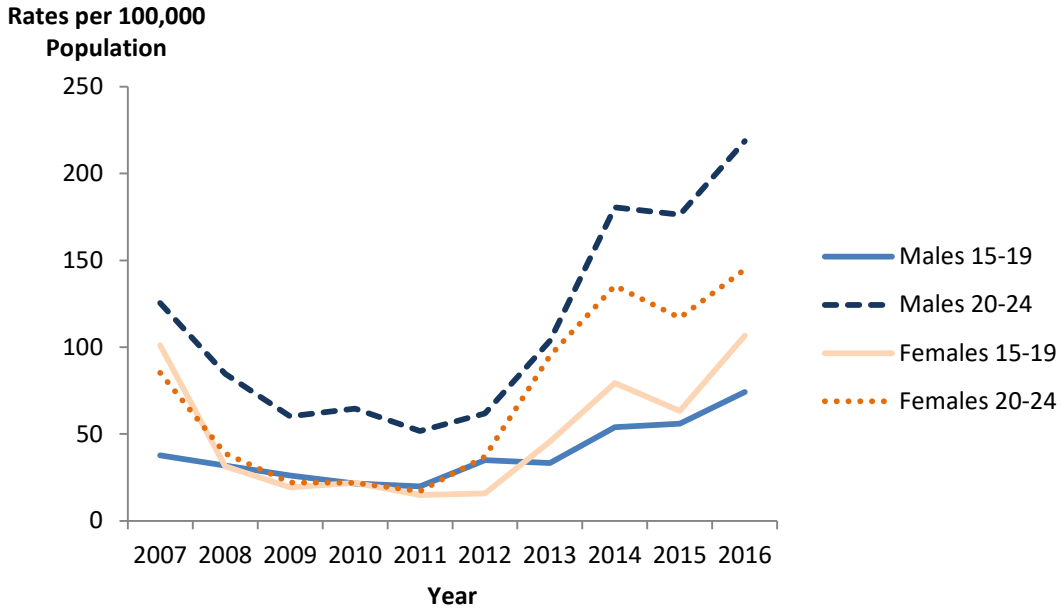


**Figure 20. Chlamydia Rates by Age and Sex in Adolescents and Young Adults, Utah, 2016**

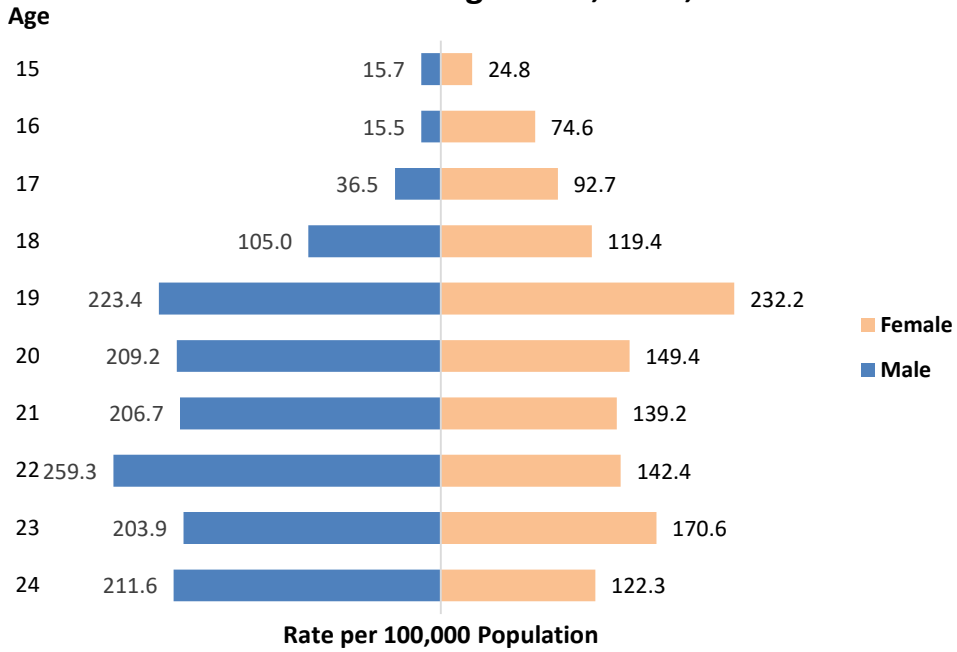




**Figure 21. Gonorrhea Rates by Age Group and Sex in Adolescents and Young Adults, Utah, 2007-2016**



**Figure 22. Gonorrhea Rates by Age and Sex in Adolescents and Young Adults, Utah, 2016**



# TABLES

**Table 1. Cases of Sexually Transmitted Diseases and Rates per 100,000 Population, Utah and United States (U.S.), 2007-2016**

Year	Chlamydia			Gonorrhea			Primary and Secondary Syphilis		
	Utah		U.S.	Utah		U.S.	Utah		U.S.
	Cases	Rate	Rate	Cases	Rate	Rate	Cases	Rate	Rate
2007	5,718	220.1	367.5	819	31.5	118.0	20	0.8	3.8
2008	6,021	226.1	398.1	477	17.9	110.7	25	0.9	4.4
2009	6,149	225.8	405.3	341	12.5	98.1	33	1.2	4.6
2010	6,676	240.5	423.6	310	11.2	100.2	65	2.3	4.5
2011	7,055	250.5	453.4	277	9.8	103.3	14	0.5	4.5
2012	7,607	266.4	453.3	483	16.9	106.7	43	1.5	5.0
2013	7,501	258.4	443.5	951	32.8	105.3	77	2.7	5.5
2014	8,217	279.3	452.2	1,439	48.9	109.8	51	1.7	6.3
2015	8,611	287.9	475.0	1,560	52.2	123.0	66	2.2	7.4
2016	9,459	310.0	497.3	2,100	68.8	145.8	93	3.0	8.7

Note: Cases were classified by Morbidity and Mortality Weekly Report (MMWR) year.

Sources: Utah Cases - Bureau of Epidemiology, Utah Department of Health; US Rates - Centers for Disease Control and Prevention; Population Estimates - National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Bureau of the Census.

**Table 2. Chlamydia Cases and Rates by Age Group and Sex, Utah, 2007-2016**

Sex (years)	Cases										Rates per 100,000 Population										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
M A L E	<1	2	4	3	2	3	5	2	0	0	1	7.3	15.0	11.0	7.4	11.4	19.5	7.6	0.0	0.0	3.8
	1 to 9	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 to 14	8	7	5	6	5	5	4	2	8	10	7.4	6.3	4.4	5.1	4.1	4.1	3.2	1.6	6.2	7.6
	15 to 19	301	366	367	426	426	410	362	458	439	481	277.6	332.3	330.4	381.8	383.9	367.0	317.5	398.1	371.6	396.7
	20 to 24	651	774	753	824	824	875	866	935	979	1,060	551.8	669.1	658.2	720.9	699.8	712.0	685.7	733.9	756.5	810.7
	25 to 29	429	445	516	494	512	545	616	655	646	760	376.9	381.4	441.4	419.6	448.8	498.1	575.0	607.9	590.3	657.3
	30 to 34	212	210	251	237	249	321	316	335	357	464	216.0	203.6	230.0	213.1	218.8	278.2	272.0	290.6	313.0	416.1
	35 to 39	100	116	117	113	114	149	161	194	218	292	120.1	135.2	131.5	123.5	121.3	151.8	156.9	181.5	196.3	254.5
	40 to 44	46	50	49	58	70	71	79	112	121	159	60.8	66.0	63.9	73.1	84.6	83.4	90.4	125.1	131.9	168.2
	45 to 49	23	36	34	22	35	49	45	56	64	92	29.9	46.2	43.6	28.5	45.9	64.7	59.4	73.3	80.8	111.3
	50 to 54	12	20	21	21	14	26	20	44	48	63	16.8	27.3	28.2	27.7	18.2	33.7	25.9	57.0	62.8	83.3
	55 to 59	3	6	5	9	1	8	5	13	33	22	5.1	9.8	7.8	13.5	1.5	11.3	6.9	17.7	44.2	29.0
	60 to 64	1	1	3	4	3	2	5	3	9	14	2.2	2.1	6.0	7.5	5.3	3.5	8.4	4.8	13.9	20.8
	65+	5	1	1	0	1	0	3	1	3	7	4.9	0.9	0.9	0.0	0.8	0.0	2.3	0.7	2.1	4.7
Unknown	0	3	0	3	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
<b>Male Total</b>	<b>1,793</b>	<b>2,039</b>	<b>2,125</b>	<b>2,219</b>	<b>2,257</b>	<b>2,466</b>	<b>2,484</b>	<b>2,808</b>	<b>2,925</b>	<b>3,425</b>	<b>137.4</b>	<b>152.5</b>	<b>155.3</b>	<b>159.2</b>	<b>159.5</b>	<b>171.8</b>	<b>170.1</b>	<b>189.8</b>	<b>194.3</b>	<b>223.0</b>	
F E M A L E	<1	3	4	2	1	0	1	1	0	2	0	11.8	15.9	7.7	3.9	0.0	4.1	4.0	0.0	8.1	0.0
	1 to 9	2	2	1	1	0	1	1	0	0	0	1.0	0.9	0.5	0.4	0.0	0.4	0.4	0.0	0.0	0.0
	10 to 14	49	40	51	43	47	55	37	49	47	52	48.3	38.4	47.1	38.5	41.1	47.3	31.0	40.4	38.1	41.5
	15 to 19	1,394	1,410	1,457	1,540	1,611	1,742	1,651	1,684	1,816	1,899	1,306.1	1,302.9	1,337.3	1,414.7	1,498.6	1,620.4	1,508.1	1,519.0	1,596.1	1,621.5
	20 to 24	1,399	1,457	1,445	1,652	1,861	1,992	1,890	2,087	2,078	2,246	1,229.1	1,287.0	1,277.3	1,454.2	1,598.1	1,673.3	1,562.0	1,711.6	1,698.2	1,837.6
	25 to 29	672	641	647	712	739	706	773	793	871	914	612.7	575.7	578.2	642.0	677.8	662.9	734.9	754.0	814.9	814.5
	30 to 34	238	248	245	295	294	374	382	458	477	473	257.0	252.5	238.5	277.2	269.1	337.5	342.1	411.7	432.6	432.0
	35 to 39	97	106	101	123	145	156	161	187	224	249	121.1	128.0	118.1	139.4	160.3	165.2	163.1	182.1	209.6	225.0
	40 to 44	45	44	48	61	62	66	78	93	89	122	61.4	60.2	65.0	80.1	78.1	80.8	92.7	107.9	100.8	134.1
	45 to 49	14	18	14	19	29	22	24	36	42	46	18.2	23.1	17.9	24.6	38.4	29.6	32.6	48.5	55.0	57.6
	50 to 54	9	5	8	8	7	16	13	14	27	20	12.5	6.7	10.6	10.4	9.0	20.4	16.5	17.9	34.9	26.3
	55 to 59	3	1	2	2	3	6	6	6	11	6	5.0	1.6	3.1	2.9	4.3	8.3	8.1	7.9	14.3	7.7
	60 to 64	0	1	0	0	0	2	0	2	1	3	0.0	2.0	0.0	0.0	0.0	3.3	0.0	3.1	1.5	4.3
	65+	0	4	1	0	0	2	0	0	1	2	0.0	3.1	0.7	0.0	0.0	1.4	0.0	0.0	0.6	1.2
Unknown	0	1	2	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
<b>Female Total</b>	<b>3,925</b>	<b>3,982</b>	<b>4,024</b>	<b>4,457</b>	<b>4,798</b>	<b>5,141</b>	<b>5,017</b>	<b>5,409</b>	<b>5,686</b>	<b>6,032</b>	<b>303.6</b>	<b>300.4</b>	<b>296.9</b>	<b>322.7</b>	<b>342.3</b>	<b>362.0</b>	<b>347.7</b>	<b>370.0</b>	<b>382.7</b>	<b>398.1</b>	
T O T A L	<1	5	8	5	3	3	6	3	0	2	1	9.5	15.4	9.4	5.7	5.9	12.1	5.9	0.0	3.9	2.0
	1 to 9	2	2	1	1	0	1	1	0	0	0	0.5	0.5	0.2	0.2	0.0	0.2	0.2	0.0	0.0	0.0
	10 to 14	57	47	56	49	52	60	41	51	55	62	27.2	21.9	25.1	21.4	22.1	25.1	16.8	20.5	21.8	24.1
	15 to 19	1,695	1,776	1,824	1,966	2,037	2,152	2,013	2,142	2,255	2,382	787.8	813.4	828.9	891.9	932.4	981.6	900.7	948.1	972.4	999.3
	20 to 24	2,050	2,231	2,198	2,476	2,685	2,867	2,756	3,022	3,057	3,306	884.4	974.7	966.0	1,086.4	1,146.5	1,185.0	1,114.5	1,212.0	1,214.2	1,306.8
	25 to 29	1,101	1,086	1,163	1,206	1,251	1,251	1,389	1,448	1,517	1,674	492.6	476.3	508.3	527.4	560.7	579.4	654.2	680.1	701.3	734.7
	30 to 34	450	458	496	532	543	695	698	793	834	937	235.9	227.5	234.1	244.4	243.4	307.3	306.3	350.1	371.8	424.0
	35 to 39	197	222	218	236	259	305	322	381	442	541	120.6	131.6	124.9	131.3	140.4	158.4	159.9	181.8	202.8	240.0
	40 to 44	91	94	97	119	132	137	157	205	210	281	61.1	63.2	64.4	76.5	81.5	82.1	91.6	116.7	116.6	151.5
	45 to 49	37	54	48	41	64	71	69	92	106	138	24.0	34.7	30.8	26.5	42.2	47.3	46.2	61.1	68.1	84.9
	50 to 54	21	25	29	29	21	42	33	58	75	83	14.6	17.0	19.3	19.0	13.6	27.0	21.2	37.3	48.8	54.8
	55 to 59	6	7	7	11	4	14	11	19	44	28	5.0	5.6	5.4	8.2	2.9	9.8	7.5	12.7	29.0	18.2
	60 to 64	1	2	3	4	3	4	5	5	10	17	1.1	2.1	2.9	3.7	2.6	3.4	4.1	3.9	7.6	12.4
	65+	5	5	2	0	1	2	3	1	4	9	2.2	2.1	0.8	0.0	0.4	0.7	1.1	0.3	1.3	2.8
Unknown	0	4	2	3	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
<b>Total Cases</b>	<b>5,718</b>	<b>6,021</b>	<b>6,149</b>	<b>6,676</b>	<b>7,055</b>	<b>7,607</b>	<b>7,501</b>	<b>8,217</b>	<b>8,611</b>	<b>9,459</b>	<b>220.1</b>	<b>226.1</b>	<b>225.8</b>	<b>240.5</b>	<b>250.5</b>	<b>266.4</b>	<b>258.4</b>	<b>279.3</b>	<b>287.9</b>	<b>310.0</b>	

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year.

Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Bureau of the Census.

**Table 3. Chlamydia Cases and Rates by Local Health District, Utah, 2007-2016**

Local Health District	Cases										Rates per 100,000 Population									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bear River	233	190	177	239	274	299	249	267	345	353	152.3	120.6	109.3	144.2	163.6	177.5	146.2	155.3	197.9	198.1
Central	54	77	54	83	65	70	75	105	88	82	75.3	104.1	71.9	109.6	85.5	92.4	98.6	137.5	114.0	104.4
Davis	540	569	747	685	720	837	874	930	877	947	187.3	192.4	247.4	222.4	230.7	264.7	270.8	282.3	261.2	276.7
Salt Lake	3,237	3,415	3,251	3,489	3,606	3,903	3,667	4,242	4,504	5,072	329.1	341.7	319.7	337.7	343.9	366.7	339.3	388.7	407.7	452.3
San Juan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	55	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	313.7
Southeastern	91	76	96	74	90	142	165	125	70	68	168.6	138.8	172.7	131.0	159.7	251.9	294.7	223.6	173.8	169.2
Southwest	263	274	243	329	339	353	369	424	404	450	135.7	138.1	120.7	161.5	163.7	168.0	173.3	194.8	181.8	196.5
Summit	64	62	56	68	59	68	78	94	90	121	184.7	176.0	156.3	186.5	157.7	179.6	203.2	241.0	228.0	300.2
Tooele	87	83	109	126	136	118	141	143	164	158	161.6	148.5	190.5	215.3	229.5	197.1	232.1	232.1	260.8	243.7
TriCounty	46	71	68	86	90	91	116	132	113	126	96.8	143.7	129.5	165.1	169.4	166.1	203.9	226.2	189.3	218.0
Utah	464	518	614	710	774	780	765	936	968	1,007	98.8	106.2	121.6	136.5	145.9	144.4	138.5	166.8	168.4	170.0
Wasatch	32	29	33	28	32	39	36	32	28	45	149.4	131.1	144.2	118.5	131.1	153.6	135.3	115.2	96.0	147.4
Weber-Morgan	607	657	675	687	792	843	801	731	807	910	268.2	282.2	284.3	284.2	325.0	342.1	322.0	291.0	317.0	351.4
Unknown	0	0	26	72	78	64	165	56	98	67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>State Total</b>	<b>5,718</b>	<b>6,021</b>	<b>6,149</b>	<b>6,676</b>	<b>7,055</b>	<b>7,607</b>	<b>7,501</b>	<b>8,217</b>	<b>8,611</b>	<b>9,459</b>	<b>220.1</b>	<b>226.1</b>	<b>225.8</b>	<b>240.5</b>	<b>250.5</b>	<b>266.4</b>	<b>258.4</b>	<b>279.3</b>	<b>287.9</b>	<b>310.0</b>

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year. San Juan County has been an independent LHD since 2015. Prior to 2015, it was served by the Southeastern Utah LHD  
Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Bureau of the Census.

**Table 4. Chlamydia Cases and Rates by Race/Ethnicity, Utah, 2007-2016**

Race/Ethnicity	Cases										Rates per 100,000 Population									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AI/AK Native	104	105	112	104	170	192	195	166	148	158	387.0	389.4	411.5	382.0	620.8	699.4	700.1	586.1	511.7	522.8
Asian	96	98	77	90	89	118	120	135	131	178	195.3	190.9	143.9	162.6	153.8	195.6	190.5	205.2	189.0	243.0
Black	187	190	230	238	282	300	319	349	319	424	794.4	775.4	888.5	899.6	1035.2	1,061.0	1,087.8	1,158.7	1,026.1	1,307.2
Hispanic <sup>†</sup>	1,405	1,488	1,648	1,640	1,777	1,968	1,971	1,923	2,094	2,333	453.7	449.9	474.1	454.7	480.5	520.8	508.4	485.6	513.9	554.9
White	3,810	4,009	3,837	4,377	4,545	4,857	4,697	5,074	4,715	5,373	179.1	185.2	174.3	195.9	201.1	212.5	202.9	216.9	199.1	223.4
Pacific Islander	111	125	130	138	139	142	142	188	186	224	524.5	558.7	555.7	566.8	562.4	559.7	541.8	701.3	666.8	770.6
Multiple	4	5	6	8	10	23	23	31	29	41	10.1	11.9	13.4	17.0	20.4	45.0	43.2	56.1	50.3	67.2
Other/Unknown	1	1	109	81	43	7	34	351	989	728	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>State Total</b>	<b>5,718</b>	<b>6,021</b>	<b>6,149</b>	<b>6,676</b>	<b>7,055</b>	<b>7,607</b>	<b>7,501</b>	<b>8,217</b>	<b>8,611</b>	<b>9,459</b>	<b>220.1</b>	<b>226.1</b>	<b>225.8</b>	<b>240.5</b>	<b>250.5</b>	<b>266.4</b>	<b>258.4</b>	<b>279.3</b>	<b>287.9</b>	<b>310.0</b>

<sup>†</sup> Includes persons of Hispanic ethnicity regardless of race.

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year.

Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - U.S. Bureau of the Census.

**Table 5. Chlamydia Test Results and Percent Positivity by Sex, Utah Public Health Laboratories, Utah, 2007-2016**

Year*	Female			Male			Total**		
	Positive Results	Total Results	Percent Positive	Positive Results	Total Results	Percent Positive	Positive Results	Total Results	Percent Positive
2007	1,326	14,209	9.33%	1,029	9,136	11.26%	2,563	25,125	10.20%
2008	1,247	13,788	9.04%	1,188	10,463	11.35%	2,577	25,647	10.05%
2009	1,251	14,819	8.44%	1,320	11,525	11.45%	2,621	26,846	9.76%
2010	1,453	16,951	8.57%	1,326	11,391	11.64%	2,821	28,756	9.81%
2011	1,723	18,704	9.21%	1,245	11,690	10.65%	3,011	30,711	9.80%
2012	1,803	19,468	9.26%	1,443	12,900	11.19%	3,278	32,708	10.02%
2013	1,701	16,544	10.28%	1,417	13,375	10.59%	3,170	30,308	10.46%
2014	1,662	18,260	9.10%	1,487	13,915	10.69%	3,183	32,537	9.78%
2015	1,824	18,726	9.74%	1,446	12,819	11.28%	3,289	31,754	10.36%
2016	1,911	21,016	9.09%	1,580	14,794	10.68%	3,522	36,147	9.74%

\* Results reported by calendar year.

\*\* Totals include results where the gender is unknown.

Source: Utah Public Health Laboratories, Utah Department of Health.

**Table 6. Gonorrhea Cases and Rates by Age Group and Sex, Utah, 2007-2016**

Sex	Age Group (years)	Cases										Rates per 100,000 Population									
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
M A L E	<1	0	1	0	0	0	0	0	0	0	0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1 to 9	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 to 14	0	1	1	0	1	0	2	0	1	3	0.0	0.9	0.9	0.0	0.8	0.0	1.6	0.0	0.8	2.3
	15 to 19	41	35	29	24	22	39	38	62	66	90	37.8	31.8	26.1	21.5	19.8	34.9	33.3	53.9	55.9	74.2
	20 to 24	148	98	69	74	61	76	131	230	228	286	125.4	84.7	60.3	64.7	51.8	61.8	103.7	180.5	176.2	218.7
	25 to 29	103	78	88	49	54	65	133	200	265	312	90.5	66.9	75.3	41.6	47.3	59.4	124.1	185.6	242.2	269.8
	30 to 34	54	43	29	34	33	60	100	150	163	257	55.0	41.7	26.6	30.6	29.0	52.0	86.1	130.1	142.9	230.4
	35 to 39	53	29	17	24	19	34	60	97	122	170	63.7	33.8	19.1	26.2	20.2	34.6	58.5	90.8	109.9	148.1
	40 to 44	31	19	12	17	10	27	41	49	70	111	41.0	25.1	15.6	21.4	12.1	31.7	46.9	54.7	76.3	117.4
	45 to 49	21	17	9	7	9	26	29	40	45	80	27.3	21.8	11.6	9.1	11.8	34.3	38.3	52.4	56.8	96.8
	50 to 54	15	11	14	3	1	12	33	28	51	38	21.0	15.0	18.8	4.0	1.3	15.5	42.7	36.2	66.8	50.2
	55 to 59	5	4	2	2	1	10	9	12	35	25	8.5	6.5	3.1	3.0	1.5	14.1	16.3	46.9	33.0	
	60 to 64	1	1	1	1	0	0	2	7	4	11	2.2	2.1	2.0	1.9	0.0	0.0	3.3	11.2	6.2	16.4
	65+	2	0	0	0	0	0	0	0	5	2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	1.3
	Unknown	0	3	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Male Total</b>	<b>474</b>	<b>340</b>	<b>271</b>	<b>235</b>	<b>211</b>	<b>349</b>	<b>578</b>	<b>875</b>	<b>1,055</b>	<b>1,385</b>	<b>36.3</b>	<b>25.4</b>	<b>19.8</b>	<b>16.9</b>	<b>14.9</b>	<b>24.3</b>	<b>39.6</b>	<b>59.1</b>	<b>70.1</b>	<b>90.2</b>	
F E M A L E	<1	0	1	0	0	0	0	0	1	0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	
	1 to 9	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10 to 14	2	3	2	1	1	3	1	5	6	5	2.0	2.9	1.8	0.9	0.9	2.6	0.8	4.1	4.9	4.0
	15 to 19	108	34	21	24	16	17	50	88	72	125	101.2	31.4	19.3	22.0	14.9	15.8	45.7	79.4	63.3	106.7
	20 to 24	97	44	25	25	20	44	115	165	143	177	85.2	38.9	22.1	22.0	17.2	37.0	95.0	135.3	116.9	144.8
	25 to 29	73	28	15	15	15	23	82	119	109	159	66.6	25.1	13.4	13.5	13.8	21.6	78.0	113.1	102.0	141.7
	30 to 34	34	13	2	7	6	24	57	102	81	130	36.7	13.2	1.9	6.6	5.5	21.7	51.0	91.7	73.5	118.7
	35 to 39	14	8	1	2	6	11	35	52	55	60	17.5	9.7	1.2	2.3	6.6	11.7	35.5	50.6	51.5	54.2
	40 to 44	9	0	2	1	1	4	12	18	20	34	12.3	0.0	2.7	1.3	1.3	4.9	14.3	20.9	22.6	37.4
	45 to 49	4	4	1	0	1	4	4	9	13	16	5.2	5.1	1.3	0.0	1.3	5.4	5.4	12.1	17.0	20.0
	50 to 54	3	0	0	0	0	4	11	4	5	7	4.2	0.0	0.0	0.0	0.0	5.1	14.0	5.1	6.5	9.2
	55 to 59	0	1	1	0	0	0	3	1	1	1	0.0	1.6	1.5	0.0	0.0	0.0	4.0	1.3	1.3	1.3
	60 to 64	0	0	0	0	0	0	3	0	0	1	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	1.4
	65+	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	1	1	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Female Total</b>	<b>345</b>	<b>137</b>	<b>70</b>	<b>75</b>	<b>66</b>	<b>134</b>	<b>373</b>	<b>564</b>	<b>505</b>	<b>715</b>	<b>26.7</b>	<b>10.3</b>	<b>5.2</b>	<b>5.4</b>	<b>4.7</b>	<b>9.4</b>	<b>25.9</b>	<b>38.6</b>	<b>34.0</b>	<b>47.2</b>	
T O T A L	<1	0	2	0	0	0	0	0	1	0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	
	1 to 9	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10 to 14	2	4	3	1	2	3	3	5	7	8	1.0	1.9	1.3	0.4	0.9	1.3	1.2	2.0	2.8	3.1
	15 to 19	149	69	50	48	38	56	88	150	138	215	69.3	31.6	22.7	21.8	17.4	25.5	39.4	66.4	59.5	90.2
	20 to 24	245	142	94	99	81	120	246	395	371	463	105.7	62.0	41.3	43.4	34.6	49.6	99.5	158.4	147.4	183.0
	25 to 29	176	106	103	64	69	88	215	319	374	471	78.7	46.5	45.0	28.0	30.9	40.8	101.3	149.8	172.9	206.7
	30 to 34	88	56	31	41	39	84	157	252	244	387	46.1	27.8	14.6	18.8	17.5	37.1	68.9	111.2	108.8	175.1
	35 to 39	67	37	18	26	25	45	95	149	177	230	41.0	21.9	10.3	14.5	13.6	23.4	47.2	71.1	81.2	102.0
	40 to 44	40	19	14	18	11	31	53	67	90	145	26.9	12.8	9.3	11.6	6.8	18.6	30.9	38.1	50.0	78.2
	45 to 49	25	21	10	7	10	30	33	49	58	96	16.2	13.5	6.4	4.5	6.6	20.0	22.1	32.5	37.3	59.1
	50 to 54	18	11	14	3	1	16	44	32	56	45	12.5	7.5	9.3	2.0	0.6	10.3	28.2	20.6	36.4	29.7
	55 to 59	5	5	3	2	1	10	12	13	36	26	4.2	4.0	2.3	1.5	0.7	7.0	8.2	8.7	23.7	16.9
	60 to 64	1	1	1	1	0	0	5	7	4	12	1.1	1.0	1.0	0.9	0.0	0.0	4.1	5.5	3.0	8.7
	65+	2	0	0	0	0	0	0	0	5	2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.6
	Unknown	1	4	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total Cases</b>	<b>819</b>	<b>477</b>	<b>341</b>	<b>310</b>	<b>277</b>	<b>483</b>	<b>951</b>	<b>1,439</b>	<b>1,560</b>	<b>2,100</b>	<b>31.5</b>	<b>17.9</b>	<b>12.5</b>	<b>11.2</b>	<b>9.8</b>	<b>16.9</b>	<b>32.8</b>	<b>48.9</b>	<b>52.2</b>	<b>68.8</b>	

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year.

Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Bureau of the Census.

**Table 7. Gonorrhea Cases and Rates by Local Health District, Utah, 2007-2016**

Local Health District	Cases										Rates per 100,000 Population									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bear River	12	3	6	7	3	8	7	35	17	27	7.8	1.9	3.7	4.2	1.8	4.7	4.1	20.4	9.8	15.2
Central	5	0	0	3	0	3	3	7	7	10	7.0	0.0	0.0	4.0	0.0	4.0	3.9	9.2	9.1	12.7
Davis	53	24	38	38	18	41	64	103	94	131	18.4	8.1	12.6	12.3	5.8	13.0	19.8	31.3	28.0	38.3
Salt Lake	551	334	239	197	196	336	680	995	1034	1424	56.0	33.4	23.5	19.1	18.7	31.6	62.9	91.2	93.6	127.0
San Juan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19.1	35.5
Southeastern	5	2	5	5	6	5	4	7	6	6	9.3	3.7	9.0	8.8	10.6	8.9	7.1	12.5	14.9	14.9
Southwest	15	14	11	6	10	14	16	23	53	55	7.7	7.1	5.5	2.9	4.8	6.7	7.5	10.6	23.9	24.0
Summit	6	4	2	2	2	3	6	9	10	13	17.3	11.4	5.6	5.5	5.3	7.9	15.6	23.1	25.3	32.3
Tooele	14	10	1	6	1	3	7	22	27	29	26.0	17.9	1.7	10.3	1.7	5.0	11.5	35.7	42.9	44.7
TriCounty	1	2	0	0	2	5	7	7	12	7	2.1	4.0	0.0	0.0	3.8	9.1	12.3	12.0	20.1	12.1
Utah	34	13	16	24	19	17	65	97	130	158	7.2	2.7	3.2	4.6	3.6	3.1	11.8	17.3	22.6	26.7
Wasatch	1	0	0	0	0	0	1	2	3	7	4.7	0.0	0.0	0.0	0.0	0.0	3.8	7.2	10.3	22.9
Weber-Morgan	122	71	21	20	17	43	84	126	144	212	53.9	30.5	8.8	8.3	7.0	17.5	33.8	50.2	56.6	81.9
Unknown	0	0	2	2	3	5	7	6	20	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>State Total</b>	<b>819</b>	<b>477</b>	<b>341</b>	<b>310</b>	<b>277</b>	<b>483</b>	<b>951</b>	<b>1,439</b>	<b>1,560</b>	<b>2,100</b>	<b>31.5</b>	<b>17.9</b>	<b>12.5</b>	<b>11.2</b>	<b>9.8</b>	<b>16.9</b>	<b>32.8</b>	<b>48.9</b>	<b>52.2</b>	<b>68.8</b>

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year. San Juan County has been an independent LHD since 2015. Prior to 2015, it was served by the Southeastern Utah LHD  
Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Bureau of the Census.

**Table 8. Gonorrhea Cases and Rates by Race/Ethnicity, Utah, 2007-2016**

Race/Ethnicity	Cases										Rates per 100,000 Population									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AI/AK Native	13	5	2	6	5	14	20	16	23	22	48.4	18.5	7.3	22.0	18.3	51.0	71.8	56.5	79.5	72.8
Asian	8	10	4	2	2	3	13	21	22	30	16.3	19.5	7.5	3.6	3.5	5.0	20.6	31.9	31.7	41.0
Black	79	41	26	9	20	58	71	101	137	180	335.6	167.3	100.4	34.0	73.4	205.1	242.1	335.3	440.7	555.0
Hispanic <sup>†</sup>	182	88	60	35	41	84	171	322	301	466	58.8	26.6	17.3	9.7	11.1	22.2	44.1	81.3	73.9	110.8
White	522	331	236	253	206	317	666	928	884	1,199	24.5	15.3	10.7	11.3	9.1	13.9	28.8	39.7	37.3	49.9
Pacific Islander	13	2	3	3	3	5	7	18	22	38	61.4	8.9	12.8	12.3	12.1	19.7	26.7	67.1	78.9	130.7
Multiple	1	0	1	0	0	1	3	6	4	6	2.5	0.0	2.2	0.0	0.0	2.0	5.6	10.8	6.9	9.8
Other/Unknown	1	0	9	2	0	1	0	27	167	159	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>State Total</b>	<b>819</b>	<b>477</b>	<b>341</b>	<b>310</b>	<b>277</b>	<b>483</b>	<b>951</b>	<b>1,439</b>	<b>1,560</b>	<b>2,100</b>	<b>31.5</b>	<b>17.9</b>	<b>12.5</b>	<b>11.2</b>	<b>9.8</b>	<b>16.9</b>	<b>32.8</b>	<b>48.9</b>	<b>52.2</b>	<b>68.8</b>

<sup>†</sup> Includes persons of Hispanic ethnicity regardless of race.

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year.

Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - U.S. Bureau of the Census.



**Table 9. Gonorrhea Cases and Percent Among Males by Sexual Orientation, Utah, 2009-2016**

Year	MSM*		Not MSM*		Unknown		Total
	Cases	Percent	Cases	Percent	Cases	Percent	Cases
2009	182	67.2%	42	15.5%	47	17.3%	271
2010	155	66.0%	39	16.6%	41	17.4%	235
2011	130	61.6%	49	23.2%	32	15.2%	211
2012	180	51.6%	89	25.5%	80	22.9%	349
2013	247	42.7%	226	39.0%	105	18.1%	579
2014	370	42.3%	353	40.3%	152	17.4%	875
2015	450	32.5%	349	25.2%	256	18.5%	1055
2016	537	38.8%	500	36.1%	348	25.1%	1385

\*MSM=Men Who Have Sex with Men

Note: Cases were classified by Morbidity and Mortality Weekly Report (MMWR) year.

Source: Bureau of Epidemiology, Utah Department of Health.

**Table 10. Gonorrhea Test Results and Percent Positivity by Sex, Utah Public Health Laboratories, Utah, 2007-2016**

Year*	Female			Male			Total**		
	Positive Results	Total Results	Percent Positive	Positive Results	Total Results	Percent Positive	Positive Results	Total Results	Percent Positive
2007	135	14,212	0.95%	263	9,136	2.88%	495	25,161	1.97%
2008	72	13,788	0.52%	224	10,463	2.14%	337	25,647	1.31%
2009	34	14,819	0.23%	247	11,525	2.14%	296	26,846	1.10%
2010	26	16,951	0.15%	172	11,392	1.51%	211	28,757	0.73%
2011	24	18,704	0.13%	166	11,690	1.42%	208	30,711	0.68%
2012	62	19,468	0.32%	255	12,645	2.02%	328	32,708	1.00%
2013	174	18,077	0.96%	418	14,384	2.91%	607	32,887	1.85%
2014	224	18,260	1.23%	556	13,915	4.00%	798	32,537	2.45%
2015	167	18,726	0.89%	601	12,819	4.69%	780	31,754	2.46%
2016	254	21,016	1.21%	703	14,794	4.75%	973	36,147	2.69%

\* Results reported by calendar year.

\*\* Totals include results where the gender is unknown.

Source: Utah Public Health Laboratories, Utah Department of Health.

Table 11. Primary and Secondary Syphilis Cases and Rates by Age Group and Sex, Utah, 2007-2016

Age Group	Cases										Rates per 100,000 Population										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
M A L E	<1	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1 to 9	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10 to 14	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	15 to 19	0	1	1	0	0	0	0	1	3	6	0.0	0.9	0.9	0.0	0.0	0.0	0.0	0.9	2.5	4.9
	20 to 24	4	3	3	11	2	6	10	7	7	15	3.4	2.6	2.6	9.6	1.7	4.9	7.9	5.5	5.4	11.5
	25 to 29	4	5	9	13	1	10	14	9	15	12	3.5	4.3	7.7	11.0	0.9	9.1	13.1	8.4	13.7	10.4
	30 to 34	5	2	10	8	3	9	10	11	8	10	5.1	1.9	9.2	7.2	2.6	7.8	8.6	9.5	7.0	9.0
	35 to 39	2	1	6	10	3	5	12	6	9	13	2.4	1.2	6.7	10.9	3.2	5.1	11.7	5.6	8.1	11.3
	40 to 44	1	3	1	9	0	4	6	4	7	9	1.3	4.0	1.3	11.3	0.0	4.7	6.9	4.5	7.6	9.5
	45 to 49	2	2	1	3	2	5	5	2	4	5	2.6	2.6	1.3	3.9	2.6	6.6	6.6	2.6	5.1	6.0
	50 to 54	1	4	1	2	1	1	8	7	5	12	1.4	5.5	1.3	2.6	1.3	1.3	10.3	9.1	6.5	15.9
	55 to 59	0	2	1	4	1	3	7	2	4	4	0.0	3.3	1.6	6.0	1.5	4.2	9.7	2.7	5.4	5.3
	60 to 64	0	1	0	2	1	0	2	1	1	0	0.0	2.1	0.0	3.8	1.8	0.0	3.3	1.6	1.5	0.0
	65+	1	0	0	1	0	0	1	0	1	1	1.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.7	0.7
Unknown	0	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
<b>Male Total</b>	<b>20</b>	<b>24</b>	<b>33</b>	<b>63</b>	<b>14</b>	<b>43</b>	<b>75</b>	<b>50</b>	<b>64</b>	<b>87</b>	<b>1.5</b>	<b>1.8</b>	<b>2.4</b>	<b>4.5</b>	<b>1.0</b>	<b>3.0</b>	<b>5.1</b>	<b>3.4</b>	<b>4.3</b>	<b>5.7</b>	
F E M A L E	<1	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1 to 9	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10 to 14	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	15 to 19	0	0	0	1	0	0	1	0	1	1	0.0	0.0	0.0	0.9	0.0	0.0	0.9	0.0	0.9	0.9
	20 to 24	0	0	0	1	0	0	0	1	0	2	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.8	0.0	1.6
	25 to 29	0	1	0	0	0	0	0	0	0	0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	30 to 34	0	0	0	0	0	0	0	0	1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
	35 to 39	0	0	0	0	0	0	1	0	0	1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.9
	40 to 44	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45 to 49	0	0	0	0	0	0	0	0	0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
	50 to 54	0	0	0	0	0	0	0	0	0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
	55 to 59	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	60 to 64	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	65+	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	0	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
<b>Female Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.4</b>	
T O T A L	<1	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1 to 9	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10 to 14	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	15 to 19	0	1	1	1	0	0	1	1	4	7	0.0	0.5	0.5	0.5	0.0	0.0	0.4	0.4	1.7	2.9
	20 to 24	4	3	3	12	2	6	10	8	7	17	1.7	1.3	1.3	5.3	0.9	2.5	4.0	3.2	2.8	6.7
	25 to 29	4	6	9	13	1	10	14	9	15	12	1.8	2.6	3.9	5.7	0.4	4.6	6.6	4.2	6.9	5.3
	30 to 34	5	2	10	8	3	9	10	11	9	10	2.6	1.0	4.7	3.7	1.3	4.0	4.4	4.9	4.0	4.5
	35 to 39	2	1	6	10	3	5	13	6	9	14	1.2	0.6	3.4	5.6	1.6	2.6	6.5	2.9	4.1	6.2
	40 to 44	1	3	1	9	0	4	6	4	7	9	0.7	2.0	0.7	5.8	0.0	2.4	3.5	2.3	3.9	4.9
	45 to 49	2	2	1	3	2	5	5	2	4	6	1.3	1.3	0.6	1.9	1.3	3.3	3.3	1.3	2.6	3.7
	50 to 54	1	4	1	2	1	1	8	7	5	13	0.7	2.7	0.7	1.3	0.6	0.6	5.1	4.5	3.3	8.6
	55 to 59	0	2	1	4	1	3	7	2	4	4	0.0	1.6	0.8	3.0	0.7	2.1	4.8	1.3	2.6	2.6
	60 to 64	0	1	0	2	1	0	2	1	1	0	0.0	1.0	0.0	1.8	0.9	0.0	1.6	0.8	0.8	0.0
	65+	1	0	0	1	0	0	1	0	1	1	0.4	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.3	0.3
Unknown	0	0	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
<b>Total Cases</b>	<b>20</b>	<b>25</b>	<b>33</b>	<b>65</b>	<b>14</b>	<b>43</b>	<b>77</b>	<b>51</b>	<b>66</b>	<b>93</b>	<b>0.8</b>	<b>0.9</b>	<b>1.2</b>	<b>2.3</b>	<b>0.5</b>	<b>1.5</b>	<b>2.7</b>	<b>1.7</b>	<b>2.2</b>	<b>3.0</b>	

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year.

Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Bureau of the Census.

**Table 12. Primary and Secondary Syphilis Cases and Rates by Local Health District, Utah, 2007-2016**

Local Health District	Cases										Rates per 100,000 Population									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bear River	0	0	0	0	0	2	0	0	1	2	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.6	1.1
Central	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Davis	1	1	1	3	1	1	6	2	5	5	0.3	0.3	0.3	1.0	0.3	0.3	1.9	0.6	1.5	1.5
Salt Lake	19	22	28	53	9	35	66	39	50	70	1.9	2.2	2.8	5.1	0.9	3.3	6.1	3.6	4.5	6.2
San Juan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	0.0
Southeastern	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Southwest	0	0	0	2	1	1	0	0	1	5	0.0	0.0	0.0	1.0	0.5	0.5	0.0	0.0	0.5	2.2
Summit	0	0	0	0	0	0	0	0	0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
Tooele	0	1	0	0	0	0	1	1	0	0	0.0	1.8	0.0	0.0	0.0	0.0	1.6	1.6	0.0	0.0
TriCounty	0	0	0	0	0	0	1	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0
Utah	0	1	1	3	0	3	0	2	6	6	0.0	0.2	0.2	0.6	0.0	0.6	0.0	0.4	1.0	1.0
Wasatch	0	0	0	0	0	0	0	1	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0
Weber-Morgan	0	0	3	2	3	1	3	5	3	4	0.0	0.0	1.3	0.8	1.2	0.4	1.2	2.0	1.2	1.5
Unknown	0	0	0	2	0	0	0	1	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>State Total</b>	<b>20</b>	<b>25</b>	<b>33</b>	<b>65</b>	<b>14</b>	<b>43</b>	<b>77</b>	<b>51</b>	<b>66</b>	<b>93</b>	<b>0.8</b>	<b>0.9</b>	<b>1.2</b>	<b>2.3</b>	<b>0.5</b>	<b>1.5</b>	<b>2.7</b>	<b>1.7</b>	<b>2.2</b>	<b>3.0</b>

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year. San Juan County has been an independent LHD since 2015. Prior to 2015, it was served by the Southeastern Utah LHD  
Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Bureau of the Census.

**Table 13. Primary and Secondary Syphilis Cases and Rates by Race/Ethnicity, Utah, 2007-2016**

Race/Ethnicity	Cases										Rates per 100,000 Population									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AI/AK Native	0	2	0	0	1	1	1	0	0	2	0.0	7.4	0.0	0.0	3.7	3.6	3.6	0.0	0.0	6.6
Asian	0	0	0	0	0	2	3	1	1	1	0.0	0.0	0.0	0.0	0.0	3.3	4.8	1.5	1.4	1.4
Black	1	2	0	2	0	1	3	6	2	4	4.2	8.2	0.0	7.6	0.0	3.5	10.2	19.9	6.4	12.3
Hispanic <sup>†</sup>	3	2	7	9	1	3	9	8	20	16	1.0	0.6	2.0	2.5	0.3	0.8	2.3	2.0	4.9	3.8
White	16	19	25	53	12	36	60	34	43	67	0.8	0.9	1.1	2.4	0.5	1.6	2.6	1.5	1.8	2.8
Pacific Islander	0	0	1	1	0	0	0	1	0	1	0.0	0.0	4.3	4.1	0.0	0.0	0.0	3.7	0.0	3.4
Multiple	0	0	0	0	0	0	0	1	0	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	3.3
Other/Unknown	0	0	0	0	0	0	1	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>State Total</b>	<b>20</b>	<b>25</b>	<b>33</b>	<b>65</b>	<b>14</b>	<b>43</b>	<b>77</b>	<b>51</b>	<b>66</b>	<b>93</b>	<b>0.8</b>	<b>0.9</b>	<b>1.2</b>	<b>2.3</b>	<b>0.5</b>	<b>1.5</b>	<b>2.7</b>	<b>1.7</b>	<b>2.2</b>	<b>3.0</b>

<sup>†</sup> Includes persons of Hispanic ethnicity regardless of race.

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year.

Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - U.S. Bureau of the Census.

**Table 14. Primary and Secondary Syphilis Cases and Percent Among Males by Sexual Orientation, Utah, 2009-2016**

Year	MSM*		Not MSM*		Unknown		Total
	Cases	Percent	Cases	Percent	Cases	Percent	Cases
2009	27	81.8%	1	3.0%	5	15.2%	33
2010	59	93.7%	0	0.0%	4	6.3%	63
2011	13	92.9%	0	0.0%	1	7.1%	14
2012	40	93.0%	2	4.7%	1	2.3%	43
2013	69	92.0%	1	1.3%	5	6.7%	75
2014	44	88.0%	4	8.0%	2	4.0%	50
2015	52	81.3%	6	9.4%	6	9.4%	64
2016	77	88.5%	6	6.9%	4	4.6%	87

\*MSM=Men Who Have Sex with Men

Note: Cases were classified by Morbidity and Mortality Weekly Report (MMWR) year.

Source: Bureau of Epidemiology, Utah Department of Health.

**Table 15. Chlamydia Cases and Rates per 100,000 Population by Age and Sex in Adolescents and Young Adults, Utah, 2016**

Age	Males		Females		Total	
	Cases	Rates	Cases	Rates	Cases	Rates
15	18	70.5	99	408.5	117	235.1
16	49	190.3	233	965.6	282	565.3
17	112	453.7	350	1,474.1	462	953.9
18	99	415.7	559	2,471.9	658	1,417.2
19	203	944.9	658	2,938.7	861	1,962.4
20	202	982.7	546	2,265.9	748	1,675.2
21	215	889.0	535	2,190.3	750	1,542.9
22	220	792.3	447	1,819.2	667	1,274.4
23	221	751.2	412	1,673.8	633	1,171.5
24	202	700.8	306	1,248.0	508	952.3

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year.

Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Bureau of the Census.

**Table 16. Gonorrhea Cases and Rates per 100,000 Population by Age and Sex in Adolescents and Young Adults, Utah, 2016**

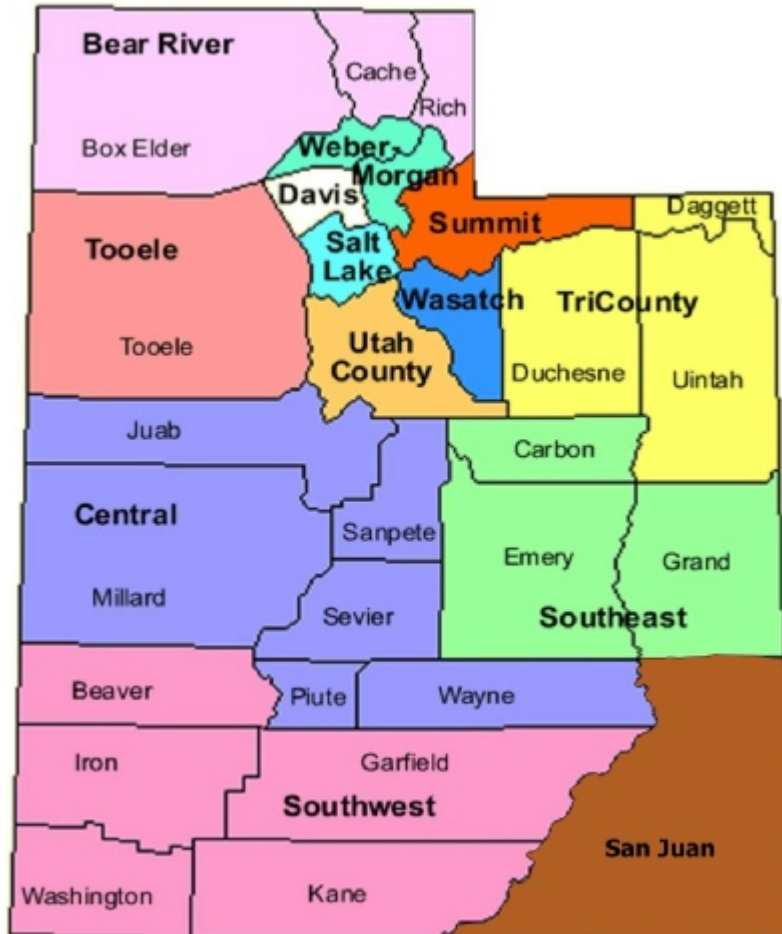
Age	Males		Females		Total	
	Cases	Rates	Cases	Rates	Cases	Rates
15	4	15.7	6	24.8	10	20.1
16	4	15.5	18	74.6	22	44.1
17	9	36.5	22	92.7	31	64.0
18	25	105.0	27	119.4	52	112.0
19	48	223.4	52	232.2	100	227.9
20	43	209.2	36	149.4	79	176.9
21	50	206.7	34	139.2	84	172.8
22	72	259.3	35	142.4	107	204.4
23	60	203.9	42	170.6	102	188.8
24	61	211.6	30	122.3	91	170.6

Note: Cases were classified by *Morbidity and Mortality Weekly Report (MMWR)* year.

Sources: Cases - Bureau of Epidemiology, Utah Department of Health; Population Estimates - National Center for Health Statistics (NCHS) through a collaborative agreement with the U.S. Bureau of the Census.

**Appendix:**

**Utah's 13 Local Health Districts**



Local Health Department	Counties in Service Area
Bear River Health Department	Box Elder, Cache, Rich
Central Utah Public Health Department	Juab, Millard, Piute, Sanpete, Sevier, Wayne
Davis County Health Department	Davis
Salt Lake Valley Health Department	Salt Lake
San Juan Public Health Department	San Juan
Southeastern Utah District Health Department	Carbon, Emery, Grand
Southwest Utah Public Health Department	Beaver, Garfield, Iron, Kane, Washington
Summit County Health Department	Summit
Tooele County Health Department	Tooele
TriCounty Health Department	Daggett, Duchesne, Uintah
Utah County Health Department	Utah
Wasatch County Health Department	Wasatch
Weber-Morgan Health Department	Morgan, Weber