

**SEXUALLY
TRANSMITTED
DISEASE
SURVEILLANCE
UTAH
2004-2013**

October 2014



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 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

Table of Contents

Acknowledgments	i
Table of Contents	ii
List of Figures	iii
List of Tables	v
Introduction	1
Technical Notes	1
Chlamydia	2
Gonorrhea	6
Primary and Secondary Syphilis	11
Chlamydia and Gonorrhea in Adolescents and Young Adults	15
Tables	18
Appendix – Utah’s 12 Local Health Districts	30

List of Figures

Chlamydia

Figure 1. Chlamydia Rates, Utah and United States, 2004-2013.....	3
Figure 2. Chlamydia Rates by Sex, Utah, 2004-2013.....	3
Figure 3. Chlamydia Rates by Age Group and Sex Among Persons Aged ≥ 10 Years, Utah, 2013.....	4
Figure 4. Chlamydia Rates by Local Health District, Utah, 2013	4
Figure 5. Chlamydia Rates by Race/Ethnicity, Utah, 2013	5
Figure 6. Number of Chlamydia Test Results and Percent Positivity by Sex, Utah Public Health Laboratory, Utah, 2005-2013.....	5

Gonorrhea

Figure 7. Gonorrhea Rates, Utah and United States, 2004-2013	7
Figure 8. Gonorrhea Rates by Sex, Utah, 2004-2013	7
Figure 9. Gonorrhea Rates by Age Group and Sex Among Persons Aged ≥ 10 Years, Utah, 2013	8
Figure 10. Gonorrhea Rates by Local Health District, Utah, 2013.....	8
Figure 11. Gonorrhea Rates by Race/Ethnicity, Utah, 2013.....	9
Figure 12. Percent of Male Gonorrhea Cases by Sexual Orientation, Utah, 2009-2013	9
Figure 13. Number of Gonorrhea Test Results and Percent Positivity by Sex, Utah Public Health Laboratory, Utah, 2005-2013.....	10

Primary and Secondary Syphilis

Figure 14. Primary and Secondary Syphilis Rates, Utah and United States, 2004-2013.....	12
Figure 15. Primary and Secondary Syphilis Rates by Sex, Utah, 2004-2013.....	12
Figure 16. Primary and Secondary Syphilis Rates in Males by Age Group, Utah, 2013	13
Figure 17. Primary and Secondary Syphilis Rates by Local Health District, Utah, 2013	13
Figure 18. Percent of Male Primary and Secondary Syphilis Cases by Sexual Orientation, Utah, 2009-2013	14

Chlamydia and Gonorrhea in Adolescents and Young Adults

Figure 19. Chlamydia Rates by Age Group and Sex in Adolescents and Young Adults, Utah, 2004-2013 16

Figure 20. Chlamydia Rates by Age and Sex in Adolescents and Young Adults, Utah, 2013..... 16

Figure 21. Gonorrhea Rates by Age Group and Sex in Adolescents and Young Adults, Utah, 2004-2013 17

Figure 22. Gonorrhea Rates by Age and Sex in Adolescents and Young Adults, Utah, 2013 17

List of Tables

Sexually Transmitted Diseases

Table 1. Cases of Sexually Transmitted Diseases and Rates per 100,000 Population, Utah and United States, 2004-2013	21
---	----

Chlamydia

Table 2. Chlamydia Cases and Rates by Age Group and Sex, Utah, 2004-2013	22
Table 3. Chlamydia Cases and Rates by Local Health District, Utah, 2004-2013	23
Table 4. Chlamydia Cases and Rates by Race/Ethnicity, Utah, 2004-2013	23
Table 5. Chlamydia Test Results and Percent Positivity by Sex, Utah Public Health Laboratory, Utah, 2005-2013	24

Gonorrhea

Table 6. Gonorrhea Cases and Rates by Age Group and Sex, Utah, 2004-2013	25
Table 7. Gonorrhea Cases and Rates by Local Health District, Utah, 2004-2013	26
Table 8. Gonorrhea Cases Rates by Race/Ethnicity, Utah, 2004-2013	26
Table 9. Gonorrhea Cases and Percent Among Males by Sexual Orientation, Utah, 2009-2013	27
Table 10. Gonorrhea Test Results and Percent Positivity by Sex, Utah Public Health Laboratory, Utah, 2005-2013	27

Primary and Secondary Syphilis

Table 11. Primary and Secondary Syphilis Cases and Rates by Age Group and Sex, Utah, 2004-2013 ...	28
Table 12. Primary and Secondary Syphilis Cases and Rates by Local Health District, Utah, 2004-2013 .	29
Table 13. Primary and Secondary Syphilis Cases and Rates by Race/Ethnicity, Utah, 2004-2013	29
Table 14. Primary and Secondary Syphilis Cases and Percent Among Males by Sexual Orientation, Utah, 2009-2013	30

Chlamydia and Gonorrhea in Adolescents and Young Adults

Table 15. Chlamydia Cases and Rates per 100,000 Population by Age and Sex in Adolescents and Young Adults, Utah, 2013	31
Table 16. Gonorrhea Cases and Rates per 100,000 Population by Age and Sex in Adolescents and Young Adults, Utah, 2013	31

Introduction

Sexually Transmitted Disease Surveillance, Utah, 2004-2013 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 75 Utah reportable communicable diseases, chlamydia was the most frequently reported disease in 2013 with 7,542 cases and gonorrhea was fifth with 951 cases.¹ In collaboration with the 12 local health departments (LHDs) throughout the state, each STD case is investigated, including the provision of partner services.

Sexually Transmitted Disease Surveillance, Utah, 2004-2013 consists of five sections: one section each for chlamydia, gonorrhea, and P&S syphilis; a section specific to chlamydia and gonorrhea in adolescents 15 to 19 years of age and young adults 20 to 24 years of age; 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 12 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.² Upon receipt, these reports are entered

into TriSano, 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 in TriSano; 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 Laboratories (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 September 12, 2014 from the Population Estimates Query Module from the UDOH, Center for Health Data and Informatics, Indicator-Based Information System for Public Health (IBIS-PH).

In previous Utah STD reports, missing or unknown data were redistributed according to the distribution of known age group, race/ethnicity, and sex data. In this report, missing and unknown data were not redistributed; therefore, incidence rates may appear lower than in previous reports.

¹Utah Department of Health (2013). [Top 10 Communicable Disease Report, Utah, 2013](http://health.utah.gov/epi/data/topdiseases/2013_Top_10.pdf).
health.utah.gov/epi/data/topdiseases/2013_Top_10.pdf

²Utah Code Annotated. [R386-702 Communicable Disease Rule](http://www.rules.utah.gov/publicat/code/r386/r386-702.htm).
<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.³ In 2013, 7,542 cases of chlamydia were reported in Utah. Chlamydia accounted for 56% of all the nationally-notifiable diseases reported in Utah in 2012. From 2004 to 2012, the most recent year for which national statistics were available at the time this report was written, Utah's chlamydia rate was an average of 57% of the U.S. rate.⁴ Utah's chlamydia rate increased 61.8% from 160.6 cases per 100,000 population in 2004 to 260.0 in 2013. The increase in chlamydia rates may be an actual increase 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 been 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 2004-2013 time period in Utah, chlamydia rates increased in all age groups between 15-64 years, with rates increasing by at least 60% in age groups between 15 and 29 years; doubling in age groups between 30 and 45 years; and almost tripling in age groups from 45 to 64 years. 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.

³Utah Department of Health (2012). Top 10 Communicable Disease Report, Utah, 2013. <http://health.utah.gov/epi/data/topdiseases/index.html>.

Two-thirds of the chlamydia cases reported in Utah in 2013 were among persons 15-24 years of age. The highest rates of infection were reported among females aged 20-24 years (1,576.9 cases per 100,000 population) and 15-19 years (1,499.7). The highest rate of infection reported in males in Utah in 2012 was among men 20-24 years (717.2 cases per 100,000 population).

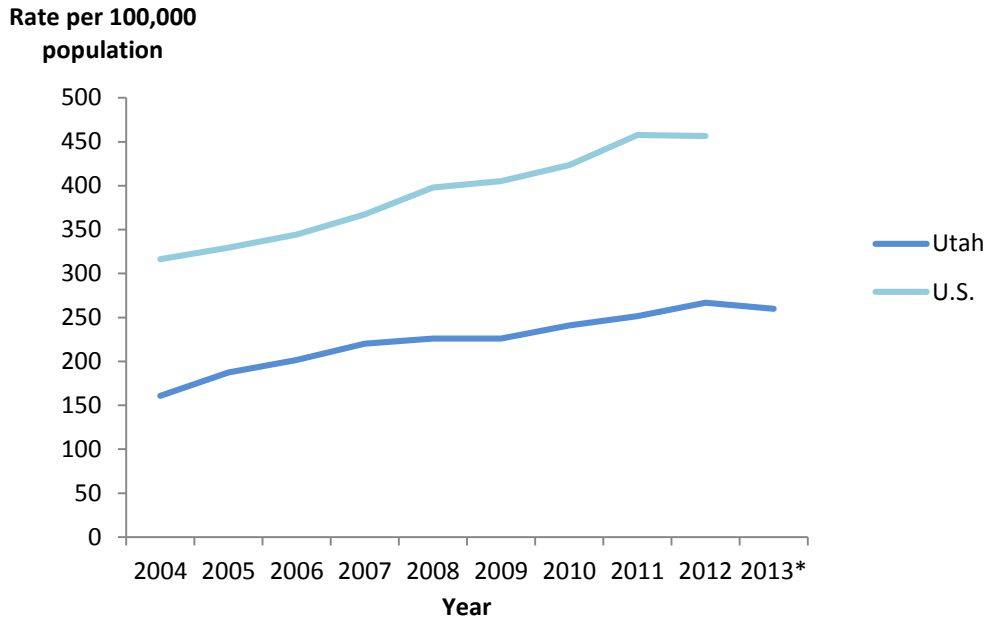
In 2013, four LHDs in Utah had chlamydia rates higher than the state rate: Salt Lake County Health District (352.7 cases per 100,000 population), Weber-Morgan (322.1), Southeastern (303.2), and Davis (276.6). Similar to prior years, the majority of chlamydial infections were identified in the four counties along the Wasatch Front: Salt Lake (50.5% of cases), Davis (11.8%), Weber (10.6%), and Utah (10.3%).

In 2013, the highest chlamydia rate among the major racial and ethnic groups in Utah was reported among Blacks (1073.5 cases per 100,000 population), followed by American Indian/Alaska Natives (705.2), Pacific Islanders (551.3), and Hispanics (512.4). The lowest chlamydia rates were reported among Whites and Asians (203.8 and 195.3 cases per 100,000 population, respectively).

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 lab adopted a dual chlamydia/gonorrhea test in late 2004. The number of chlamydia results reported by the UPHL increased 60% between 2005 and 2013. Although 48% more women were tested than men during this nine-year period, males have consistently had a higher positivity rate than females. Testing data from other laboratories are currently unavailable.

⁴Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2012*. Atlanta: U.S. Department of Health and Human Services; 2012.

Figure 1. Chlamydia Rates, Utah and United States, 2004-2013



*2013 U.S. rate not yet available

Figure 2. Chlamydia Rates by Sex, Utah, 2004-2013

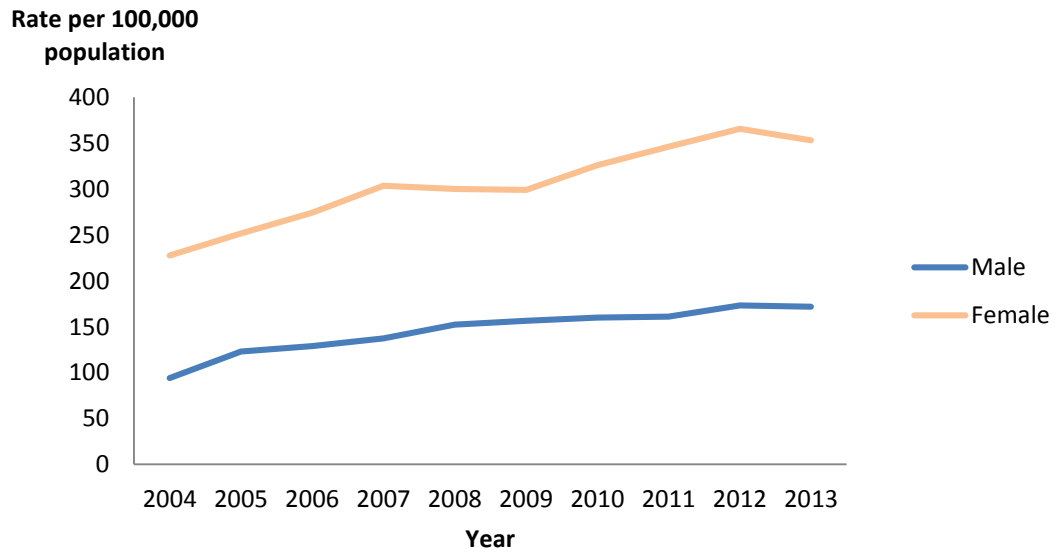


Figure 3. Chlamydia Rates by Age Group and Sex Among Persons Aged ≥10 Years, Utah, 2013

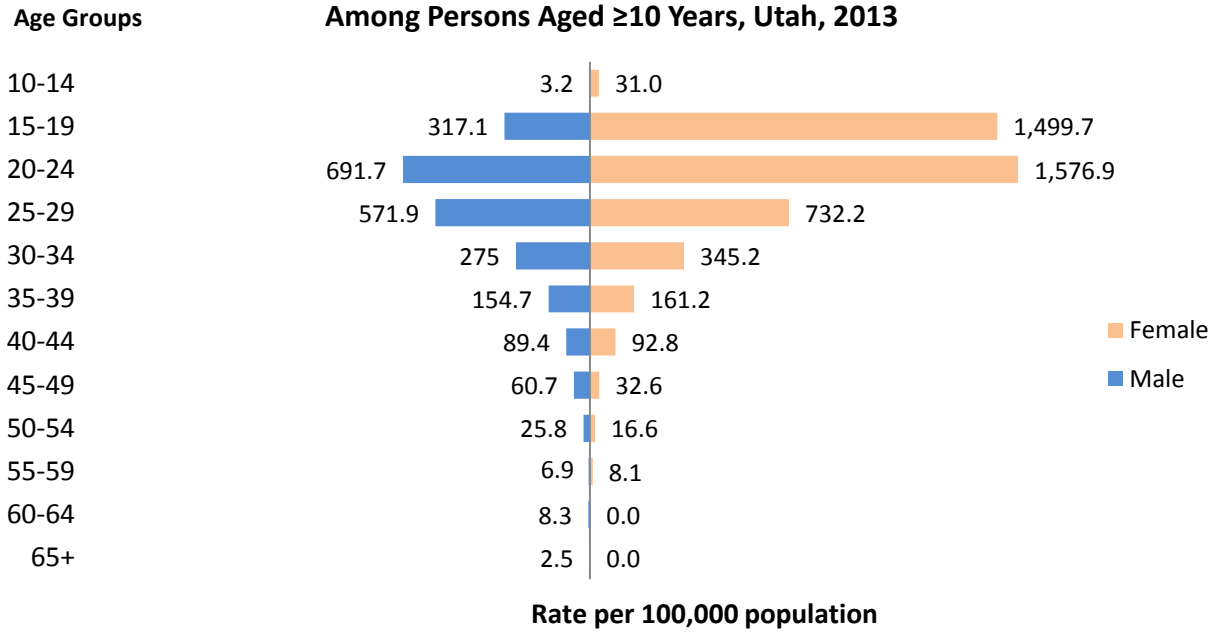


Figure 4. Chlamydia Rates by Local Health District, Utah, 2013

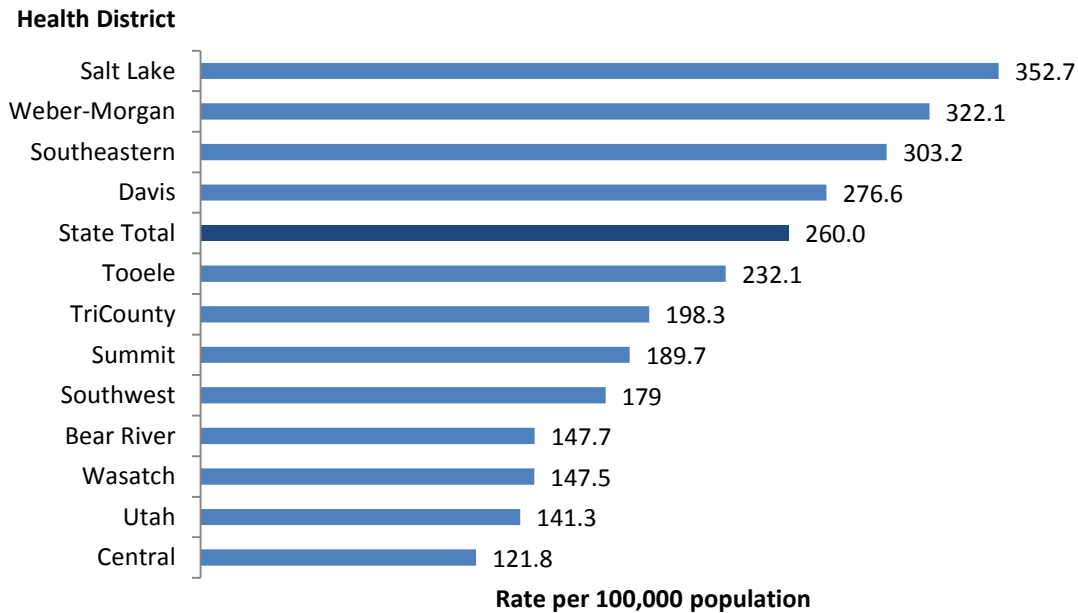


Figure 5. Chlamydia Rates by Race/Ethnicity, Utah, 2013

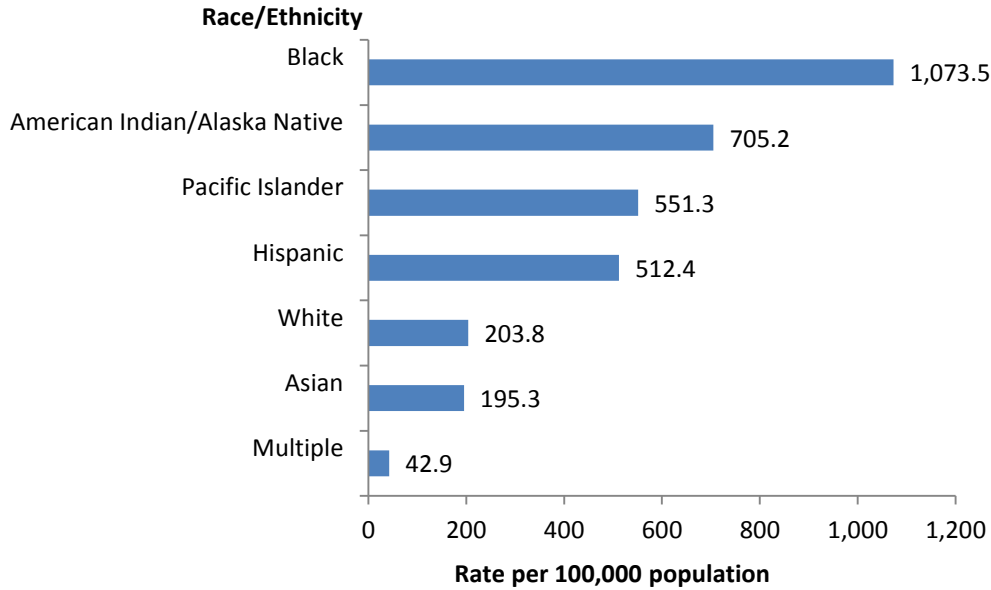
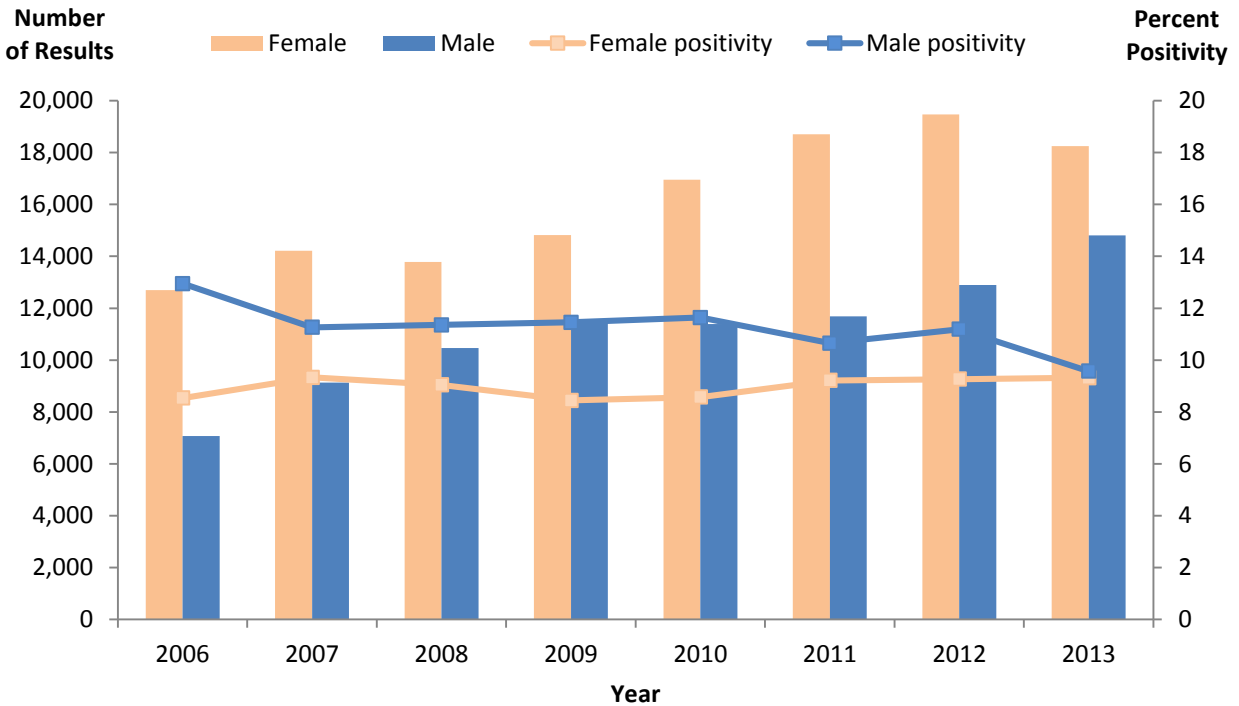


Figure 6. Number of Chlamydia Test Results and Percent Positivity by Sex, Utah Public Health Laboratories, Utah, 2006-2013



Gonorrhea

In 2013, 951 cases of gonorrhea were reported in Utah. Gonorrhea was the fifth most frequently reported communicable disease in Utah and the second most reported disease in the United States.⁵ From 2004 to 2012, the most recent year for which national statistics were available at the time this report was written, Utah's gonorrhea rate was an average of 19% of the U.S. rate.⁶ 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. From 2011 to 2013, the rate increased to 32.8 cases per 100,000 population, an increase of 233%.

Gonorrhea rates among males in Utah have consistently been higher than among females over the past 10 years; and from 2008 to 2012, males have had rates at least 2.5 times higher than females. However, in 2013 rates among males were only 1.5 times higher due to a large increase of gonorrhea in females. Two-thirds of male gonorrhea cases in 2009 and 2010 were among men who have sex with men (MSM). This percentage decreased every year, from 62% in 2011 to 43% in 2013. The gonorrhea rate in females increased 449% from 4.7 cases per 100,000 population to 25.8. 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 2013, 65% of the reported gonorrhea cases in Utah were among persons 20-34 years of age. In males, the highest rates of infection were in the following age groups: 20-24 years (105.6 cases per 100,000 population), 25-29 years (123.7), and 30-34 years (85.9). In females, the highest rate of infection was among 20-24-year olds (93.6 cases per 100,000 population). Although the rates were lower, the largest percentage rate increase from 2012 to 2013 was among persons 50-54 years. This demonstrates the need to target prevention messages to a wide range of age groups.

In 2013, two local LHDs in Utah had gonorrhea rates higher than the state rate: Salt Lake County Health District (63.3 cases per 100,000 population) and Weber-Morgan Health District (34.2). Similar to prior years, more than 90% of the cases were identified in four counties along the Wasatch Front: Salt Lake (71.8%), Weber (8.9%), Utah (7.0%), and Davis (6.7%).

In 2013, the highest gonorrhea rate among the major racial and ethnic groups in Utah was reported among Blacks (237.4 cases per 100,000 population), followed by American Indians (71.2), Hispanics (44.1), Whites (28.8), Pacific Islanders (26.8), and Asians (20.6).

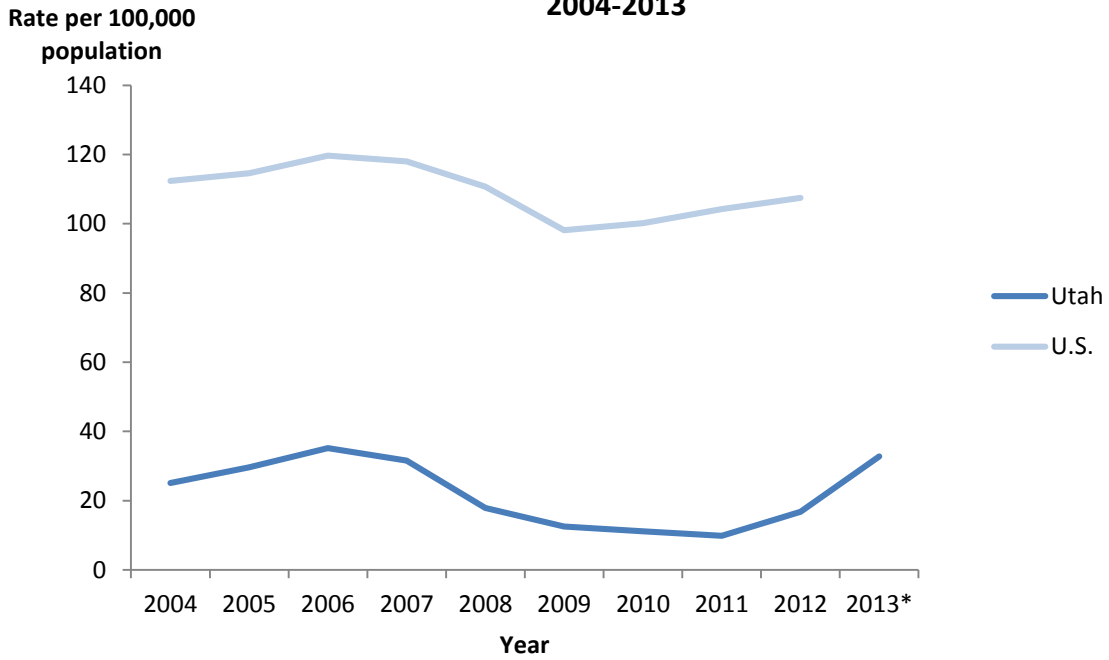
Gonorrhea screening tests administered by adult and youth correctional facilities, community and family planning clinics, LHDs, a small number of private providers, and student health centers throughout the state are processed at the UPHL. The lab adopted a dual chlamydia/gonorrhea test in late 2004. The number of gonorrhea results reported by the UPHL increased 71% between 2005 and 2013. Although 49% more women were tested than men during this nine-year period, males had a positivity rate that was at least twice that of females—with positivity climbing to more than six times that of females between 2009 and 2012. In 2013, 26% more women were tested than men. Males and females had a positivity rate of

⁵Utah Department of Health (2013). Top 10 Communicable Disease Report, Utah, 2013. http://health.utah.gov/epi/data/topdiseases/2013_Top_10.pdf

⁶Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2012*. Atlanta: U.S. Department of Health and Human Services; 2013.

2.9% and 1.0% respectively. Testing data from other laboratories are currently unavailable.

Figure 7. Gonorrhea Rates, Utah and United States, 2004-2013



*2013 U.S. rate not yet available

Figure 8. Gonorrhea Rates by Sex, Utah, 2004-2013

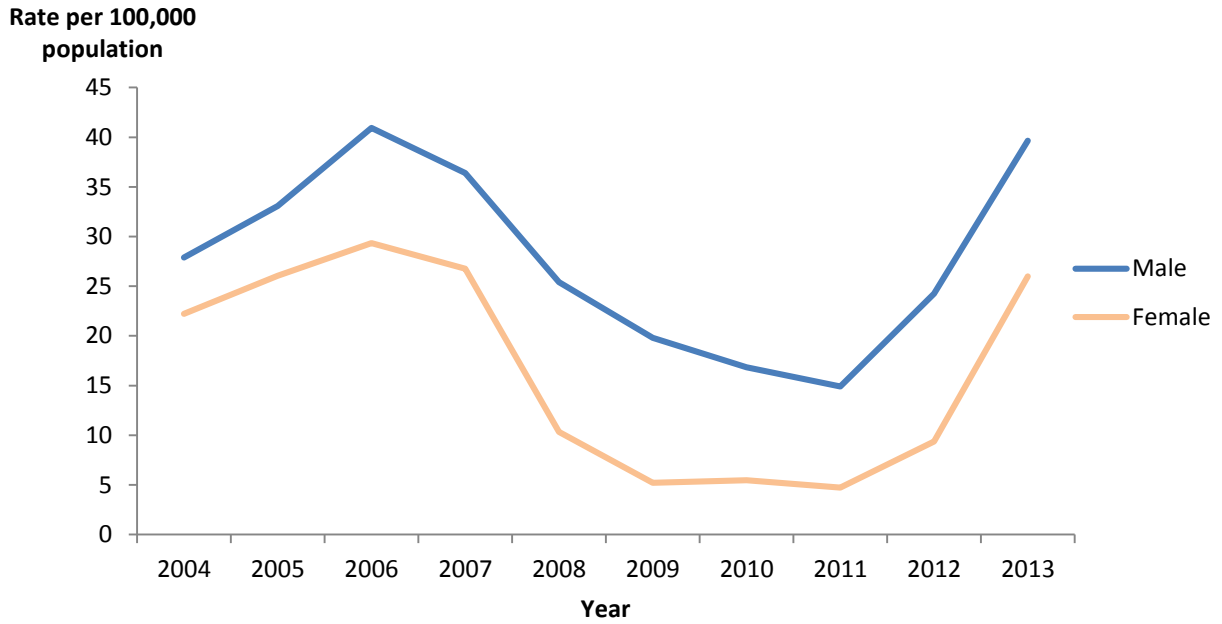


Figure 9. Gonorrhea Rates by Age Group and Sex Among Persons Aged ≥10 Years, Utah, 2013

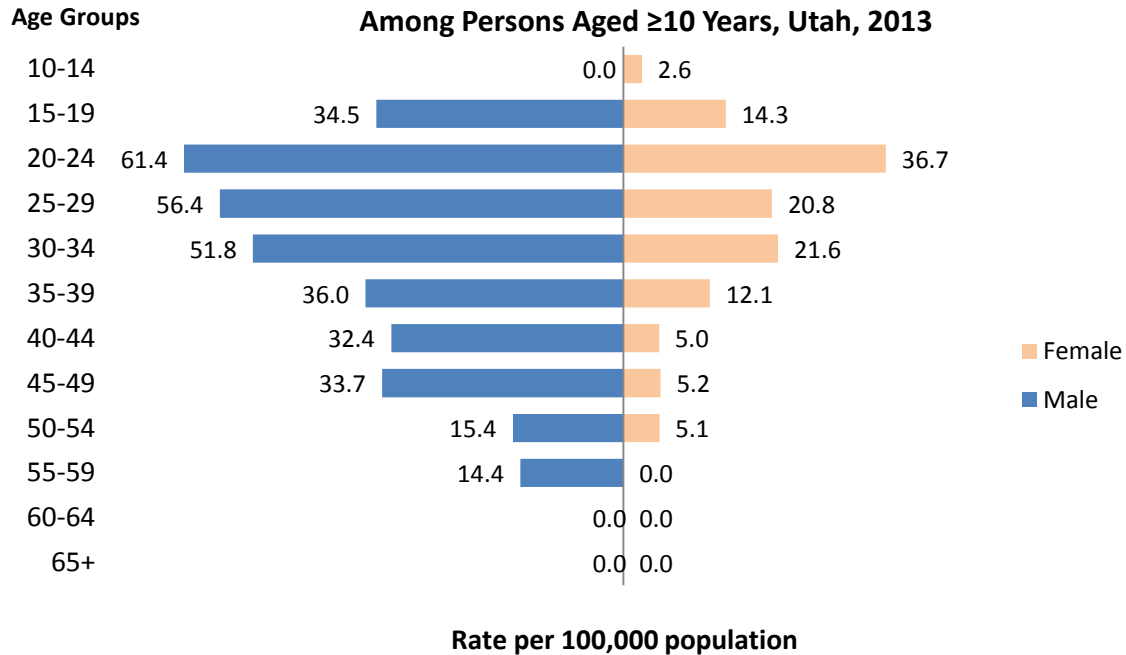


Figure 10. Gonorrhea Rates by Local Health District, Utah, 2013

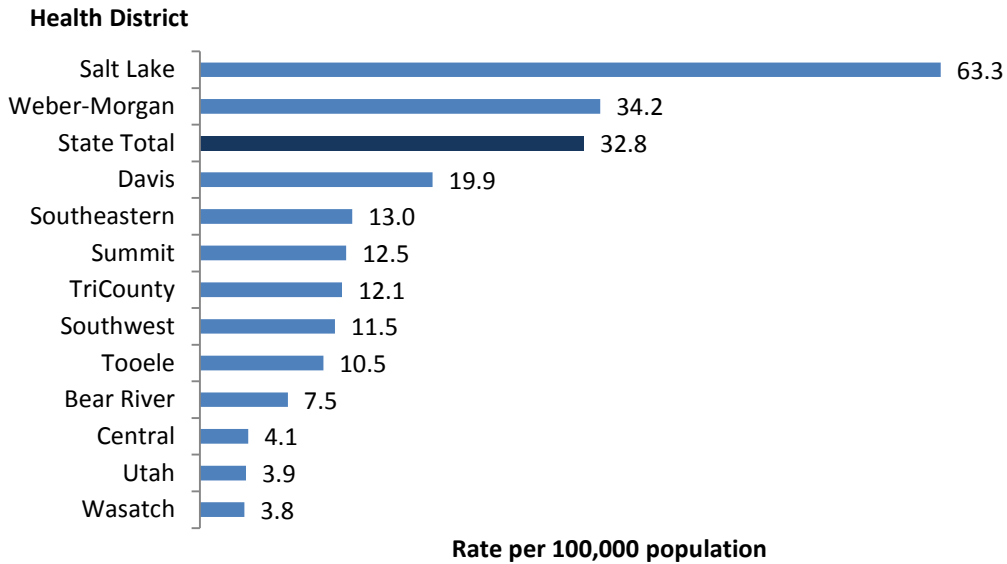


Figure 11. Gonorrhea Rates by Race/Ethnicity, Utah, 2013

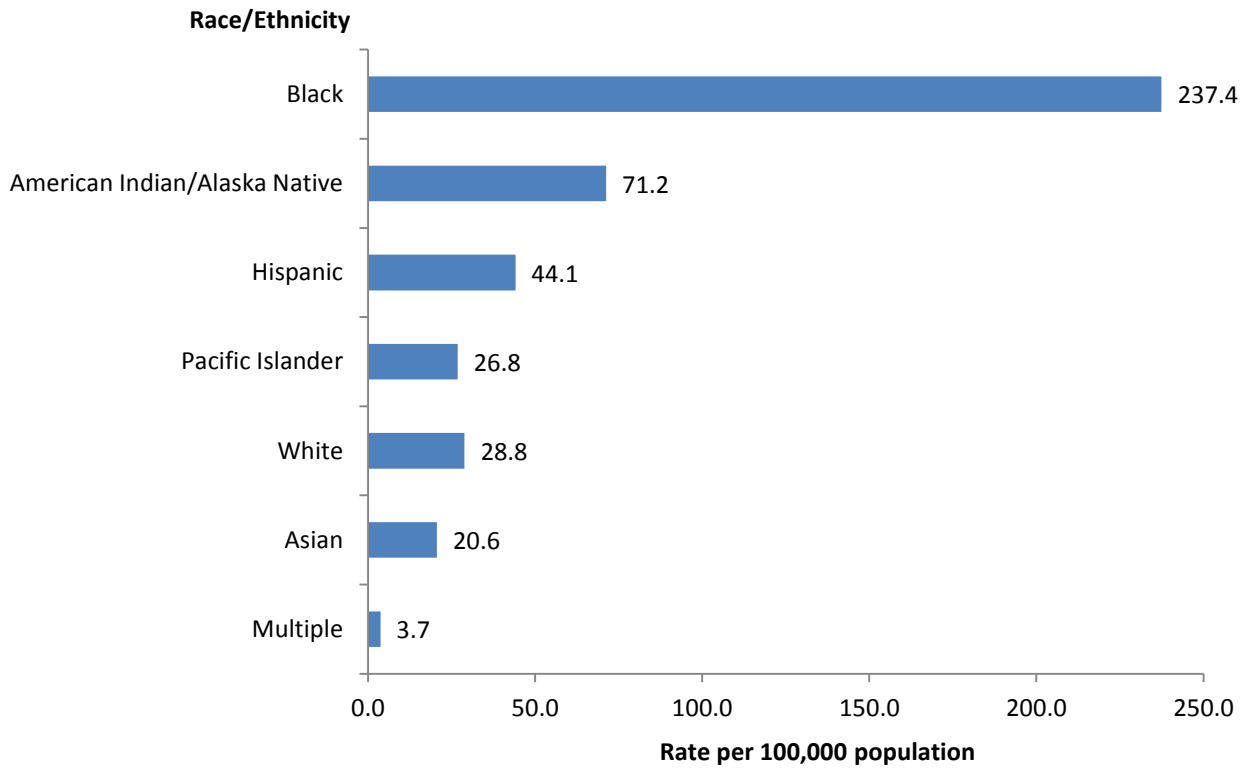
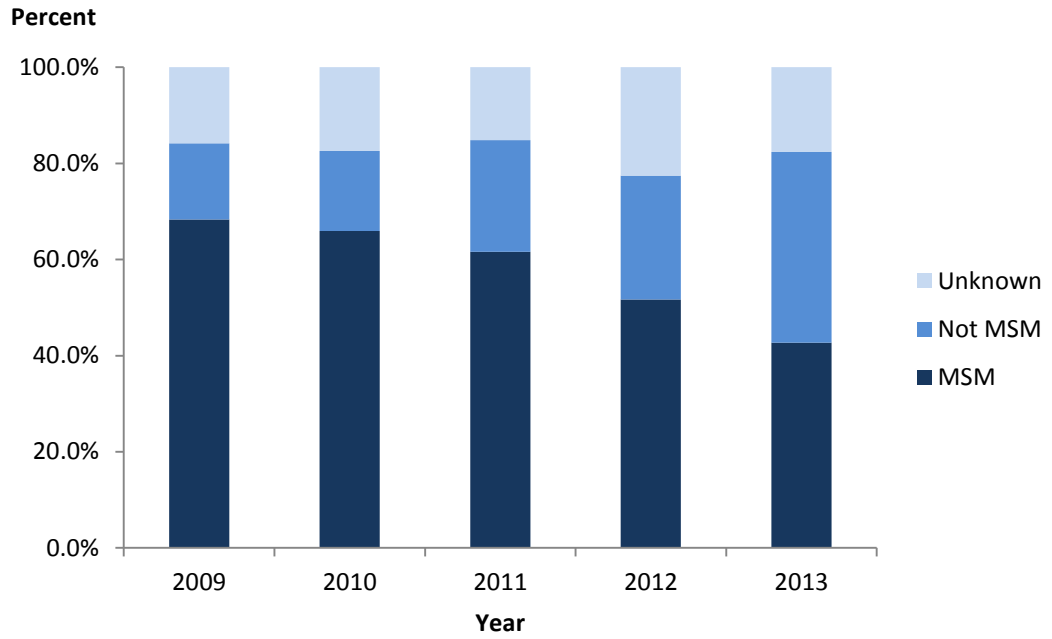
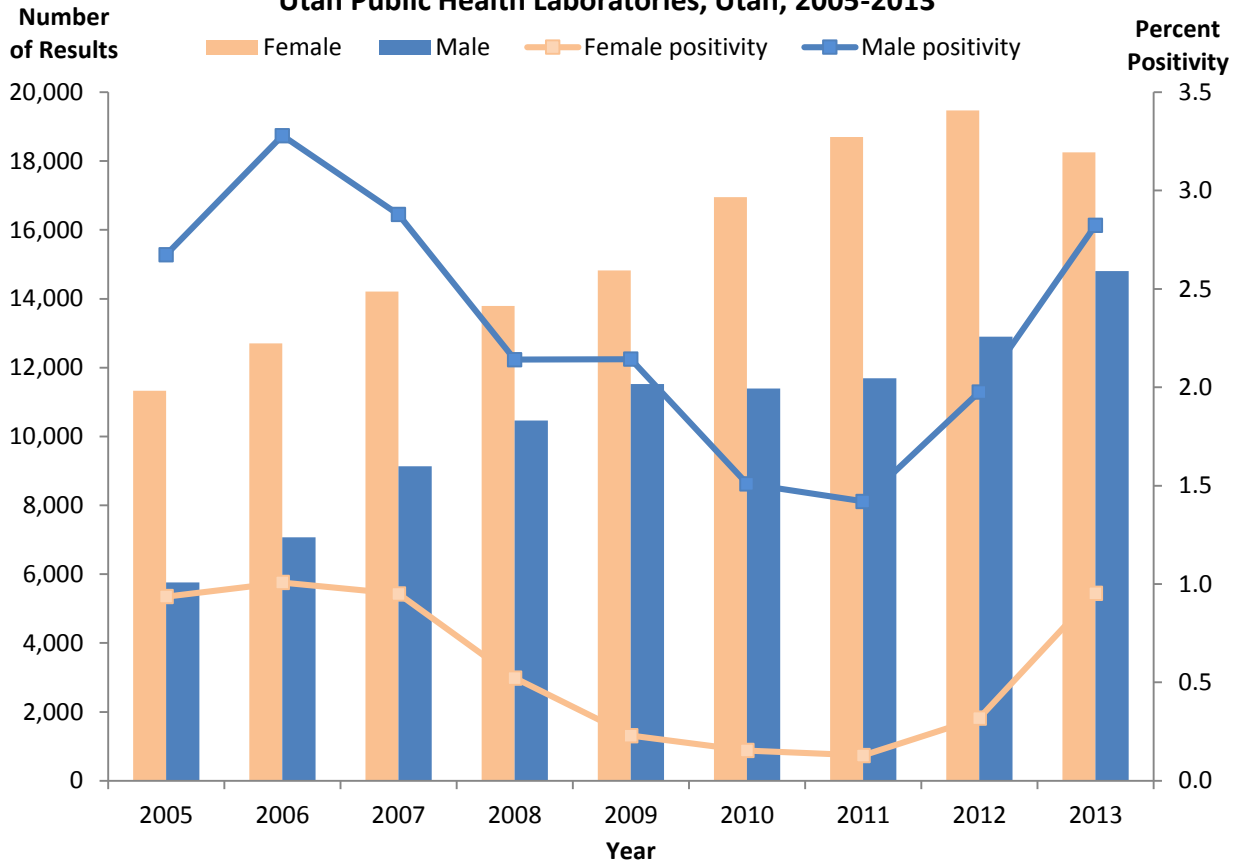


Figure 12. Percent of Male Gonorrhea Cases by Sexual Orientation, Utah, 2009-2013



*MSM=Men Who Have Sex with Men

Figure 13. Number of Gonorrhea Test Results and Percent Positivity by Sex, Utah Public Health Laboratories, Utah, 2005-2013



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. An infant can acquire syphilis through the placenta if the mother is infected, and untreated syphilis in pregnant women may result in 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 2013, 74 cases of primary and secondary syphilis were reported in Utah compared to 42 cases the previous year and an average of 36 cases in the previous five years. The P&S syphilis rate in Utah in 2013 was 2.6 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 0.5 cases per 100,000 population in 2004 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. In 2011, the rate plummeted to 0.5 cases per 100,000 population but has increased steadily since. In 2013, the rate increased to 2.6 cases per 100,000 population, the highest in the past 10 years. From 2003 to 2012, Utah's P&S syphilis rate was an average of 24% of the national rate.⁷

P&S syphilis rates in males were at least 2.5 times higher than in females throughout the past decade in Utah. Since 2009, over 80% of the P&S cases in

men have been among men who have sex with men (MSM). No cases of P&S syphilis were diagnosed among females in four of the past 10 years.

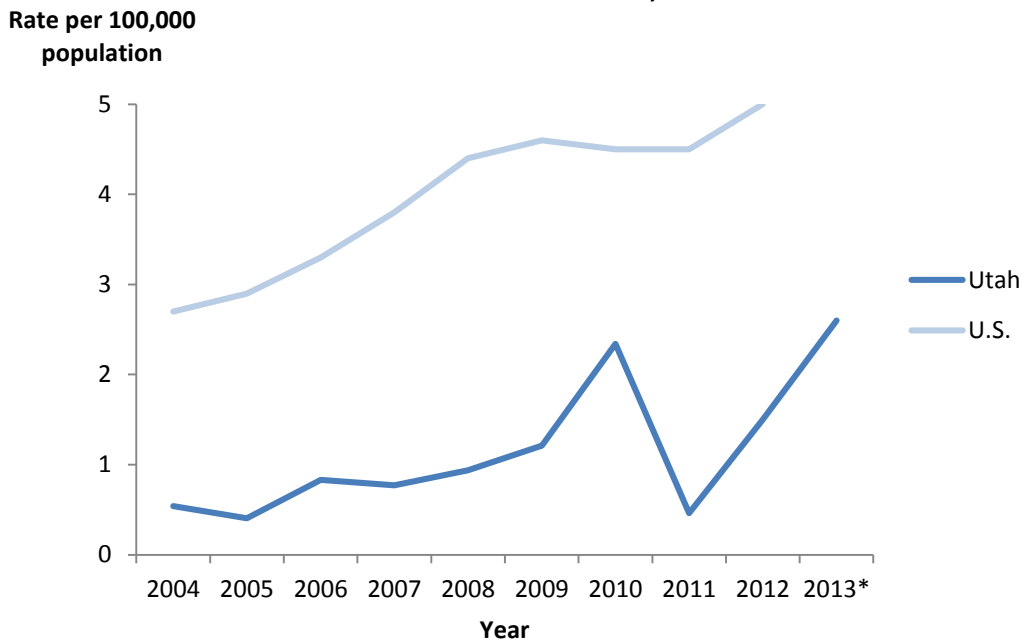
The highest P&S syphilis rates in Utah in 2013 were among men 35-39 years (11.7 cases per 100,000 population) and 25-29 years (11.2). P&S syphilis cases were reported in age groups as young as 15-19 years and as old as 65+ years. This highlights the need to target prevention messages to a wide range of age groups.

In 2013, four LHDs in Utah reported P&S syphilis cases. Salt Lake County Health District accounted for 85% of the P&S cases in 2013 and reported a rate of 5.8 cases per 100,000 population.

Of the 74 cases of P&S syphilis reported in Utah in 2013, the breakdown among racial and ethnic groups was as follows: 46 cases (62%) were among Whites; 14 cases (19%) were reported among those in the multiple race category; 9 (12%) cases were reported among Hispanics; 3 cases each were reported among each Pacific Islanders and Blacks; and 1 case each was reported among American Indians and Asians.

⁷Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2012*. Atlanta: U.S. Department of Health and Human Services; 2013.

Figure 14. Primary and Secondary Syphilis Rates, Utah and United States, 2003-2012



*2013 U.S. rate not yet available

Figure 15. Primary and Secondary Syphilis Rates by Sex, Utah, 2004-2013

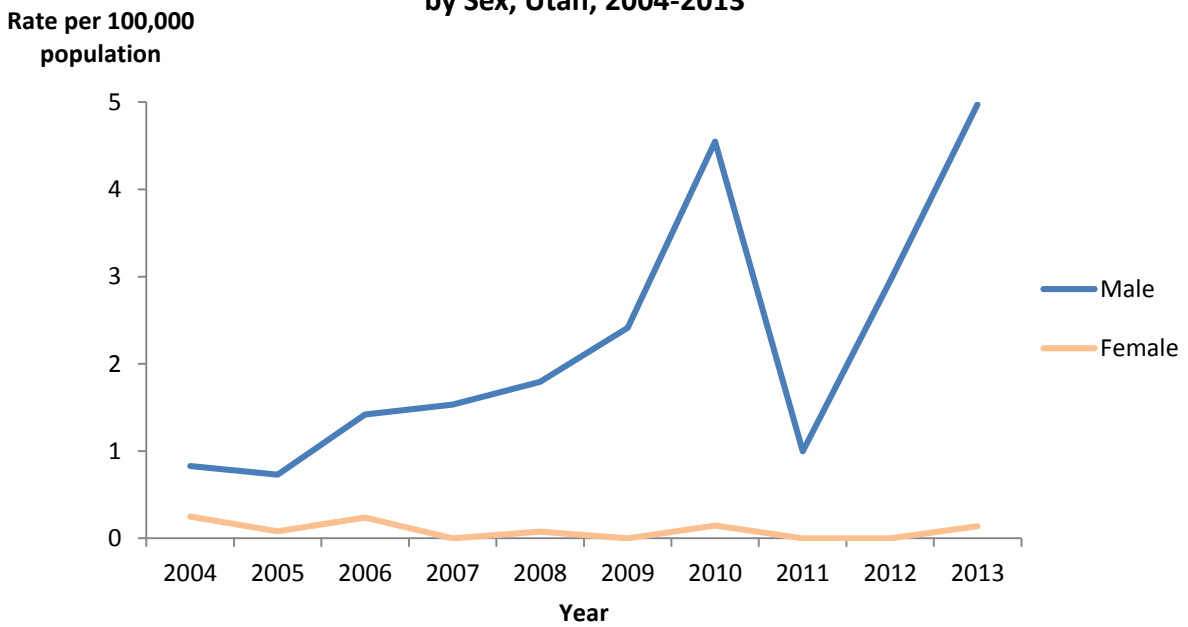


Figure 16. Primary & Secondary Syphilis Rates in Males by Age Group, Utah, 2013

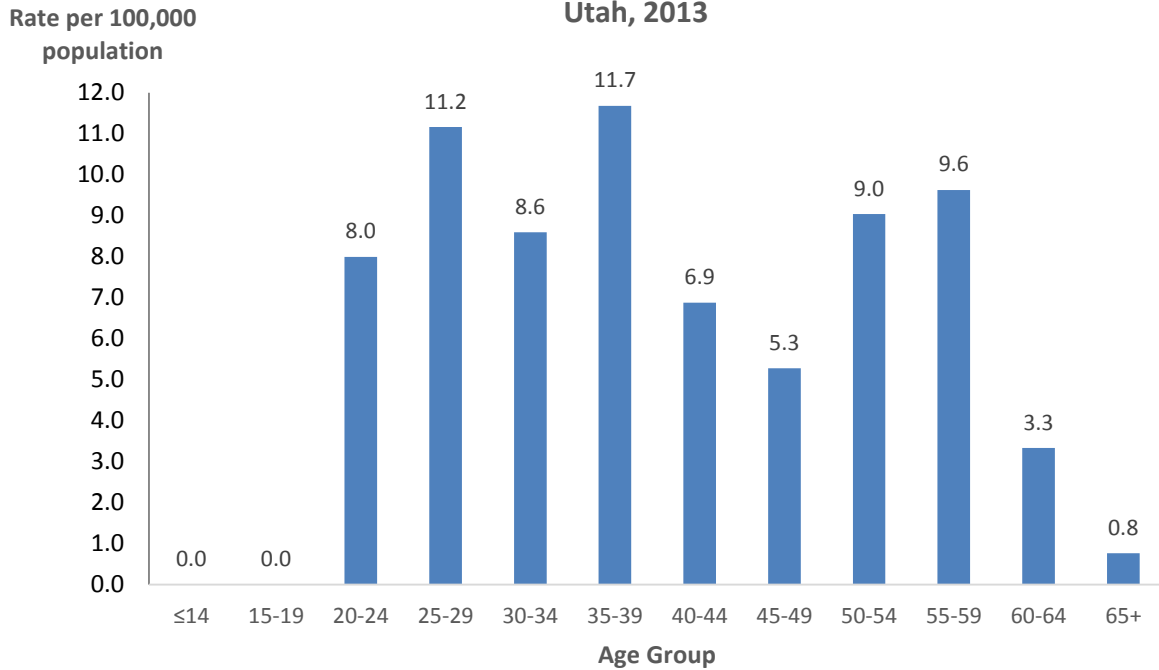


Figure 17. Primary and Secondary Syphilis Rates by Local Health District, Utah, 2013

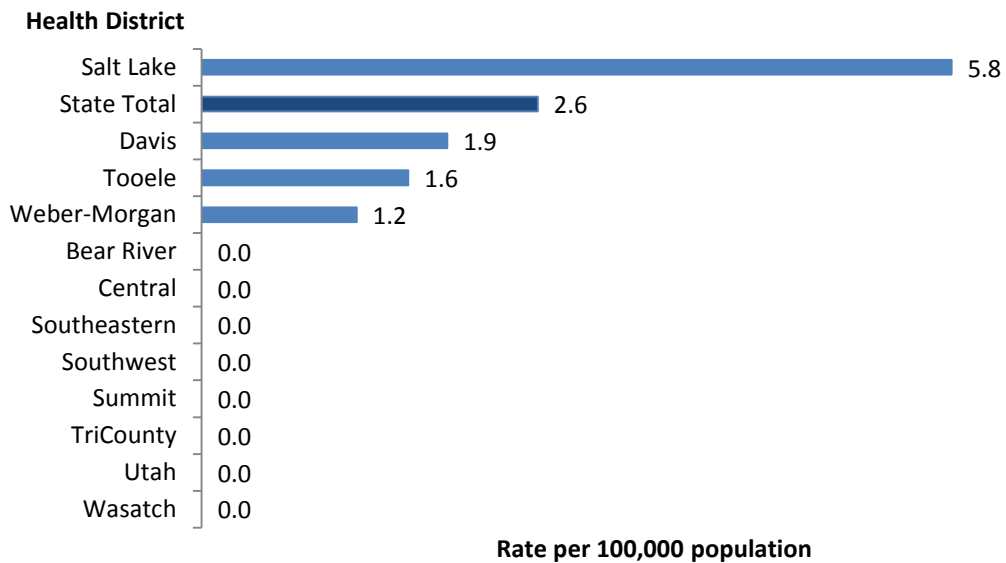
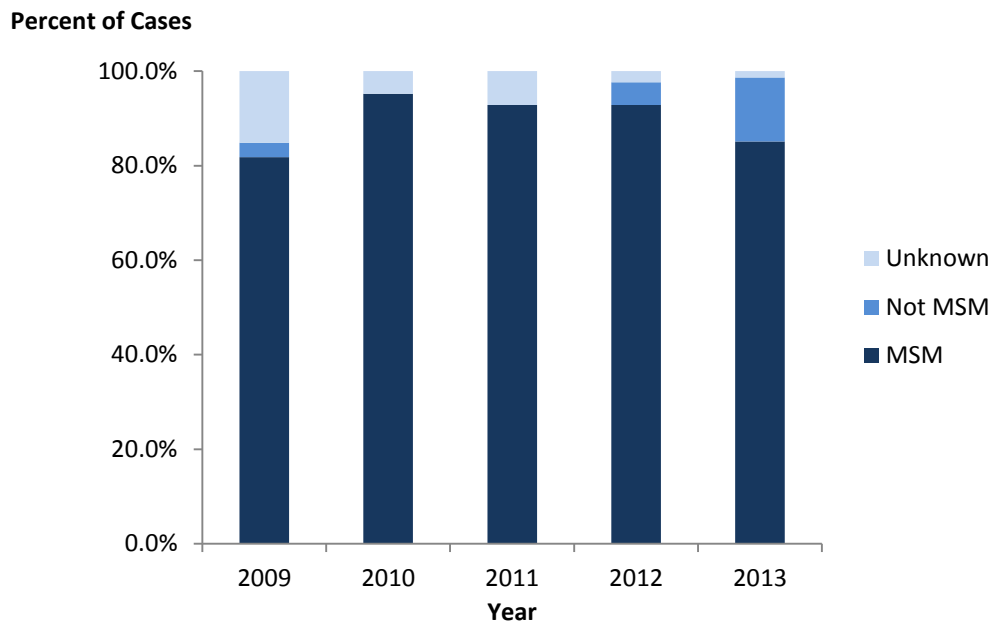


Figure 18. Percent of Male Primary and Secondary Syphilis Cases by Sexual Orientation, Utah, 2009-2013



*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 20 to 24 years of age have higher incidences of chlamydia and gonorrhea.⁸ In 2013, persons 15 to 24 years of age represented 16% of Utah's population; yet, this population accounted for 63% of reported chlamydia cases and 35% of gonorrhea cases. The increased rate of sexually transmitted diseases (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 persons 15-19 and 20-24 years of age from 2004 to 2012, but a slight decrease was observed in 2013. During this 10-year period, the chlamydia rate increased 56% in males 15-19 years, 86% in males 20-24 years, 59% in females 15-19 years, and 76% in females 20-24 years. Throughout this period, the chlamydia rate in females aged 15-19 was about four times that in males of the same age; and in persons aged 20-24 years, the female rate was twice that of males.

In 2013, the distribution of morbidity in adolescents and young adults varied by age. Adolescents 15 and 16 years of age had the lowest rates of chlamydia in both males and females. The rates increased with age and peaked in females at ages 18 to 19 years (rates above 2,000 cases per 100,000 population) and in males at ages 19 to 22 years (highest rate of 903.9 in 20-year-olds and rates above 700 in 19- and 22-year-olds). The rate of chlamydia in females was at least two times that of males; and the rate differences generally decreased with age, from females having rates eight times higher than males in 15-year-olds, five times higher

in 16- to 18-year-olds, and at least two times higher in 19- to 24-year-olds.

Gonorrhea

From 2004, gonorrhea rates in persons 15-19 and 20-24 years of age increased annually until they peaked in 2006 for 20- to 24-year-olds (133.1 cases per 100,000 population) and in 2007 for 15- to 19-year-olds (69.7). Since then, both age groups had a general declining trend until 2012, when rates in both age groups increased. In 2013, rates increased again in both age categories (55% and 103% respectively). From 2012 to 2013, rates in males aged 15-19 years decreased 7% while those aged 20-24 years increased 72%. During this time frame, the rates increased 206% in females 15-19 years of age and 159% in the 20-24 age group.

From 2004-2007, females 15-19 years of age had gonorrhea rates at least twice that of males in this age group. The rates between the sexes in this age group were similar in 2008 and 2010; females had rates that were 74% of male rates in 2009 and 2011; females had a rate that was 43% of the male rate in 2012; and in 2013 females had a rate that was 141% of the males. In young adults, the rates between males and females were similar from 2004 to 2005. Starting in 2006, the female rate in this age group began to decline, from 75% of the male rate in 2006 to 34% in 2011. However, in 2012, the gonorrhea rate of females 20-24 years of age doubled as compared to 2011, rendering the female rate 60% of the male rate. In 2013, the female rate almost tripled and was 89% of the male rate.

In 2013, the distribution of morbidity in adolescents and young adults varied by age. Adolescent males 15-18 years of age and females aged 15-17 years had the lowest gonorrhea rates. With the exception of 18-, 21-, and 23-year-olds, rates in males were higher than in females of the same age in persons 18 years or older. The highest rate in males was among adolescents 24 years of age (119.8 cases per 100,000 population) and the highest rate in females

⁸Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2012*. Atlanta: U.S. Department of Health and Human Services; 2013.

among young women 23 years of age (118.2 cases per 100,000 population).

Figure 19. Chlamydia Rates by Age Group and Sex in Adolescents and Young Adults, Utah, 2004-2013

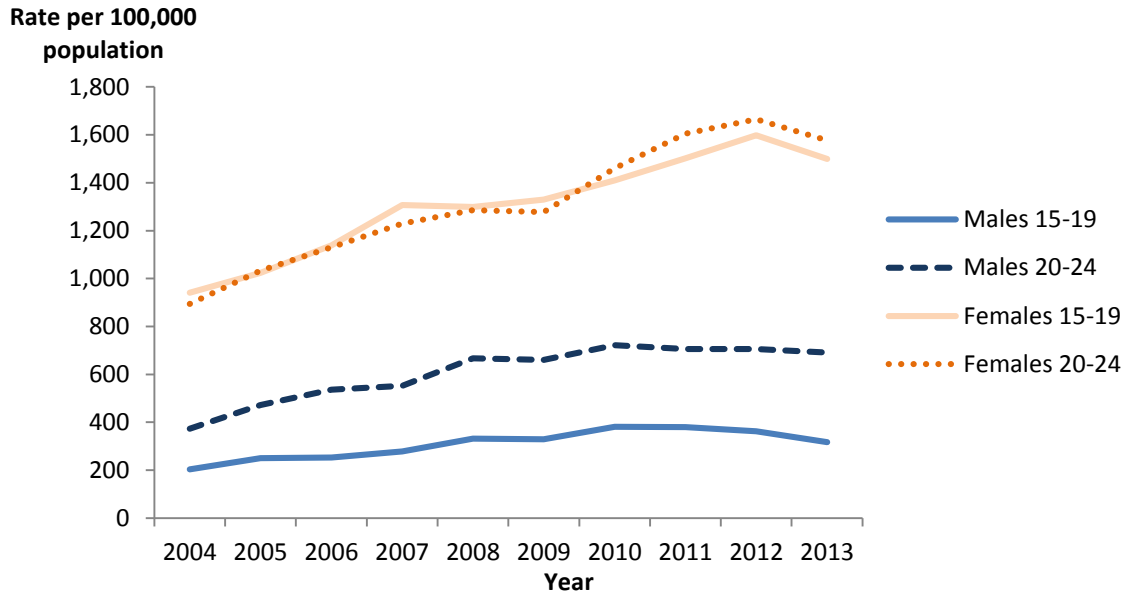


Figure 20. Chlamydia Rates by Age and Sex in Adolescents and Young Adults, Utah, 2012

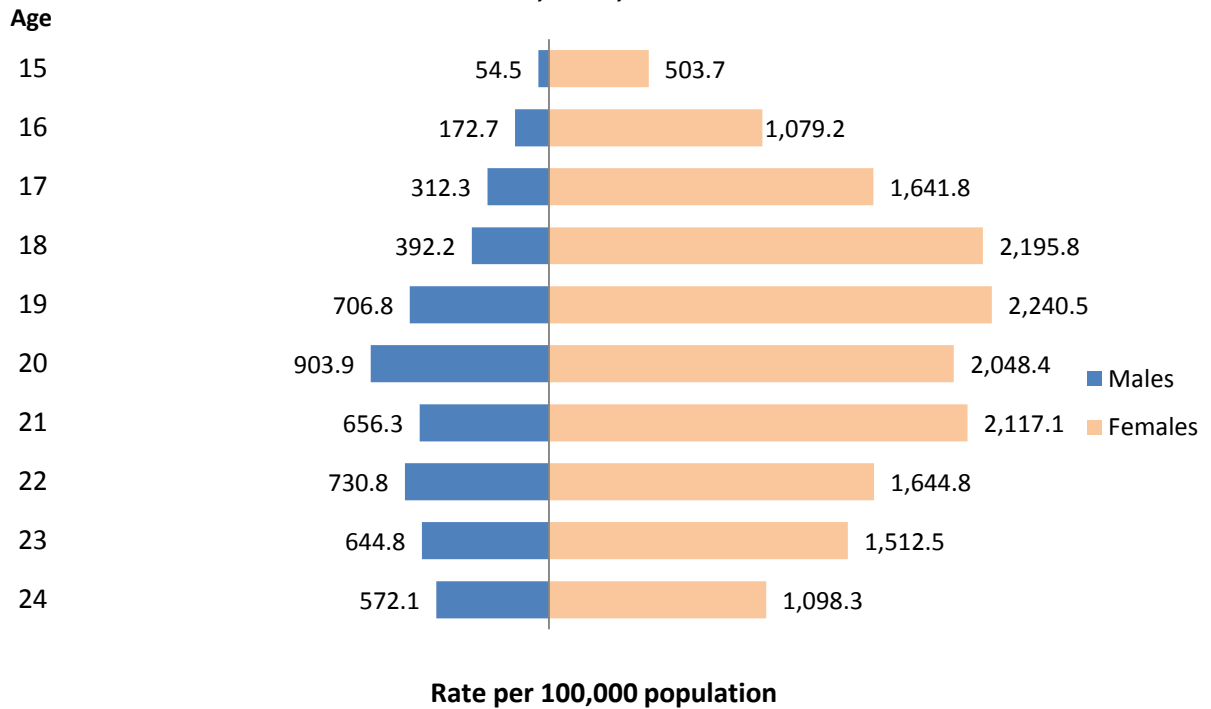


Figure 21. Gonorrhea Rates by Age Group and Sex in Adolescents and Young Adults, Utah, 2004-2013

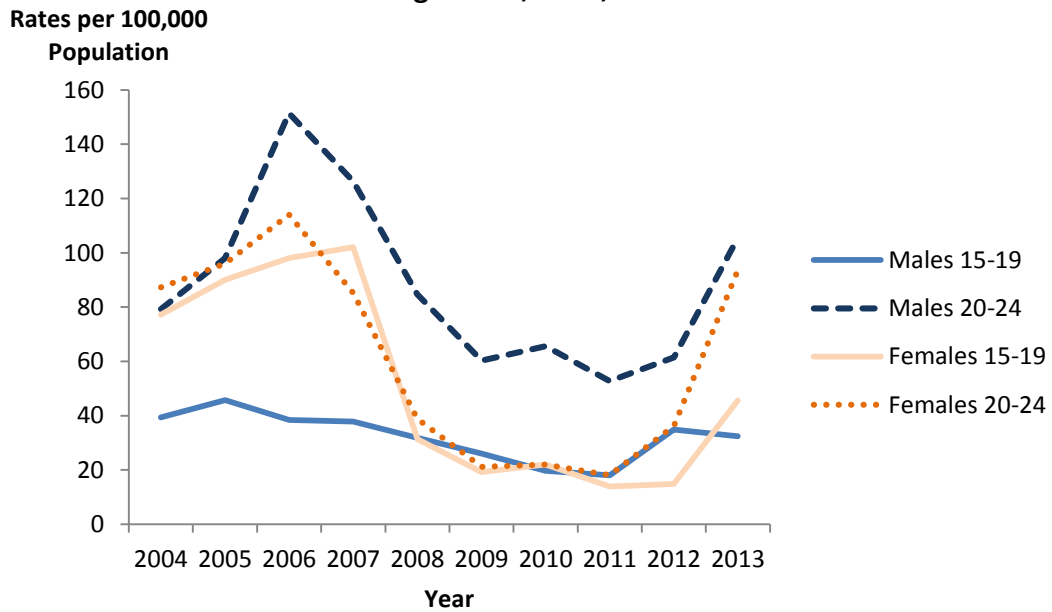
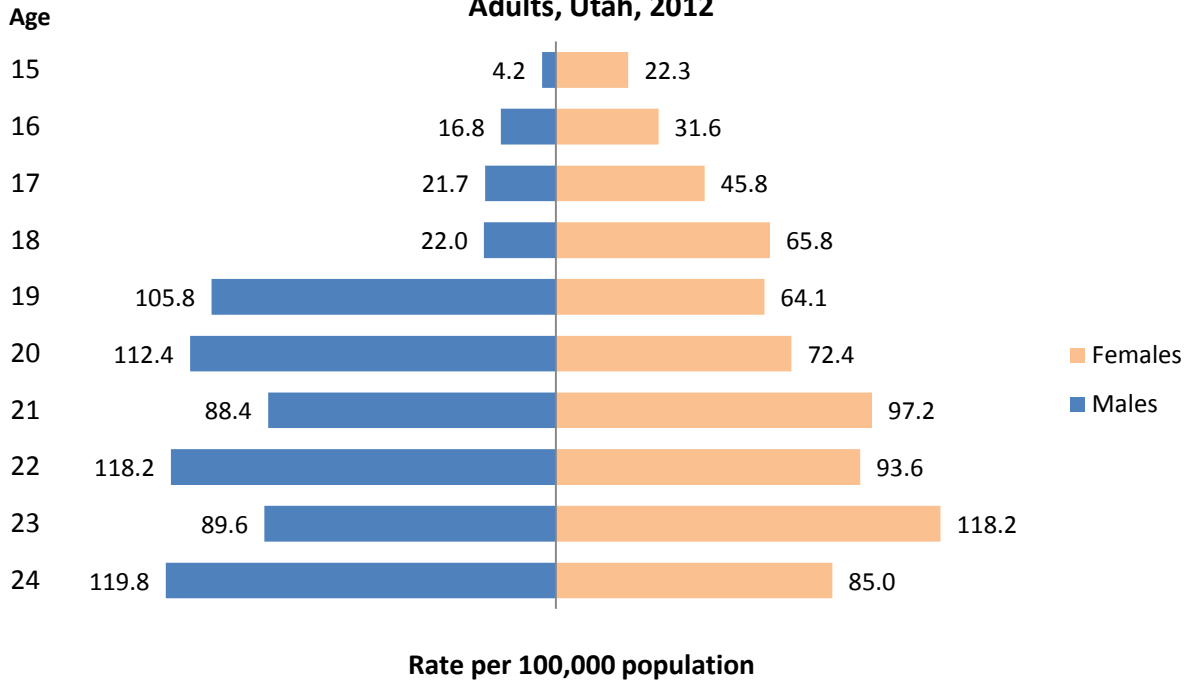


Figure 22. Gonorrhea Rates by Age and Sex in Adolescents and Young Adults, Utah, 2012



TABLES

Table 1. Cases of Sexually Transmitted Diseases and Rates per 100,000 Population, Utah and United States (U.S.), 2004-2013

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
2004	3,858	160.6	316.5	602	25.1	112.4	13	0.5	2.7
2005	4,602	187.2	329.4	727	29.6	114.6	10	0.4	2.9
2006	5,090	201.5	344.3	888	35.2	119.7	21	0.8	3.3
2007	5,720	220.2	367.5	821	31.6	118.0	20	0.8	3.8
2008	6,019	226.0	398.1	477	17.9	110.7	25	0.9	4.4
2009	6,156	226.0	405.3	341	12.5	98.1	33	1.2	4.6
2010	6,689	241.1	423.6	310	11.2	100.2	65	2.3	4.5
2011	7,081	251.6	457.6	277	9.8	104.2	14	0.5	4.5
2012	7,620	266.9	456.7	480	16.8	107.5	42	1.5	5.0
2013*	7,542	260.0	-	951	32.8	-	74	2.6	-

* 2013 U.S. rate not yet available.

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, 2004-2013

Sex	Age Group (years)	Cases										Rates per 100,000 Population									
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
M A L E	<1	1	1	4	2	7	3	2	3	5	2	4.0	4.0	15.2	7.3	26.3	11.0	7.5	11.4	19.5	7.8
	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	4	3	2	8	7	5	6	5	5	4	3.9	2.9	1.9	7.4	6.3	4.4	5.1	4.1	4.1	3.2
	15 to 19	212	263	269	302	366	365	425	427	410	362	203.3	250.5	252.5	278.5	332.3	328.6	381.0	380.1	362.8	317.1
	20 to 24	456	578	644	651	772	757	825	824	876	865	372.9	472.1	536.0	551.8	667.4	660.8	721.5	705.2	705.2	691.7
	25 to 29	250	354	382	429	445	516	491	515	547	615	252.0	351.5	352.6	376.9	381.4	440.6	416.4	447.0	494.8	571.9
	30 to 34	119	165	160	212	210	251	237	250	320	320	132.7	176.6	170.4	216.0	203.6	230.0	212.8	219.6	277.2	275.0
	35 to 39	47	84	87	100	116	117	113	114	148	159	63.9	110.3	109.0	120.1	135.2	132.6	122.4	122.4	148.7	154.7
	40 to 44	25	45	39	46	50	50	59	70	71	78	32.7	59.3	51.8	60.8	66.0	65.2	74.4	84.7	84.7	89.4
	45 to 49	14	13	26	23	36	34	22	35	49	46	19.1	17.4	34.1	29.9	46.2	43.6	28.4	45.9	65.9	60.7
	50 to 54	3	9	12	12	20	21	21	14	26	20	4.7	13.7	17.6	16.8	27.3	28.2	27.7	18.2	33.7	25.8
	55 to 59	1	2	8	3	6	5	9	1	8	5	2.0	3.7	13.9	5.1	9.8	7.8	13.5	1.5	11.3	6.9
	60 to 64	0	0	1	1	1	3	4	3	2	5	0.0	0.0	2.4	2.2	2.1	6.0	7.5	5.3	3.5	8.3
	65+	3	1	2	5	1	1	0	1	0	3	3.3	1.1	2.0	4.9	0.9	1.0	0.0	0.9	0.0	2.5
Unknown	0	0	1	0	2	0	3	0	0	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Male Total	1,135	1,518	1,637	1,794	2,039	2,128	2,217	2,262	2,467	2,490	94.2	123.1	129.2	137.5	152.5	156.6	160.0	161.0	173.3	171.9	
F E M A L E	<1	0	1	4	3	10	2	1	0	1	1	0.0	4.2	16.4	11.8	39.7	7.7	3.9	0.0	4.1	4.1
	1 to 9	0	2	2	2	2	1	1	0	1	1	0.0	1.0	1.0	1.0	0.9	0.5	0.4	0.0	0.4	0.4
	10 to 14	70	47	45	49	40	48	43	48	55	37	73.3	48.6	45.6	48.3	38.4	45.3	38.5	42.0	46.4	31.0
	15 to 19	976	1,069	1,196	1,395	1,405	1,451	1,546	1,618	1,744	1,643	941.4	1,024.1	1,138.4	1,307.1	1,298.3	1,329.0	1,409.6	1,502.2	1,597.6	1,499.7
	20 to 24	1,066	1,215	1,309	1,399	1,456	1,452	1,660	1,869	1,993	1,903	894.4	1,032.4	1,131.1	1,229.1	1,286.1	1,278.1	1,460.9	1,604.6	1,665.4	1,576.9
	25 to 29	377	454	575	679	672	639	648	715	740	771	391.4	454.5	545.2	612.7	573.9	578.2	643.8	676.6	654.0	732.2
	30 to 34	152	182	188	238	248	243	297	297	376	385	184.0	211.8	213.6	257.0	252.5	237.5	277.3	275.7	336.8	345.2
	35 to 39	47	74	80	97	106	102	122	145	155	159	66.8	101.4	104.5	121.1	128.0	118.1	137.2	161.6	164.4	161.2
	40 to 44	21	20	31	45	44	49	62	62	66	78	27.8	26.8	42.0	61.4	60.2	66.4	82.7	76.9	80.8	92.8
	45 to 49	11	11	11	14	18	14	20	29	22	24	15.0	14.7	14.4	18.2	23.1	17.9	25.9	38.4	29.6	32.6
	50 to 54	1	8	6	9	5	8	8	7	16	13	1.6	12.0	8.6	12.5	6.7	10.6	10.4	9.0	20.4	16.6
	55 to 59	1	1	0	3	1	2	2	3	6	6	2.0	1.8	0.0	5.0	1.6	3.1	2.9	4.3	6.9	8.1
	60 to 64	0	0	2	0	1	0	0	0	2	0	0.0	0.0	4.6	0.0	2.0	0.0	0.0	0.0	3.3	0.0
	65+	1	0	0	0	4	1	0	0	2	0	0.9	0.0	0.0	0.0	3.1	0.8	0.0	0.0	1.5	0.0
Unknown	0	0	4	0	1	2	0	0	0	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Female Total	2,723	3,084	3,453	3,926	3,980	4,023	4,477	4,818	5,149	5,052	227.5	251.8	274.5	303.7	300.2	299.1	326.0	346.1	365.9	353.1	
T O T A L	<1	1	2	8	5	17	5	3	3	6	3	2.1	4.1	15.8	9.5	32.8	9.4	5.8	5.9	12.0	6.0
	1 to 9	0	2	2	2	2	1	1	0	1	1	0.0	0.5	0.5	0.5	0.5	0.2	0.2	0.0	0.2	0.2
	10 to 14	74	50	47	57	47	53	49	53	60	41	37.5	25.0	23.1	27.2	21.9	24.2	21.4	22.5	24.7	16.8
	15 to 19	1,188	1,332	1,465	1,697	1,771	1,816	1,971	2,045	2,154	2,005	571.3	636.1	692.3	788.7	811.1	823.9	888.9	931.8	967.7	896.2
	20 to 24	1,522	1,793	1,953	2,050	2,228	2,209	2,485	2,693	2,869	2,768	630.3	746.8	828.0	884.4	973.4	967.8	1,089.9	1,152.8	1,178.7	1,126.5
	25 to 29	627	808	957	1,101	1,084	1,164	1,206	1,255	1,257	1,386	320.7	402.8	447.6	492.6	475.4	507.9	526.6	559.1	573.3	651.2
	30 to 34	271	347	348	450	458	494	534	547	696	705	157.3	193.5	191.3	235.9	227.5	233.7	244.3	247.0	306.4	309.3
	35 to 39	94	158	167	197	222	219	235	259	303	318	65.3	105.9	106.8	120.6	131.6	125.5	129.7	141.6	156.4	157.9
	40 to 44	46	65	70	91	94	99	121	132	137	156	30.3	43.2	47.0	61.1	63.2	65.8	78.4	80.9	82.8	91.1
	45 to 49	25	24	37	37	54	48	42	64	71	70	17.1	16.1	24.2	24.0	34.7	30.8	27.2	42.2	47.9	46.9
	50 to 54	4	17	18	21	25	29	29	21	42	33	3.1	12.8	13.1	14.6	17.0	19.3	19.0	13.6	27.0	21.2
	55 to 59	2	3	8	6	7	7	11	4	14	11	2.0	2.8	6.9	5.0	5.6	5.4	8.2	2.9	9.1	7.5
	60 to 64	0	0	3	1	2	3	4	3	4	5	0.0	0.0	3.5	1.1	2.1	2.9	3.7	2.6	3.4	4.1
	65+	4	1	2	5	5	2	0	1	2	3	1.9	0.5	0.9	2.2	2.1	0.9	0.0	0.4	0.8	1.1
Unknown	0	0	5	0	3	2	3	0	0	37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total Cases	3,858	4,602	5,090	5,720	6,019	6,151	6,694	7,080	7,616	7,542	160.6	187.2	201.5	220.2	226.0	226.0	242.6	253.1	269.1	262.0	

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, 2004-2013

Local Health District	Cases										Rates per 100,000 Population									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bear River	118	156	190	233	190	175	238	277	296	251	81.1	105.7	127.3	152.3	120.6	108.1	143.6	165.6	175.9	147.7
Central	56	61	52	54	77	59	85	75	79	93	81.9	88.6	74.2	75.3	104.1	78.6	112.2	98.5	104.1	121.8
Davis	430	465	535	540	567	751	702	748	865	891	164.0	172.7	191.9	187.3	191.7	248.7	228.1	239.9	273.9	276.6
Salt Lake	2,091	2,524	2,824	3,238	3,415	3,278	3,523	3,639	3,937	3,808	223.8	266.3	292.1	329.2	341.7	322.4	341.1	347.2	370.0	352.7
Southeastern	70	96	89	91	76	99	105	122	148	170	132.7	182.3	168.0	168.6	138.8	178.1	185.8	216.5	262.3	303.2
Southwest	153	193	214	263	274	249	335	346	355	382	93.1	109.8	114.8	135.7	138.1	123.6	164.5	167.0	168.9	179.0
Summit	45	60	36	64	62	48	65	54	63	73	135.3	175.8	105.1	184.7	176.0	133.9	178.2	144.2	166.2	189.7
Tooele	85	74	66	88	83	109	124	132	118	141	177.5	150.2	128.2	163.5	148.5	190.5	212.0	222.8	197.1	232.1
TriCounty	52	59	51	46	71	62	85	88	90	113	120.8	133.8	112.2	96.8	143.7	118.1	163.1	165.6	164.0	198.3
Utah	259	405	420	464	518	623	719	791	800	780	62.2	94.0	93.7	98.8	106.2	123.4	138.4	149.2	148.2	141.3
Wasatch	11	12	24	32	29	39	29	34	42	39	59.9	61.8	115.6	149.4	131.1	170.4	122.4	139.5	165.9	147.5
Weber-Morgan	488	497	589	607	657	664	679	775	827	801	226.4	227.8	266.5	268.2	282.2	279.7	281.0	318.0	335.7	322.1
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
State Total	3,858	4,602	5,090	5,720	6,019	6,156	6,689	7,081	7,620	7,542	160.6	187.2	201.5	220.2	226.0	226.0	241.1	251.6	266.7	267.7

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 4. Chlamydia Cases and Rates by Race/Ethnicity, Utah, 2004-2013

Race/Ethnicity	Cases										Rates per 100,000 Population									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
AI/AK Native*	90	143	111	104	105	111	105	170	191	198	347.2	548.6	421.4	387.0	389.4	407.8	385.9	622.0	693.9	705.2
Asian [#]	126	172	85	96	98	78	90	89	118	123	195.5	255.4	179.4	195.3	190.9	145.8	162.6	154.3	195.7	195.3
Pacific Islander [#]			80	111	125	131	135	139	142	144			0.0	524.5	558.7	559.9	555.2	563.4	560.2	551.3
Black	109	165	174	187	190	230	237	283	302	321	554.2	797.3	783.3	794.4	775.4	888.5	893.9	1,035.0	1,051.5	1,073.5
Hispanic [†]	969	1,174	1,293	1,405	1,488	1,647	1,645	1,783	1,972	1,986	380.2	435.7	449.9	453.7	449.9	473.8	456.4	482.5	522.2	512.4
White	2,558	2,948	3,326	3,812	4,007	3,841	4,387	4,567	4,867	4,714	127.5	144.3	159.5	179.2	185.1	174.5	196.4	202.1	213.1	203.8
Multiple [§]	N/A	N/A	8	4	5	6	8	10	22	23	N/A	N/A	21.7	10.1	11.9	13.4	17.0	20.4	42.9	42.9
Other/Unknown	6	0	13	1	1	112	82	40	6	33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
State Total	3,858	4,602	5,090	5,720	6,019	6,156	6,689	7,081	7,620	7,542	185.4	201.0	201.0	195.9	214.8	226.0	241.1	251.6	266.9	260.0

*AI/AK Native=American Indian/Alaska Native.

[#] The Asian and Pacific Islander race categories were combined into one race category prior to 2006.

[†] Includes persons of Hispanic ethnicity regardless of race.

[§] The Multiple race category was not in use prior to 2006.

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, 2005-2013

Year*	Female			Male			Total**		
	Positive Results	Total Results	Percent Positive	Positive Results	Total Results	Percent Positive	Positive Results	Total Results	Percent Positive
2005	989	11,312	8.7%	831	5,751	14.4%	2,234	18,991	11.8%
2006	1,084	12,696	8.5%	916	7,074	12.9%	2,356	21,489	11.0%
2007	1,326	14,209	9.3%	1,029	9,136	11.3%	2,563	25,125	10.2%
2008	1,247	13,788	9.0%	1,188	10,463	11.4%	2,577	25,647	10.0%
2009	1,251	14,819	8.4%	1,320	11,525	11.5%	2,621	26,846	9.8%
2010	1,453	16,951	8.6%	1,326	11,391	11.6%	2,821	28,756	9.8%
2011	1,723	18,704	9.2%	1,245	11,690	10.7%	3,011	30,711	9.8%
2012	1,803	19,468	9.3%	1,443	12,900	11.2%	3,278	32,708	10.0%
2013	1,701	16,544	10.3%	1,417	13,375	10.6%	3,170	30,308	10.5%

* 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, 2004-2013

Sex	Age Group (years)	Cases										Rates per 100,000 Population									
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
M A L E	<1	0	0	0	0	1	0	0	0	0	0	0.0	0.0	0.0	0.0	3.8	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	0	0	1	1	0	1	0	2	0.0	1.0	0.0	0.0	0.9	0.9	0.0	0.8	0.0	1.6
	15 to 19	41	48	41	41	35	29	22	20	39	37	39.3	45.7	38.5	37.8	31.8	26.1	19.7	18.0	34.8	32.4
	20 to 24	97	120	182	149	98	69	75	62	75	132	79.3	98.0	151.5	126.3	84.7	60.3	65.6	52.8	61.4	105.6
	25 to 29	85	88	121	103	78	87	49	54	64	133	85.7	87.4	111.7	90.5	66.9	74.4	41.6	47.2	58.3	123.7
	30 to 34	34	54	53	54	43	29	34	32	61	100	37.9	57.8	56.4	55.0	41.7	26.6	30.5	28.1	52.8	85.9
	35 to 39	43	37	45	53	29	17	24	20	34	61	58.4	48.6	56.4	63.7	33.8	19.1	26.2	21.3	34.6	59.4
	40 to 44	15	25	29	31	19	12	17	10	27	40	19.6	32.9	38.5	41.0	25.1	15.6	21.4	12.1	31.7	45.9
	45 to 49	13	18	24	21	17	9	7	9	26	30	17.7	24.1	31.5	27.3	21.8	11.6	9.1	11.8	34.3	39.6
	50 to 54	7	15	14	15	11	13	3	1	12	33	11.1	22.8	20.5	21.0	15.0	17.4	4.0	1.3	15.5	42.6
	55 to 59	0	1	8	5	4	2	2	1	9	9	0.0	1.9	13.9	8.5	6.5	3.1	3.0	1.5	12.7	12.4
	60 to 64	0	1	0	1	1	1	1	0	0	2	0.0	2.5	0.0	2.2	2.1	2.0	1.9	0.0	0.0	3.3
	65+	1	0	2	2	0	0	0	0	0	0	1.1	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	0	0	0	0	3	2	1	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	
Male Total	336	408	519	475	340	271	235	211	348	579	27.9	33.1	40.9	36.4	25.4	19.8	16.9	14.9	24.2	39.7	
F E M A L E	<1	0	0	0	0	1	0	0	0	0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	
	1 to 9	1	0	3	0	0	0	0	0	0	0.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10 to 14	5	8	7	2	3	2	1	1	3	1	5.2	8.3	7.1	2.0	2.9	1.8	0.9	2.6	0.8	
	15 to 19	80	94	103	109	34	21	24	15	16	50	77.2	90.1	98.0	102.1	31.4	19.3	22.1	14.0	14.9	45.6
	20 to 24	104	113	132	97	44	24	25	21	43	113	87.3	96.0	114.1	85.2	38.9	21.2	22.0	18.1	36.2	93.6
	25 to 29	39	62	75	73	28	15	15	15	23	82	40.5	62.1	71.1	66.6	25.1	13.4	13.5	13.8	21.6	77.9
	30 to 34	19	20	20	34	13	2	7	6	24	58	23.0	23.3	22.7	36.7	13.2	1.9	6.6	5.5	21.7	52.0
	35 to 39	6	10	18	14	8	1	2	6	11	35	8.5	13.7	23.5	17.5	9.7	1.2	2.3	6.6	11.7	35.5
	40 to 44	9	7	10	9	0	2	1	1	4	12	11.9	9.4	13.6	12.3	0.0	2.7	1.3	1.3	4.9	14.3
	45 to 49	1	1	1	4	4	1	0	1	4	4	1.4	1.3	1.3	5.2	5.1	1.3	0.0	1.3	5.4	5.4
	50 to 54	2	2	0	3	0	0	0	0	4	11	3.1	3.0	0.0	4.2	0.0	0.0	0.0	0.0	5.1	14.0
	55 to 59	0	2	0	0	1	1	0	0	0	3	0.0	3.7	0.0	0.0	1.6	1.5	0.0	0.0	0.0	4.0
	60 to 64	0	0	0	0	0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
	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	1	1	1	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Female Total	266	319	369	346	137	70	75	66	132	372	22.2	26.0	29.3	26.8	10.3	5.2	5.4	4.7	9.3	25.8	
T O T A L	<1	0	0	0	0	2	0	0	0	0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	
	1 to 9	1	0	3	0	0	0	0	0	0	0.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10 to 14	5	9	7	2	4	3	1	2	3	3	2.5	4.5	3.4	1.0	1.9	1.3	0.4	0.9	1.3	
	15 to 19	121	142	144	150	69	50	46	35	55	87	58.2	67.8	68.1	69.7	31.6	22.7	20.9	16.0	25.1	38.9
	20 to 24	201	233	314	246	142	93	100	83	118	245	83.2	97.0	133.1	106.1	62.0	40.9	43.9	35.5	49.0	99.7
	25 to 29	124	150	196	176	106	102	64	69	87	215	63.4	74.8	91.7	78.7	46.5	44.6	28.0	30.9	40.2	101.0
	30 to 34	53	74	73	88	56	31	41	38	85	158	30.8	41.3	40.1	46.1	27.8	14.6	18.8	17.0	37.6	69.3
	35 to 39	49	47	63	67	37	18	26	26	45	96	34.0	31.5	40.3	41.0	21.9	10.3	14.5	14.1	23.4	47.7
	40 to 44	24	32	39	40	19	14	18	11	31	52	15.8	21.3	26.2	26.9	12.8	9.3	11.6	6.8	18.6	30.4
	45 to 49	14	19	25	25	21	10	7	10	30	34	9.6	12.7	16.4	16.2	13.5	6.4	4.5	6.6	20.0	22.8
	50 to 54	9	17	14	18	11	13	3	1	16	44	7.1	12.8	10.2	12.5	7.5	8.7	2.0	0.6	10.3	28.2
	55 to 59	0	3	8	5	5	3	2	1	9	12	0.0	2.8	6.9	4.2	4.0	2.3	1.5	0.7	6.3	8.2
	60 to 64	0	1	0	1	1	1	1	0	0	5	0.0	1.2	0.0	1.1	1.0	1.0	0.9	0.0	0.0	4.1
	65+	1	0	2	2	0	0	0	0	0	0	0.5	0.0	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	0	0	0	1	4	3	1	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total Cases	602	727	888	821	477	341	310	277	480	951	25.1	29.6	35.2	31.6	17.9	12.5	11.2	9.8	16.8	32.8	

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, 2004-2013

Local Health District	Cases										Rates per 100,000 Population									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bear River	6	13	26	12	3	6	7	3	8	7	4.1	8.8	17.4	7.8	1.9	3.7	4.2	1.8	4.8	4.1
Central	2	15	8	5	0	0	3	1	3	3	2.9	21.8	11.4	7.0	0.0	0.0	4.0	1.3	4.0	3.9
Davis	45	62	58	54	24	36	38	18	41	64	17.2	23.0	20.8	18.7	8.1	11.9	12.3	5.8	13.0	19.9
Salt Lake	363	451	612	552	334	241	196	196	340	683	38.9	47.6	63.3	56.1	33.4	23.7	19.0	18.7	32.0	63.3
Southeastern	9	6	11	5	2	5	6	7	5	7	17.1	11.4	20.8	9.3	3.7	9.0	10.6	12.4	8.9	12.5
Southwest	26	27	17	15	14	12	6	10	14	16	15.8	15.4	9.1	7.7	7.1	6.0	2.9	4.8	6.7	7.5
Summit	4	3	6	6	4	2	2	2	3	5	12.0	8.8	17.5	17.3	11.4	5.6	5.5	5.3	7.9	13.0
Tooele	7	7	10	14	10	1	6	1	3	7	14.6	14.2	19.4	26.0	17.9	1.7	10.3	1.7	5.0	11.5
TriCounty	2	4	10	1	2	0	0	2	4	6	4.6	9.1	22.0	2.1	4.0	0.0	0.0	3.8	7.3	10.5
Utah	42	53	45	34	13	16	24	20	17	67	10.1	12.3	10.0	7.2	2.7	3.2	4.6	3.8	3.1	12.1
Wasatch	1	3	2	1	0	0	0	0	0	1	5.4	15.5	9.6	4.7	0.0	0.0	0.0	0.0	0.0	3.8
Weber-Morgan	95	83	83	122	71	22	22	17	42	85	44.1	38.1	37.6	53.9	30.5	9.3	9.1	7.0	17.0	34.2
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
State Total	602	727	888	821	477	341	310	277	480	951	25.1	29.6	35.2	31.6	17.9	12.5	11.2	9.8	16.8	32.8

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 8. Gonorrhea Cases and Rates by Race/Ethnicity, Utah, 2004-2013

Race/Ethnicity	Cases										Rates per 100,000 Population									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
AI/AK Native*	12	15	18	13	5	2	6	5	14	20	46.3	57.5	68.3	48.4	18.5	7.3	22.1	18.3	50.9	71.2
Asian [#]	14	19	12	8	10	4	2	2	3	13	22.5	29.5	25.3	16.3	19.5	7.5	3.6	3.5	5.0	20.6
Pacific Islander [#]			10	13	2	3	3	3	5	7			50.0	61.4	8.9	12.8	12.3	12.2	19.7	26.8
Black	33	63	53	79	41	26	9	20	57	71	167.8	304.4	238.6	335.6	167.3	100.4	33.9	73.1	198.5	237.4
Hispanic [†]	120	174	179	182	88	60	34	41	83	171	47.1	64.6	62.3	58.8	26.6	17.3	9.4	11.1	22.0	44.1
White	423	456	614	524	331	236	254	206	315	667	21.1	22.3	29.4	24.6	15.3	10.7	11.4	9.1	13.8	28.8
Multiple [§]	N/A	N/A	1	1	0	1	0	0	1	2	N/A	N/A	2.7	2.5	0.0	2.2	0.0	0.0	2.0	3.7
Other/Unknown	0	0	1	1	0	9	2	0	2	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
State Total	602	727	888	821	477	341	310	277	480	951	25.1	29.6	35.2	31.6	17.9	12.3	11.0	9.7	16.5	32.8

*AI/AK Native=American Indian/Alaska Native.

[#] The Asian and Pacific Islander race categories were combined into one race category prior to 2006.

[†] Includes persons of Hispanic ethnicity regardless of race.

[§] The Multiple race category was not in use prior to 2006.

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, 2009-2013

Year	MSM*		Not MSM*		Unknown		Total
	Cases	Percent	Cases	Percent	Cases	Percent	Cases
2009	181	68.3%	42	15.8%	42	15.8%	265
2010	155	66.0%	39	16.6%	41	17.4%	235
2011	130	61.6%	49	23.2%	32	15.2%	211
2012	181	51.7%	90	25.7%	79	22.6%	350
2013	247	42.7%	229	39.6%	102	17.6%	578

*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, 2005-2013

Year*	Female			Male			Total**		
	Positive Results	Total Results	Percent Positive	Positive Results	Total Results	Percent Positive	Positive Results	Total Results	Percent Positive
2005	106	11,325	0.9%	154	5,758	2.7%	469	19,226	2.4%
2006	128	12,700	1.0%	232	7,074	3.3%	547	21,694	2.5%
2007	135	14,212	0.9%	263	9,136	2.9%	495	25,161	2.0%
2008	72	13,788	0.5%	224	10,463	2.1%	337	25,647	1.3%
2009	34	14,819	0.2%	247	11,525	2.1%	296	26,846	1.1%
2010	26	16,951	0.2%	172	11,392	1.5%	211	28,757	0.7%
2011	24	18,704	0.1%	166	11,690	1.4%	208	30,711	0.7%
2012	62	19,468	0.3%	255	12,645	2.0%	328	32,708	1.0%
2013	174	18,077	1.0%	418	14,384	2.9%	607	32,887	1.8%

* 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, 2004-2013

Sex	Age Group (years)	Cases										Rates per 100,000 Population									
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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	0.0
	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	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	0	1	1	0	0	0	0	0.0	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.0	0.0
	20 to 24	2	0	2	4	3	3	11	2	6	10	1.6	0.0	1.7	3.4	2.6	2.6	9.6	1.7	4.9	8.0
	25 to 29	1	4	3	4	5	9	11	1	10	12	1.0	4.0	2.8	3.5	4.3	7.7	9.3	0.9	9.1	11.2
	30 to 34	2	1	5	5	2	11	8	3	9	10	2.2	1.1	5.3	5.1	1.9	10.1	7.2	2.6	7.8	8.6
	35 to 39	1	1	1	2	1	5	11	3	5	12	1.4	1.3	1.3	2.4	1.2	5.6	12.0	3.2	5.1	11.7
	40 to 44	2	1	3	1	3	1	9	0	3	6	2.6	1.3	4.0	1.3	4.0	1.3	11.3	0.0	3.5	6.9
	45 to 49	0	1	3	2	2	1	4	2	5	4	0.0	1.3	3.9	2.6	2.6	1.3	5.2	2.6	6.6	5.3
	50 to 54	1	0	1	1	4	1	2	1	1	7	1.6	0.0	1.5	1.4	5.5	1.3	2.6	1.3	1.3	9.0
	55 to 59	1	1	0	0	2	1	4	1	3	7	2.0	1.9	0.0	0.0	3.3	1.6	6.0	1.5	4.2	9.6
	60 to 64	0	0	0	0	1	0	2	1	0	2	0.0	0.0	0.0	0.0	2.1	0.0	3.8	1.8	0.0	3.3
	65+	0	0	0	1	0	0	1	0	0	1	0.0	0.0	0.0	1.0	0.0	0.0	0.9	0.0	0.0	0.8
Unknown	0	0	0	0	0	0	0	0	0	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Male Total	10	9	18	20	24	33	63	14	42	72	0.8	0.7	1.4	1.5	1.8	2.4	4.5	1.0	2.9	4.9	
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	1	1	1	0	0	0	1	0	0	1	1.0	1.0	1.0	0.0	0.0	0.0	0.9	0.0	0.0	0.9
	20 to 24	1	0	0	0	0	0	1	0	0	0	0.8	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
	25 to 29	1	0	0	0	1	0	0	0	0	0	1.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
	30 to 34	0	0	1	0	0	0	0	0	0	0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35 to 39	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	1.0
	40 to 44	0	0	1	0	0	0	0	0	0	0	0.0	0.0	1.4	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	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	50 to 54	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
	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	
Female Total	3	1	3	0	1	0	2	0	0	2	0.3	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.1	
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	1	1	1	0	1	1	1	0	0	1	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.0	0.0	0.4
	20 to 24	3	0	2	4	3	3	12	2	6	10	1.2	0.0	0.8	1.7	1.3	1.3	5.3	0.9	2.5	4.1
	25 to 29	2	4	3	4	6	9	11	1	10	12	1.0	2.0	1.4	1.8	2.6	3.9	4.8	0.4	4.6	5.6
	30 to 34	2	1	6	5	2	11	8	3	9	10	1.2	0.6	3.3	2.6	1.0	5.2	3.7	1.3	4.0	4.4
	35 to 39	1	1	1	2	1	5	11	3	5	13	0.7	0.7	0.6	1.2	0.6	2.9	6.1	1.6	2.6	6.5
	40 to 44	2	1	4	1	3	1	9	0	3	6	1.3	0.7	2.7	0.7	2.0	0.7	5.8	0.0	1.8	3.5
	45 to 49	0	1	3	2	2	1	4	2	5	4	0.0	0.7	2.0	1.3	1.3	0.6	2.6	1.3	3.3	2.7
	50 to 54	1	0	1	1	4	1	2	1	1	7	0.8	0.0	0.7	0.7	2.7	0.7	1.3	0.6	0.6	4.5
	55 to 59	1	1	0	0	2	1	4	1	3	7	1.0	0.9	0.0	0.0	1.6	0.8	3.0	0.7	2.1	4.8
	60 to 64	0	0	0	0	1	0	2	1	0	2	0.0	0.0	0.0	0.0	1.0	0.0	1.8	0.9	0.0	1.6
	65+	0	0	0	1	0	0	1	0	0	1	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4
Unknown	0	0	0	0	0	0	0	0	0	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total Cases	13	10	21	20	25	33	65	14	42	74	0.5	0.4	0.8	0.8	0.9	1.2	2.3	0.5	1.5	2.6	

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.

Table 12. Primary and Secondary Syphilis Cases and Rates by Local Health District, Utah, 2004-2013

Local Health District	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bear River	1	0	0	0	0	0	0	0	2	0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0
Central	0	0	0	0	0	0	1	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0
Davis	1	0	2	1	1	1	3	1	1	6	0.4	0.0	0.7	0.3	0.3	0.3	1.0	0.3	0.3	1.9
Salt Lake	6	9	15	19	22	29	54	9	34	63	0.6	0.9	1.6	1.9	2.2	2.9	5.2	0.9	3.2	5.8
Southeastern	2	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	0.0
Southwest	2	0	0	0	0	0	2	1	1	0	1.2	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.5	0.0
Summit	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
Tooele	0	0	0	0	1	0	0	0	0	1	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	1.6
TriCounty	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
Utah	1	1	4	0	1	0	3	0	3	0	0.2	0.2	0.9	0.0	0.2	0.0	0.6	0.0	0.6	0.0
Wasatch	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
Weber-Morgan	0	0	0	0	0	3	2	3	1	3	0.0	0.0	0.0	0.0	0.0	1.3	0.8	1.2	0.4	1.2
Unknown	0	0	0	0	0	0	0	0	0	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
State Total	13	10	21	20	25	33	65	14	42	74	0.5	0.4	0.8	0.8	0.9	1.2	2.3	0.5	1.5	2.6
											0.851351	0.081081	0.040541	0.013514						

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 13. Primary and Secondary Syphilis Cases and Rates by Race/Ethnicity, Utah, 2003-2013

Race/Ethnicity	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
AI/AK Native*	1	0	0	0	2	0	0	1	1	1	3.9	0.0	0.0	0.0	7.4	0.0	0.0	3.7	3.6	3.6
Asian [#]	1	0	0	0	0	0	0	0	2	1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	1.6
Pacific Islander [#]			3	0	0	1	1	0	1	3			1.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0
Black	0	0	1	1	2	0	2	0	1	3	0.0	0.0	5.0	4.7	8.9	0.0	8.2	0.0	3.9	11.5
Hispanic [†]	3	1	5	3	2	7	8	1	2	9	15.3	4.8	22.5	12.7	8.2	27.0	30.2	3.7	7.0	30.1
White	8	9	12	16	19	25	54	12	36	46	0.4	0.4	0.6	0.8	0.9	1.1	2.4	0.5	1.6	2.0
Multiple [§]	N/A	N/A	0	0	0	0	0	0	0	14	N/A	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.1
Other/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
State Total	13	10	21	20	25	33	65	14	42	74	0.5	0.4	0.8	0.8	0.9	1.2	2.3	0.5	1.5	2.6

*AI/AK Native=American Indian/Alaska Native.

[#] The Asian and Pacific Islander race categories were combined into one race category prior to 2006.

[†] Includes persons of Hispanic ethnicity regardless of race.

[§] The Multiple race category was not in use prior to 2006.

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, 2009-2013

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	60	95.2%	0	0.0%	3	4.8%	63
2011	13	92.9%	0	0.0%	1	7.1%	14
2012	39	92.9%	2	4.8%	1	2.4%	42
2013	63	85.1%	10	13.5%	1	1.4%	74

*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, 2013

Age	Males		Females		Total	
	Cases	Rates	Cases	Rates	Cases	Rates
15	13	54	102	454	115	248
16	41	173	210	947	251	547
17	72	312	338	1,548	410	913
18	89	392	452	2,125	541	1,231
19	147	707	541	2,478	688	1,614
20	177	904	466	1,986	643	1,494
21	156	656	428	1,733	584	1,205
22	204	731	395	1,541	599	1,118
23	180	645	329	1,341	509	971
24	148	572	285	1,275	433	898

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, 2013

Age	Males		Females		Total	
	Cases	Rates	Cases	Rates	Cases	Rates
15	1	4.2	5	22.3	6	13.0
16	4	16.8	7	31.6	11	24.0
17	5	21.7	10	45.8	15	33.4
18	5	22.0	14	65.8	19	43.2
19	22	105.8	14	64.1	36	84.5
20	22	112.4	17	72.4	39	90.6
21	21	88.4	24	97.2	45	92.9
22	33	118.2	24	93.6	57	106.4
23	25	89.6	29	118.2	54	103.0
24	31	119.8	19	85.0	50	103.7

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 12 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
Southeastern Utah District Health Department	Carbon, Emery, Grand, San Juan
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