

# Nevada

## STD Epidemiologic Profile: 2017



Nevada Division of Public and Behavioral Health

Office of Public Health Informatics and Epidemiology

Sexually Transmitted Disease (STD) Prevention and Control Program

**Steve Sisolak**  
*Governor*  
*State of Nevada*

**Richard Whitley, MS**  
*Director*  
*Department of Health and Human Services*



**Lisa Sherych**  
*Administrator*  
*Division of Public and Behavioral Health*

**Ihsan Azzam, Ph.D., MD**  
*Chief Medical Officer*  
*Division of Public and Behavioral Health*

# ACKNOWLEDGMENTS

## Written, compiled, and edited by:

**Elizabeth Kessler, MPH**

STD & Adult Viral Hepatitis Program Coordinator

**Amy Lucas, MS**

Health Resource Analyst II

**Sandra Atkinson**

Health Resource Analyst II

**Ashleigh Faulstich, MPH**

HAI Epidemiologist

**Kellie Ducker**

HIV Surveillance and Control Manager

**Miranda Branson**

HIV IDR Specialist

## A Special Thanks to:

**Ihsan Azzam, Ph.D., MD, MPH**

Chief Medical Officer

**Melissa Peek-Bullock**

State Epidemiologist

**Kyra Morgan, MS, CHDA**

State Biostatistician

**Richard Whitley, MS**

Director, DHHS

**Carson City Health and Human Services, Rural Community Health Services, Southern Nevada Health District, and Washoe County Health District STD Surveillance Program**

# TABLE OF CONTENTS

Acknowledgments .....	ii
List of Figures .....	v
List of Tables .....	v
Abbreviations .....	vi
Definitions .....	vii
Preface .....	8
Methods .....	8
Technical Notes .....	8
Nevada Overview .....	10
Chlamydia .....	10
Gonorrhea .....	10
Syphilis .....	10
Chlamydia .....	11
Background .....	11
Interpreting Rates of Reported Cases of Chlamydia .....	11
Chlamydia Overview .....	11
Chlamydia by Region .....	11
Chlamydia by Sex .....	13
Chlamydia by Age .....	14
Chlamydia by Race/Hispanic Ethnicity .....	15
Gonorrhea .....	16
Background .....	16
Interpreting Rates of Reported Cases of Gonorrhea .....	16
Gonorrhea Overview .....	16
Gonorrhea by Region .....	16
Gonorrhea by Sex .....	18
Gonorrhea by Age .....	19
Gonorrhea by Race/Hispanic Ethnicity .....	19
Syphilis .....	20
Background .....	20
Interpreting Rates of Reported Cases .....	20
Syphilis Overview .....	20
P&S Syphilis by Region .....	20

P&S Syphilis by Sex .....	22
P&S Syphilis by Age .....	22
P&S Syphilis by Race/Hispanic Ethnicity .....	23
Congenital Syphilis.....	24
Tables.....	25
References .....	32
Copyright Information .....	32
Suggested Citation.....	32
Web Site .....	32
Selected References and Web Sites .....	32
STD Publications from 2000-2016.....	32
STD Treatment Guidelines .....	32
STD Program Operation Guidelines .....	32

## LIST OF FIGURES

Figure 1  Chlamydia - Rates of Reported Cases by Region, Nevada, 2013-2017 .....	11
Figure 2  Chlamydia - Rates of Reported Cases by Sex, Nevada, 2013-2017 .....	11
Figure 3   Chlamydia – Reported Cases by County and Sex, Nevada, 2017 .....	12
Figure 4  Chlamydia - Rates of Reported Cases by Age Group and Sex, Nevada, 2017 .....	13
Figure 5   Chlamydia – Rates of Reported Cases Among Men Aged 15-44 Years by Age Group, Nevada, 2013-2017 .....	14
Figure 6   Chlamydia – Rates of Reported Cases Among Women Aged 15-44 Years by Age Group, Nevada, 2013-2017.....	14
Figure 7   Chlamydia - Rates of Reported Cases by Race and Hispanic Ethnicity, Nevada, 2013-2017 .....	15
Figure 8  Gonorrhea - Rates of Reported Cases by Region, Nevada, 2013-2017.....	16
Figure 9  Gonorrhea - Rates of Reported Cases by Sex, Nevada, 2013-2017 .....	16
Figure 10   Gonorrhea – Reported Cases by County and Sex, Nevada, 2017.....	17
Figure 11  Gonorrhea - Rates of Reported Cases by Age Group and Sex, Nevada, 2017.....	18
Figure 12   Gonorrhea – Rates of Reported Cases Among Men Aged 15-44 Years by Age Group, Nevada, 2013-2017 .....	19
Figure 13   Gonorrhea – Rates of Reported Cases Among Women Aged 15-44 Years by Age Group, Nevada, 2013-2017.....	19
Figure 14   Gonorrhea -Rates of Report Cases by Race and Hispanic Ethnicity, Nevada, 2013-2017.....	19
Figure 15  P&S Syphilis - Rates of Reported Cases by Region, Nevada, 2013-2017 .....	20
Figure 16   P&S Syphilis – Reported Cases by County and Sex, Nevada, 2017 .....	21
Figure 17  P&S Syphilis - Rates of Reported Cases by Sex, Nevada, 2013-2017 .....	22
Figure 18  P&S Syphilis - Rates of Reported Cases by Age Group and Sex, Nevada, 2017 .....	22
Figure 19   P&S Syphilis – Rates of Reported Cases Among Men Aged 15-44 Years by Age Group, Nevada, 2013-2017 .....	23
Figure 20   P&S Syphilis – Rates of Reported Cases Among Women Aged 15-44 Years by Age Group, Nevada, 2013-2017.....	23
Figure 21   P&S Syphilis -Rates of Reported Cases by Race and Hispanic Ethnicity, Nevada, 2013-2017.....	23
Figure 22  Congenital Syphilis – Reported Cases by Year of Birth and Rates of Reported Cases of P&S Syphilis Among Women Aged 15-44 Years, Nevada, 2012-2017 .....	24

## LIST OF TABLES

Table 1  Chlamydia Cases in Nevada, 2017 .....	25
Table 2  Chlamydia cases in Nevada, 2013-2017 .....	26
Table 3  Gonorrhea Cases in Nevada, 2017 .....	27
Table 4  Gonorrhea cases in Nevada, 2013-2017 .....	28
Table 5  Primary & Secondary Syphilis Cases in Nevada, 2017 .....	29
Table 6  Primary and Secondary (P&S) Syphilis cases in Nevada, 2013-2017.....	30
Table 7   P&S Syphilis – Cases and Crude Rates of Reported Cases by County, Males, 2013-2017 .....	31
Table 8   P&S Syphilis – Cases and Crude Rates of Reported Cases by County, Females, 2013-2017 .....	31
Table 9   Congenital Syphilis – Cases and Rates of Reported Cases by County, Females, 2013-2017 .....	31

# ABBREVIATIONS

<b>AI/AN</b>	American Indian/Alaska Native
<b>AOC</b>	all other counties
<b>API</b>	Asian/Hawaiian/Pacific Islander
<b>CC</b>	Clark County
<b>CCHS</b>	Carson City Health and Human Services
<b>CDC</b>	The Centers for Disease Control and Prevention
<b>CDL</b>	Carson/Douglas/Lyon
<b>CSTE</b>	Council of State and Territorial Epidemiologists
<b>CT</b>	Chlamydia
<b>DIS</b>	Disease Intervention Specialists
<b>DPBH</b>	Division of Public and Behavioral Health
<b>EIA</b>	enzyme immunoassay
<b>EP</b>	ectopic pregnancy
<b>EPI</b>	epidemiology
<b>ELSY</b>	Early or Latent Syphilis
<b>FTA-ABS</b>	fluorescent treponemal antibody absorbed
<b>GC</b>	Gonorrhea
<b>HIV</b>	Human immunodeficiency virus
<b>LHD</b>	Local Health Department
<b>NAC</b>	Nevada Administrative Code
<b>NBS</b>	NEDSS-Based System
<b>NEDSS</b>	National Electronic Disease Surveillance System
<b>NETSS</b>	National Electronic Telecommunications System for Surveillance
<b>NRS</b>	Nevada Revised Statute
<b>OPHIE</b>	Office of Public Health Investigations and Epidemiology
<b>P&amp;S</b>	Primary and Secondary Syphilis
<b>RSE</b>	relative standard error
<b>SNHD</b>	Southern Nevada Health District
<b>STD</b>	sexually transmitted disease
<b>STI</b>	sexually transmitted infection
<b>STD*MIS</b>	Sexually Transmitted Diseases Management Information System
<b>WC</b>	Washoe County
<b>WCHD</b>	Washoe County Health District
<b>~</b>	Count under 12 used in the calculation. See RSE.

# DEFINITIONS

**All other counties:** The category *all other counties* include Churchill, Elko, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Mineral, Nye, Pershing, Storey, and White Pine Counties.

**Chlamydia:** Chlamydia is a curable bacterial sexually transmitted disease.

**Crude Rate:** A crude rate is the total number of new cases for a specific geographic area or race/ethnicity divided by the total number of people in the population for the same geographic area or race/ethnicity for a specified time.

**Early Latent Syphilis:** Early Latent Syphilis refers to a stage of bacterial infection of the bacterium *Treponema pallidum*. This stage comes immediately after the infectious stages.

**Epidemiologic profile:** A document which describes the distribution of STD in various populations and identifies demographic characteristics of people in defined geographic areas.

**Epidemiology:** The study of the distribution and determinants of health-related states or events in specified populations and the application of this study to the control of health problems.

**Estimate:** In situations in which precise data are not available, an estimate may be made based on available data and an understanding of how the data can be generalized to larger populations.

**Gonorrhea:** Gonorrhea is a curable bacterial sexually transmitted disease.

**Mean:** The sum of values for a variable, a group, or other category divided by the total number of values (e.g., in a dataset). The mean is what many people refer to as an average.

**Median:** The middle value in a dataset: approximately half the values will be higher, and half will be lower.

**Morbidity:** The occurrence of an illness, disease, or injury.

**Percentage:** A proportion of the whole, in which the whole is 100.

**Prevalence:** The proportion of cases of a disease in a population at risk, measured at a given point in time (often referred to as point prevalence). Prevalence can also be measured over a period of time (e.g., a year; known as period prevalence).

**Primary Syphilis:** A stage of infection with the bacterium *Treponema Pallidum* categorized as infectious.

**Quantitative data:** Numeric information (e.g., numbers, rates, and percentages).

**Race/ Ethnicity:** The collection of race/ethnicity data in surveillance follows the guidelines set forth by the Office of Management and Budget (OMB) in 1997.

**Ethnicity:** There are two ethnicity categories: Hispanic/Latino and not Hispanic/Latino. All people who identified as Hispanic/Latino are classified as Hispanic/Latino regardless of their racial identification.

**Race:** There are four race categories: White, Black/African American, Asian/Native Hawaiian/Pacific Islander (API), and American Indian/Alaska Native (AI/AN). The categories Asian, Native Hawaiian, and Pacific Islander were combined into the single category API due to their small population size in Nevada.

**Range:** The smallest and the largest values in a series.

**Rate:** The rapidity at which a health event occurs as indicated by the number of cases per number of people during a specific time period. In this report, rates were calculated for the 12-month period per 100,000 population using population estimates from the Nevada State Demographer's Office.

**Raw data:** Data are in their original form (i.e., not coded or analyzed).

**Reliability:** Refers to the consistency and dependability of a data-collection instrument or measure.

**Secondary Syphilis:** A stage of infection with the bacterium *Treponema pallidum* categorized as infectious.

**Sociodemographic Factors:** Background information about the population of interest.

**Small Counts and Relative Standard Error (RSE):** Reported numbers less than 12, as well as estimated numbers (and accompanying rates and trends) based on these numbers, should be interpreted with caution because the numbers have underlying relative standard errors greater than 30% and are considered unreliable. Denoted with a ~.

**STD\*MIS:** STD Data Management & Information Technology. A database application provided by the CDC to the state for use in managing the data received for STD control.

**STD Surveillance:** The systematic collection, analysis, interpretation, dissemination, and evaluation of population-based information about people with a diagnosis of STDs.

**Syphilis:** Syphilis is a curable bacterial sexually transmitted disease.

**Trend:** A long-term movement or change in frequency, usually upward or downward; may be presented as a line graph.

## PREFACE

*Nevada STD Epidemiology Profile 2017* presents statistics and trends for STDs in Nevada through 2017. This annual publication is intended as a reference document for policy makers, program managers, health planners, researchers, and others who are concerned with the public health implications of these diseases. The figures and tables in this edition supersede those in earlier publications of these data.

Data for this profile was gathered in July 2017, from the surveillance system maintained by DPBH, STD\*MIS, a database application provided by the CDC to the state for use in managing the data received for STD control. Data from this database comes from medical labs, private and public health providers, clinics, and state and local disease intervention specialists (DIS). This epidemiologic profile is intended for the public, public health professionals, and researchers.

Per the Nevada Administrative Code (NAC) 441A.040, chlamydia, gonorrhea, and syphilis (including congenital syphilis) are reportable communicable diseases. A diagnosis of chlamydia, gonorrhea, or syphilis is reportable to the health authority by providers, medical facilities, and labs as prescribed by Nevada Revised Statute (NRS) 441A.150. These case reports are the data source for many of the figures and most of the statistical tables in this publication; however, it is important to note these case reports reflect only a portion of STDs occurring in the Nevada population. Other common STDs, such as human papillomavirus (HPV) and herpes simplex virus (HSV) are not nationally notifiable diseases. Additionally, STDs are often asymptomatic and may not be diagnosed; therefore, case report data may be limited.

## METHODS

The data used for this profile are between January 1, 2017 to December 31, 2017; from January 1, 2017 to May 31, 2017 was obtained from the STD Management and Investigation System (STD\*MIS) and from June 1, 2017, to December 31, 2017 was obtained from the NEDSS-Based System (NBS). The STD\*MIS and NBS are database applications provided by the Centers for Disease and Control and Prevention (CDC) and maintained by the Division of Public and Behavioral Health (DPBH) for the STD Prevention and Control Program. The data are collected from medical labs, private and public health providers, clinics, and state and local disease intervention specialists (DIS). The STD case definition for this report utilizes the 2017 CDC Case

Definitions. Per the CDC, a patient may be infected with multiple diseases at the same time, and while a patient may contract STDs multiple times in the calendar year, only the first incidence of the disease is counted within a 30-day period.

## TECHNICAL NOTES

Per the Nevada Administrative Code (NAC) 441A.040, chlamydia, gonorrhea, syphilis, and congenital syphilis are reportable communicable diseases. As prescribed by NRS 441A.150, a diagnosis of chlamydia, gonorrhea or syphilis is reported to the local health authority by providers, medical facilities, and labs.

The unknown categories, percentage, and incidence are missing data to include gender, race/ethnicity, full address, or age which is a requirement of NAC. The local health authorities conduct investigations on these cases to complete the case, but due to limited staff and funding some cases are not complete.

**Crude rates** are the rate of disease per 100,000 persons and calculated by using the 2017 population projections from the Nevada State Demographer vintage.

**NA (Not Applicable)** is used to represent cases where the data may not meet the criteria for reliability, data quality, or confidentiality due to small counts or inability to calculate rates based on an equivalent population.

**N (incidence)** is the basic measure of disease in the total population.

**n (incidence)** is the basic measure of disease for a given subpopulation, such as sex, race/ethnicity, age, or full address. The subpopulations may not equal the total incidence rate for the population due to unknown demographics such as sex, race/ethnicity, age, or full address.

**Population** is based on the 2017 population projections from the Nevada State Demographer vintage 2017 data.

**RD (Rate Difference)** is the difference in incidence rates between 2016 and 2017 data.

**RC (Rate Change)** is the difference in rates between 2016 and 2017 data divided by the 2016 data.

**Relative Standard Error (RSE):** The publication contains counts under 12; please use caution when interpreting the data as the RSE may be greater than 30%.



# Nevada Local Health Districts



## NEVADA OVERVIEW

This overview summarizes Nevada's STD Program Surveillance Data for 2017 on the three notifiable diseases for which there are federally funded control programs: chlamydia, gonorrhea, and syphilis.

### Chlamydia

In 2017, a total of 16,260 cases of *Chlamydia trachomatis* infection were reported in Nevada, making it the most common notifiable STD in Nevada. This case count corresponds to a rate of 544.7 cases per 100,000 population, an increase of 11.0% compared with the rate in 2016. During 2016-2017, rates of reported chlamydia increased in all regions of Nevada.

Rates of chlamydia are highest among adolescent and young adult females, the population targeted for routine chlamydia screening. Females represent 64.4% of all chlamydia cases in Nevada, with 27.2% of cases being females 15-19 years old, and an additional 36.2% being 20-24 years old. Rates of reported cases among men are generally lower than rates of reported cases among women. This reflects the larger number of women screened for this infection; however, increased availability of urine testing and extragenital testing has resulted in an increased number of men, including gay, bisexual, and other men who have sex with men (collectively referred to as MSM) being tested and diagnosed with a chlamydial infection.

Rates of reported chlamydia varied among different racial and ethnic minority populations. In 2017, rates were highest among Blacks and American Indian/Alaska Native (AI/AN). However, from 2012-2016, rates among AI/AN decreased by 3.8%. In contrast, Blacks, Whites, Hispanics, and Asian/Hawaiian/Pacific Islander (API) have all increased in rates.

### Gonorrhea

From 2013-2017, the rate of gonorrhea in Nevada increased sharply each year from 96.4 cases per 100,000 population in 2013 to 184.9 cases per 100,000 population in 2017, demonstrating a 104.4% increase over a 5-year period. From 2016-2017 this rate increased from 148.3 per 100,000 population to 184.9 per population, which is a 24.7% increase.

From 2016-2017, the rate of reported gonorrhea increased by 28.1% among men and 22.4% among women. The magnitude of the increase among men suggests either increased transmission or increased case ascertainment (e.g., through increased extra-genital screening) among MSM or both. The concurrent increases among cases

reported among women, suggest parallel increases in heterosexual transmission, increased screening among women, or both.

In 2017, the rate of reported cases of gonorrhea remained highest among Blacks (504.1 cases per 100,000 population) and among AI/AN (98.4 cases per 100,000 population). From 2013-2017, rates increased among all racial and ethnic groups.

### Syphilis

Primary and Secondary (P&S) syphilis rates have increased every year since 2013. In 2017, 587 P&S syphilis cases were reported, representing a rate of 19.7 cases per 100,000 population and a 32.2% increase from 2016. From 2016-2017, the P&S syphilis rate increased among both men and women in every region of Nevada; overall, the rate increased by 29.9% among men and 50.0% among women.

From 2013-2017, P&S syphilis rates were consistently highest among persons aged 20-29 years; however, rates increased in every five-year age group among those aged 15-64 years. In 2017, rates were highest among Blacks (57.9 per 100,000 population); however, rates increased among all racial and ethnic groups from 2013-2017.

During 2013-2017, the rise in the P&S syphilis rate was primarily attributable to increased cases among men and, specifically, among MSM. In 2017, men accounted for 87.2% of all cases of P&S syphilis. Reported cases of P&S syphilis continued to be characterized by a high rate of HIV co-infection, particularly among MSM.

Since 2013, the rate of congenital syphilis has increased each year. In 2017, there were a total of 21 reported cases of congenital syphilis. The rate of 60.2 cases per 100,000 live births represents a 77.4% increase relative to 2016 and a 941.3% increase relative to 2013. This increase in the congenital syphilis rate has paralleled increases in P&S syphilis among all women and reproductive-aged women during 2013-2017 (169.9%).

# CHLAMYDIA

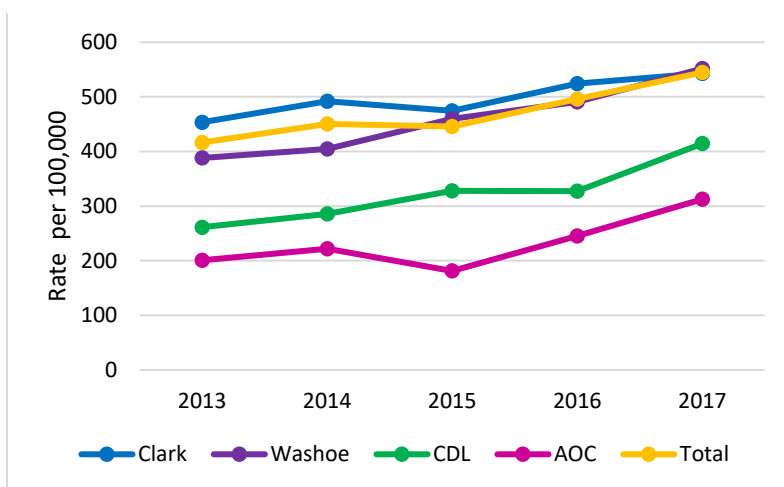
## Background

Chlamydia is a bacterial STD caused by *Chlamydia trachomatis* and is the most common STD reported in the United States, per the CDC (1). While most people with chlamydia do not show symptoms, there can be serious health consequences if left untreated. In men, chlamydia can cause discharge from the penis, a burning sensation when urinating, and less commonly, pain and swelling in one or both testicles. In women, chlamydia can cause vaginal discharge, a burning sensation when urinating, and in rare cases pelvic inflammatory disease (PID).

## Interpreting Rates of Reported Cases of Chlamydia

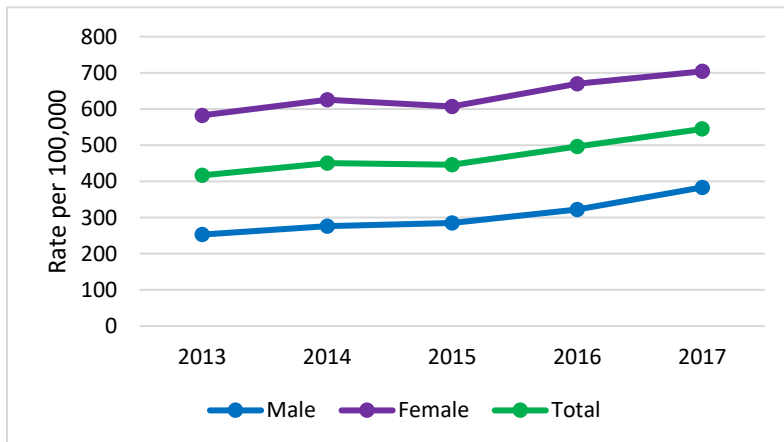
Trends in rates of reported cases of chlamydia are influenced by changes in the incidence of infection, as well as changes in diagnostic, screening, and reporting practices. As chlamydial infections are usually asymptomatic, the number of infections identified and reported can increase as more people are screened even when incidence is flat or decreasing. The increased use of electronic laboratory reporting over the last decade or so also likely increased the proportion of diagnosed cases reported. Consequently, an increasing chlamydia case rate over time may reflect increases in the incidence of infection, screening coverage, and use of more sensitive tests, as well as more complete reporting. Likewise, decreases in chlamydia case rates may suggest decreases in the incidence of infection or screening coverage.

**Figure 1 | Chlamydia - Rates of Reported Cases by Region, Nevada, 2013-2017**



Carson, Douglas, Lyon (CDL) (414.4, 26.7% increase from 2016), and

**Figure 2 | Chlamydia - Rates of Reported Cases by Sex, Nevada, 2013-2017**



## Chlamydia Overview

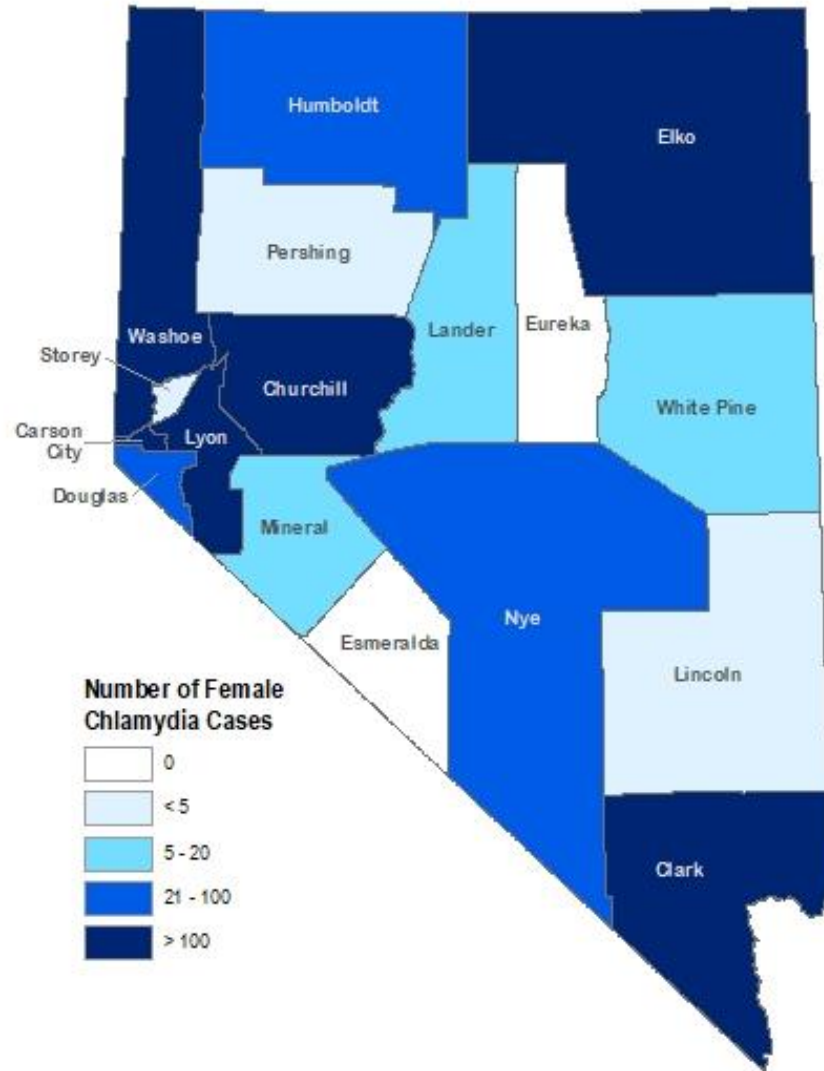
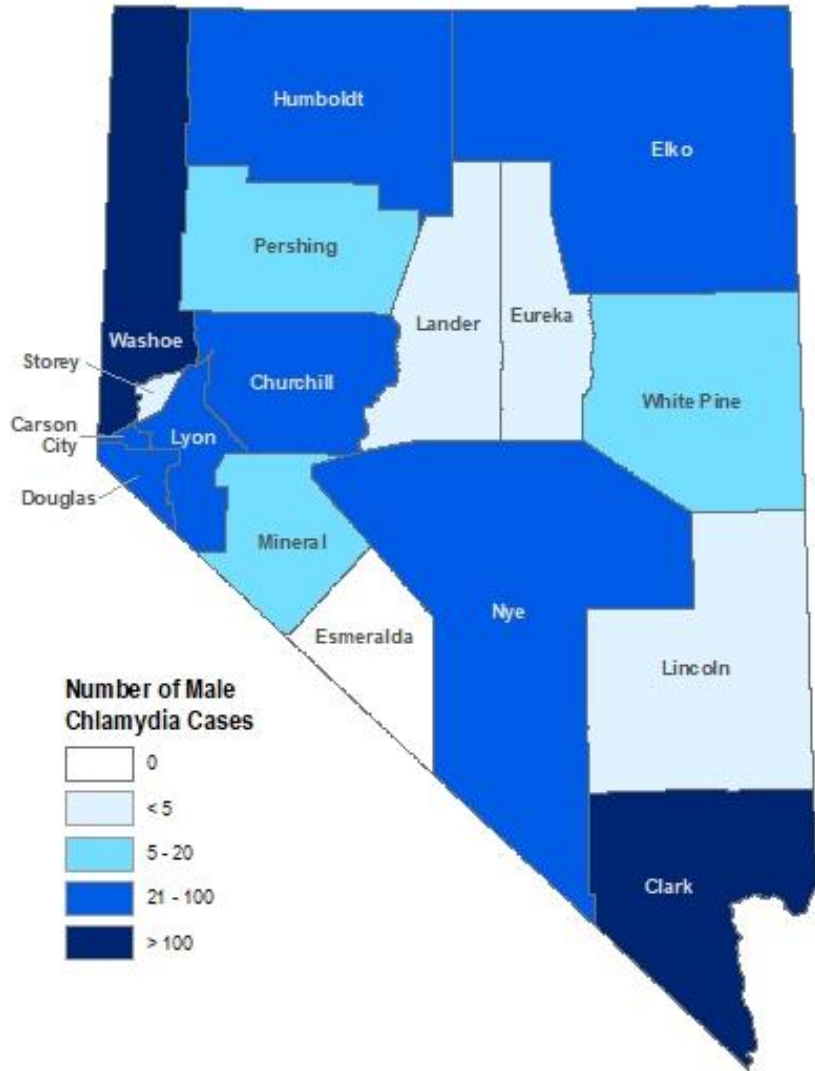
In 2017, a total of 16,260 chlamydial infections were reported in Nevada (Table 1). This case count corresponds to a rate of 544.7 cases per 100,000 population. From 2013-2017, the rate of reported chlamydial infection increased from 416.5 to 544.7 cases per 100,000 population (Figure 1 **Error! Reference source not found.**, Table 2).

## Chlamydia by Region

In 2017, rates of reported cases of chlamydia were highest in Washoe County (551.9 cases per 100,000 population, 12.5% increase from 2016), followed by Clark County (543.2, 3.6% increase from 2016), and All Other Counties (AOC) (312.6, 27.4% increase from 2016) (Table 2 | Chlamydia cases in Nevada, 2013-2017). From 2013-2017, rates of reported cases of chlamydia increased in all regions (Figure 1). From 2014-2015, rates decreased in Clark County and AOC, but continued to increase in CDL and Washoe County. From 2015-2017, rates increased in all regions, with the largest increase occurring in AOC (181.2.1 to 312.6 cases per 100,000 population, 72.5% increase) (Table 1).

In 2017, 73.2% of all reported cases were in Clark County, while 15.4% of all cases were in Washoe County (Figure 3).

Figure 3 | Chlamydia – Reported Cases by County and Sex, Nevada, 2017



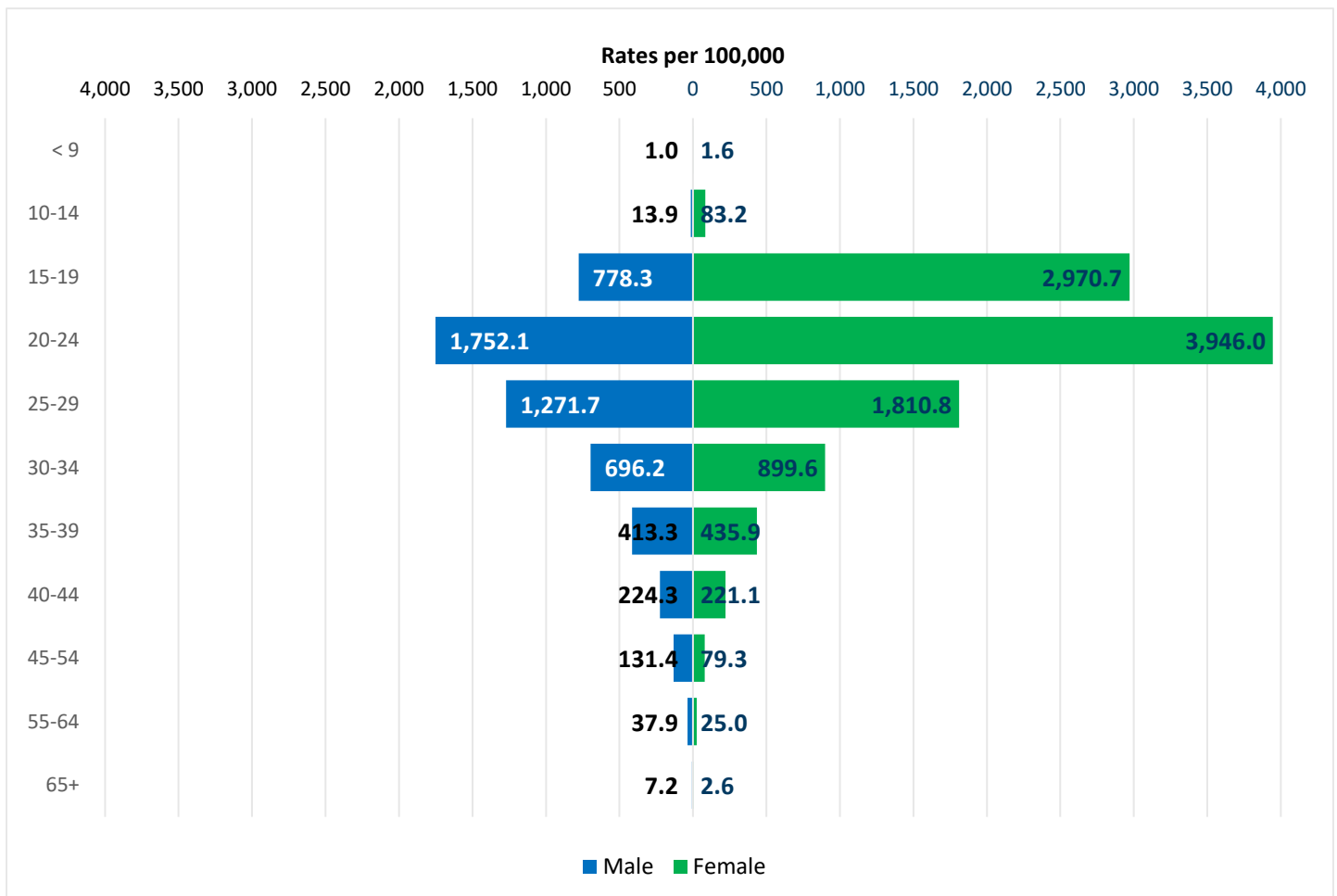
## Chlamydia by Sex

In 2017, 10,472 cases of chlamydia were reported among females for a rate of 704.0 cases per 100,000 females (Figure 2, Figure 3, Table 1). From 2013-2017, the rate of reported chlamydia cases among females increased from 582.4 to 704.0 per 100,000 population. The total rate increase from 2013-2017 among females was 20.9%.

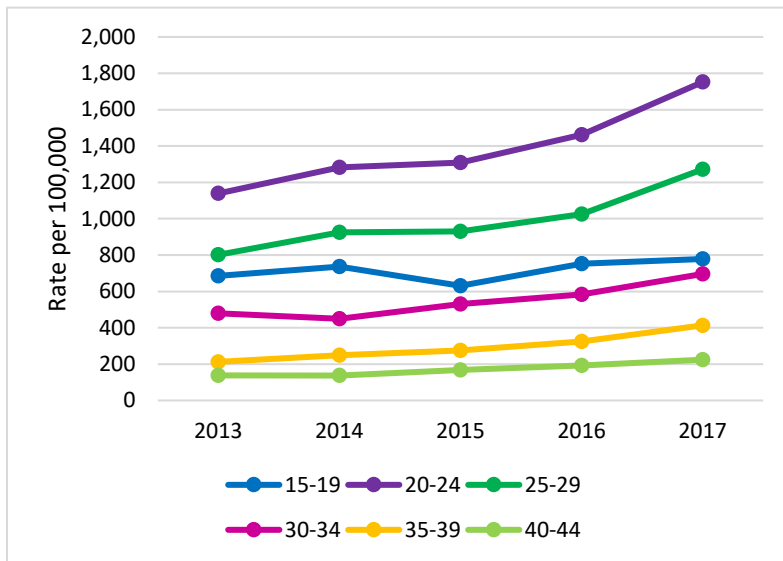
Among males, 5,741 cases of chlamydia were reported in 2017 for a rate of 383.3 cases per 100,000 males (Figure 3, Table 1). The rate of reported cases among males increased each year during 2013-2017 (Figure 2 | Chlamydia - Rates of Reported Cases by Sex, Nevada, 2013-2017). From 2016-2017 alone, the rate among men increased 19.0%; however, from 2013-2017, rates of reported cases among men increased 51.6% (compared with a 20.9% increase among women) (Table 1 and Table 2). This pronounced increase among men could be attributed to either increased transmission or improved case identification (e.g., through intensified extra-genital screening efforts) among gay, bisexual, and other men who have sex with men (collectively referred to as MSM). This cannot be assessed; however, most jurisdictions do not routinely report the sex of sex partner or anatomic site of infection.

Despite this considerable increase in men, the rate of reported chlamydia cases among females was still nearly two times the rate among males in 2017, likely reflecting a larger number of women screened for this infection (Figure 2, Table 1 Table 2). The lower rate among men also suggests many of the sex partners of women with chlamydia are not receiving a diagnosis of chlamydia or being reported as having chlamydia.

**Figure 4 | Chlamydia - Rates of Reported Cases by Age Group and Sex, Nevada, 2017**

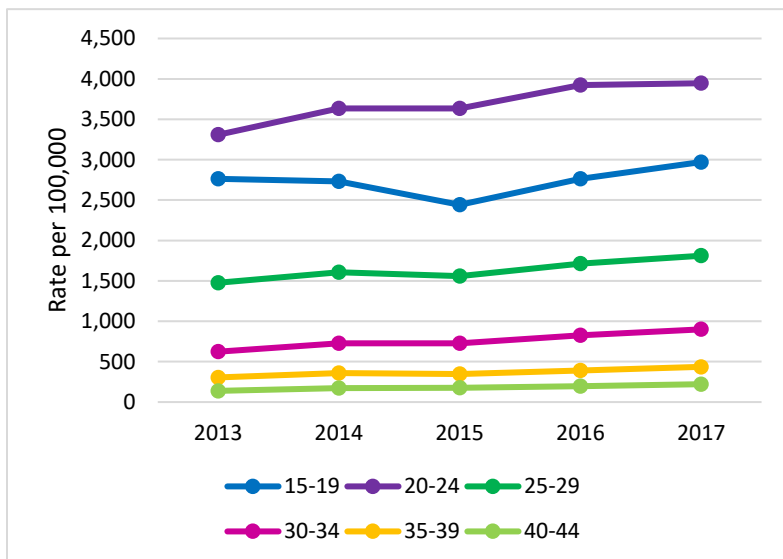


**Figure 5 | Chlamydia – Rates of Reported Cases Among Men Aged 15-44 Years by Age Group, Nevada, 2013-2017**



years (3,946.0 cases per 100,000 females) (Error! Reference source not found., Table 1).

**Figure 6 | Chlamydia – Rates of Reported Cases Among Women Aged 15-44 Years by Age Group, Nevada, 2013-2017**



were among those aged 15-44 years. The age-specific rates of reported cases of chlamydia among men, although substantially lower than rates among women, was highest in those aged 20-24 years (1,752.1 cases per 100,000 males) (Figure 5, Table 1). Like trends in women, increases have been observed in rates of reported cases of chlamydia among all age groups in males aged 15-44 years (Figure 5). Especially, the rate of reported cases among men aged 20-24 and 25-29 years increased over the last five years. The rate among 20-24-year-olds increased by 19.9% from 2016–2017, with a total increase of 53.8% from 2014-2017 (1,139.0 to 1,752.1 cases per 100,000 males). The rate among 25-29-year-olds increased by 24.1% from 2016-2017, with a total increase of 58.7% during 2013-2017 (801.4 to 1,271.7 cases per 100,000 males) (Table 2| Chlamydia cases in Nevada, 2013-2017).

## Chlamydia by Age

The rates of reported cases of chlamydia were highest among adolescents and young adults aged 15-29 years during 2013-2017 (Table 2| Chlamydia cases in Nevada, 2013-2017Table 2). In 2017, the age-specific rate of reported cases of chlamydia among 15-19-year-olds was 1,845.3 cases per 100,000 population, the rate among 20-24-year-olds was 2,824.5 cases per 100,000 population, and in 25-29-year-olds the rate was 1,538.4 per 100,000 population (Table 1).

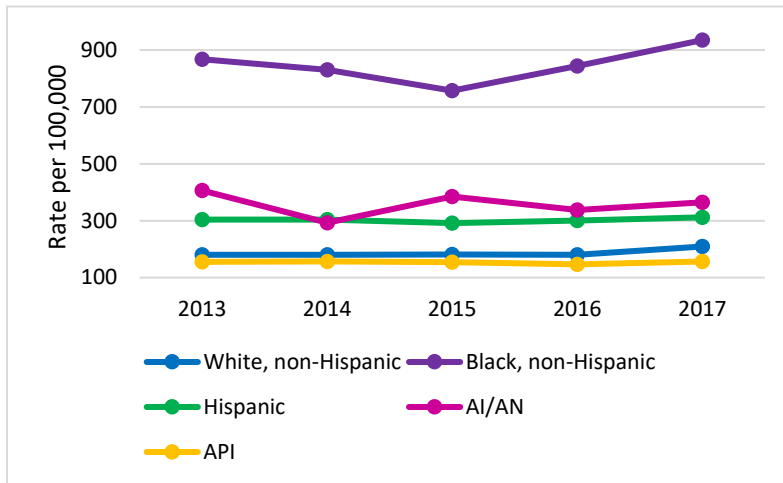
In 2017, 96.4% of all reported chlamydia cases in women were among those aged 15-44 years. The highest age-specific rates of reported cases of chlamydia in 2017 were among those aged 15-19 years (2,970.7 cases per 100,000 females) and 20-24

years (3,946.0 cases per 100,000 females) (Error! Reference source not found., Table 1). Increases have been observed in recent years in rates of reported cases of chlamydia among all age groups in females aged 15-44 years (Figure 6). Especially, the rate of reported cases among women aged 20-24 years increased over the past 5 years. Additionally, the rates among 15-19-year-olds had decreased from 2013-2015 but those rose again from 2015-2017.

The rate among 15-19-year-olds increased by 7.6% during 2016-2017, with a total increase of 7.6% during 2013-2017 (2,761.5 to 2,970.7 cases per 100,000 females) (Table 2| Chlamydia cases in Nevada, 2013-2017). The rate among 20-24-year-olds increased by 0.6% during 2016-2017, with a total increase of 19.3% during 2013-2017 (3,308.0 to 3,946.0 cases per 100,000 females) (Table 2).

In 2017, 93.3% of all reported chlamydia cases in men

**Figure 7 | Chlamydia - Rates of Reported Cases by Race and Hispanic Ethnicity, Nevada, 2013-2017**



### Chlamydia by Race/Hispanic Ethnicity

Rates of reported cases of chlamydia were highest among Black, AI/AN, and Hispanics (Figure 7, Table 1). Overall, the rate of reported cases of chlamydia among Blacks was 4.5 times the rate among Whites (934.9 and 209.4 cases per 100,000 population). The rate among AI/AN (364.5 cases per 100,000 population) was 1.7 times the rate among Whites. The rate among Hispanics (312.0 cases per 100,000 population) was 1.5 times the rate among Whites. The rate among API (156.4 cases per 100,000 population) was 0.7 times the rate among Whites.

From 2013-2017, rates of reported chlamydia cases decreased in AI/AN by 10.3%. The rate of reported

chlamydia cases increased in all other racial and Hispanic ethnicity groups with Whites increasing from 16.2%, Blacks 7.8%, Hispanics 2.6%, and API 0.9% (Figure 7, Table 2). From 2016–2017, rates increased among all racial and Hispanic ethnicity groups (White 16.0%, Blacks 10.8%, Hispanics 3.9%, AI/AN 7.9%, and API 6.6% (Figure 7, Table 2).

# GONORRHEA

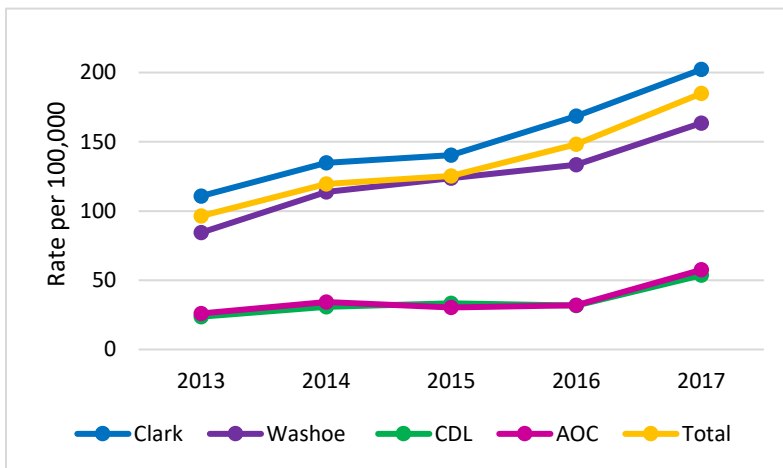
## Background

Gonorrhea is the second most common STD reported in the United States and is caused by *Neisseria gonorrhoeae*. Gonorrhea is curable but can have serious health implications if left untreated according to the CDC (2). In men, it can cause a burning sensation when urinating, discharge from the penis, and less commonly painful or swollen testicles. Women can also experience a painful or burning sensation when urinating, increased vaginal discharge, or vaginal bleeding between periods. Additionally, rectal infection in either men or women can result in discharge, anal itching, soreness, bleeding, and painful bowel movements.

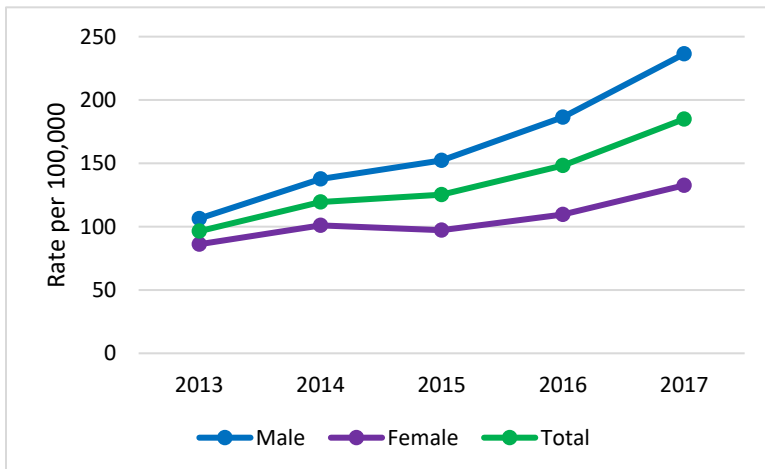
## Interpreting Rates of Reported Cases of Gonorrhea

Although gonorrhea case reporting is useful for monitoring disease trends, the number of gonorrhea cases reported to CDC is affected by many factors in addition to the actual occurrence of the infection within the population. Changes in the burden of gonorrhea may be masked by changes in screening practices (e.g., screening for chlamydia with tests also detect *N. gonorrhoeae* infections or increased screening at extra-genital anatomic sites), and the use of diagnostic tests with different test performance (e.g., the broader use of nucleic acid amplification tests [NAATs]).

**Figure 8 | Gonorrhea - Rates of Reported Cases by Region, Nevada, 2013-2017**



**Figure 9 | Gonorrhea - Rates of Reported Cases by Sex, Nevada, 2013-2017**



## Gonorrhea Overview

In 2017, a total of 5,520 cases of gonorrhea were reported in Nevada, yielding a rate of 184.9 cases per 100,000 population (Figure 8). From 2016-2017, the rate of reported gonorrhea cases increased by 26.0% and increased by 91.7% since 2013 (Table 4).

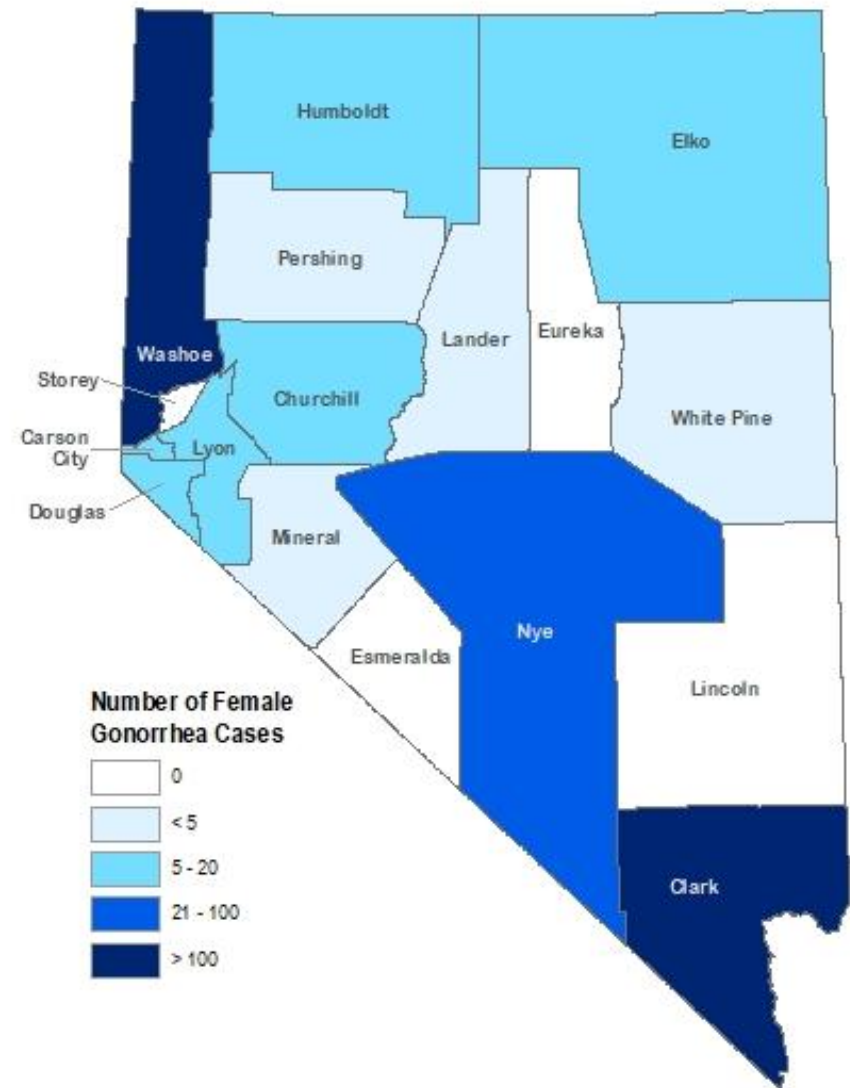
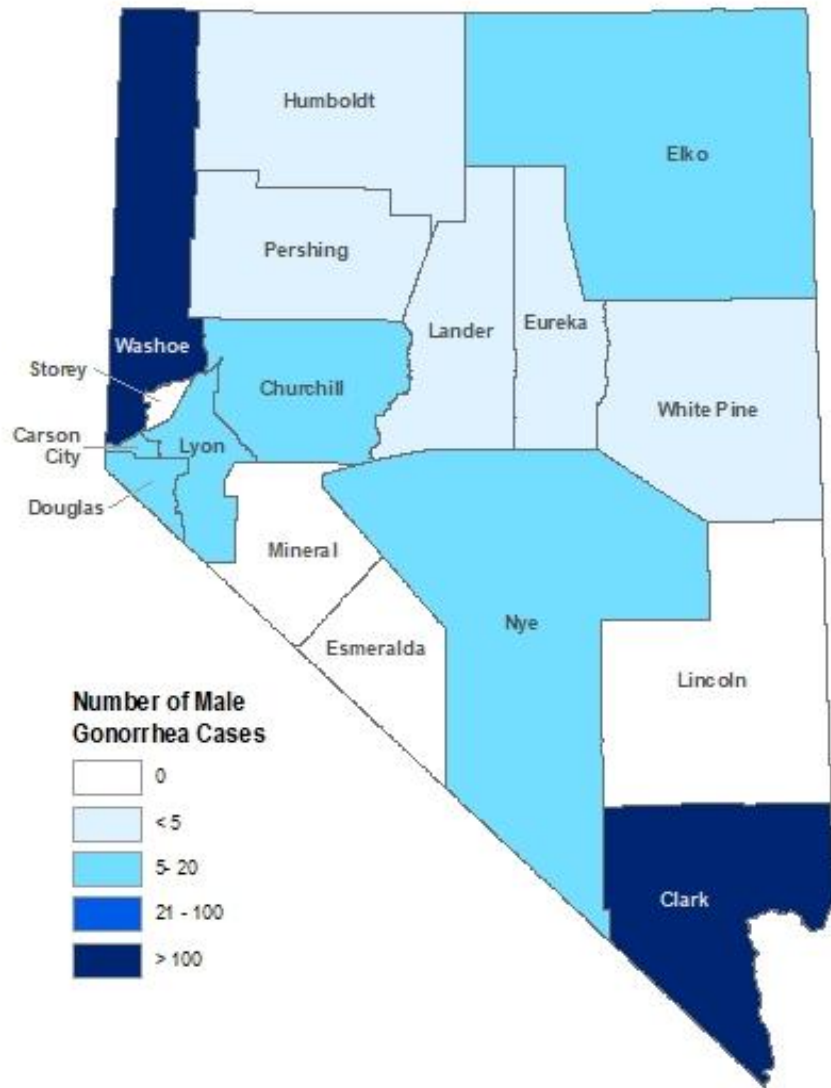
## Gonorrhea by Region

Clark County had the highest rate of reported gonorrhea cases (202.2 per 100,000 population) among the four local health jurisdictions in 2017, followed by Washoe County (163.5 per 100,000 population), AOC (57.5 per 100,000 population), and finally CDL (53.6 per 100,000 population) (Figure 8, Table 4). From 2016-2017, the gonorrhea rate increased in all four regions: 19.9% in Clark, 22.6% in Washoe, 68.6% in CDL, and 80.3% in AOC (Figure 8, Table 4).

In 2017, 80.3% of reported cases occurred in Clark and 13.4% of cases occurred in Washoe (Figure 8, Table 3).



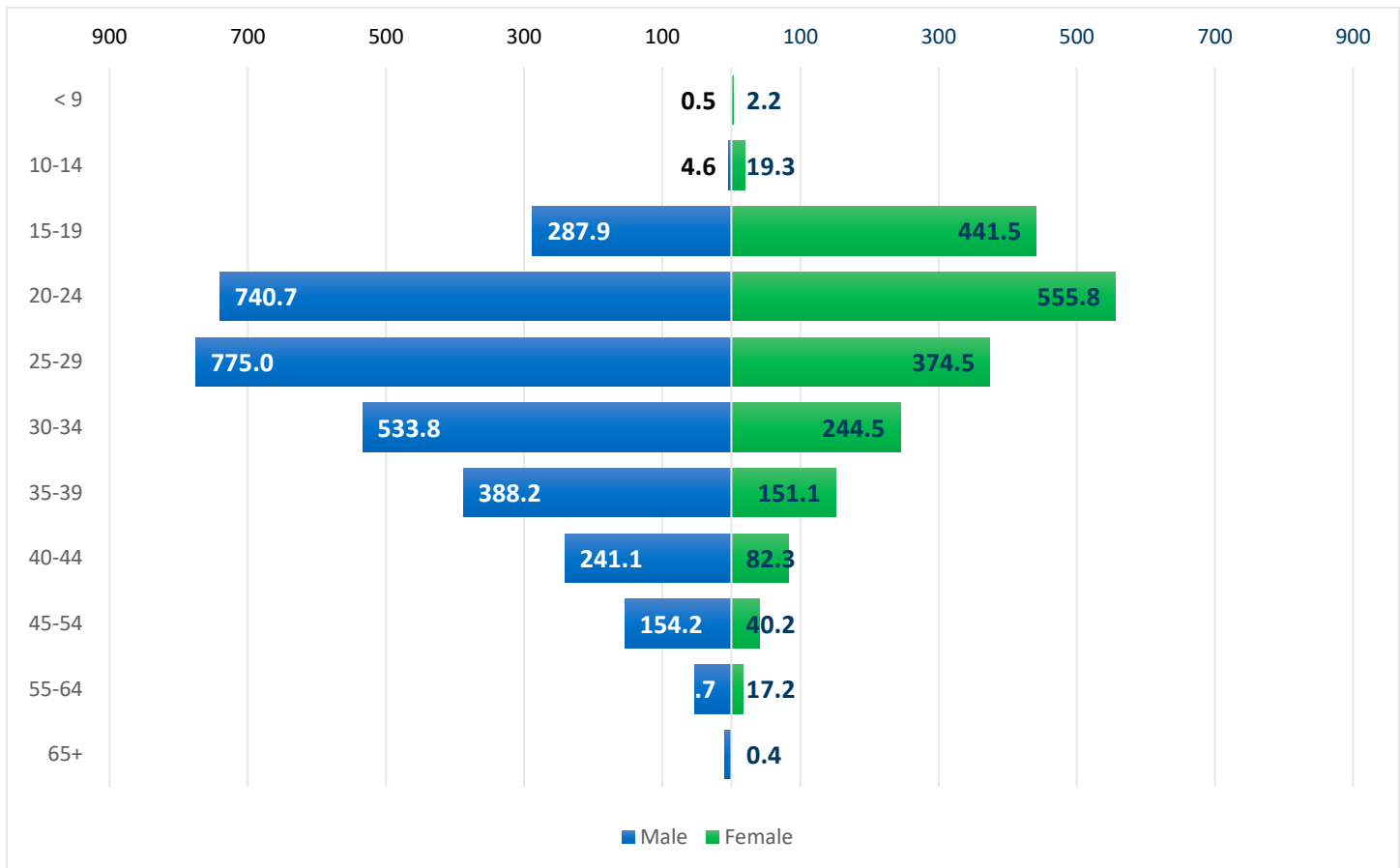
Figure 10 | Gonorrhea – Reported Cases by County and Sex, Nevada, 2017



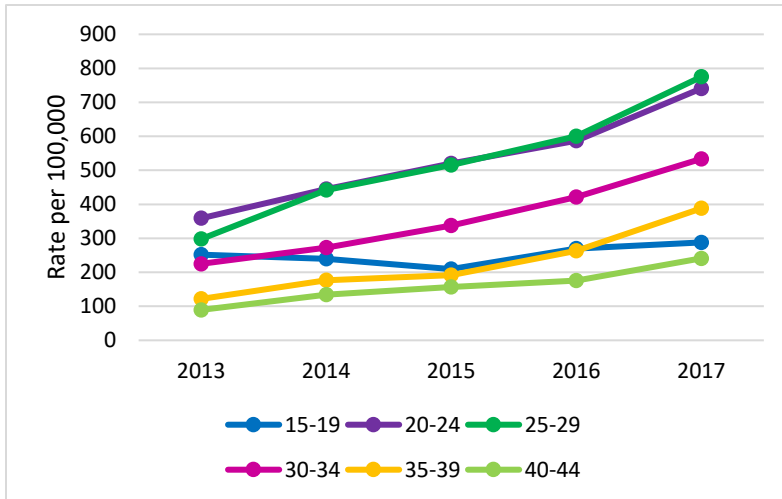
## Gonorrhea by Sex

From 2013-2017 the rate of reported gonorrhea cases among males was higher than the rate in females (Figure 9, Table 4). From 2016-2017 the gonorrhea rates among males increased by 26.8% (186.6 to 236.3 cases per 100,000 males) and the rate among females increased by 21.0% (109.6 to 132.6 per 100,000 females). From 2013-2017, the rate among males increased 122.1% (106.4 to 236.3 per 100,000 males), and 54.0% among females (86.1 to 132.6 per 100,000 females). The magnitude of the increase among males suggests either increased transmission and/or increased case ascertainment (e.g., through increased extra-genital screening) among gay, bisexual, and other men who have sex with men (collectively referred to as MSM). However, most jurisdictions do not routinely report the sex of sex partner or site of infection for gonorrhea cases so trends in gonorrhea rates among MSM over time cannot be assessed.

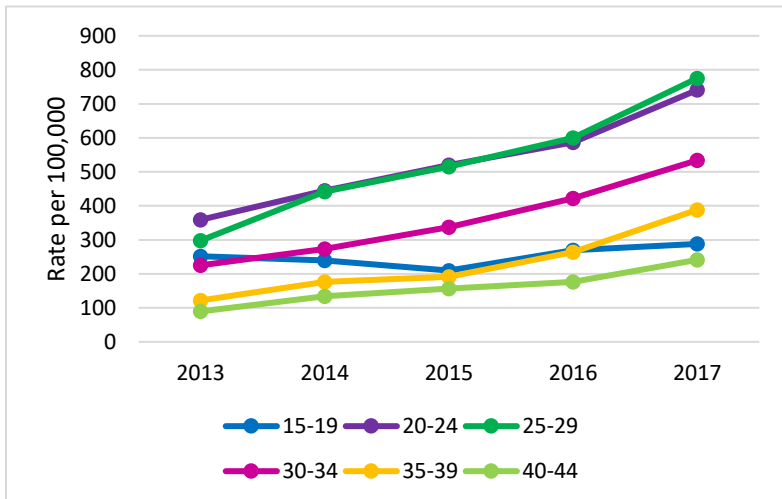
**Figure 11| Gonorrhea - Rates of Reported Cases by Age Group and Sex, Nevada, 2017**



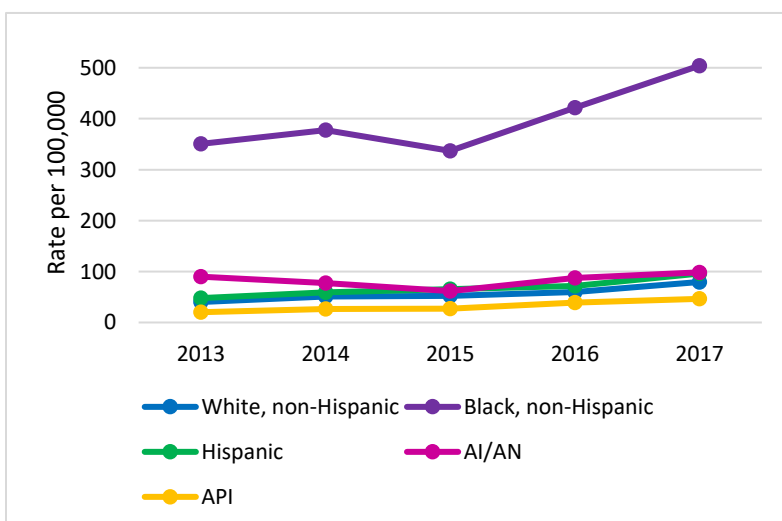
**Figure 12 | Gonorrhea – Rates of Reported Cases Among Men Aged 15-44 Years by Age Group, Nevada, 2013-2017**



**Figure 13 | Gonorrhea – Rates of Reported Cases Among Women Aged 15-44 Years by Age Group, Nevada, 2013-2017**



**Figure 14 | Gonorrhea -Rates of Report Cases by Race and Hispanic Ethnicity, Nevada, 2013-2017**



## Gonorrhea by Age

In 2017, rates of reported gonorrhea cases continued to be highest among adolescents and young adults (Figure 11, Table 3). In 2017, the highest rates among females were observed among those ages 20-24 years (555.8 cases per 100,00 females) and 15-19 years (441.5 cases per 100,000 females). Among males, the rate was highest among those aged 25-29 years (775.0 cases per 100,000 males) and 20-24 years (740.7 cases per 100,000 males).

In 2017, persons aged 15-44 years accounted for 89.3% of reported gonorrhea cases with known age. Among 15-19 years, rates increased 11.3% from 2016-2017. The gonorrhea rate also increased among other age groups from 2016-2017: 19.5% among those aged 20-24 years, 23.5% among those aged 25-29 years, 28.2% among those aged 30-34 years, 45.7% among those aged 35-39 years, and 39.2% among those aged 40-44 years (Table 4). Among persons aged 15-44 years, increases were observed in all age groups for both men and women from 2016-2017 (Figure 12 Figure 13).

## Gonorrhea by Race/Hispanic Ethnicity

In 2017, the rate of reported gonorrhea cases remained highest among Blacks (504.1 cases per 100,000 population) (Table 3). The rate among Blacks was 6.3 times the rate among Whites (79.5 cases per 100,000 population). The gonorrhea rate among AI/AN (98.4 cases per 100,000 population) was 1.2 times higher than Whites, the rate among API (46.4 cases per 100,000 population) was 0.6 times higher than Whites, and the rate among Hispanics (96.1 cases per 100,000 population) was 1.2 times higher than Whites (Table 2).

From 2013-2017, for all five years the gonorrhea rate increased among all race and Hispanic ethnicity groups: 97.8% among Whites, 43.8% among Blacks, 100.6% among Hispanics, 9.5% among AI/AN, and 129.7% among API (Figure 14).

# SYPHILIS

## Background

Syphilis is an STD caused by the bacterium *Treponema pallidum* (3). Additionally, syphilis can spread from mother to baby resulting in congenital syphilis. Syphilis is divided into three stages (primary, secondary, and late), and each stage has different symptoms. In the primary stage, the person generally has a painless and round lesion. During the secondary stage, a person can have a skin rash, swollen lymph nodes, and fever. In many cases though, symptoms of primary and secondary (P&S) syphilis are so mild they go unnoticed. The late stage of syphilis can present as latent, or tertiary forms. In the latent stages of the disease, there are no visible signs or symptoms of the disease, but the bacteria are still present in the body. During the tertiary stage of illness, syphilis will infect the various organ systems of the body and begin to cause damage and even affect the neurological and ocular functions of the body. It is always important to treat syphilis as soon as possible, if left untreated it can have serious effects on one's health.

Congenital syphilis (CS) occurs when a mother with syphilis passes the infection to her baby during pregnancy. CS can cause miscarriage, stillbirth, prematurity, or death shortly after birth (4). Babies born with CS may experience deformed bones, severe anemia, enlarged liver and spleen, jaundice, brain and nerve problems such as blindness or deafness, meningitis, and skin rashes.

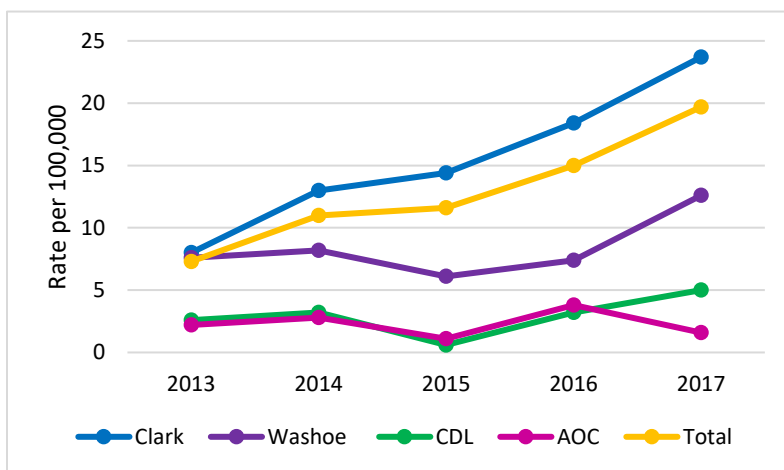
## Interpreting Rates of Reported Cases

Left untreated, infection with syphilis can span decades. P&S syphilis is the earliest stages of infection, reflecting symptomatic disease, and indicates incident infection (3). For these reasons, trend analyses of syphilis focus on reported cases and rates of reported cases of P&S syphilis. When referring to “P&S syphilis,” case counts are the sum of both primary and secondary cases, and “rate of P&S syphilis” refers to this sum per unit population.

## Syphilis Overview

In 2017, a total of 587 cases of P&S syphilis were reported in Nevada, yielding a rate of 19.7 cases per 100,000 population (Table 5). This rate represents a 31.3% increase compared with 2016 (15.0 cases per 100,000 population), and a 169.9% increase compared with 2013 (7.3 cases per 100,000 population).

**Figure 15 | P&S Syphilis - Rates of Reported Cases by Region, Nevada, 2013-2017**

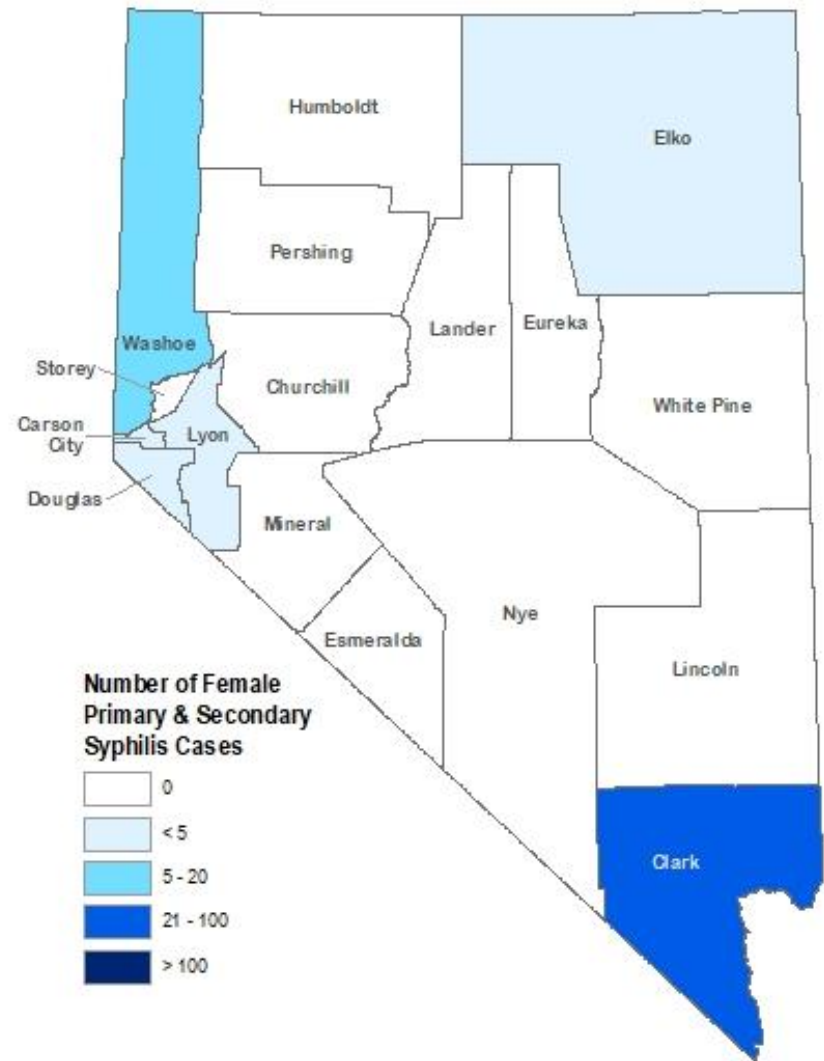
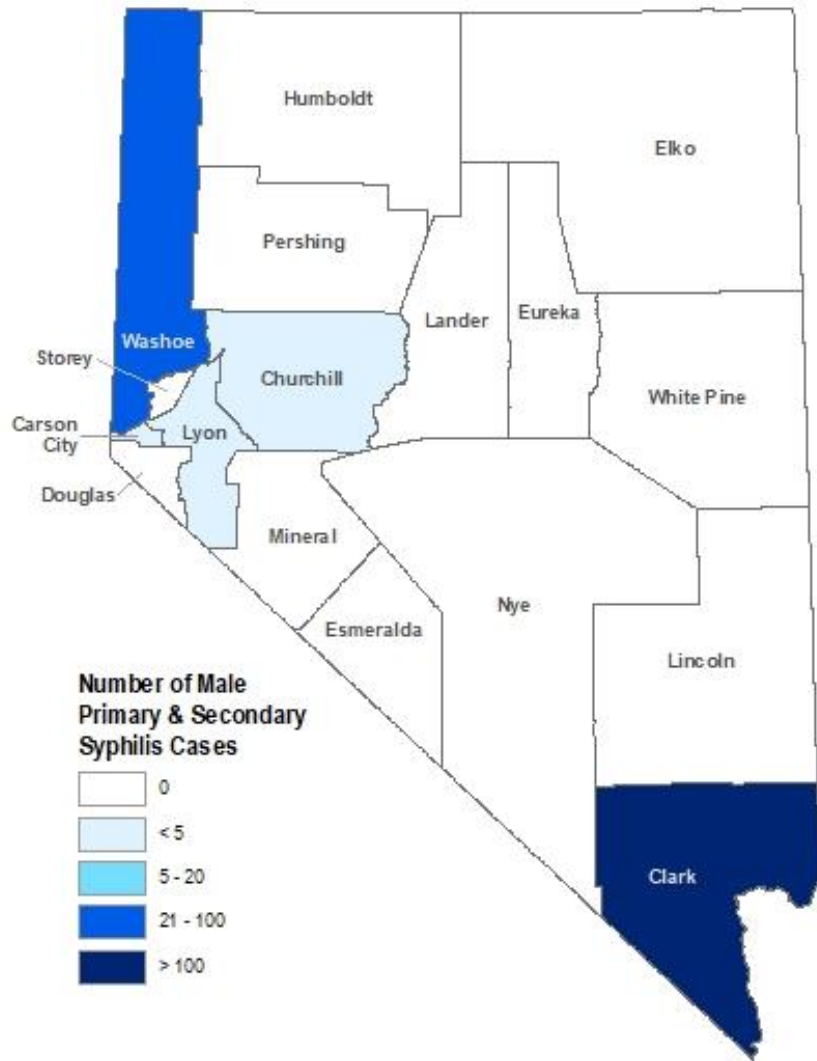


## P&S Syphilis by Region

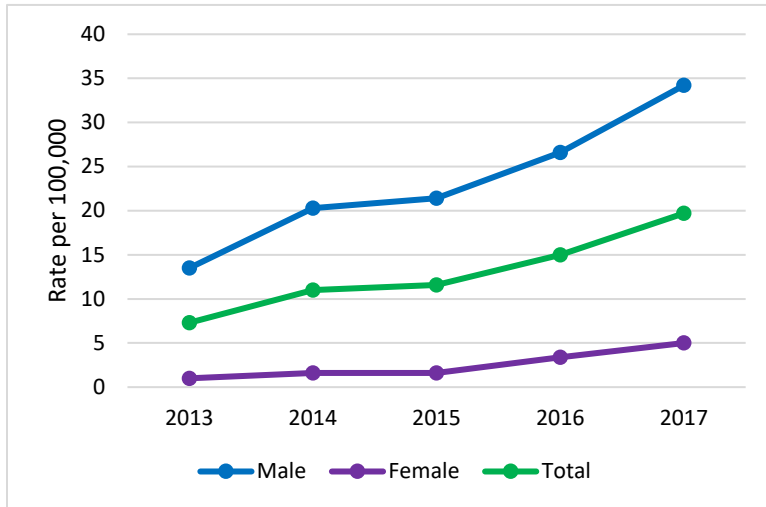
In 2017, Clark County had the highest rate of reported P&S syphilis cases (23.7 per 100,000 population), followed by Washoe County (12.6 cases per 100,000 population), CDL (5.0 cases per 100,000 population), and AOC (1.6 per 100,000 population) (Table 5). From 2016-2017, the P&S rate increased 70.3% in Washoe County, 28.8% in Clark County, and 56.3% in CDL, but dropped 57.9% in AOC (Figure 15, Table 6).

In 2017, 88.4% of P&S syphilis cases occurred in Clark County, 9.7% of cases in Washoe County, 1.4% of cases in CDL, and 0.5% of cases in AOC (Figure 16, Table 5).

Figure 16 | P&S Syphilis – Reported Cases by County and Sex, Nevada, 2017



**Figure 17| P&S Syphilis - Rates of Reported Cases by Sex, Nevada, 2013-2017**



### P&S Syphilis by Sex

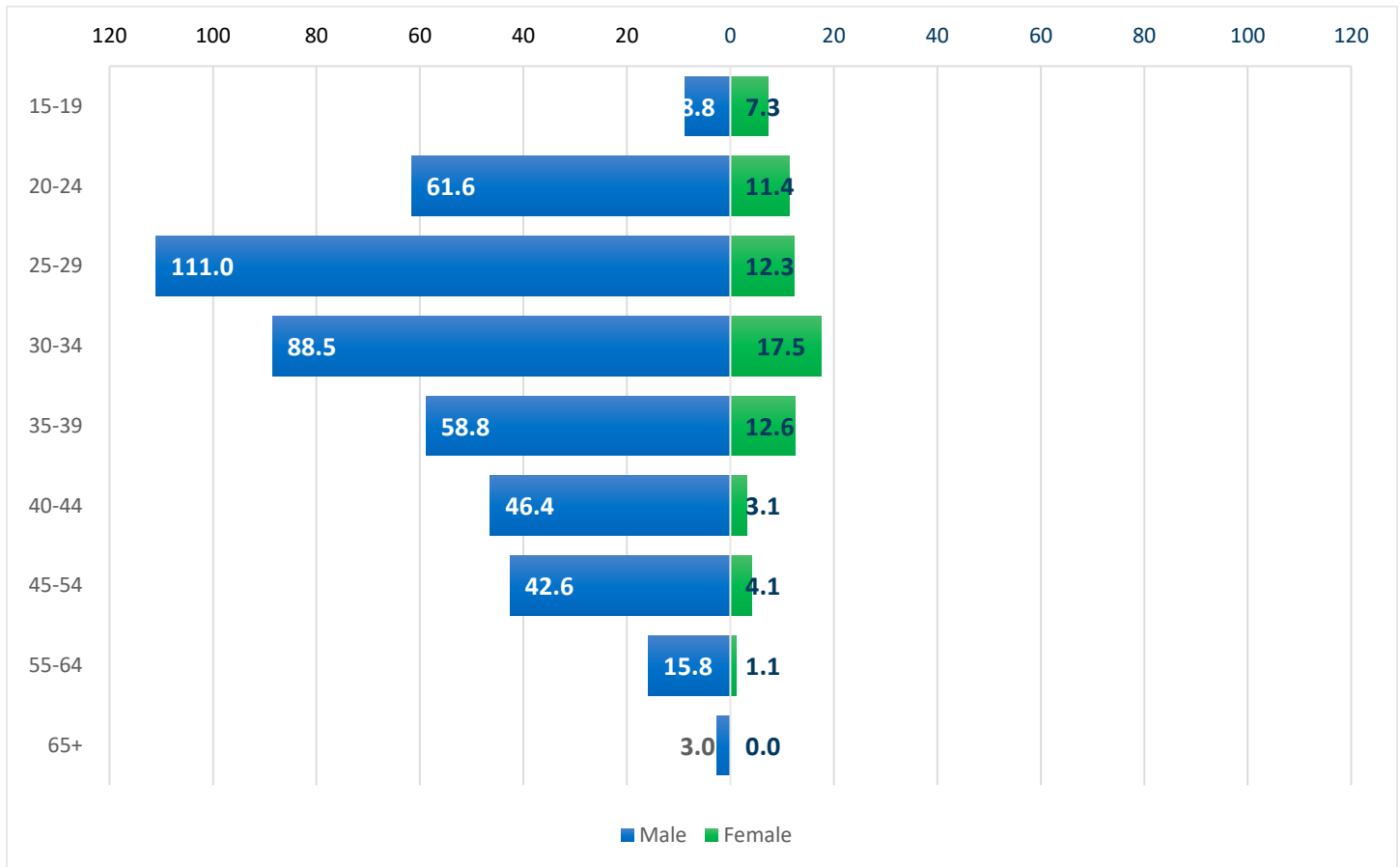
As has been observed in previous years, in 2017 the rate of reported P&S syphilis cases among men (34.2 cases per 100,000 males) was much higher than the rate among women (5.0 cases per 100,000 females), and men accounted for a large majority (87.2%) of P&S syphilis cases (Figure 16 Table 5| Primary & Secondary Syphilis Cases in Nevada, 2017 Table 5). Among men, the rate of P&S syphilis has increased every year since 2013 (400.0%), and from 2016–2017, the rate among men increased 28.6% (Figure 16, Table 6). Similarly, the P&S syphilis rate among women increased from 1.0 to 5.0 cases per 100,000 females from 2013–2017 (Figure 16, Table 6). From 2013–2017, the P&S syphilis rate among women more than doubled (increasing by 153.3%). From 2016–2017, the

P&S syphilis rate among women increased by 28.6%.

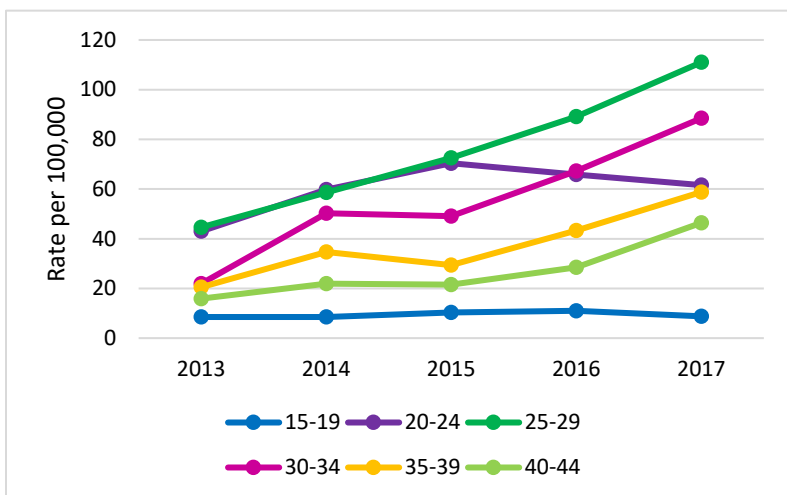
These increases in male and female P&S syphilis rates were observed in every region of the state from 2016–2017. Among men, the rate increased by 68.4% in CDL, 45.2% in Washoe, and 28.2% in Clark County; the rate decreased 51.2% in AOC (Table 7). Among women, the largest increases were observed in Washoe County (222.7%), followed by CDL (52.0%), AOC (47.1%), and finally Clark County (35.1%) (Table 8).

### P&S Syphilis by Age

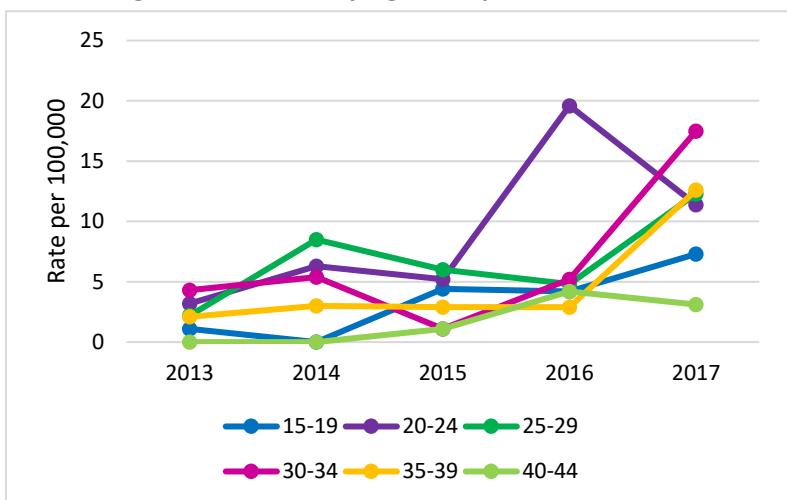
**Figure 18| P&S Syphilis - Rates of Reported Cases by Age Group and Sex, Nevada, 2017**



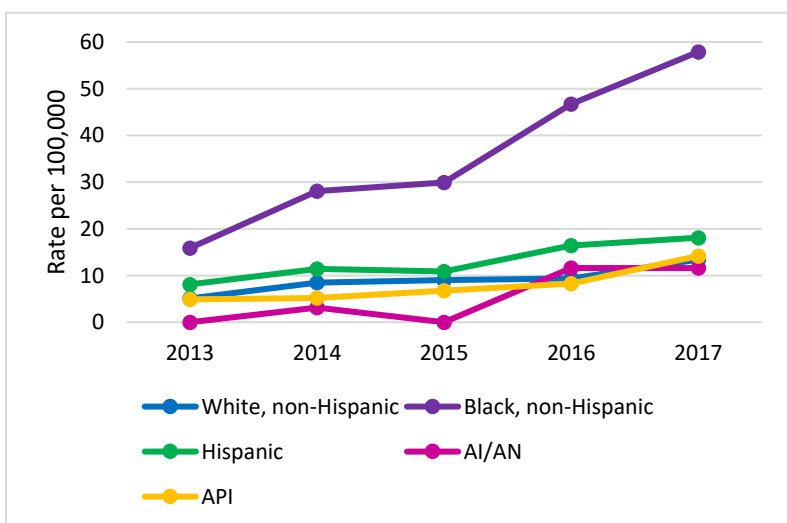
**Figure 19 | P&S Syphilis – Rates of Reported Cases Among Men Aged 15-44 Years by Age Group, Nevada, 2013-2017**



**Figure 20 | P&S Syphilis – Rates of Reported Cases Among Women Aged 15-44 Years by Age Group, Nevada, 2013-2017**



**Figure 21 | P&S Syphilis -Rates of Reported Cases by Race and Hispanic Ethnicity, Nevada, 2013-2017**



As in previous years, in 2017, rates of reported P&S syphilis cases were highest among persons aged 25-29 years (Figure 18, Table 5). In 2017, the highest rates were observed among men aged 25-29 years (111.0 cases per 100,000 males), 20-24 years (61.6 cases per 100,000 males), and 30-34 years (88.2 cases per 100,000 males) (Figure 18, Table 6). The highest rates among women were among those aged 25-29 (12.3 cases per 100,00 females), 30-34 years (17.5 cases per 100,000 females) and those aged 35-39 years (12.6 cases per 100,000 females) (Figure 18, Table 6).

From 2016-2017, the overall rate of reported P&S syphilis cases increased in most age groups among those aged 15 years or older (Table 6). Rates increased 5.2% among those aged 15–19 years, 30.1% among those aged 25–29 years, 46.6% among those aged 30–34 years, 53.2% among those aged 35-39 years, 51.8% among those aged 40-44 years, 51.0% among those aged 45-54 years, and 47.4% among those aged 55-64 years. Rates remained stable among those aged 65 or older. Rates decreased 14.1% among those aged 20-24 years.

In 2017, persons aged 15-44 years accounted for 77.9% of reported P&S syphilis cases with known age. Among men, from 2016-2017, the P&S syphilis rate increased in all age groups among those aged 25-64 years (Figure 19, Table 7). Among women, the rate decreased slightly among those aged 20-24 years, 40-44 years, and 45-54 years. However, rates increased in those aged 15-19 years, 25-39 years, and 55-64 years (Figure 19, Figure 20, Table 8).

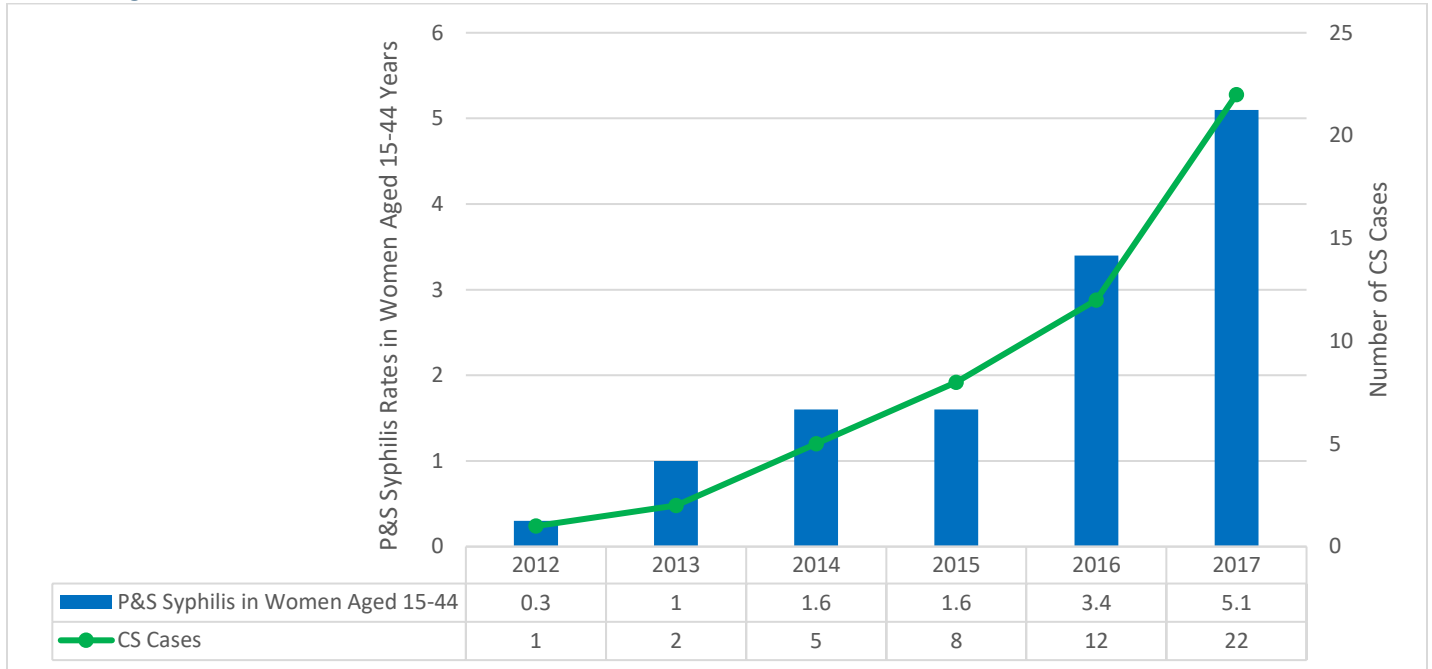
### P&S Syphilis by Race/Hispanic Ethnicity

In 2017, the rate of reported P&S syphilis cases was highest among Blacks (57.9 cases per 100,000 population) (Table 7). The P&S syphilis rate among Blacks was 4.3 times the rate among Whites (13.4 cases per 100,000 population), the rate among Hispanics (18.1 cases per 100,000 population) was 1.4 times the rate among Whites, the rate among AI/AN (11.6 cases per 100,000 population) was 0.9 times the rate among Whites, the rate among API (14.2 cases per 100,000 population) was 1.1 the rate among Whites.

From 2013-2017, the P&S syphilis rate increased among all race/Hispanic ethnicity groups (Figure 21). The greatest increases from 2016-2017 were observed among API (71.1%) and those who identified as White (42.6%), followed by Blacks (24.0%), and Hispanics (10.4%).

## Congenital Syphilis

**Figure 22| Congenital Syphilis – Reported Cases by Year of Birth and Rates of Reported Cases of P&S Syphilis Among Women Aged 15-44 Years, Nevada, 2012-2017**



The rate of reported congenital syphilis has subsequently increased each year since 2012 (Figure 22). In 2017, there were a total of 22 reported cases of congenital syphilis with a rate of 57.9 cases per 100,000 live births. This rate represents a 77.4% increase relative to 2016 (34.0 cases per 100,000 live births) and a 941.3% increase relative to 2013 (5.8 cases per 100,000 live births). As has been observed historically, this increase in the congenital syphilis rate has paralleled increases in P&S syphilis among all women and reproductive-aged women from 2013-2017 (1600.0%) (Figure 22).

From 2013-2017, the increase in reported congenital syphilis cases was primarily attributable to an increase in Clark County. During this time, the congenital syphilis rate increased 775.4% in Clark County, which was the only county to experience CS in 2013 (Table 9). From 2016–2017, the congenital syphilis rate increased 66.5% in Clark, 106.2% Washoe, while CDL and AOC had no cases in 2016. In 2017, the highest congenital syphilis rates were reported from the Clark (67.8 cases per 100,000 live births), followed by AOC (57.5 cases per 100,000 live births), and Washoe (39.0 cases per 100,000 live births).



# TABLES

Table 1 | Chlamydia Cases in Nevada, 2017

	Total			Male			Female		
	N	%*	Rate	n	%*	Rate	n	%*	Rate
<b>Resident County at Diagnosis</b>									
Clark	11,899	73.2%	543.2	4,228	73.6%	385.5	7,643	73.0%	698.7
Washoe	2,502	15.4%	551.9	938	16.3%	411.3	1,563	14.9%	693.8
Carson/Douglas/Lyon	657	4.0%	414.4	205	3.6%	260.8	443	4.2%	554.2
All Other Counties**	571	3.5%	312.6	174	3.0%	184.4	397	3.8%	449.5
Unknown	631	3.9%	NA	196	3.4%	NA	426	4.1%	NA
<b>Total</b>	<b>16,260</b>	<b>100.0%</b>	<b>544.7</b>	<b>5,741</b>	<b>100.0%</b>	<b>383.3</b>	<b>10,472</b>	<b>100.0%</b>	<b>704.0</b>
<b>Race/Ethnicity</b>									
White, non-Hispanic	3,231	19.9%	209.4	1,141	19.9%	146.3	2,084	19.9%	273.3
Black, non-Hispanic	2,424	14.9%	934.9	1,030	17.9%	788.2	1,393	13.3%	1,083.3
Hispanic	2,704	16.6%	312.0	1,044	18.2%	237.1	1,657	15.8%	388.6
American Indian/Alaska Native	126	0.8%	364.5	36	0.6%	211.9	90	0.9%	511.9
Asian/Hawaiian/Pacific Islander	441	2.7%	156.4	159	2.8%	122.5	282	2.7%	185.2
Unknown/Other	7,334	45.1%	NA	2,331	40.6%	NA	4,966	47.4%	NA
<b>Total</b>	<b>16,260</b>	<b>100.0%</b>	<b>544.7</b>	<b>5,741</b>	<b>100.0%</b>	<b>383.3</b>	<b>10,472</b>	<b>100.0%</b>	<b>704.0</b>
<b>Age Group</b>									
< 9	5	0.0%	1.3	2	0.0%	1.0	3	0.0%	1.6
10-14	101	0.6%	47.7	15	0.3%	13.9	86	0.8%	83.2
15-19	3,650	22.4%	1,845.3	792	13.8%	778.3	2,853	27.2%	2,970.7
20-24	5,604	34.5%	2,824.5	1,793	31.2%	1,752.1	3,791	36.2%	3,946.0
25-29	3,318	20.4%	1,538.4	1,398	24.4%	1,271.7	1,915	18.3%	1,810.8
30-34	1,594	9.8%	797.9	716	12.5%	696.2	872	8.3%	899.6
35-39	883	5.4%	426.5	429	7.5%	413.3	450	4.3%	435.9
40-44	443	2.7%	223.2	227	4.0%	224.3	215	2.1%	221.1
45-54	421	2.6%	106.3	265	4.6%	131.4	154	1.5%	79.3
55-64	112	0.7%	31.4	67	1.2%	37.9	45	0.4%	25.0
65+	20	0.1%	4.7	14	0.2%	7.2	6	0.1%	2.6
Unknown	109	0.7%	NA	23	0.4%	NA	82	0.8%	NA
<b>Total</b>	<b>16,260</b>	<b>100.0%</b>	<b>544.7</b>	<b>5,741</b>	<b>100.0%</b>	<b>383.3</b>	<b>10,472</b>	<b>100.0%</b>	<b>704.0</b>

Source: Division of Public and Behavioral Health, Sexually Transmitted Disease Management Information Systems (STD\*MIS) and NEDSS Based System (NBS), data as of July 2018.

\* Percent may not equal 100% due to rounding and unknown counts.

\*\* All other counties include Churchill, Elko, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Mineral, Nye, Pershing, Storey, and White Pine

**Table 2 | Chlamydia cases in Nevada, 2013-2017**

	2013			2014			2015			2016			2017		
	N	%	Rate*	N	%	Rate*	N	%	Rate*	N	%	Rate*	N	%	Rate*
<b>Resident County at Diagnosis</b>															
Clark	9,215	79.0%	453.6	10,184	79.5%	492.1	10,048	77.7%	474.3	11,362	77.6%	524.5	11,899	73.2%	543.2
Washoe	1,678	14.4%	388.1	1,768	13.8%	404.8	2,033	15.7%	460.0	2,200	15.0%	490.7	2,502	15.4%	551.9
Carson City, Douglas, Lyon	408	3.5%	261.4	445	3.5%	285.5	511	4.0%	328.0	514	3.5%	327.2	657	4.0%	414.4
All Other Counties	363	3.1%	200.8	402	3.1%	221.9	329	2.5%	181.2	446	3.0%	245.3	571	3.5%	312.6
Unknown	2	0.0%	N/A	11	0.1%	N/A	3	0.0%	N/A	127	0.9%	N/A	631	3.9%	N/A
<b>Sex</b>															
Male	3,571	30.6%	252.8	3,956	30.9%	276.2	4,151	32.1%	284.9	4,778	32.6%	322.2	5,741	35.3%	383.3
Female	8,087	69.3%	582.4	8,827	68.9%	625.6	8,743	67.6%	606.8	9,848	67.2%	669.8	10,472	64.4%	704.0
Unknown	8	0.1%	N/A	27	0.2%	N/A	30	0.2%	N/A	23	0.2%	N/A	47	0.3%	N/A
<b>Race/Ethnicity</b>															
White, non-Hispanic	2,745	23.5%	180.2	2,755	21.5%	180.2	2,785	21.5%	181.9	2,779	19.0%	180.5	3,231	19.9%	209.4
Black, non-Hispanic	2,020	17.3%	867.6	1,984	15.5%	830.9	1,872	14.5%	757.2	2,150	14.7%	843.4	2,424	14.9%	934.9
Hispanic	2,342	20.1%	304.1	2,406	18.8%	303.6	2,390	18.5%	291.6	2,545	17.4%	300.2	2,704	16.6%	312.0
American Indian/Alaska Native	131	1.1%	406.2	95	0.7%	293.0	131	1.0%	384.5	116	0.8%	337.7	126	0.8%	364.5
Asian/Hawaiian/Pacific Islander	376	3.2%	155.0	394	3.1%	157.0	410	3.2%	154.2	406	2.8%	146.7	441	2.7%	156.4
Unknown/Other	4,052	34.7%	N/A	5,176	40.4%	N/A	5,336	41.3%	N/A	6,653	45.4%	N/A	7,334	45.1%	N/A
<b>Age Group</b>															
< 9	6	0.1%	1.6	9	0.1%	2.3	5	0.0%	1.3	3	0.0%	0.8	5	0.0%	1.3
10-14	79	0.7%	43.2	79	0.6%	42.2	92	0.7%	46.5	86	0.6%	41.9	101	0.6%	47.7
15-19	3,087	26.5%	1,694.7	3,104	24.2%	1,704.1	2,856	22.1%	1,510.9	3,368	23.0%	1,730.6	3,650	22.4%	1,845.3
20-24	4,242	36.4%	2,189.1	4,792	37.4%	2,424.2	4,844	37.5%	2,444.6	5,325	36.4%	2,658.4	5,604	34.5%	2,824.5
25-29	2,121	18.2%	1,130.5	2,435	19.0%	1,259.9	2,534	19.6%	1,238.7	2,886	19.7%	1,361.6	3,318	20.4%	1,538.4
30-34	1,044	8.9%	551.4	1,106	8.6%	587.3	1,206	9.3%	627.9	1,377	9.4%	705.0	1,594	9.8%	797.9
35-39	516	4.4%	258.0	619	4.8%	304.3	646	5.0%	310.3	754	5.1%	357.9	883	5.4%	426.5
40-44	272	2.3%	138.9	307	2.4%	156.5	328	2.5%	172.1	374	2.6%	194.1	443	2.7%	223.2
45-54	234	2.0%	61.6	280	2.2%	72.6	315	2.4%	81.3	365	2.5%	92.5	421	2.6%	106.3
55-64	39	0.3%	11.8	55	0.4%	16.3	77	0.6%	22.4	91	0.6%	25.9	112	0.7%	31.4
65+	18	0.2%	4.8	17	0.1%	4.4	19	0.1%	4.8	20	0.1%	4.9	20	0.1%	4.7
Unknown	8	0.1%	NA	7	0.1%	N/A	2	0.0%	N/A	0	0.0%	N/A	109	0.7%	N/A
<b>Total</b>	<b>11,666</b>	<b>100.0%</b>	<b>416.5</b>	<b>12,810</b>	<b>100.0%</b>	<b>450.5</b>	<b>12,924</b>	<b>100.0%</b>	<b>446.0</b>	<b>14,649</b>	<b>100.0%</b>	<b>496.0</b>	<b>16,260</b>	<b>100.0%</b>	<b>544.7</b>

Source: Division of Public and Behavioral Health, Sexually Transmitted Disease Management Information Systems (STD\*MIS) and NEDSS Based System (NBS), data as of July 2018.

\* Percent may not equal 100% due to rounding and unknown counts.

\*\* All other counties include Churchill, Elko, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Mineral, Nye, Pershing, Storey, and White Pine

**Table 3 | Gonorrhea Cases in Nevada, 2017**

	Total			Male			Female		
	N	%*	Rate	n	%*	Rate	n	%*	Rate
<b>Resident County at Diagnosis</b>									
Clark	4,430	80.3%	202.2	2,905	82.1%	264.9	1,518	77.0%	138.8
Washoe	741	13.4%	163.5	442	12.5%	193.8	298	15.1%	132.3
Carson/Douglas/Lyon	85	1.5%	53.6	42	1.2%	53.4	42	2.1%	52.5
All Other Counties**	105	1.9%	57.5	48	1.4%	50.9	57	2.9%	64.5
Unknown	159	2.9%	NA	102	2.9%	NA	57	2.9%	NA
<b>Total</b>	<b>5,520</b>	<b>100.0%</b>	<b>184.9</b>	<b>3,539</b>	<b>100.0%</b>	<b>236.3</b>	<b>1,972</b>	<b>100.0%</b>	<b>132.6</b>
<b>Race/Ethnicity</b>									
White, non-Hispanic	1,226	22.2%	79.5	738	20.9%	94.6	486	24.6%	63.7
Black, non-Hispanic	1,307	23.7%	504.1	870	24.6%	665.7	437	22.2%	339.8
Hispanic	833	15.1%	96.1	628	17.7%	142.6	204	10.3%	47.8
American Indian/Alaska Native	34	0.6%	98.4	16	0.5%	94.2	18	0.9%	102.4
Asian/Hawaiian/Pacific Islander	131	2.4%	46.4	96	2.7%	74.0	35	1.8%	23.0
Unknown/Other	1,989	36.0%	NA	1,191	33.7%	NA	792	40.2%	NA
<b>Total</b>	<b>5,520</b>	<b>100.0%</b>	<b>184.9</b>	<b>3,539</b>	<b>100.0%</b>	<b>236.3</b>	<b>1,972</b>	<b>100.0%</b>	<b>132.6</b>
<b>Age Group</b>									
< 9	5	0.1%	1.3	1	0.0%	0.5	4	0.2%	2.2
10-14	25	0.5%	11.8	5	0.1%	4.6	20	1.0%	19.3
15-19	717	13.0%	362.5	293	8.3%	287.9	424	21.5%	441.5
20-24	1,294	23.4%	652.2	758	21.4%	740.7	534	27.1%	555.8
25-29	1,250	22.6%	579.6	852	24.1%	775.0	396	20.1%	374.5
30-34	787	14.3%	393.9	549	15.5%	533.8	237	12.0%	244.5
35-39	560	10.1%	270.5	403	11.4%	388.2	156	7.9%	151.1
40-44	324	5.9%	163.3	244	6.9%	241.1	80	4.1%	82.3
45-54	390	7.1%	98.5	311	8.8%	154.2	78	4.0%	40.2
55-64	127	2.3%	35.6	95	2.7%	53.7	31	1.6%	17.2
65+	20	0.4%	4.7	19	0.5%	9.8	1	0.1%	0.4
Unknown	21	0.4%	NA	9	0.3%	NA	11	0.6%	NA
<b>Total</b>	<b>5,520</b>	<b>100.0%</b>	<b>184.9</b>	<b>3,539</b>	<b>100.0%</b>	<b>236.3</b>	<b>1,972</b>	<b>100.0%</b>	<b>132.6</b>

Source: Division of Public and Behavioral Health, Sexually Transmitted Disease Management Information Systems (STD\*MIS) and NEDSS Based System (NBS), data as of July 2018.

\* Percent may not equal 100% due to rounding and unknown counts.

\*\* All other counties include Churchill, Elko, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Mineral, Nye, Pershing, Storey, and White Pine.

**Table 4 | Gonorrhea cases in Nevada, 2013-2017**

	2013			2014			2015			2016			2017		
	N	%	Rate*	N	%	Rate*	N	%	Rate*	N	%	Rate*	N	%	Rate*
<b>Resident County at Diagnosis</b>															
Clark	2,251	83.4%	110.8	2,791	82.1%	134.9	2,975	82.0%	140.4	3,653	83.4%	168.6	4,430	80.3%	202.2
Washoe	365	13.5%	84.4	497	14.6%	113.8	547	15.1%	123.8	598	13.7%	133.4	741	13.4%	163.5
Carson City, Douglas, Lyon	37	1.4%	23.7	48	1.4%	30.8	52	1.4%	33.4	50	1.1%	31.8	85	1.5%	53.6
All Other Counties	47	1.7%	26.0	62	1.8%	34.2	55	1.5%	30.3	58	1.3%	31.9	105	1.9%	57.5
Unknown	0	0.0%	NA	1	0.0%	NA	1	0.0%	NA	21	0.5%	NA	159	2.9%	NA
<b>Sex</b>															
Male	1,503	55.7%	106.4	1,970	58.0%	137.5	2,218	61.1%	152.3	2,763	63.1%	186.3	3,539	64.1%	236.3
Female	1,195	44.3%	86.1	1,424	41.9%	100.9	1,402	38.6%	97.3	1,611	36.8%	109.6	1,972	35.7%	132.6
Unknown	2	0.1%	NA	5	0.1%	NA	10	0.3%	NA	6	0.1%	NA	9	0.2%	NA
<b>Race/Ethnicity</b>															
White, non-Hispanic	613	22.7%	40.2	784	23.1%	51.3	803	22.1%	52.5	917	20.9%	59.6	1,226	22.2%	79.5
Black, non-Hispanic	816	30.2%	350.5	901	26.5%	377.3	833	22.9%	336.9	1,075	24.5%	421.7	1,307	23.7%	504.1
Hispanic	369	13.7%	47.9	469	13.8%	59.2	537	14.8%	65.5	610	13.9%	72.0	833	15.1%	96.1
American Indian/Alaska Native	29	1.1%	89.9	25	0.7%	77.1	21	0.6%	61.6	30	0.7%	87.3	34	0.6%	98.4
Asian/Hawaiian/Pacific Islander	49	1.8%	20.2	67	2.0%	26.7	72	2.0%	27.1	108	2.5%	39.0	131	2.4%	46.4
Unknown/Other	824	30.5%	NA	1,153	33.9%	NA	1,364	37.6%	NA	1,640	37.4%	NA	1,989	36.0%	NA
<b>Age Group</b>															
< 9	2	0.1%	0.5	2	0.1%	0.5	0	0.0%	0.0	6	0.1%	1.6	5	0.1%	1.3
10-14	27	1.0%	14.8	29	0.9%	15.5	13	0.4%	6.6	15	0.3%	7.3	25	0.5%	11.8
15-19	583	21.6%	320.1	552	16.2%	303.0	484	13.3%	256.0	634	14.5%	325.8	717	13.0%	362.5
20-24	725	26.9%	374.1	877	25.8%	443.7	953	26.3%	480.9	1,093	25.0%	545.6	1,294	23.4%	652.2
25-29	496	18.4%	264.4	722	21.2%	373.6	841	23.2%	411.1	995	22.7%	469.4	1,250	22.6%	579.6
30-34	338	12.5%	178.5	438	12.9%	232.6	479	13.2%	249.4	600	13.7%	307.2	787	14.3%	393.9
35-39	183	6.8%	91.5	275	8.1%	135.2	321	8.8%	154.2	391	8.9%	185.6	560	10.1%	270.5
40-44	122	4.5%	62.3	185	5.4%	94.3	210	5.8%	110.2	226	5.2%	117.3	324	5.9%	163.3
45-54	166	6.1%	43.7	223	6.6%	57.8	231	6.4%	59.6	304	6.9%	77.0	390	7.1%	98.5
55-64	45	1.7%	13.6	78	2.3%	23.1	84	2.3%	24.4	89	2.0%	25.3	127	2.3%	35.6
65+	12	0.4%	3.2	16	0.5%	4.1	13	0.4%	3.3	26	0.6%	6.3	20	0.4%	4.7
Unknown	1	0.0%	NA	2	0.1%	NA	1	0.0%	NA	1	0.0%	NA	21	0.4%	NA
<b>Total</b>	<b>2,700</b>	<b>100.0%</b>	<b>96.4</b>	<b>3,399</b>	<b>100.0%</b>	<b>119.5</b>	<b>3,630</b>	<b>100.0%</b>	<b>125.3</b>	<b>4,380</b>	<b>100.0%</b>	<b>148.3</b>	<b>5,520</b>	<b>100.0%</b>	<b>184.9</b>

Source: Division of Public and Behavioral Health, Sexually Transmitted Disease Management Information Systems (STD\*MIS) and NEDSS Based System (NBS), data as of July 2018.

\* Percent may not equal 100% due to rounding and unknown counts.

**Table 5 | Primary & Secondary Syphilis Cases in Nevada, 2017**

	Total			Male			Female		
	N	%*	Rate	n	%*	Rate	n	%*	Rate
<b>Resident County at Diagnosis</b>									
Clark	519	88.4%	23.7	464	90.6%	42.3	55	73.3%	5.0
Washoe	57	9.7%	12.6	41	8.0%	18.0	16	21.3%	7.1
Carson/Douglas/Lyon	8	1.4%	5.0	5	1.0%	6.4	3	4.0%	3.8
All Other Counties**	3	0.5%	1.6	2	0.4%	2.1	1	1.3%	1.1
<b>Total</b>	<b>587</b>	<b>100.0%</b>	<b>19.7</b>	<b>512</b>	<b>100.0%</b>	<b>34.2</b>	<b>75</b>	<b>100.0%</b>	<b>5.0</b>
<b>Race/Ethnicity</b>									
White, non-Hispanic	206	35.1%	13.4	173	33.8%	22.2	33	44.0%	4.3
Black, non-Hispanic	150	25.6%	57.9	129	25.2%	98.7	21	28.0%	16.3
Hispanic	157	26.7%	18.1	142	27.7%	32.3	15	20.0%	3.5
American Indian/Alaska Native	4	0.7%	11.6	3	0.6%	17.7	1	1.3%	5.7
Asian/Hawaiian/Pacific Islander	40	6.8%	14.2	38	7.4%	29.3	2	2.7%	1.3
Unknown/Other	30	5.1%	NA	27	5.3%	NA	3	4.0%	NA
<b>Total</b>	<b>587</b>	<b>100.0%</b>	<b>19.7</b>	<b>512</b>	<b>100.0%</b>	<b>34.2</b>	<b>75</b>	<b>100.0%</b>	<b>5.0</b>
<b>Age Group</b>									
< 9	0	0.0%	0.0	0	0.0%	0.0	0	0.0%	0.0
10-14	0	0.0%	0.0	0	0.0%	0.0	0	0.0%	0.0
15-19	16	2.7%	8.1	9	1.8%	8.8	7	9.3%	7.3
20-24	74	12.6%	37.3	63	12.3%	61.6	11	14.7%	11.4
25-29	135	23.0%	62.6	122	23.8%	111.0	13	17.3%	12.3
30-34	108	18.4%	54.1	91	17.8%	88.5	17	22.7%	17.5
35-39	74	12.6%	35.7	61	11.9%	58.8	13	17.3%	12.6
40-44	50	8.5%	25.2	47	9.2%	46.4	3	4.0%	3.1
45-54	94	16.0%	23.7	86	16.8%	42.6	8	10.7%	4.1
55-64	30	5.1%	8.4	28	5.5%	15.8	2	2.7%	1.1
65+	5	0.9%	1.2	5	1.0%	2.6	0	0.0%	0.0
Unknown	1	0.2%	NA	0	0.0%	NA	1	1.3%	NA
<b>Total</b>	<b>587</b>	<b>100.0%</b>	<b>19.7</b>	<b>512</b>	<b>100.0%</b>	<b>34.2</b>	<b>75</b>	<b>100.0%</b>	<b>5.0</b>

Source: Division of Public and Behavioral Health, Sexually Transmitted Disease Management Information Systems (STD\*MIS) and NEDSS Based System (NBS), data as of July 2018.

\* Percent may not equal 100% due to rounding and unknown counts.

\*\* All other counties include Churchill, Elko, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Mineral, Nye, Pershing, Storey, and White Pine.

**Table 6 | Primary and Secondary (P&S) Syphilis cases in Nevada, 2013-2017**

	2013			2014			2015			2016			2017		
	N	%	Rate*	N	%	Rate*	N	%	Rate*	N	%	Rate*	N	%	Rate*
<b>Resident County at Diagnosis</b>															
Clark	163	79.9%	8.0	268	85.4%	13.0	305	91.0%	14.4	398	89.6%	18.4	519	88.4%	23.7
Washoe	33	16.2%	7.6	36	11.5%	8.2	27	8.1%	6.1	33	7.4%	7.4	57	9.7%	12.6
Carson City, Douglas, Lyon	4	2.0%	2.6	5	1.6%	3.2	1	0.3%	0.6	5	1.1%	3.2	8	1.4%	5.0
All Other Counties	4	2.0%	2.2	5	1.6%	2.8	2	0.6%	1.1	7	1.6%	3.8	3	0.5%	1.6
Unknown	0	0.0%	NA	0	0.0%	NA	0	0.0%	NA	1	0.2%	NA	0	0.0%	NA
<b>Sex</b>															
Male	190	93.1%	13.5	291	92.7%	20.3	312	93.1%	21.4	394	88.7%	26.6	512	87.2%	34.2
Female	14	6.9%	1.0	23	7.3%	1.6	23	6.9%	1.6	50	11.3%	3.4	75	12.8%	5.0
<b>Race/Ethnicity</b>															
White, non-Hispanic	77	37.7%	5.1	130	41.4%	8.5	138	41.2%	9.0	144	32.4%	9.4	206	35.1%	13.4
Black, non-Hispanic	37	18.1%	15.9	67	21.3%	28.1	74	22.1%	29.9	119	26.8%	46.7	150	25.6%	57.9
Hispanic	62	30.4%	8.1	90	28.7%	11.4	89	26.6%	10.9	139	31.3%	16.4	157	26.7%	18.1
American Indian/Alaska Native	0	0.0%	0.0	1	0.3%	3.1	0	0.0%	0.0	4	0.9%	11.6	4	0.7%	11.6
Asian/Hawaiian/Pacific Islander	12	5.9%	4.9	13	4.1%	5.2	18	5.4%	6.8	23	5.2%	8.3	40	6.8%	14.2
Unknown/Other	16	7.8%	NA	13	4.1%	NA	16	4.8%	NA	15	3.4%	NA	30	5.1%	NA
<b>Age Group</b>															
< 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
10-14	0	0.0%	0.0	0	0.0%	0.0	1	0.3%	0.5	0	0.0%	0.0	0	0.0%	0.0
15-19	9	4.4%	4.9	8	2.5%	4.4	14	4.2%	7.4	15	3.4%	7.7	16	2.7%	8.1
20-24	46	22.5%	23.7	67	21.3%	33.9	77	23.0%	38.9	87	19.6%	43.4	74	12.6%	37.3
25-29	45	22.1%	24.0	66	21.0%	34.1	82	24.5%	40.1	102	23.0%	48.1	135	23.0%	62.6
30-34	25	12.3%	13.2	53	16.9%	28.1	49	14.6%	25.5	72	16.2%	36.9	108	18.4%	54.1
35-39	23	11.3%	11.5	39	12.4%	19.2	34	10.1%	16.3	49	11.0%	23.3	74	12.6%	35.7
40-44	16	7.8%	8.2	22	7.0%	11.2	22	6.6%	11.5	32	7.2%	16.6	50	8.5%	25.2
45-54	29	14.2%	7.6	41	13.1%	10.6	43	12.8%	11.1	62	14.0%	15.7	94	16.0%	23.7
55-64	9	4.4%	2.7	16	5.1%	4.7	8	2.4%	2.3	20	4.5%	5.7	30	5.1%	8.4
65+	2	1.0%	0.5	2	0.6%	0.5	5	1.5%	1.3	5	1.1%	1.2	5	0.9%	1.2
Unknown	0	0.0%	NA	0	0.0%	NA	0	0.0%	NA	0	0.0%	NA	1	0.2%	NA
<b>Total</b>	<b>204</b>	<b>100.0%</b>	<b>7.3</b>	<b>314</b>	<b>100.0%</b>	<b>11.0</b>	<b>335</b>	<b>100.0%</b>	<b>11.6</b>	<b>444</b>	<b>100.0%</b>	<b>15.0</b>	<b>587</b>	<b>100.0%</b>	<b>19.7</b>

Source: Division of Public and Behavioral Health, Sexually Transmitted Disease Management Information Systems (STD\*MIS) and NEDSS Based System (NBS), data as of July 2018.

\* Percent may not equal 100% due to rounding and unknown counts.

**Table 7 | P&S Syphilis – Cases and Crude Rates of Reported Cases by County, Males, 2013-2017**

Year	Clark		Washoe		Carson City, Douglas, Lyon		All Other Counties		Nevada	
	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate
2013	157	15.4	27	12.4	3	3.8	3	3.2	190	13.5
2014	252	24.2	31	14.1	3	3.8	5	5.3	291	20.3
2015	288	27.1	22	9.9	1	1.3	1	1.1	312	21.4
2016	358	33.0	28	12.4	3	3.8	4	4.3	394	26.6
2017	464	42.3	41	18.0	5	6.4	2	2.1	512	34.2

**Table 8 | P&S Syphilis – Cases and Crude Rates of Reported Cases by County, Females, 2013-2017**

Year	Clark		Washoe		Carson City, Douglas, Lyon		All Other Counties		Nevada	
	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate
2013	6	0.6	6	2.8	1	1.3	1	1.2	14	1.0
2014	16	1.6	5	2.3	2	2.6	0	0.0	23	1.6
2015	17	1.6	5	2.3	0	0.0	1	1.1	23	1.6
2016	40	3.7	5	2.2	2	2.5	3	3.4	50	3.4
2017	55	5.0	16	7.1	3	3.8	1	1.1	75	5.0

**Table 9 | Congenital Syphilis – Cases and Rates of Reported Cases by County, Females, 2013-2017**

Year	Clark		Washoe		Carson City, Douglas, Lyon		All Other Counties		Nevada	
	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate
2013	2	7.7	0	0.0	0	0.0	0	0.0	2	5.8
2014	3	11.2	1	18.6	0	0.0	0	0.0	4	11.2
2015	6	22.3	2	36.8	0	0.0	0	0.0	8	22.4
2016	11	40.7	1	18.9	0	0.0	0	0.0	12	34.0
2017	18	67.8	2	39.0	0	0.0	1	57.5	21	60.2

\*Birth rates per 100,000 live births were calculated using 2017 vital records.

## REFERENCES

1. **Centers for Disease Control and Prevention.** Chlamydia. *Centers for Disease Control and Prevention.* [Online] October 31, 2017. <https://www.cdc.gov/std/Chlamydia/default.htm>.
2. —. Gonorrhea. *Centers for Disease Control and Prevention.* [Online] October 6, 2017. <https://www.cdc.gov/std/gonorrhea/default.htm>.
3. —. Syphilis. *Centers for Disease Control and Prevention.* [Online] 30 November, 2017. <https://www.cdc.gov/std/syphilis/default.htm>.
4. **Centers for Disease Control and Prevention.** Congenital Syphilis. *Centers for Disease Control and Prevention.* [Online] January 31, 2017. [Cited: August 19, 2019.] <https://www.cdc.gov/std/syphilis/stdfact-congenital-syphilis.htm>.
5. **State of Nevada Department of Health and Human Services.** *DHHS Fact Book.* Carson City : State of Nevada, 2017. pp. 73-74.
6. **Centers for Disease Control and Prevention.** *Sexually Transmitted Disease Surveillance 2015.* 2016.
7. **Nevada Division of Public and Behavioral Health.** *Division of Public and Behavioral Health Fact Book.* s.l. : Division of Public and Behavioral Health, 2017.

## Copyright Information

All material contained in this report is in the public domain and may be used and reprinted without special permission; however, citation as to source is appreciated.

## Suggested Citation

Office of Public Health Investigations and Epidemiology. Division of Public and Behavioral Health. *Nevada 2017 STD Epidemiologic Profile.* Carson City, Nevada. e1.0. July 2019.

## Web Site

The online version of this report is available at

[http://dpbh.nv.gov/Programs/STD/dta/Publications/Sexually Transmitted Disease \(STD\) Prevention and Control Program- Publications/](http://dpbh.nv.gov/Programs/STD/dta/Publications/Sexually_Transmitted_Disease_(STD)_Prevention_and_Control_Program-Publications/)

## Selected References and Web Sites

STD Publications from 2000-2016

[http://dpbh.nv.gov/Programs/STD/dta/Publications/Sexually Transmitted Disease \(STD\) Prevention and Control Program- Publications/](http://dpbh.nv.gov/Programs/STD/dta/Publications/Sexually_Transmitted_Disease_(STD)_Prevention_and_Control_Program-Publications/)

STD Treatment Guidelines

<https://www.cdc.gov/STD/treatment/>

STD Program Operation Guidelines

<https://www.cdc.gov/std/program/GL-2001.htm>



**For more, information contact:**

**Elizabeth Kessler, MPH**

**STD and Adult Viral Hepatitis Program Manager  
Office of Public Health Investigations and Epidemiology  
Division of Public and Behavioral Health  
500 Damonte Ranch Parkway, Ste. 657  
Reno, NV 89521  
Phone: (775)684-5287  
[ekessler@health.nv.gov](mailto:ekessler@health.nv.gov)**

**Amy Lucas, MS**

**HIV/STD Biostatistician  
Office of Centralized Analytics  
Division of Public and Behavioral Health  
4126 Technology Way Ste 201  
Carson City, NV 89706  
Phone: (775) 684-5895  
[alucas@health.nv.gov](mailto:alucas@health.nv.gov)**

*This publication was supported by the Grant or Cooperative Agreement Number, 5 H25PS004376, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.*