

HIV/STD/HCV Epidemiology & Surveillance Unit



Texas Department of State Health Services

The Texas STD Surveillance Report is an annual report generated by:

Texas Department of State Health Services
HIV/STD/HCV Epidemiology & Surveillance Unit, MC 1873
P.O. Box 149347
Austin, Texas 78714
737-255-4300

#### Important notes on the data:

The Texas Department of State Health Services (DSHS) STD Surveillance Program collects demographic, clinical, and lab-related information on people diagnosed with STDs in Texas. This information is used to inform STD prevention program planners, policymakers, and stakeholders about STD epidemiology in Texas. STD cases are reported to the STD Surveillance Program from a variety of sources, including hospitals, private physicians, clinics, counseling and testing sites, laboratories, and other case registries.

This report describes sexually transmitted diseases (STD) reported to the STD Surveillance Program from 2012 through 2021. The report presents data by date of diagnosis and provides state and county-level case counts and rates. The report describes demographic factors, such as age, sex, and race/ethnicity among reported STDs.

Population numbers used to calculate rates for 2012-2021 data are from the U.S. Census Bureau and include estimates of the resident population of the United States from January 1, 2012, to December 31, 2021, by year, county, single year of age (0, 1, 2, ..., 85 years and over), bridged race, Hispanic origin, and sex. Population numbers used to calculate 2012-2021 congenital syphilis rates are from the vital event-birth data disseminated by the Center for Health Statistics at DSHS.

Data on gender identity is not standardized in the STD Surveillance Program. The sex of persons represented in this data may or may not reflect their current gender identity. DSHS is working to improve data collection on this highly impacted population so data on transgender people is included in future reports.

A delay in updating the race/ethnicity field for chlamydia and gonorrhea data resulted in many cases with race/ethnicity as unknown. Ongoing data quality improvement will address this for future reporting. All national case counts and case rates for the year 2021 are based on preliminary data. Interpret numbers with caution.

For more information, please contact <u>HIVSTDdata@dshs.texas.gov</u>.

# **Table of Contents**

Terms and Resources	5
Chlamydia Overview and Brief Facts	6
Chlamydia Quick Facts	7
Chlamydia by Year of Diagnosis, 2012-2021	8
Chlamydia by County, 2021	9
Chlamydia by Sex, Race/Ethnicity, and Age Group, 2012-2021	10
Chlamydia by Race/Ethnicity and Year of Diagnosis, 2012-2021	11
Chlamydia by Sex and Year of Diagnosis, 2012-2021	12
Chlamydia by Age Group and Year of Diagnosis, 2021	13
Gonorrhea Overview and Brief Facts	14
Gonorrhea Quick Facts	15
Gonorrhea by Year of Diagnosis, 2012-2021	16
Gonorrhea by County, 2021	17
Gonorrhea by Sex, Race/Ethnicity, and Age Group, 2012-2021	18
Gonorrhea by Race/Ethnicity and Year of Diagnosis, 2012-2021	19
Gonorrhea by Sex and Year of Diagnosis, 2012-2021	20
Gonorrhea by Age Group and Year of Diagnosis, 2021	21
Syphilis Overview and Brief Facts	22
Syphilis Quick Facts	23
Total Syphilis by Year of Diagnosis, 2012-2021	24
Total Syphilis by County, 2021	25
Total Syphilis by Sex, Race/Ethnicity, and Age Group, 2012-2021	26
Total Syphilis by Race/Ethnicity and Year of Diagnosis, 2012-2021	27
Total Syphilis by Sex and Year of Diagnosis, 2012-2021	28
Total Syphilis by Age Group and Year of Diagnosis, 2021	29
Primary and Secondary Syphilis by Year of Diagnosis, 2012-2021	30
P&S Syphilis by County, 2021	31
P&S Syphilis by Sex, Race/Ethnicity, and Age Group, 2012-2021	32
P&S Syphilis by Race/Ethnicity and Year of Diagnosis, 2012-2021	33
P&S Syphilis by Sex and Year of Diagnosis, 2012-2021	34
P&S Syphilis by Age Group and Year of Diagnosis, 2021	35
Congenital Syphilis Overview and Brief Facts	36

C	Congenital Syphilis Quick Facts	37
C	Congenital Syphilis by Year of Diagnosis, 2012-2021	38
C	Congenital Syphilis by County, 2021	39
C	Congenital Syphilis Cases and Rates by Race/Ethnicity, 2012-2020	40
R	References	41
Δ	Appendix A: Geographic Breakdowns and Rankings	43

#### **Terms and Resources**

#### **Surveillance Case Definitions**

A surveillance case definition consists of uniform criteria used to define a disease for public health surveillance. These definitions allow public health officials to classify and count cases consistently across reporting jurisdictions. Surveillance case definitions are not intended for use by healthcare providers making clinical judgements. For more information on surveillance case definitions, visit:

Surveillance Case Definitions for Current and Historical Conditions

#### **Reporting Rules, Surveillance Reports and Dashboards**

Texas Administrative Code, Chapter 97, Part 1 Chapter 97, Subchapter F adopted rules and regulations for reporting STDs. To obtain a copy of the rules, visit:

Texas Administrative Code, Title 25, Part 1, Chapter 97, Subchapter F

To get information on how to report HIV/AIDS and STD cases, contact your local or regional health department, or visit:

HIV/STD Reporting: Information for Texas Health Care Providers and Laboratories

Please visit the Centers for Health Statistics - Texas Health Data dashboard for state and county level STD data by age, race/ethnicity, and sex:

Texas Health Data - STD Dashboard

#### **CHLAMYDIA: Overview and Brief Facts**

#### **Description and Background**

Chlamydia is an STD caused by the *Chlamydia trachomatis* bacterium. It can cause cervicitis and urethritis in women and urethritis and proctitis in men. Chlamydial infections in women can lead to consequences including pelvic inflammatory disease, tubal factor infertility, ectopic pregnancy, chronic pelvic pain, and eye infection.<sup>1</sup>

Chlamydia is the most frequently reported bacterial STD in the United States. It is the leading cause of blindness in children. In 2021, the Centers for Disease Control and Prevention (CDC) reported 1,644,416 cases of chlamydia from 50 states and the District of Columbia.<sup>2</sup> Underreporting occurs due to asymptomatic cases not seeking testing.<sup>1</sup>

#### **Impact and Risk**

Two-thirds of new chlamydia infections in the U.S. occur in young people aged 15-24.<sup>3</sup> The CDC estimates 1 in 20 sexually active females aged 15-24 has chlamydia.<sup>4</sup> Substantial racial and ethnic disparities exist nationally, with prevalence among non-Hispanic Black people six times higher than non-Hispanic White people.<sup>2</sup> Men who have sex with men (MSM) are at heightened risk for chlamydial infection, since chlamydia is transmitted by oral or anal sex. Among MSM screened for rectal chlamydia infection, positivity rates ranged from 3 percent to 10.5 percent.<sup>5,6</sup> Among MSM screened for pharyngeal chlamydia infection, positivity has ranged from 0.5 percent to 2.3 percent.<sup>6,7</sup>

#### **Chlamydia Screening, Treatment, and Prevention**

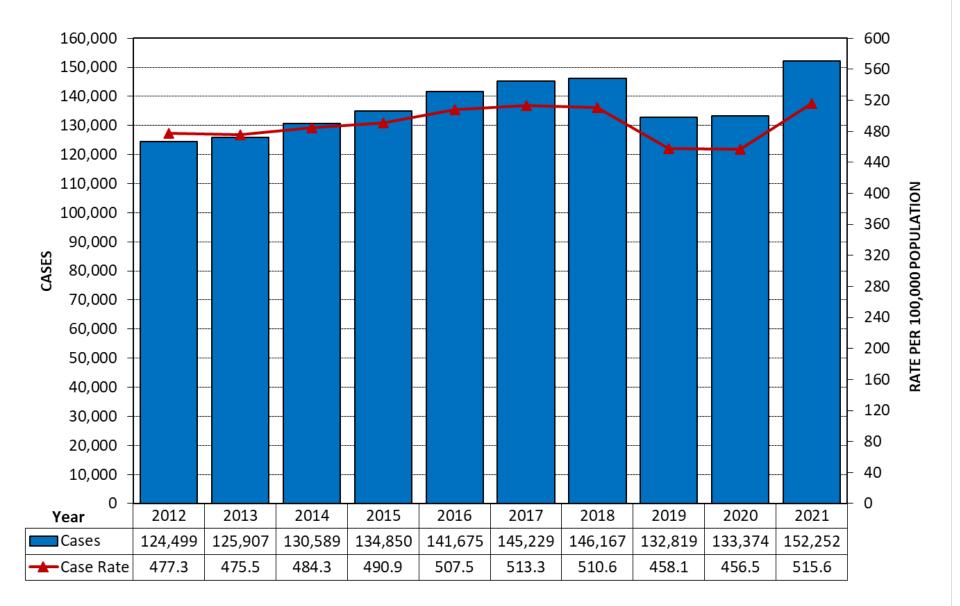
Chlamydia is usually asymptomatic, so screening is necessary to identify most infections. The CDC recommends yearly chlamydia screenings for all sexually active women aged 25 years or younger, and older women with risk factors for infection. Pregnant women should have screenings at their first prenatal care visit. Pregnant women under 25 years of age or at increased risk for chlamydia should have screenings again in their third trimester.

Routine screening is not recommended for men. Screenings of sexually active young men should occur in clinical settings with a high prevalence of chlamydia (e.g., correctional facilities and STD clinics) when resources permit and do not hinder screening efforts in women.<sup>8</sup> MSM who have receptive anal sex should have screenings each year.<sup>1</sup> Chlamydia is cured with antibiotics. Latex condoms, used consistently and correctly, can reduce the risk of acquiring or giving chlamydia.<sup>9</sup> The most effective way to avoid chlamydia is to abstain from vaginal, anal, and oral sex, or maintain a long-term, mutually monogamous relationship with a partner who has tested and knows they are uninfected.<sup>1</sup>

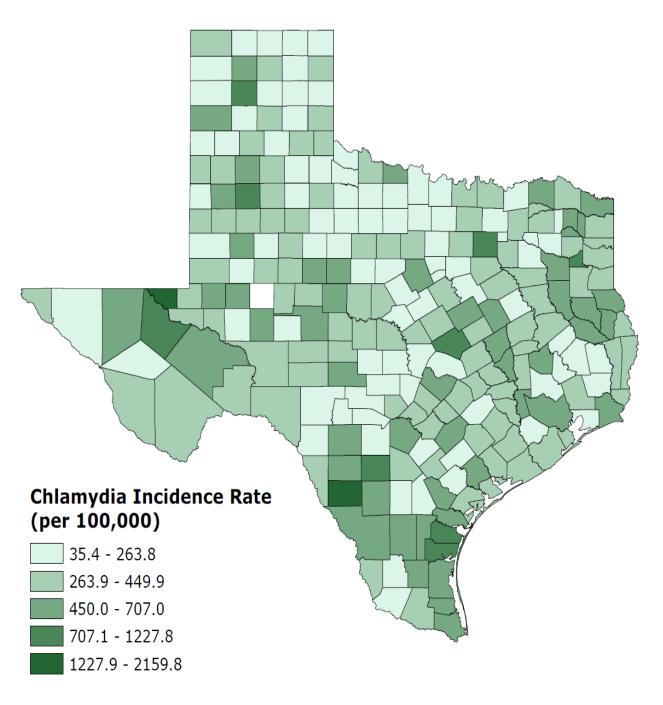
#### 2021 State of Texas Chlamydia Quick Facts

Number of reported Chlamydia cases: 152,252 Chlamydia rate per 100,000 Texas residents: 515.6 Percent change in Chlamydia rate from 2017: +0.4%





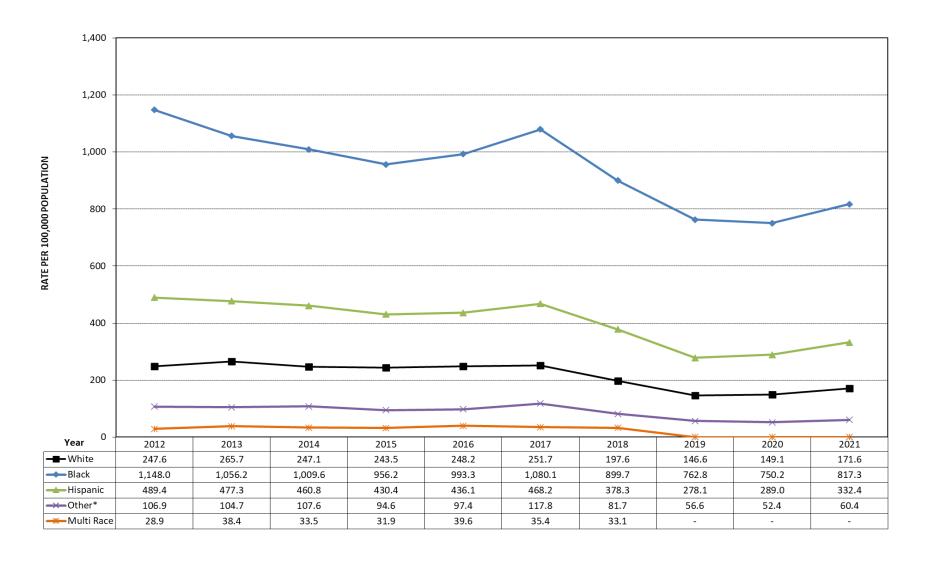
# Chlamydia Incidence Rates per 100,000 population, By County, Texas, 2021



					Chl	amydia	Cases and	d Rates l	y Sex, R	ace, Ethr	nicity, an	d Age Gro	up, 2012	-2021						
	20:	12	20:	13	20:	14	20:	15	20:	16	20	17	20:	18	20:	19	20	20	20:	21
	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†
Sex																				
Male	29,972	231.6	31,273	238.0	33,916	253.4	37,144	272.2	40,938	295.3	43,389	308.7	45,313	318.7	43,343	300.9	42,671	292.6	51,173	347.3
Female	94,455	718.7	93,804	703.3	96,509	710.8	97,265	703.5	100,418	714.8	101,497	712.8	100,237	695.6	88,891	609.1	89,698	613.0	99,725	674.2
Unknown	72		830		164		441		319		343		617		585		1,005		1,354	
Race																				
White	28,700	247.6	30,927	265.7	28,990	247.1	28,773	243.5	29,455	248.2	29,949	251.7	23,538	197.6	17,523	146.6	17,696	149.1	20,396	171.6
Black	34,710	1,148.0	32,568	1,056.2	31,848	1,009.6	30,893	956.2	32,817	993.3	36,418	1,080.1	30,896	899.7	26,712	762.8	26,767	750.2	29,673	817.3
Hispanic	48,828	489.4	48,649	477.3	48,047	460.8	45,961	430.4	47,618	436.1	52,104	468.2	42,835	378.3	32,052	278.1	33,764	289.0	39,416	332.4
Asian + NHPI* + AIAN^	1,247	106.9	1,278	104.7	1,389	107.6	1,290	94.6	1,391	97.4	1,751	117.8	1,251	81.7	893	56.6	858	52.4	1,016	60.4
Multi Race	95	28.9	132	38.4	121	33.5	121	31.9	157	39.6	146	35.4	141	33.1	0	0.0	0	0.0	-	
Unspecified + Unknown**	10,919		12,353		20,194		27,812		30,237		24,861		47,506		55,639		54,289		61,751	
Age Group																				
(Years)																				
0 - 14	1,496	25.5	1,272	21.5	1,247	20.9	1,134	18.8	1,030	16.9	1,014	16.5	1,034	16.8	946	15.4	1,004	16.2	1,110	18.0
15 - 24	86,045	2,254.6	85,143	2,204.4	86,174	2,199.5	87,808	2,215.1	91,535	2,295.0	93,168	2,327.9	93,325	2,320.1	83,727	2,064.5	83,501	2,040.3	90,870	2,189.2
25 - 34	29,104	770.7	30,857	801.9	33,230	843.2	35,293	875.2	37,217	903.9	38,451	919.3	38,999	923.0	35,925	840.0	36,726	868.2	44,080	1,035.2
35 - 44	5,868	165.6	6,530	182.3	7,396	203.5	7,833	211.8	8,474	226.1	8,981	235.9	9,095	234.8	8,735	221.6	8,711	215.5	11,529	279.8
45 - 54	1,502	43.5	1,616	46.9	1,939	56.0	2,087	59.8	2,505	71.1	2,633	74.4	2,606	73.5	2,523	71.0	2,436	67.7	3,275	90.3
55 - 64	350	12.5	356	12.4	431	14.6	511	16.8	694	22.3	766	24.1	835	25.9	766	23.4	745	22.5	1,030	_
65+	68	2.4		3.3	125	4.1	114	3.6	108	3.2	170	4.9	149	4.1	145	3.9	121	3.2	181	4.7
Unknown	66		34		47		70		112		46		124		52		130		177	
Total	124,499	477.3	- /	475.5	130,589	484.3	134,850	490.9	141,675	507.5	145,229	513.3	146,167	510.6	132,819	458.1	133,374	456.5	152,252	515.6

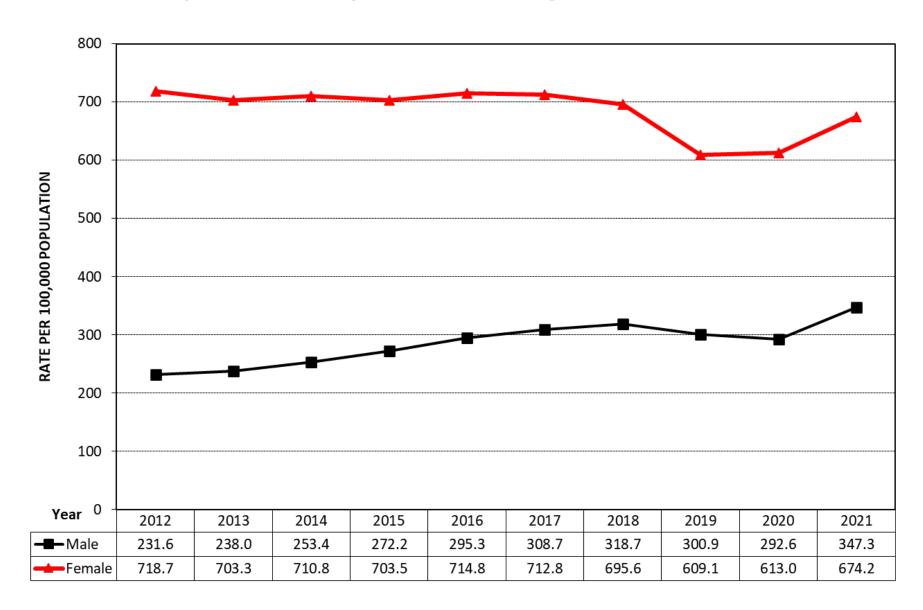
<sup>\*</sup>NHPI: Native Hawaiian/Pacific Islander ^AIAN: American Indian/Alaskan Native † Rates represent cases per 100,000 population.

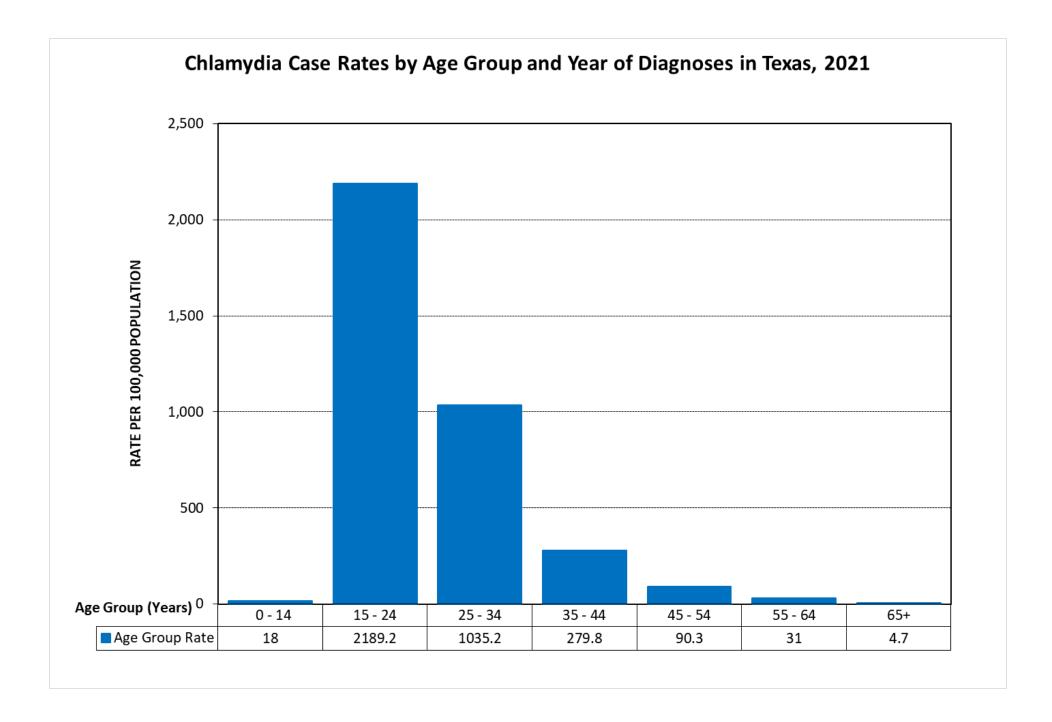
#### Chlamydia Case Rates by Race, Ethnicity, and Year of Diagnosis in Texas, 2012-2021



<sup>\*</sup>Other includes Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and Asian race/ethnic groups.

# Chlamydia Case Rates by Sex and Year of Diagnosis in Texas, 2012-2021





#### **GONORRHEA: Overview and Brief Facts**

#### **Description and Background**

Gonorrhea is an STD caused by the *Neisseria gonorrhoeae* bacterium.<sup>10</sup> *N. gonorrhoeae* infects the mucous membranes of the reproductive tract, including the cervix, uterus, and fallopian tubes in women, and the urethra in women and men.<sup>10</sup> *N. gonorrhoeae* can infect the mucous membranes of the mouth, throat, eyes, and rectum.<sup>10</sup>

Gonorrhea is a common infectious disease. The Centers for Disease Control and Prevention (CDC) estimates 1.6 million people in the United States get new gonorrheal infections annually, and only a fraction of these infections are detected and reported to the CDC. The CDC estimates over half of the approximate 1.6 million cases were among young people 15-24 years of age. In 2021, a total of 696,764 cases of gonorrhea were reported to the CDC, making it the second most common notifiable STD in the United States for that year.

#### **Impact and Risk**

Any sexually active person can get infected with gonorrhea. In the United States, the highest reported rates of infection are among sexually active teenagers, young adults, and Black Americans. Data from the STD Surveillance Network (SSuN) suggests a third of gonorrhea cases occurred among MSM in 2021. During 2020–2021, rates increased among men by 4 percent but decreased for women by 0.4 percent, which could reflect differences in diagnosing and reporting of cases among MSM in 2021.

#### **Gonorrhea Screening, Treatment, and Prevention**

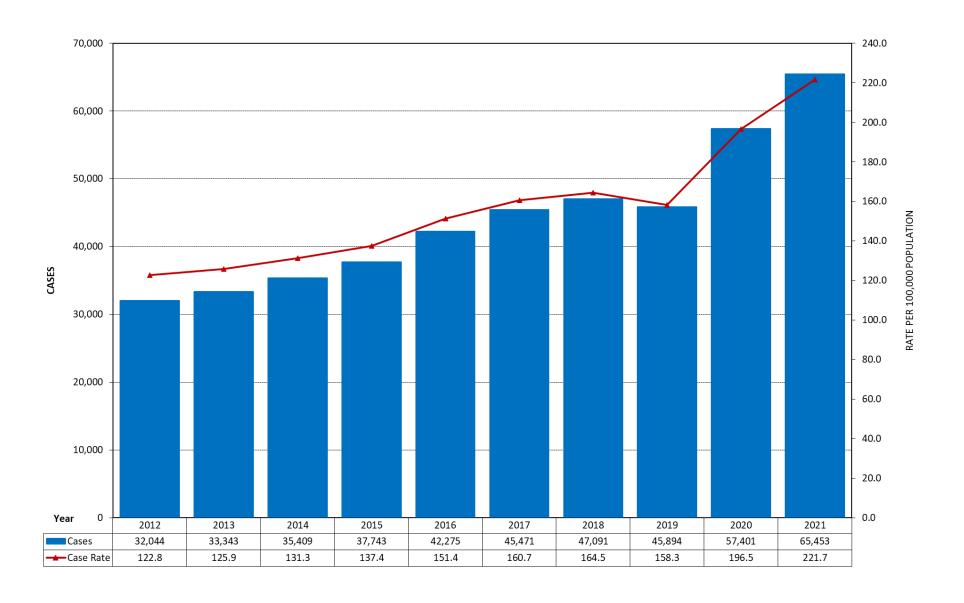
Individuals with genital symptoms such as discharge, burning during urination, unusual or genital sores, or rash should stop having sex and see a health care provider immediately. Anyone with an oral, anal, or vaginal sex partner recently diagnosed with an STD should see a health care provider for evaluation. Anyone who is sexually active should discuss his/her risk factors with a health care provider and ask whether he/she should test for gonorrhea or other STDs. 10

CDC now recommends a single 500 mg intramuscular dose of ceftriaxone for treating gonorrhea.<sup>8</sup> It is important to take all the medication prescribed to cure gonorrhea. Although medication will stop the infection, it will not repair any permanent damage done by the disease. Antimicrobial resistance is of increasing concern and successful treatment is becoming more difficult. If a person's symptoms continue for more than a few days after receiving treatment, he/she should return to a health care provider for reevaluation. Latex condoms, when used consistently and correctly, can reduce the risk of transmission of gonorrhea.<sup>9</sup> The most effective way to avoid transmission of gonorrhea is to abstain from sexual intercourse, or maintain a long-term, mutually monogamous relationship with a partner who has tested and knows they are uninfected.<sup>1</sup>

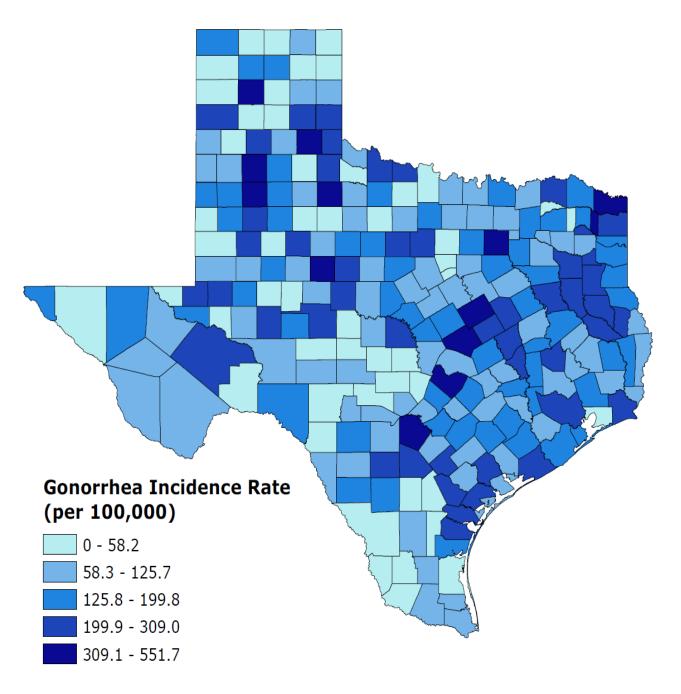
#### 2021 State of Texas Gonorrhea Quick Facts

Number of reported gonorrhea cases: 65,453 Gonorrhea rate per 100,000 Texas residents: 221.7 Percent change in gonorrhea rate from 2017: +38%

#### Gonorrhea Cases and Case Rates by Year of Diagnosis in Texas, 2012-2021

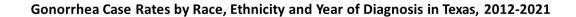


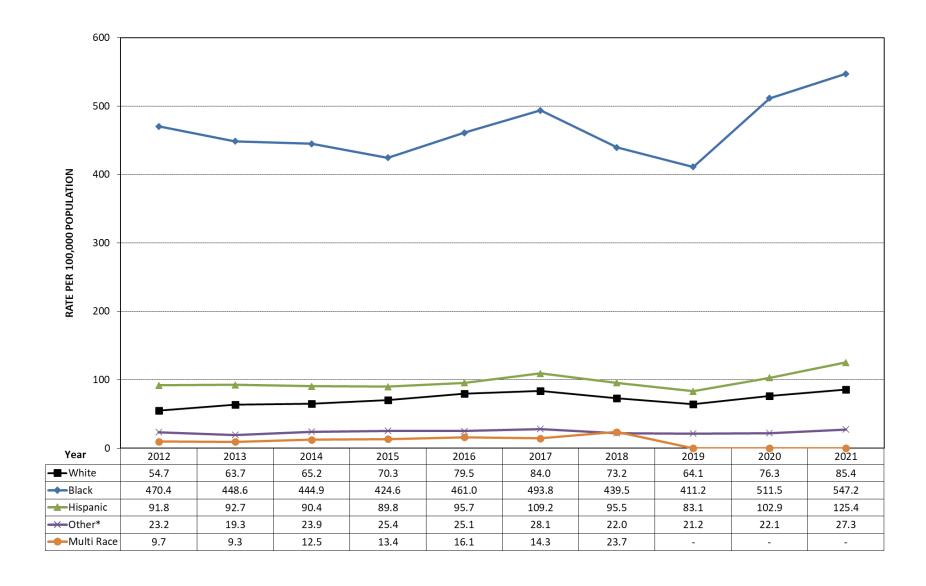
# Gonorrhea Incidence Rates per 100,000 population, By County, Texas, 2021



					Gor	orrhea	Cases and	d Rates	by Sex, Ra	ce, Ethr	nicity, and	Age Gr	oup, 2012	-2021						
	201	.2	201	.3	201	4	201	.5	201	6	201	.7	201	8	201	9	202	.0	202	1
	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†
Sex																				
Male	15,042	116.2	16,239	123.6	18,077	135.0	20,785	152.3	23,728	171.1	25,186	179.2	27,048	190.2	26,626	184.9	32,458	222.5	37,711	255.9
Female	16,993	129.3	16,932	126.9	17,300	127.4	16,880	122.1	18,490	131.6	20,187	141.8	19,914	138.2	18,972	130.0	24,569	167.9	27,210	184.0
Unknown	9		172		32		78		57		98		129		296		374		532	
Race																				
White	6,334	54.7	7,412	63.7	7,645	65.2	8,307	70.3	9,437	79.5	9,991	84.0	8,727	73.2	7,666	64.1	9,061	76.3	10,145	85.4
Black	14,222	470.4	13,834	448.6	14,034	444.9	13,717	424.6	15,230	461.0	16,651	493.8	15,093	439.5	14,397	411.2	18,248	511.5	19,867	547.2
Hispanic	9,154	91.8	9,449	92.7	9,421	90.4	9,594	89.8	10,444	95.7	12,151	109.2	10,815	95.5	9,576	83.1	12,017	102.9	14,865	125.4
Asian + NHPI* + AIAN^	270	23.2	236	19.3	308	23.9	347	25.4	359	25.1	418	28.1	337	22.0	334	21.2	362	22.1	459	27.3
Multi Race	32	9.7	32	9.3	45	12.5	51	13.4	64	16.1	59	14.3	101	23.7	0	0.0	0	0.0	0	0.0
Unspecified + Unknown**	2,032		2,380		3,956		5,727		6,741		6,201		12,018		13,921		17,713		20,117	
Age Group (Years)																				
0 - 14	383	6.5	299	5.1	322	5.4	296	4.9	272	4.5	249	4.1	250	4.1	257	4.2	369	5.9	373	6.0
15 - 24	20,215	529.7	20,014	518.2	20,072	512.3	20,639	520.7	22,279	558.6	23,203	579.8	23,467	583.4	22,151	546.2	27,717	677.2	29,585	712.7
25 - 34	8,156	216.0	9,181	238.6	10,404	264.0	11,491	285.0	13,410	325.7	14,852	355.1	15,744	372.6	15,399	360.1	19,149	452.7	22,926	538.4
35 - 44	2,156	60.8	2,559	71.4	3,033	83.5	3,312	89.6	4,055	108.2	4,605	121.0	4,984	128.7	5,209	132.1	6,819	168.7	8,524	206.9
45 - 54	836	24.2	959	27.8	1,142	33.0	1,432	41.0	1,660	47.1	1,819	51.4	1,804	50.9	1,914	53.9	2,223	61.8	2,715	74.9
55 - 64	228	8.1	258	9.0	342	11.6	448	14.8	474	15.2	625	19.7	680	21.1	698	21.3	835	25.2	994	29.9
65+	53	1.9	56	1.9	81	2.6	106	3.3	102	3.1	106	3.1	124	3.5	140	3.7	173	4.6	214	5.5
Unknown	17		17		13		19		23		12		38		126		116		122	
Total	32,044	122.8	33,343	125.9	35,409	131.3	37,743	137.4	42,275	151.4	45,471	160.7	47,091	164.5	45,894	158.3	57,401	196.5	65,453	221.7

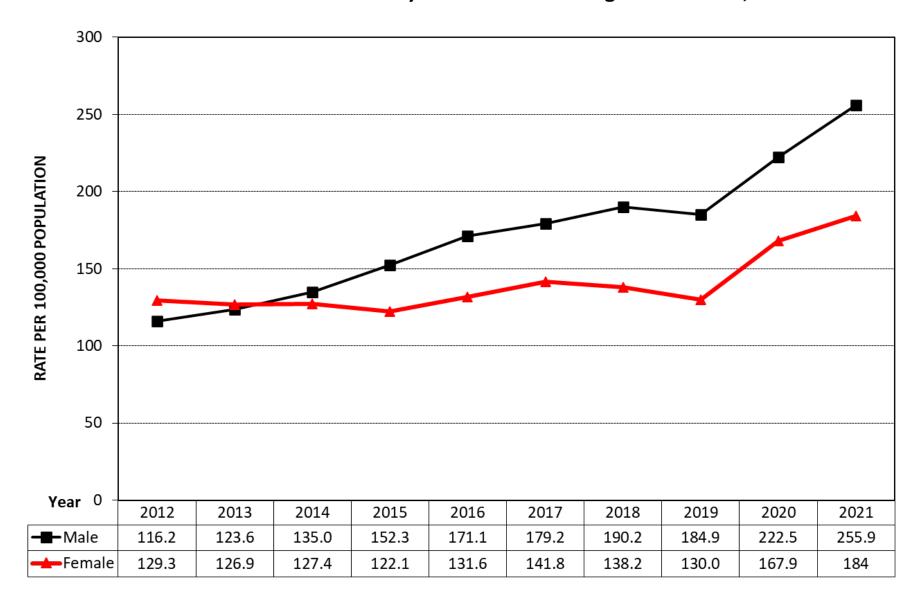
<sup>\*</sup>NHPI: Native Hawaiian/Pacific Islander ^AIAN: American Indian/Alaskan Native † Rates represent cases per 100,000 population.

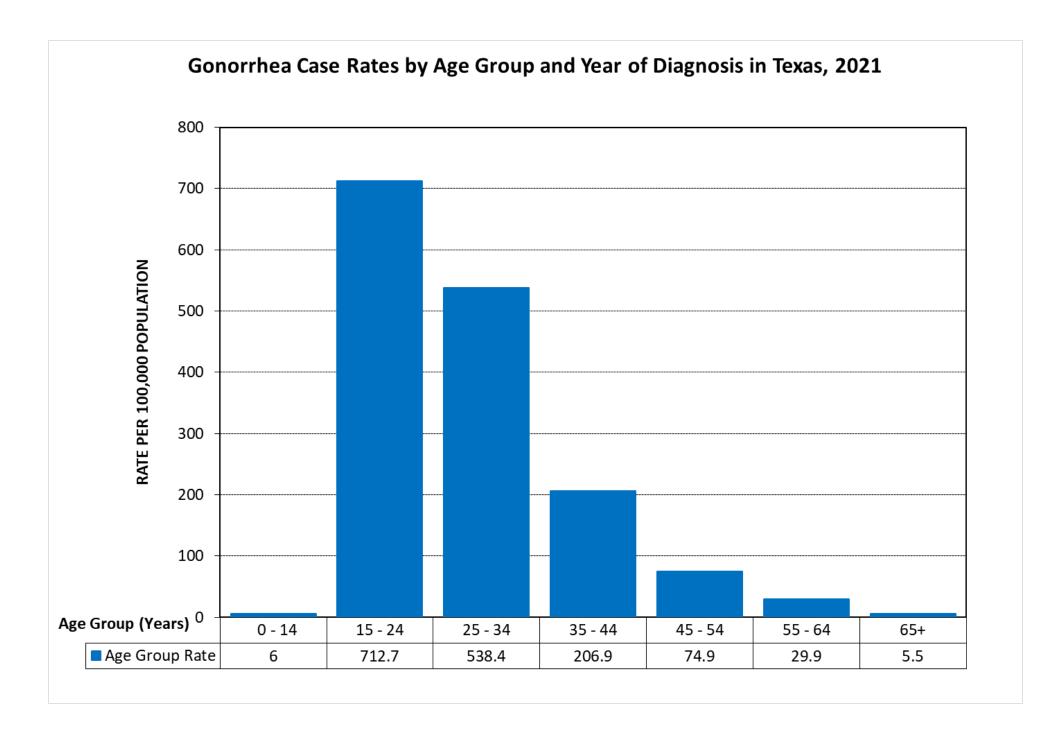




<sup>\*</sup>Other includes Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and Asian race/ethnic groups.

### Gonorrhea Case Rates by Sex and Year of Diagnosis in Texas, 2012-2021





#### **SYPHILIS: Overview and Brief Facts**

#### **Description and Background**

Syphilis is an STD caused by the *Treponema pallidum* bacterium, and can cause long-term complications if not adequately treated.<sup>13</sup> The total number of syphilis cases reported in the U.S. has increased 68.4 percent since 2017, with 171,074 total syphilis cases reported to the CDC in 2021.<sup>2</sup> Of the reported cases, 52,354 were primary and secondary (P&S) syphilis, the earliest and most transmissible stages of syphilis.<sup>2</sup> Syphilis is transmitted between people by direct contact with a syphilitic sore, known as a chancre.<sup>13</sup> Chancres occur on the external genitals, vagina, anus, lips, mouth, or in the rectum.<sup>13</sup> Transmission of syphilis occurs during vaginal, anal, or oral sex. Pregnant women can transmit syphilis to their unborn child.

#### **Impact and Risk**

From 2020 to 2021, rates of P&S syphilis increased by 25.4 percent, with increases among both men and women, as well as in all four regions of the U.S.<sup>2</sup> Rates of P&S syphilis increased in all racial/Hispanic ethnicity groups, and were highest among men 20–34 years old. Although increases among MSM have slowed in recent years, MSM continue to experience disproportionate impacts, with approximately 47 percent of all 2021 male P&S syphilis cases occurring among MSM.<sup>2</sup> Rates of P&S syphilis among women increased 49 percent from 2020 to 2021 and 216 percent during 2017 to 2021, indicating the heterosexual syphilis epidemic continues to increase in the United States.<sup>2</sup> Black, Hispanic, and other racial/ethnic minorities are disproportionately affected by P&S syphilis in the United States.<sup>2</sup> The rate of reported P&S syphilis cases was highest among American Indian/Alaskan Natives.<sup>2</sup>

#### **Syphilis Screening, Treatment and Prevention**

Providers should routinely test persons who:

- 1. Have partner(s) who have tested positive for syphilis;
- Are pregnant;
- 3. Are sexually active MSM;
- 4. Are living with HIV and are sexually active;
- 5. Are taking PrEP for HIV prevention.

Syphilis diagnoses are commonly made using two types of blood tests: nontreponemal and treponemal. Treponemal antibodies appear earlier than nontreponemal antibodies and typically remain detectable for life, even after successful treatment.<sup>13</sup> If using a treponemal test (FTA-ABS, TP-PA, various EIAs, and chemiluminescence immunoassays) for screening purposes and the results are positive, perform a nontreponemal test (VDRL and RPR) with titer.<sup>13</sup> This will confirm diagnosis and guide clinical decisions.

#### Syphilis Screening, Treatment and Prevention-Continued

Surveillance staging uses a combination of clinical descriptions and laboratory criteria. It is not used to clinically diagnose a person but is used to determine if a person has been adequately treated. Adequate treatment is based on recommendations from the CDC's STI Treatment Guidelines. Surveillance staging is used to uniformly define syphilis for public health surveillance activities, such as accurate staging and reporting case counts consistently. Surveillance activities are consistently.

A single intramuscular injection of long-acting Benzathine Penicillin G will cure a person who has primary, secondary, or early latent syphilis. Three doses of long acting Benzathine Penicillin at weekly intervals is recommended for individuals with unknown duration or late syphilis. Treatment will kill the syphilis bacterium and prevent further damage, but it will not repair damage already done.

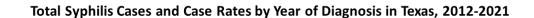
Correct and consistent use of latex condoms can reduce the risk of syphilis only when the infected area or site of potential exposure is protected. However, a syphilis sore outside of the area covered by a latex condom can still allow transmission, so people should exercise caution even when using a condom. The most effective way to avoid transmission of syphilis is to abstain from sexual contact or maintain a long-term, mutually monogamous relationship with a partner who has tested and knows they are uninfected.

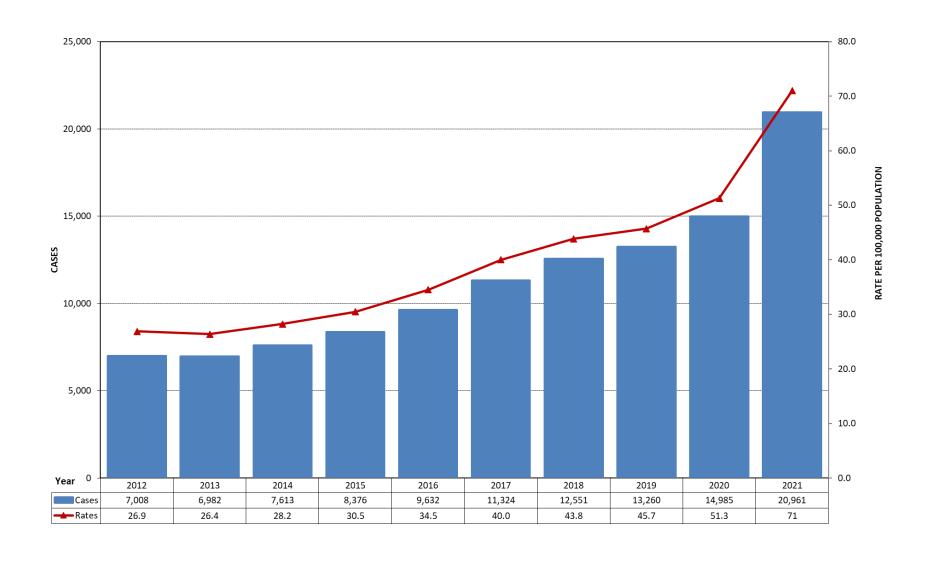
#### 2021 State of Texas Total Syphilis Quick Facts

Number of reported total syphilis cases: 20,961 Total syphilis rate per 100,000 Texas residents: 71.0 Percent change in total syphilis rate from 2017: +77.5%

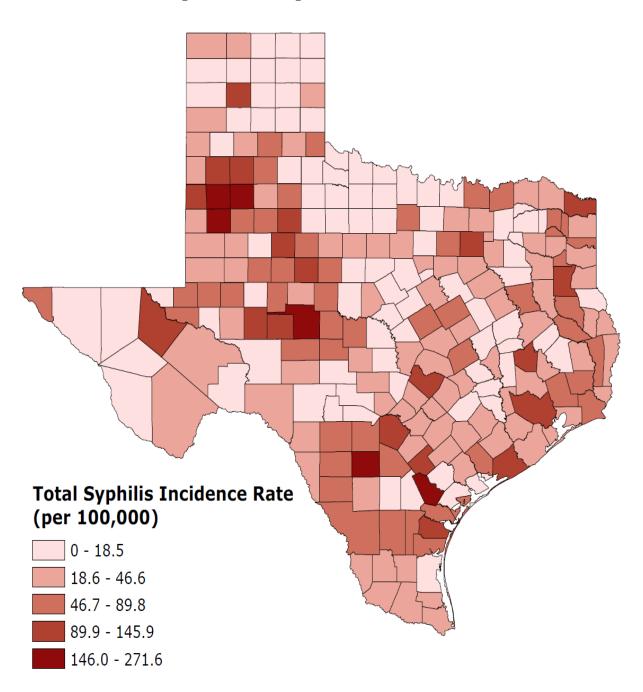
#### 2021 State of Texas Primary and Secondary Syphilis Quick Facts

Number of reported primary and secondary syphilis cases: 3,882
Primary and secondary syphilis rate per 100,000 Texas residents: 13.1
Percent change in primary and secondary syphilis rate from 2017: +72.4%





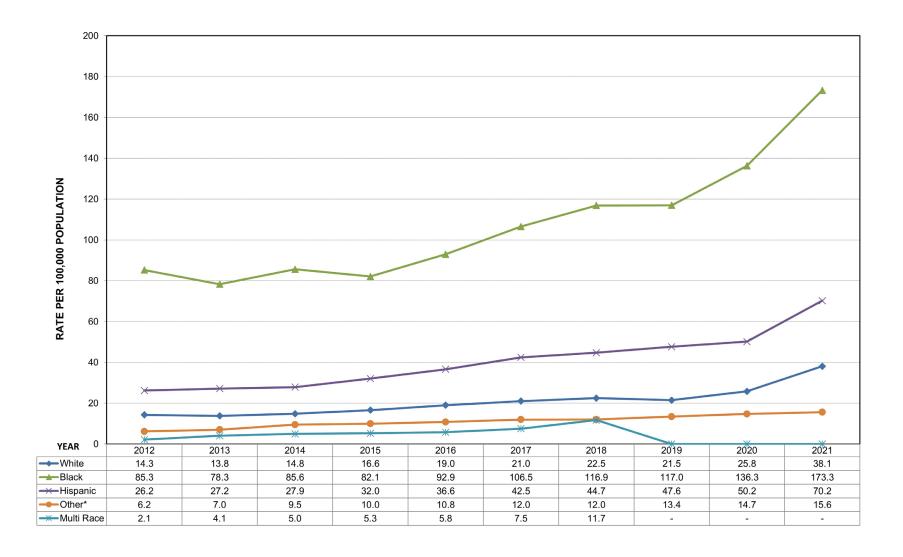
# Total Syphilis Incidence Rates per 100,000 population, By County, Texas, 2021



			To	otal Sy	philis (	Cases a	and Ra	tes by	Sex, R	ace, E	thnicity	, and	Age Gro	oup, 20	)12-202	21				
	20	)12	20	13	20:	14	20:	15	20	16	20:	17	20	18	20	19	20	20	20	21
	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†
Sex																				
Male	5,270	40.7	5,353	40.7	5,866	43.8	6,579	48.2	7,752	55.9	9,081	64.6	9,801	68.9	9,576	66.5	10,814	74.1	14,344	97.3
Female	1,738	13.2	1,629	12.2	1,747	12.9	1,795	13.0	1,880	13.4	2,242	15.7	2,745	19.1	3,489	23.9	4,080	27.9	6,548	44.3
Unknown	0		0		0		2		0		1		5		195		91		69	
Race										-										
White	1,654	14.3	1,605	13.8	1,742	14.8	1,962	16.6	2,257	19.0	2,503	21.0	2,676	22.5	2,569	21.5	3,061	25.8	4,528	38.1
Black	2,578	85.3	2,415	78.3	2,700	85.6	2,652	82.1	3,071	92.9	3,592	106.5	4,013	116.9	4,096	117.0	4,862	136.3	6,291	173.3
Hispanic	2,613	26.2	2,770	27.2	2,906	27.9	3,422	32.0	3,999	36.6	4,728	42.5	5,066	44.7	5,491	47.6	5,860	50.2	8,322	70.2
Asian +																				
NHPI* +	72	6.2	86	7.0	123	9.5	136	10.0	154	10.8	178	12.0	184	12.0	212	13.4	241	14.7	262	15.6
AIAN^																				
Multi Race	7	2.1	14	4.1	18	5.0	20	5.3	23	5.8	31	7.5	50	11.7	0	0.0	0	0.0	-	
Unspecified +	84		92		124		184		128		292		562		892		961		1,558	
Unknown**	04		32		124		104		120		232		302		032		901		1,556	
Age Group																				
(Years)																				
0 - 14	10	0.2	5	0.1	8	0.1	9	0.1	8	0.1	6	0.1	10	0.2	17	0.3	9	0.1	21	0.3
15 - 24	1,910	50.0	1,830	47.4	2,070	52.8	2,177	54.9	2,467	61.9	2,733	68.3	2,979	74.1	3,122	77.0	3,250	79.4	4,441	107.0
25 - 34	2,183	57.8	2,311	60.1	2,675	67.9	3,030	75.1	3,591	87.2	4,500	107.6	4,876	115.4	5,319	124.4	6,117	144.6	8,405	197.4
35 - 44	1,436	40.5	1,375	38.4	1,439	39.6	1,594	43.1	1,786	47.7	2,097	55.1	2,400	62.0	2,531	64.2	3,018	74.7	4,689	113.8
45 - 54	1,041	30.2	993	28.8	937	27.1	1,037	29.7	1,198	34.0	1,350	38.2	1,453	41.0	1,385	39.0	1,607	44.7	2,068	57.0
55 - 64	307	11.0	324	11.3	357	12.1	403	13.3	440	14.1	508	16.0	643	19.9	710	21.7	775	23.4	1,064	32.0
65+	121	4.3	144	4.9	127	4.1	126	3.9	142	4.3	129	3.7	188	5.2	175	4.7	208	5.6	271	7.0
Unknown	0		0		0		0		0		1		2		1		1		2	
Total	7,008	26.9	6,982	26.4	7,613	28.2	8,376	30.5	9,632	34.5	11,324	40.0	12,551	43.8	13,260	45.7	14,985	51.3	20,961	71.0

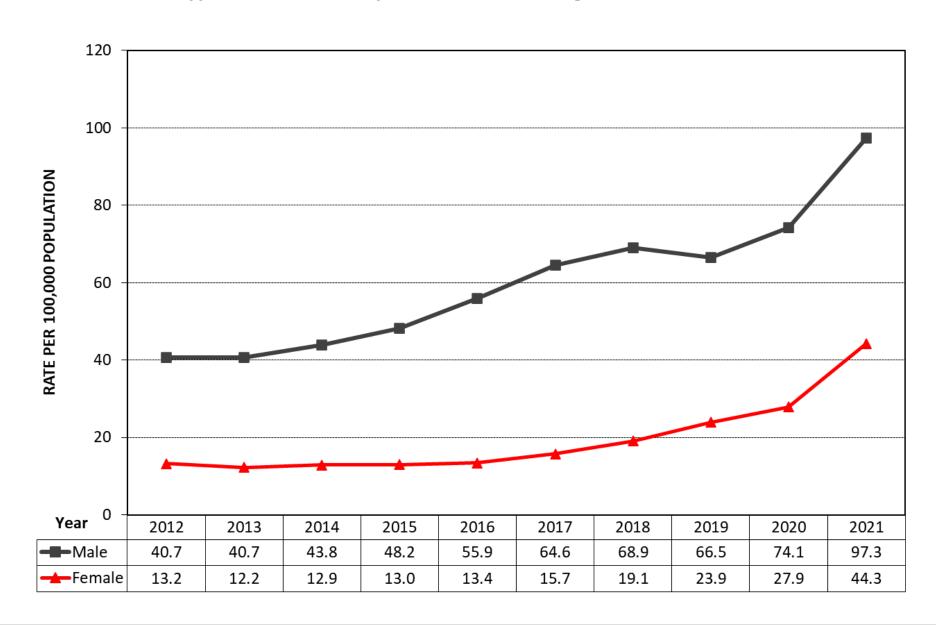
<sup>\*</sup>NHPI: Native Hawaiian/Pacific Islander ^AIAN: American Indian/Alaskan Native † Rates represent cases per 100,000 population.

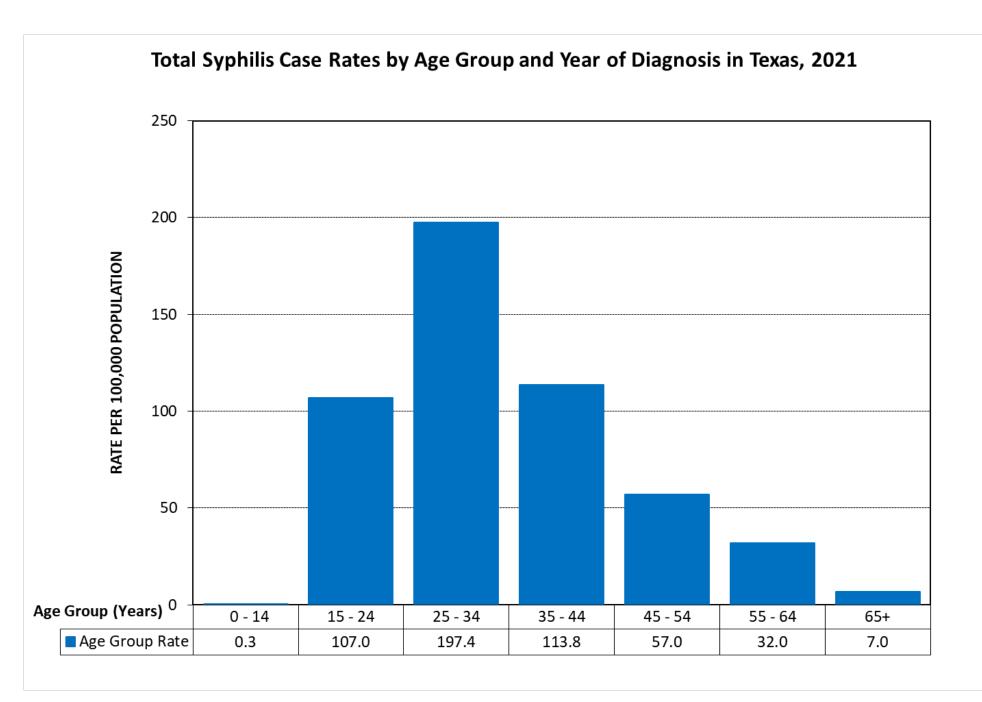
#### Total Syphilis Case Rates by Race, Ethnicity and Year of Diagnosis in Texas, 2012-2021

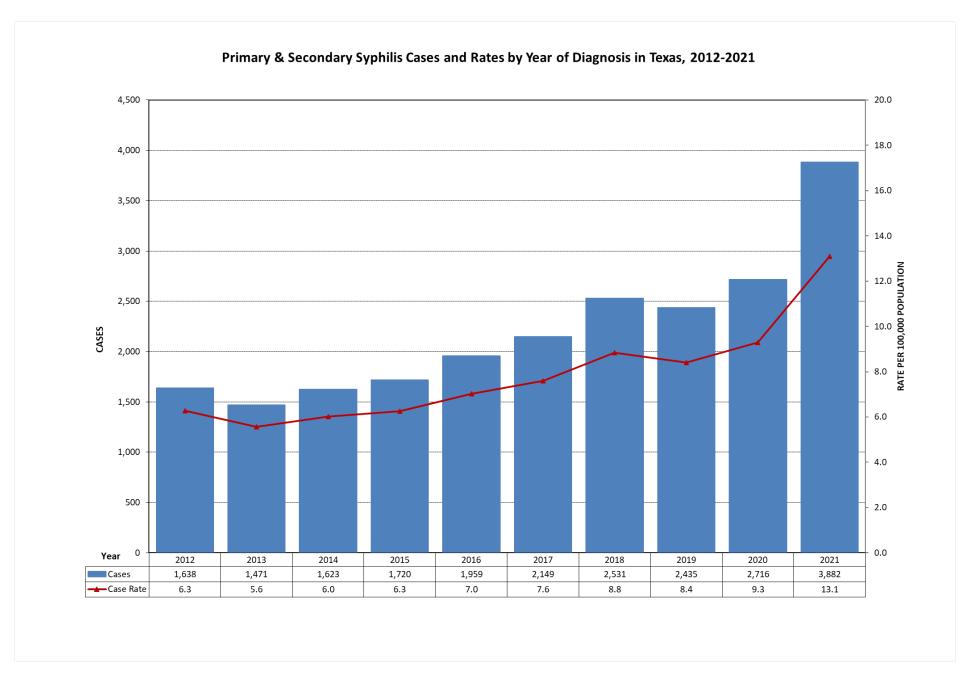


<sup>\*</sup>Other includes Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and Asian race/ethnic groups.

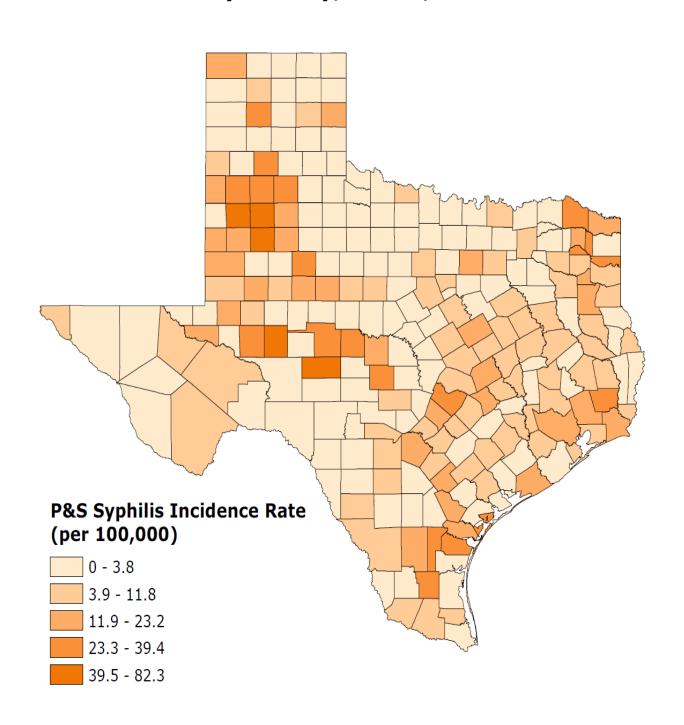
# Total Syphilis Case Rates by Sex and Year of Diagnosis in Texas, 2012-2021







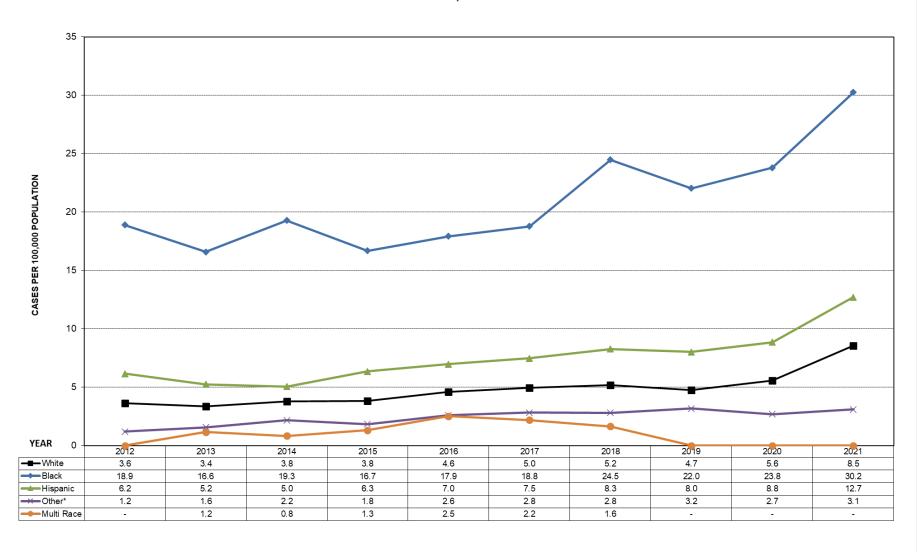
# Primary and Secondary (P&S) Syphilis Incidence Rates per 100,000 population, By County, Texas, 2021



				Primary	& Seco	ndary Sy	philis Ca	ses and	Rates b	y Sex, R	ace, Eth	nicity, a	nd Age G	Group, 2	012-202	1				
	20	12	20	13	20	14	20	15	20	16	20	17	20	18	20	19	20	20	20	21
	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†	Cases	Rate†
Sex																				
Male	1,363	10.5	1,285	9.8	1,379	10.3	1,485	10.9	1,726	12.4	1,845	13.1	2,110	14.8	1,968	13.7	2,127	14.6	2,830	19.2
Female	275	2.1	186	1.4	244	1.8	235	1.7	233	1.7	304	2.1	421	2.9	445	3.0	586	4.0	1,050	7.1
Unknown	0		0		0		0		0		0		0		22		3		2	
Race																				
White	422	3.6	391	3.4	444	3.8	450	3.8	546	4.6	590	5.0	615	5.2	567	4.7	662	5.6	1,014	8.5
Black	571	18.9	511	16.6	608	19.3	539	16.7	592	17.9	633	18.8	840	24.5	771	22.0	849	23.8	1,098	30.2
Hispanic	615	6.2	535	5.2	526	5.0	677	6.3	760	7.0	832	7.5	937	8.3	923	8.0	1,033	8.8	1,507	12.7
Asian + NHPI* + AIAN^	14	1.2	19	1.6	28	2.2	25	1.8	37	2.6	42	2.8	43	2.8	50	3.2	44	2.7	52	3.1
Multi Race	0	0.0	4	1.2	3	0.8	5	1.3	10	2.5	9	2.2	7	1.6	0	0.0	0	0.0	0	0.0
Unspecified + Unknown**	16		11		14		24		14		43		89		124		128		211	
Age Group																				
(Years)																				
0 - 14	1	0.0	0	0.0	3	0.1	0	0.0	1	0.0	1	0.0	2	0.0	3	0.0	3	0.0	3	0.0
15 - 24	528	13.8	438	11.3	531	13.6	564	14.2	595	14.9	590	14.7	713	17.7	652	16.1	686	16.8	927	22.3
25 - 34	530	14.0	515	13.4	590	15.0	645	16.0	752	18.3	882	21.1	1,006	23.8	1,012	23.7	1,124	26.6	1,552	36.4
35 - 44	302	8.5	269	7.5	269	7.4	264	7.1	314	8.4	355	9.3	413	10.7	381	9.7	482	11.9	835	20.3
45 - 54	225	6.5	177	5.1	169	4.9	162	4.6	211	6.0	227	6.4	254	7.2	247	6.9	284	7.9	344	9.5
55 - 64	39	1.4	55	1.9	54	1.8	67	2.2	67	2.2	78	2.5	114	3.5	116	3.5	121	3.7	181	5.5
65+	13	0.5	17	0.6	7	0.2	18	0.6	19	0.6	16	0.5	27	0.8	24	0.6	16	0.4	40	1.0
Unknown	0		0		0		0		0		0		2		0		0		-	
Total	1,638	6.3	1,471	5.6	1,623	6.0	1,720	6.3	1,959	7.0	2,149	7.6	2,531	8.8	2,435	8.4	2,716	9.3	3,882	13.1

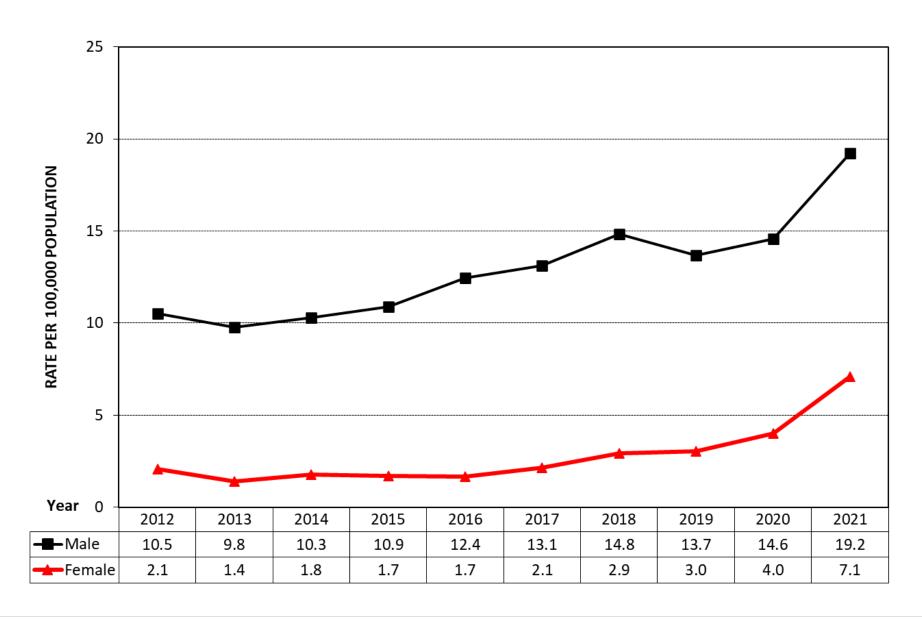
<sup>\*</sup>NHPI: Native Hawaiian/Pacific Islander ^AIAN: American Indian/Alaskan Native † Rates represent cases per 100,000 population.

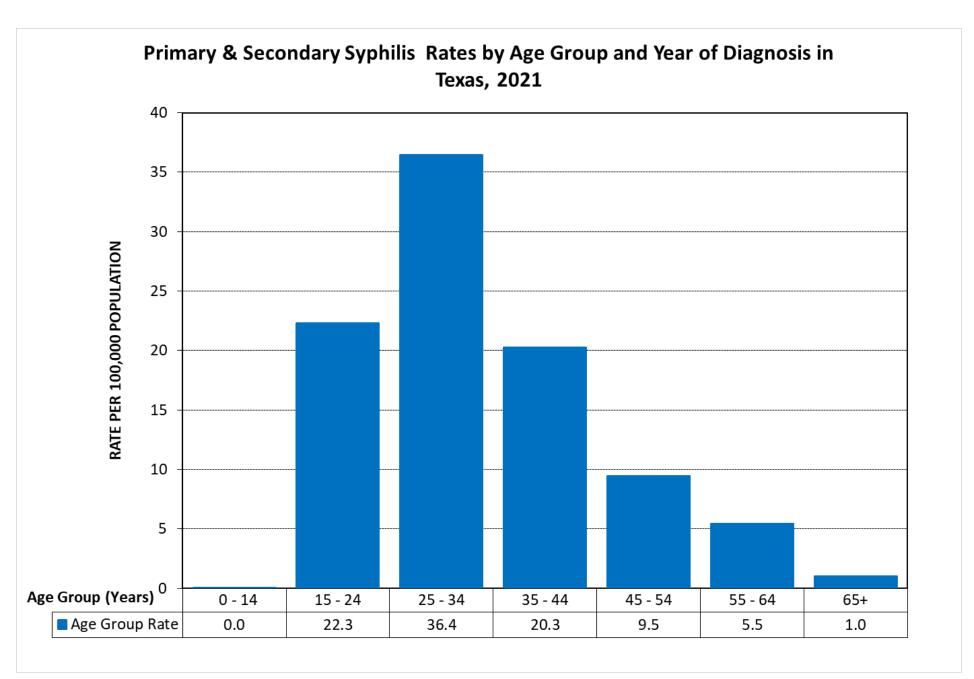
Primary & Secondary Syphilis Rates by Race, Ethnicity and Year of Diagnosis in Texas, 2011-2021



<sup>\*</sup>Other includes Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and Asian race/ethnic groups.

### Primary & Secondary Syphilis Rates by Sex and Year of Diagnosis in Texas, 2012-2021





#### **CONGENITAL SYPHILIS: Overview and Brief Facts**

#### **Description and Background**

Congenital syphilis (CS) is caused by the *Treponema pallidum* bacterium. CS is syphilis transmitted to babies during pregnancy or at delivery by an untreated or inadequately treated mother with syphilis. CS can lead to miscarriage, stillbirth, preterm delivery, birth defects, and even perinatal death. Some infants with CS are asymptomatic and healthy at birth but develop life-altering complications later in life. According to the Centers for Disease Control and Prevention (CDC), 40 percent of babies born to women with untreated syphilis are either stillborn or die as newborns.

CS is classified as early when the child exhibits symptoms from birth up to their second birthday and late when symptoms start after age two. Early CS may cause vision or hearing loss, non-viral hepatitis causing jaundice of the skin and eyes, long bone abnormalities, developmental delays, inflammation of the liver and/or spleen, snuffles (a physical symptom of CS consisting of mucous around the eyes, nose, and mouth), rashes, wart-like lesions on the genitals, and additional symptoms. Snuffles are highly contagious to those caring for the infant. Clinical manifestations of late CS include problems with bone and tooth development, hearing, and vision, as well as the central nervous and cardiovascular systems. With timely prenatal care, testing, and treatment, potentially devastating health outcomes for children are averted. <sup>17</sup>

#### **Impact and Risk**

Since 2013, national CS rates have continued to increase. In 2021, Texas reported 685 cases at a rate of 180.2 per 100,000 live births, resulting in over a 22 percent increase relative to 2020, when Texas reported 561 cases, equating to a rate of 149.8 cases per 100,000 live births. Seventy-seven counties in Texas reported at least one CS case in 2021, and 74 Texas counties reported at least one CS case in 2020. The 685 reported cases for 2021 represent more than a 312 percent increase in CS cases since 2017, when Texas reported 166 cases, at a rate of 41.7 cases per 100,000 live births. Additionally, in 2021, rates were highest among people who identify as Black (443.1 cases per 100,000 live births), followed by Hispanics (158.8 cases per 100,000 live births), others (127.6 cases per 100,000 live births, and Whites (111.7 cases per 100,000 live births).

#### Syphilis Screening and Treatment Among Women of Childbearing Age

Syphilis screening during pregnancy is mandated by the Texas Health and Safety Code §81.090:

- At first prenatal care examination;
- During third trimester (no earlier than 28 weeks' gestation); and
- At delivery.

The CDC recommends women who experience a stillbirth after 20 weeks gestation

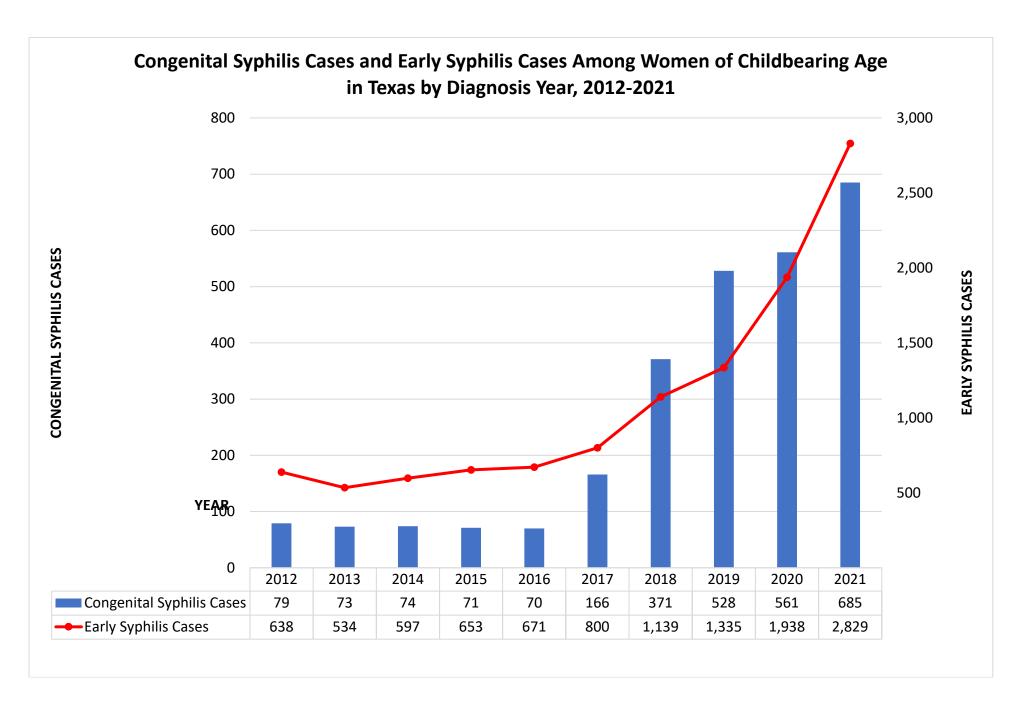
should test for syphilis. A penicillin-based regimen is the only effective treatment during pregnancy to treat syphilis and prevent transmission to the infant; treatment with penicillin is extremely effective (success rate of 98 percent) in preventing *in utero* transmission. Pregnant women who report a penicillin allergy should refer to a specialist for desensitization and treated with penicillin.<sup>8</sup>

#### **CS Screening and Treatment**

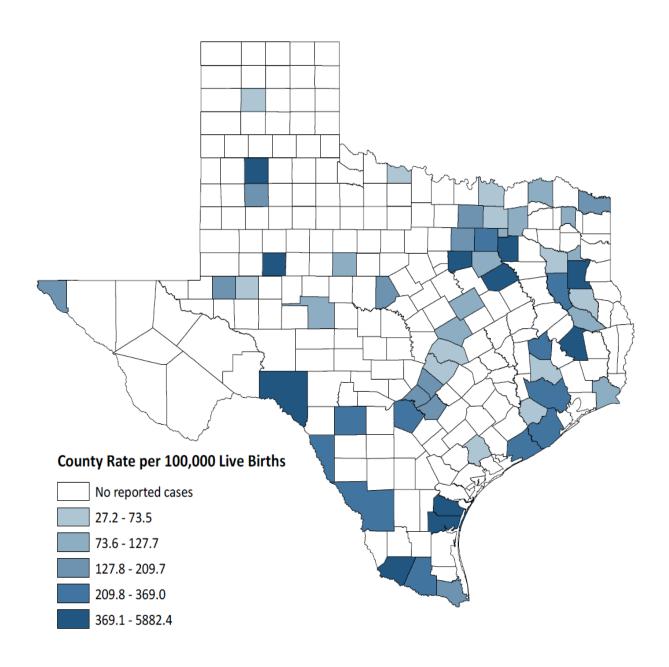
At the time of delivery, an infected infant born with CS may not have signs or symptoms. If not treated immediately, the infant may develop serious health problems a few weeks or years after delivery. Untreated infants may become developmentally delayed, experience seizures, or die from the infection. All infants born to women who test positive for syphilis during pregnancy should get screened and examined thoroughly for evidence of CS.<sup>15</sup>

#### 2021 State of Texas CS Quick Facts

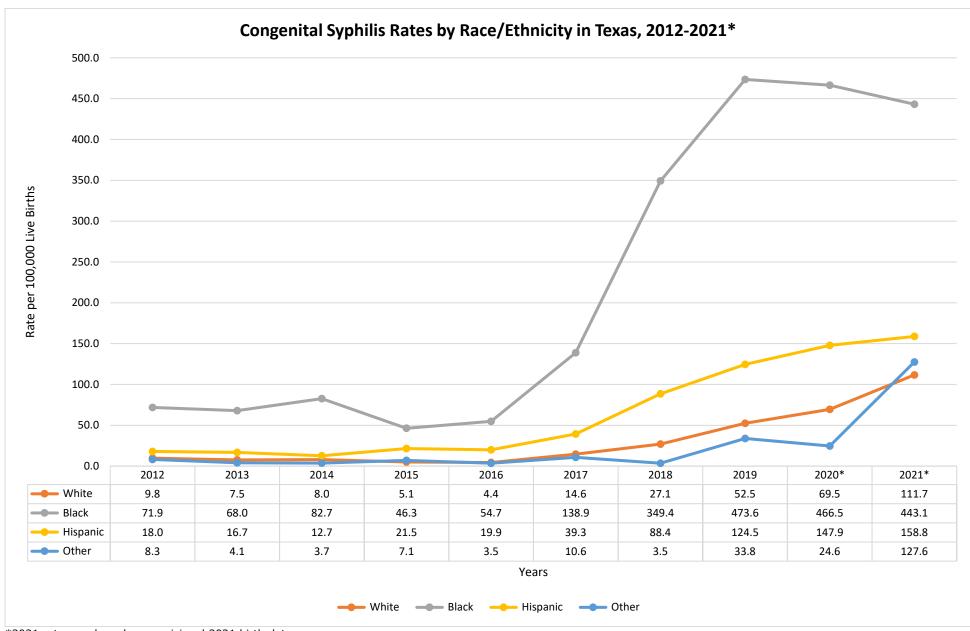
Number of reported CS cases: 685 CS rate per 100,000 Texas births: 180.2 Percent change in rate from 2017: +312.65%



# Congenital Syphilis Incidence Rates per 100,000 Live Births, By County, Texas, 2021



Early syphilis cases include primary, secondary, and early non-primary non-secondary cases.



<sup>\*2021</sup> rates are based on provisional 2021 birth data.

\*\*Other includes Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and Asian race/ethnic groups.

#### **REFERENCES**

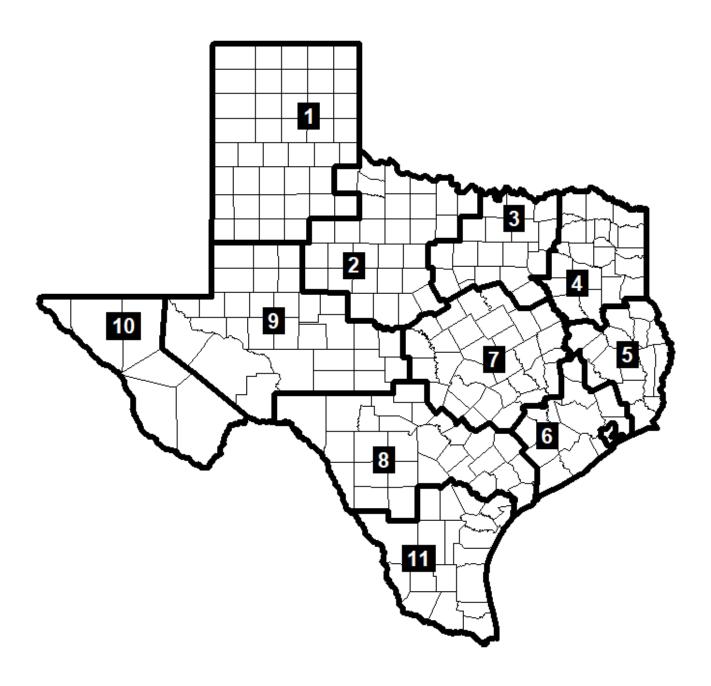
- Centers for Disease Control and Prevention. "Chlamydia CDC Detailed Fact Sheet." 12 April 2022. [Online]. Available: <a href="mailto:cdc.gov/std/chlamydia/stdfact-chlamydia-detailed.htm">cdc.gov/std/chlamydia/stdfact-chlamydia-detailed.htm</a>. [Accessed 21 December 2022].
- 2. Centers for Disease Control and Prevention. "Sexually Transmitted Infections Surveillance, 2022". [Online]. Available: <a href="mailto:cdc.gov/std/statistics/2022/default.htm">cdc.gov/std/statistics/2022/default.htm</a>. [Accessed 27 February 2023].
- Kreisel KM, Spicknall IH, Gargano JW, Lewis FM, Lewis RM, Markowitz LE, Roberts H, Satcher Johnson A, Song R, St. Cyr SB, Weston EJ, Torrone EA, Weinstock HS. <u>Sexually Transmitted Infections Among US Women and Men: Prevalence and Incidence Estimates</u>, 2018. Sex Transm Dis 2021; in press.
- 4. Torrone E, Papp J, Weinstock H. <u>Prevalence of Chlamydia trachomatis Genital Infection Among Persons Aged 14–39 Years United States, 2007–</u> 2012. MMWR 2014;63:834-8.
- 5. Marcus JL, Bernstein KT, Stephens SC, et al. <u>Sentinel Surveillance of Rectal Chlamydia and Gonorrhea Among Males San Francisco, 2005-2008</u>. Sexually transmitted diseases 2010;37:59-61.
- 6. Pinsky L, Chiarilli DB, Klausner JD, et al. <u>Rates of asymptomatic nonurethral</u> gonorrhea and chlamydia in a population of university men who have sex with men. Journal of American college health: J of ACH 2012;60:481-4. Journal of American college health: J of ACH 2012;60:481-4.
- 7. Park J, Marcus JL, Pandori M, Snell A, Philip SS, Bernstein KT. <u>Sentinel surveillance</u> for pharyngeal chlamydia and gonorrhea among men who have sex with men–San <u>Francisco</u>, 2010. Sexually transmitted diseases 2012;39:482-4.
- 8. Centers for Disease Control and Prevention-"Sexually Transmitted Infections Treatment Guidelines, 2021: Syphilis". 30 March 2022. [Online]. Available: <a href="mailto:cdc.qov/std/treatment-quidelines/syphilis.htm">cdc.qov/std/treatment-quidelines/syphilis.htm</a>. [Accessed 29 December 2022].
- 9. Holmes KK, Levine R, Weaver M. <u>Effectiveness of condoms in preventing sexually transmitted infections</u>. Bulletin of the World Health Organization 2004;82:454-61.
- 10.Centers for Disease Control and Prevention. "Gonorrhea CDC Detailed Fact Sheet."
  1 December 2022. [Online]. Available: <a href="mailto:cdc.gov/std/gonorrhea/stdfact-gonorrhea-detailed.htm">cdc.gov/std/gonorrhea/stdfact-gonorrhea-detailed.htm</a>. [Accessed 22 December 2022].
- 11.Kreisel KM, Spicknall IH, Gargano JW, Lewis FM, Lewis RM, Markowitz LE, Roberts H, Satcher Johnson A, Song R, St. Cyr SB, Weston EJ, Torrone EA, Weinstock HS.

  <u>Sexually transmitted infections among US women and men: Prevalence and incidence estimates</u>, 2018. Sex Transm Dis 2021; in press.
- 12.Centers for Disease Control and Prevention. "National Overview of STIs, 2022 Gonorrhea". [Online]. Available: <a href="mailto:cdc.gov/std/statistics/2022/overview.htm">cdc.gov/std/statistics/2022/overview.htm</a>. [Accessed 30 December 2022].

- 13.Centers for Disease Control and Prevention. "Syphilis CDC Detailed Fact Sheet." 12 April 2022. [Online]. Available: <a href="mailto:cdc.gov/std/syphilis/stdfact-syphilis-detailed.htm">cdc.gov/std/syphilis/stdfact-syphilis-detailed.htm</a>. [Accessed 28 December 2022].
- 14.Centers for Disease Control and Prevention. "STI Treatment Guidelines 2021". 12 April 2022. [Online]. Available: <a href="cdc.gov/std/treatment-guidelines/default.htm">cdc.gov/std/treatment-guidelines/default.htm</a>. [Accessed 30 December 2022].
- 15.Centers for Disease Control and Prevention. "Congenital Syphilis—CDC Fact Sheet." 12 April 2022. [Online]. Available: <a href="mailto:cdc.gov/std/syphilis/stdfact-congenital-syphilis.htm">cdc.gov/std/syphilis/stdfact-congenital-syphilis.htm</a>. [Accessed 29 December 2022].
- 16.Centers for Disease Control and Prevention. "Pregnancy and HIV, Viral Hepatitis, STD & TB Prevention: Syphilis." 11 August 2022. [Online]. Available: <a href="mailto:cdc.gov/nchhstp/pregnancy/overview.html">cdc.gov/nchhstp/pregnancy/overview.html</a>. [Accessed 29 December 2022].
- 17. Centers for Disease Control and Prevention. "Syphilis (Treponema pallidum) 2018 Case Definition". [Online]. Available: <a href="ndc.services.cdc.gov/case-definitions/syphilis-2018/">ndc.services.cdc.gov/case-definitions/syphilis-2018/</a>. [Accessed 28 October 2022].
- 18.Centers for Disease Control and Prevention. "National Overview of STIs, 2022 Congenital Syphilis". [Online]. Available: <a href="mailto:cdc.gov/std/statistics/2022/overview.htm">cdc.gov/std/statistics/2022/overview.htm</a>. [Accessed 30 December 2022].

Appendix A Geographic Breakdowns and Rankings

# **Texas Public Health Regions**



		STD C	ases and	Rates by	Public H	ealth Re	gion, 20	21		
Public	Chlan	nydia	Gono	rrhea	P&S S	yphilis Cong	genital Syp	hilis	Total Sy	philis
Health			Cooo Dot *		_	1.			_	1.
Region	Cases	Rate*	Cases	Rate*	Cases	Rate*	Cases	Rate*	Cases	Rate*
Region 1	5,168	594.9	2,391	275.2	329	37.9	15	122.5	946	108.9
Region 2	2,159	391.2	1,040	188.4	31	5.6	4	69.0	195	35.3
Region 3	40,616	496.7	18,857	230.6	744	9.1	194	185.7	5,845	71.5
Region 4	5,493	472.8	2,610	224.6	117	10.1	20	136.8	551	47.4
Region 5	3,462	449.8	1,644	213.6	82	10.7	13	175.6	388	50.4
Region 6	38,200	517.4	16,312	220.9	1,025	13.9	169	176.1	5,825	78.9
Region 7	20,477	545.4	9,145	243.6	619	16.5	34	82.5	2,186	58.2
Region 8	17,818	580.2	8,055	262.3	525	17.1	111	290.7	2,576	83.9
Region 9	3,290	515.1	1,294	202.6	111	17.4	14	145.8	564	88.3
Region 10	3,919	439.9	1,191	133.7	85	9.5	18	132.0	442	49.6
Region 11	11,650	515.5	2,914	128.9	214	9.5	93	284.8	1,443	63.9
State Total	152,252	515.6	65,453	221.7	3,882	13.1	685	180.2	20,961	71.0

<sup>\*</sup> Rates represent cases per 100,000 population.

	25	Countie	s with the Hig	ghest ST	D Case Numb	ers, 20	21	
	Chlamyd	lia	Gonorrhe	ea	P&S Syphi	lis	Total Syph	ilis
Rank	County	Cases	County	Cases	County	Cases	County	Cases
1	Harris	29,874	Harris	13,185	Harris	851	Harris	4,985
2	Dallas	22,084	Dallas	10,984	Bexar	470	Dallas	3,734
3	Bexar	14,084	Bexar	6,749	Travis	425	Bexar	2,203
4	Tarrant	9,187	Travis	4,394	Tarrant	371	Travis	1,332
5	Travis	8,846	Tarrant	4,248	Lubbock	250	Tarrant	1,221
6	El Paso	3,846	Bell	1,436	Dallas	247	Lubbock	581
7	Hidalgo	3,722	Lubbock	1,217	Nueces	91	Nueces	468
8	Bell	3,140	El Paso	1,172	El Paso	84	El Paso	439
9	Collin	2,709	Collin	1,030	Tom Green	47	Hidalgo	396
10	Nueces	2,643	Nueces	1,019	Jefferson	47	Collin	284
11	Denton	2,585	Denton	998	Hidalgo	46	Tom Green	253
12	Lubbock	2,506	McLennan	881	Fort Bend	46	Denton	220
13	Cameron	2,412	Hidalgo	877	Hays	45	Fort Bend	212
14	Fort Bend	2,264	Fort Bend	832	Collin	42	Cameron	192
15	Williamson	1,695	Jefferson	763	Montgomery	38	Jefferson	178
16	McLennan	1,674	Smith	674	Galveston	35	Potter	170
17	Brazos	1,587	Potter	643	Williamson	34	Montgomery	161
18	Jefferson	1,527	Brazoria	572	McLennan	34	Galveston	147
19	Brazoria	1,476	Williamson	570	Potter	31	Bell	145
20	Montgomery	1,446	Galveston	550	Denton	29	Webb	143
21	Galveston	1,446	Brazos	539	Ector	26	Williamson	141
22	Potter	1,431	Montgomery	507	Gregg	25	Ector	139
23	Smith	1,312	Cameron	477	Smith	24	McLennan	127
24	Webb	1,305	Hays	421	Brazos	23	Hays	119
25	Hays	1,129	Ector	375	Bell	23	Brazos	106

		25 Coun	ties with the H	lighest	STD Case Rat	es, 202	1	
	Chlamyd	ia	Gonorrhe	ea	P&S Syph	ilis	Total Syp	hilis
Rank	County	Rate*	County	Rate*	County	Rate*	County	Rate*
1	Dimmit	2,159.8	Potter	551.7	Schleicher	82.3	Bee	271.6
2	Loving	1,754.4	Hall	527.2	Lubbock	79.5	Terry	263.7
3	Potter	1,227.8	Dallas	424.7	Hockley	65.5	Hockley	234.0
4	Reeves	1,035.4	King	387.6	Reagan	61.5	Frio	217.0
5	Frio	916.7	Lubbock	387.0	Lynn	52.7	Tom Green	211.9
6	Kleberg	887.9	Bell	378.3	Tom Green	39.4	Lubbock	184.8
7	Dallas	854.0	Morris	374.1	Lamb	38.8	Potter	145.9
8	Bell	827.1	Hale	353.8	Floyd	37.4	Dallas	144.4
9	Lubbock	796.9	Bowie	351.0	Aransas	32.6	Kent	133.5
10	Gregg	769.7	Travis	336.7	Travis	32.6	Hale	133.5
11	Nueces	748.6	McLennan	334.8	Marion	31.1	Nueces	132.5
12	Reagan	707.0	Bexar	332.8	Upton	30.6	Irion	128.9
13	Bexar	694.4	Nolan	328.8	Concho	29.9	Karnes	128.8
14	Nacogdoches	691.2	Tom Green	309.0	Brooks	28.6	Lamb	124.1
15	Travis	677.8	San Augustine	303.0	Swisher	28.5	Rusk	121.3
16	Brazos	669.5	Jefferson	300.7	Jim Wells	28.3	Cochran	119.2
17	McLennan	636.2	Dawson	298.1	Hale	27.9	Bexar	108.6
18	Harris	631.8	Cherokee	293.6	Potter	26.6	Scurry	107.0
19	Bowie	625.4	Cottle	289.6	Hardin	26.3	Harris	105.4
20	Walker	622.0	Lamar	289.4	Red River	26.0	Bowie	104.8
21	Ector	611.5	Nueces	288.6	Nueces	25.8	Reeves	103.5
22	Jefferson	601.9	Gregg	288.2	Mason	25.4	Nolan	102.8
23	Nolan	596.0	Nacogdoches	286.1	Morris	24.9	Travis	102.1
24	Duval	594.5	Smith	284.2	Camp	23.8	Matagorda	96.3
25	Kenedy	588.2	Frio	282.1	Scurry	23.8	Walker	92.3

<sup>2 \*</sup> Rates represent cases per 100,000 population.