



Oklahoma State  
Department of Health

# Primary and Secondary Syphilis in Oklahoma During 2015

## FACT SHEET

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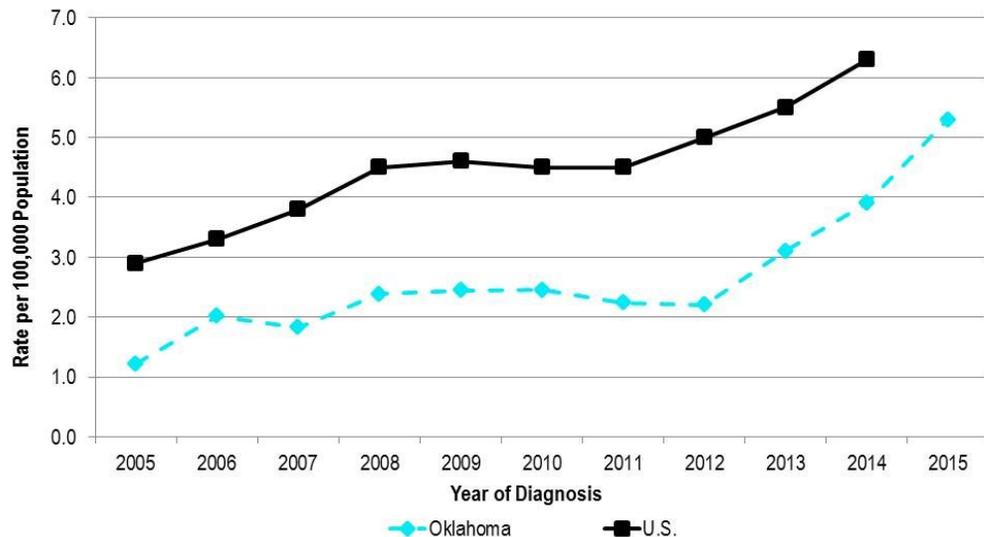
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Primary and Secondary Syphilis Rates per 100,000 Population, Oklahoma and U.S. 2005-2015\*\*



\*\*U.S. Data for 2015 not available at the time of this report.

### OVERVIEW

Syphilis is a genital, ulcerative sexually transmitted disease caused by the bacterium *Treponema pallidum*. Many signs and symptoms of syphilis are indistinguishable from many other diseases, giving it the nickname “the great imitator”. Syphilis is passed from person to person by direct contact with a syphilis sore or lesion (called a chancre). Typically, syphilis transmission occurs during vaginal, anal, or oral sex. Pregnant females with the disease can also pass it to their unborn children.

In 2015, a total of 209 cases of primary and secondary (P&S) syphilis were reported in Oklahoma, a 38.4% increase in the number of cases from 2014 (151) and a 77.1% increase in the number of cases from 2013 (118). Oklahoma had a P&S syphilis rate of 5.3 cases per 100,000 in 2015, representing a 35.9% rate increase from 2014 (3.9 per 100,000) and a 71.0% rate increase from 2013 (3.1 per 100,000).

### SYMPTOMS AND COMPLICATIONS

Pregnant females may experience miscarriages, premature births, still births, and death of their new-

born babies. Although infected babies may be born without signs or symptoms of the disease, without appropriate treatment babies can die or develop health problems such as cataracts, deafness, or seizures.

Symptoms of syphilis vary among the different stages of disease; many people do not have any symptoms for years, but remain at risk for complications that can occur from not receiving treatment.

P&S syphilis are the earliest and most infectious stages of syphilis. The primary stage of syphilis is generally characterized by the appearance of a single chancre, which typically appears within 2-6 weeks after exposure, but could take up to 3 months to appear. The sore appears at the location where syphilis entered the body and is usually firm, round, and painless. These sores typically disappear within a few weeks and heal without treatment. However, even when the chancre heals, the infection will still progress to the secondary stage if left untreated.

Secondary syphilis typically begins with a rash that can develop anywhere on the body. This rash

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The rate of primary and secondary syphilis in Oklahoma increased 35.9% from 2014 to 2015.

Teenagers, aged 15 to 19 years, had a rate of 3.8 per 100,000, doubling the rate from 2014.

usually does not cause itching and can appear while the chancre is healing or several weeks after the chancre has healed. This rash typically looks like rough, red or reddish brown spots on the palms of the hands and/or the bottoms of the feet, but can look different when on other parts of the body. The rash can also look like rashes caused by other diseases. Additional symptoms include flu-like symptoms, such as fever, chills and fatigue; broad-based papules (lumps or warts) in warm, moist sites; and mucous patches or snail-track ulcers (sores) in the mouth, appearing 3-6 weeks after the chancre develops. Like primary syphilis, the symptoms will go away with or without treatment. Without appropriate treatment, the infection will progress to later stages of syphilis.

### BY SEX

Males accounted for 90.0% (188) of the P&S syphilis cases in Oklahoma while 10.1% (21) were female. The rate among males (9.7 per 100,000) was 8.8 times higher than the rate for females (1.1 per 100,000). Males experienced a 36.6% rate increase from 2014 (136 cases; 7.1 per 100,000) and a 76.4% rate increase from 2013 (105 cases; 5.5 per 100,000). The rate among females increased 37.5% from 2014 (15 cases; 0.8 per 100,000) and 57.1% from 2013 (13 cases; 0.7 per 100,000).

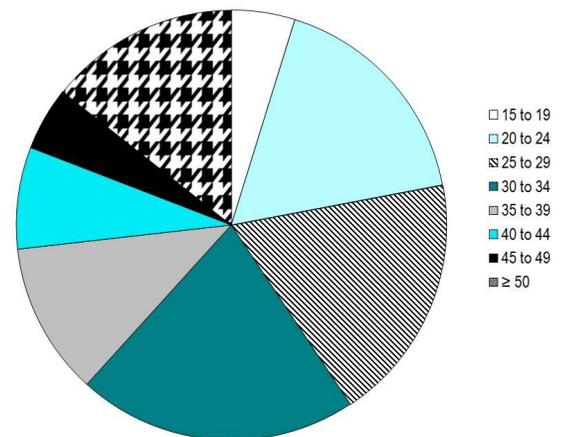
### BY AGE

Age group 30 to 34 years had the highest rate and number of P&S cases in 2015 (44 cases; 16.3 per 100,000); this age group also had the highest rate increase from the previous year, over 2.4 times higher than the rate in 2014 (6.7 per 100,000). Age group 25 to 29 years had the second most number of cases and second highest rate (39 cases; 14.4 per 100,000). Representing 17.2% of P&S cases, age group 20 to 24 years had the third most cases and third highest rate (36 cases; 12.6 per 100,000). Age group 35 to 39 years had the fourth most cases and fourth highest rate (24 cases; 9.8 per 100,000).

Age groups ordered by rate in 2015:

- 30 to 34 years – 16.3 per 100,000
- 25 to 29 years – 14.4 per 100,000
- 20 to 24 years – 12.6 per 100,000
- 35 to 39 years – 9.8 per 100,000
- 40 to 44 years – 6.9 per 100,000
- 45 to 49 years – 4.4 per 100,000
- 15 to 19 years – 3.8 per 100,000
- 50 years and older – 2.3 per 100,000

Primary and Secondary Syphilis in Oklahoma by Age Group (Years) in 2015



### BY RACE/ETHNICITY

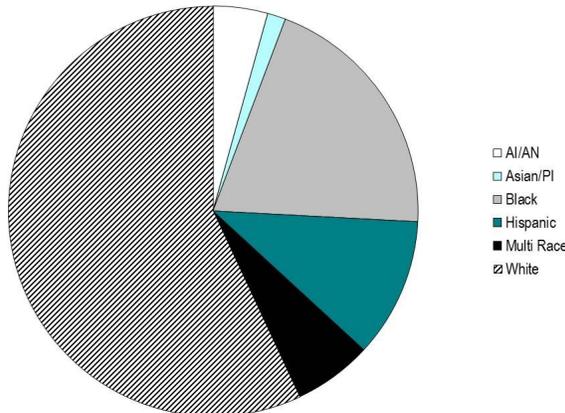
Although Whites accounted for 56.9% (119) of Oklahoma's P&S syphilis cases in 2015, Blacks (42; 20.1%) had a rate 3.1 times higher than that of Whites (14.4 per 100,000 compared to 4.6 per 100,000). Hispanics accounted for 11.0% (23) of cases with a rate of 5.8 per 100,000. American Indians/Alaska Natives accounted for 4.3% (9) of cases at a rate of 2.8 per 100,000. All other racial and ethnic groups accounted for 7.7% (16) of the P&S syphilis cases in 2015.

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Pawnee County had the highest rate of P&S syphilis in 2015 (2 cases; 12.2 per 100,000).

Primary and Secondary Syphilis in Oklahoma by Race/Ethnicity in 2015



and second highest rate, reflecting a 20.0% rate increase from 2014 (12.0 per 100,000 compared to 10.0 per 100,000). Tulsa County had the second most number of cases (38) at a rate of 5.9 per 100,000, a 68.6% rate increase from 2014 (3.5 per 100,000). There were 45 counties (58.4%) that had no cases of P&S syphilis.

Over half (113; 54.1%) of the 2015 P&S syphilis cases were diagnosed in the OKC MSA at a rate of 8.3 per 100,000, while the Tulsa MSA accounted for 23.9% (50) of the cases with a rate of 5.1 per 100,000. The Lawton MSA<sup>3</sup> had the second highest rate among the MSAs at 5.4 per 100,000 and accounted for 3.4% (7) of the cases. There were 39 cases (18.7%) that were diagnosed in counties that were not part of one of these three MSAs.

### BY MODE OF TRANSMISSION

The majority, 74.2% (155) of Oklahoma's P&S syphilis cases reported MSM<sup>1</sup> as one of their risk factors; this included both reports of MSM only (116; 55.5%) and reports of male bisexual<sup>2</sup> contact (39; 18.7%). Heterosexual contact was the second highest risk reported and made up 24.9% (52) of the cases in 2015. Of the heterosexual contact reported, there were 21 among females, 2 of which reported heterosexual contact with MSM and one also reported bisexual contact. No risk was reported for 2 (1.0%) of the cases. Over half of the P&S syphilis cases reported having sex with anonymous partners (108; 51.7%) and the majority reported meeting partners on the internet (109; 52.2%). Just over half reported having sex while intoxicated or high (105; 50.2%). In addition, 9.6% (20) reported injection drug use and 11.0% (23) reported having sex with an injection drug user.

### BY GEOGRAPHY

Pawnee County, representing 0.4% of Oklahoma's total population, had the highest rate of P&S syphilis cases in 2015 (2 cases; 12.2 per 100,000 population), over 2.3 times the state rate. Oklahoma County, with 93 cases, had the most cases

There were 155 cases (74.2%) that reported MSM as one of their risk factors.

<sup>1</sup> MSM stands for men who have sex with men.

<sup>2</sup> A risk of bisexual among males could also be considered MSM.

<sup>3</sup> For 2015, the Lawton MSA includes Caddo County and Comanche County. In previous years, this MSA only included Comanche County.

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### Top Ten Counties with Largest Number of Primary and Secondary Syphilis Cases, Oklahoma 2015

County	Number	Rate
Oklahoma	93	12
Tulsa	38	5.9
Cleveland	13	4.7
Comanche	7	5.6
Payne	6	7.4
Creek	5	7.1
Le Flore	4	8.1
Canadian	3	2.2
Cherokee	3	6.2
Muskogee	3	4.3

### Top Ten Counties with Highest Rates of Primary and Secondary Syphilis Cases, Oklahoma 2015

County	Number	Rate
Pawnee	2	12.2
Oklahoma	93	12
Nowata	1	9.5
Pushmataha	1	8.9
Le Flore	4	8.1
Pontotoc	3	7.9
Payne	6	7.4
Sequoyah	3	7.3
Murray	1	7.2
Creek	5	7.1