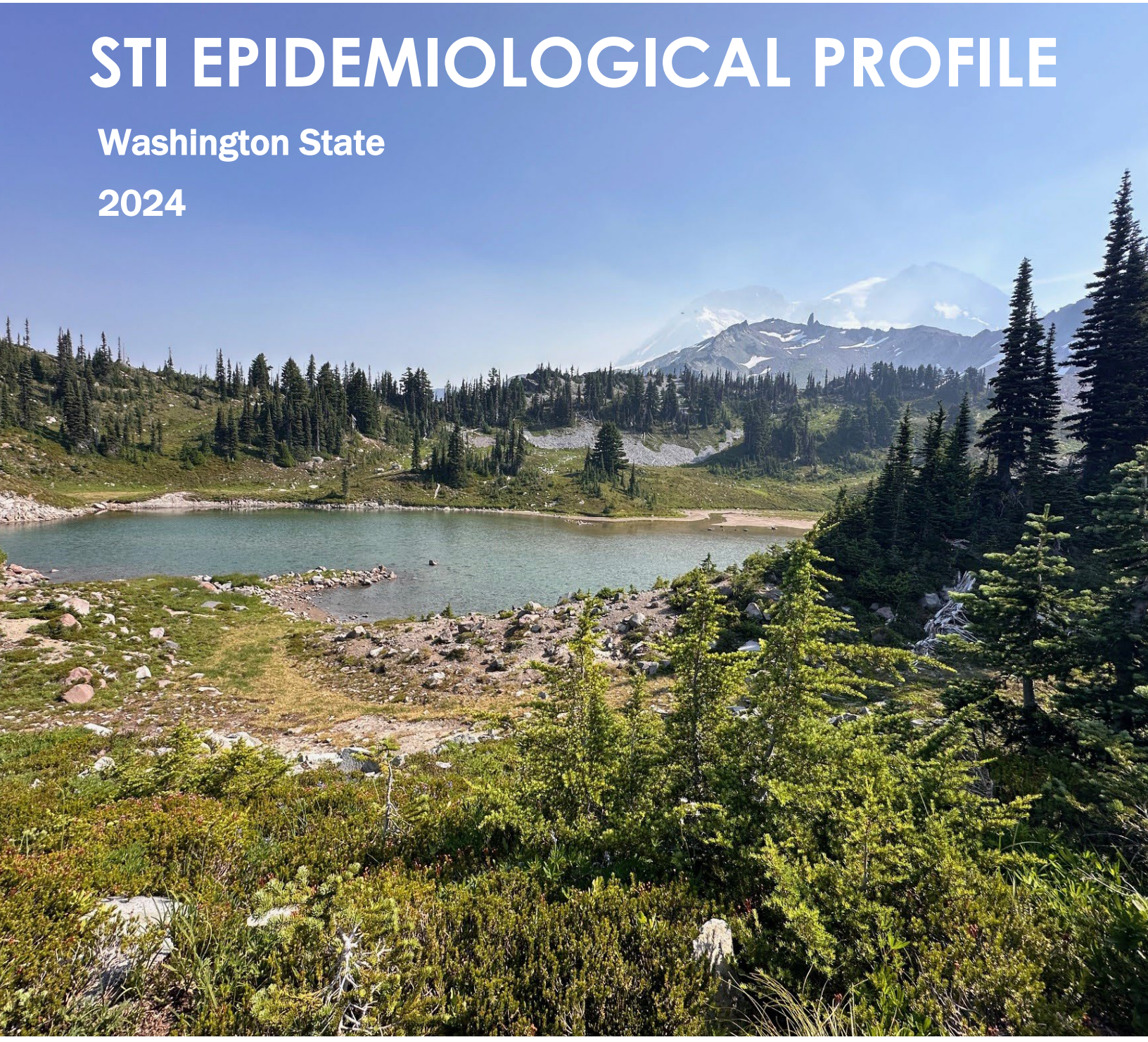
WASHINGTON STATE DEPARTMENT OF HEALTH

STI EPIDEMIOLOGICAL PROFILE

Washington State

2024



Washington State Department of HEALTH

DOH 150-224 December 2024

ACKNOWLEDGEMENTS

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TABLE OF CONTENTS

TABLE OF FIGURES

PREFACE

ABBREVIATIONS:

AI/AN: American Indian / Alaska Native

CDC: Centers for Disease Control and Prevention

CS: Congenital syphilis

DIS: Disease Intervention Specialist

DOH: Washington State Department of Health

FQHC: Federally Qualified Health Center

GBMSM: Gay, bisexual, and other men who have sex with men

HIV: Human Immunodeficiency Virus

IDU: Injection drug use

LHJ: Local health jurisdiction

MSW: Men who report having sex with women

NHOPI: Native Hawaiian and Other Pacific Islander

PHIMS-STD: Public Health Issue Management System- Sexually Transmitted Disease

PLWH: People living with HIV

P&S: Primary & secondary syphilis

PWID: People who inject drugs

STI: Sexually transmitted infection

WELRS: Washington Electronic Laboratory Reporting System

WSM: Women who report having sex with men

WSW: Women who report having sex with women

TECHNICAL NOTES AND DATA SOURCES

Reporting Requirements and Counting Cases

Healthcare providers and laboratories are required to report confirmed cases of chlamydia (CT), gonorrhea (GC), syphilis, herpes, lymphogranuloma venereum, chancroid, and granuloma inguinale to their local health jurisdictions under Washington Administrative Code Chapter 246-101. Local health jurisdictions then notify the Washington State Department of Health through Public Health Issue Management System- Sexually Transmitted Disease (PHIMS-STD), Washington's core sexually transmitted infection (STI) surveillance data system. PHIMS-STD is the data source for each of the STIs presented in this profile. Starting in 2019, additional chlamydia data from the Washington Electronic Laboratory Reporting System (WELRS) has been included when a positive chlamydia laboratory result does not have an associated case report in PHIMS-STD. Similarly, gonorrhea data from WELRS have been included since 2022 when a positive gonorrhea laboratory result does not have an associated case report in PHIMS-STD. WELRS data have been added wherever available, including for total case counts and data by age, race/ethnicity, and gender. It is noted within the report which chlamydia/gonorrhea indicators also include WELRS data. While these STI surveillance data are valuable for understanding population trends, it is limited in that it only includes people who have been diagnosed with an STI. Many people do not know they have an STI; therefore, all reported counts are likely under-estimates of true population morbidity.

Case counts from PHIMS-STD are reported by calendar year (January 1 – December 31) of diagnosis date. Additional chlamydia cases only entered through WELRS are reported by CDC MMWR year, which may vary slightly from calendar year, but will only be counted within one year's morbidity. For example, the 2023 MMWR year includes cases diagnosed between 01/01/2023 to 12/30/2023. Washington's STI case counts only include cases newly diagnosed among patients living in Washington and exclude out-of-state cases that are diagnosed while patients are visiting Washington.

Patient Confidentiality

To protect patient confidentiality, Washington State Department of Health (DOH) follows small number suppression guidelines when presenting data. Excluding total statewide and county counts, non-zero counts less than 10 are not presented. Counts greater than 10 are not presented if they could be used to deduce counts less than 10. Additionally, rates based on numbers less than 17 will not be presented due to statistical instability.

Rate Calculations

All presented rates are calculated using population estimates available at the time of publication. Population estimates may slightly change over time; as such, future reported rates could vary slightly. 2023 rates are calculated using 2022 population estimates based on 2020 census data, as the Census Bureau had not released final 2023 population estimates at the time of publication. This report reflects surveillance data received through May 2024. Numbers in future publications may slightly differ as further surveillance data are received or if national or local reporting guidelines are updated.

Terminology
In discussion of clinical symptoms of each STI, the use of the terms "female" and "male" is in reference to one's sex at birth and does not reflect the wider spectrum of gender identities.

For questions and further information, please contact the STI Surveillance team at STD_Surveillance@doh.wa.gov.

EXECUTIVE SUMMARY

Between 2004 and 2023, Washington State has reported a substantial rise in STIs including chlamydia, gonorrhea, and syphilis. The number of STI cases has generally increased across most populations, but there have been some shifts in the populations experiencing a disproportionate burden of STIs. Alongside changes in population trends, many pre-existing disparities have only widened in recent years as the STI caseload has increased. There are some trends and disparities that span all STIs, while others are more specific to one infection. As such, in-depth epidemiological trends will be presented separately for chlamydia, gonorrhea, and syphilis within this report. The final section of this report reviews the syndemic nature of these infections. Washington State Department of Health (DOH) and Local Health Jurisdiction (LHJ) Disease Intervention Specialists (DIS) are deeply invested in STI case follow-up and investigation, yet there are still great improvements to be made in preventing STIs and improving health equity across populations.

When discussing STI trends in Washington, it is important to recognize that the unprecedented COVID-19 pandemic had wide-reaching impacts by reducing access to medical care and routine screenings in 2020 and 2021. This is further complicated by the difficulties in ascertaining whether or not individuals had a change in sexual behaviors due to social distancing recommendations. Given the COVID-19 pandemic, it is currently unclear whether reported trends in 2020 and 2021 are true trends in STI case incidence; therefore, data for these years should be interpreted with caution.

The DOH STI Surveillance team would like to acknowledge and thank the local health jurisdictions and DIS across the state for their ongoing, diligent efforts to provide appropriate care and follow-up to people infected with an STI, especially during the COVID-19 pandemic. We also want to recognize the many people in clinical facilities statewide who initially screen patients and report positive STI laboratory results, in addition to everyone who provides care and treatment for affected patients. These efforts are all extremely valuable for protecting the health of people in Washington and preventing further STI transmission. For questions or further information about STI surveillance in Washington State, the STI Surveillance team may be contacted via email at STD_surveillance@doh.wa.gov.

BACKGROUND

Located within the stunning Pacific Northwest, Washington State is full of natural beauty and thriving urban areas. Washington's population has risen from an estimated 6.88 million people in 2013 to 7.95 million people in 2023. The most populous counties in Washington are King, Pierce, Snohomish, Spokane, and Clark.

This profile presents information and data for STIs in Washington State. The presented data will largely focus on recent or emerging trends between 2014 and 2023, while occasionally providing data prior to 2014 for historical context. The purpose of this report is to provide insight into statewide STI trends, focusing particularly on population demographics and STI case outcomes. This is intended to be used by local and state public health staff, community groups, and individuals for educational purposes.

SECTION 1. CHLAMYDIA

CLINICAL BACKGROUND OF CHLAMYDIA

There are more cases of chlamydia reported than any other STI in Washington and nationally, and it has some of the highest case numbers of any reportable condition. It is caused by the bacterium *Chlamydia trachomatis*.

Symptoms:
Persons infected with chlamydia may be asymptomatic, which is why it is especially important that sexually active individuals are routinely screened for chlamydia. The main infection site is in the genitals/urogenital tract. Cervical infections in people with vaginas may lead to vaginal discharge, bleeding between periods, or painful urination. The urethra is a common site of infection in people with penises, which may cause discharge from the penis, painful urination, or pain and swelling of the testicles. Rectal infections can lead to rectal pain, discharge, or bleeding. Infections also occur, typically asymptomatically, in the throat. In extremely rare cases, chlamydia could present in a conjunctiva/eye infection.

Who should be screened:
All people who are sexually active are at risk of infection with chlamydia. Anyone who is experiencing symptoms or has a sex partner who has recently been diagnosed with an STI should be screened for chlamydia. Due to the often asymptomatic nature of chlamydia, the CDC recommends annual screenings of all sexually active females younger than 25 years. Females older than 25 with risk factors such as new or multiple partners should also be screened. Pregnant people should be tested and treated to prevent complications for their baby.

Although routine screening is not necessary for males, the CDC recommends screening sexually active young males in clinical settings where chlamydia has a high prevalence. Sexually active GBMSM who have insertive intercourse should be screened for urethral chlamydial infection and screened for rectal infection if they have receptive anal intercourse.

Depending on one's risk factors, health care providers may recommend more frequent screenings.

Prevention and transmission:
Chlamydia can be spread via vaginal, anal, or oral sex with a partner who has chlamydia. The exact incubation period is unknown but likely 7-14 days or longer. If someone has untreated chlamydia, they may be infectious for long periods of time. Pregnant people may also transmit chlamydia to their baby during childbirth. If one has been treated for chlamydia in the past, they are still able to become infected again.

Where feasible for a person, abstinence from sex (not having oral, anal, or vaginal sex) is an effective way to avoid chlamydia or other STIs. However, abstinence from sex is not feasible nor appropriate for all people. A person can also effectively avoid STIs through being sexually active only with a partner who is only having sex with them – mutual monogamy – when both partners have either tested negative for STIs or been treated for STIs and then waited the appropriate period after

treatment before engaging in sex. Using condoms properly every time during penetrative sex is also a highly effective method of prevention. If one has multiple sexual partners, it is important to speak with each of them about their past behavior (sex and drug use), whether they have been recently screened or treated for STIs, and to encourage them to be tested if they have not. It is recommended that all sexually active people test regularly for STIs, including HIV, in consultation with their partner(s) and healthcare provider.

Diagnosis:
Chlamydia is diagnosed via laboratory tests. To diagnose genital chlamydia, nucleic acid amplification tests (NAATs) are the most sensitive. Samples are collected from the suspected site of infection. For males, urine is the optimal specimen. For females, vaginal swabs collected by the clinician or patient are the specimen of choice, and urine also provides an effective sample. To screen for rectal or pharyngeal infections, testing is done at the exposure site. A positive laboratory result at any of these sites confirms a chlamydia diagnosis.

Complications of untreated chlamydia:
Untreated chlamydia may lead to serious, permanent health problems for females and males. In females, chlamydia may cause Pelvic Inflammatory Disease (PID). This can result in damage to the uterus and fallopian tubes, which can lead to pain, infertility, or an ectopic pregnancy. PID can also cause perihepatitis, also called "Fitz-Hugh-Curtis Syndrome." Babies of pregnant people with chlamydia are at risk of pre-term delivery, pneumonia, and conjunctivitis. People with untreated infection may experience reactive arthritis and are also at higher risk for acquiring HIV infection.

Treatment:
Chlamydia can be cured through antibiotics. A patient may be prescribed a single dose or a seven-day course of antibiotics, with options including azithromycin and doxycycline. In either case, a patient should not have sex until seven days after their antibiotics are completed to avoid spreading the infection. All medication must be taken to cure an infection, although it cannot repair any long-term damage one may already have from chlamydia.

After treatment, it is important to be retested three months later to ensure the infection has cleared. It is common to become repeatedly infected with chlamydia, especially for females if their sex partners do not receive appropriate treatment. Females that are repeatedly infected with chlamydia are at higher risk for long-term reproductive health complications.

Treatment of partners:
If someone becomes infected with chlamydia, it is important that their recent sex partners are informed, so they can also receive the appropriate treatment. Recent partners typically include anyone the patient has had vaginal, oral, or anal sex within the 60 days before symptom onset or diagnosis.

In Washington and some other states, healthcare providers may give extra medication to a patient to provide to their sex partner(s) in what is known as "Expedited Partner Therapy" ("EPT"). Partners

who receive EPT should still seek medical care and be tested for infection three months after the completion of the prescription.

Further Information: Check out these resources for more information about chlamydia:

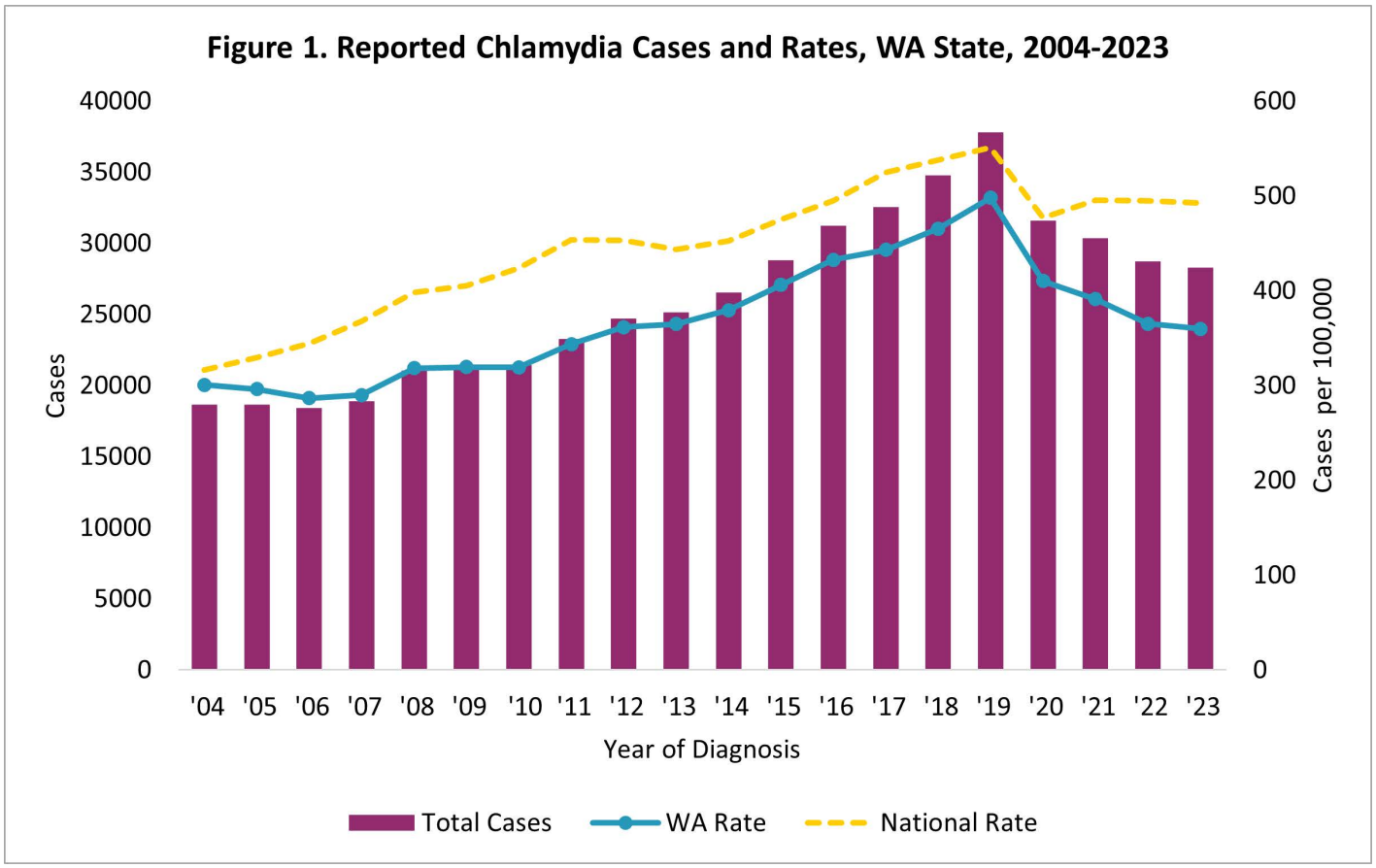
- About Chlamydia | Chlamydia | CDC
- The latest reporting and investigative guidelines for chlamydia and all other notifiable conditions are linked at this page:
    - Notifiable Conditions in Washington

CHLAMYDIA IN WASHINGTON STATE

SUMMARY OF TRENDS:

- **Between 2004 and 2023, the number and rate of chlamydia cases reported in Washington State have increased.**
- **Between 2014 and 2023, chlamydia rates were consistently highest among cisgender females, persons aged 15-to-24 years, and non-Hispanic Black persons.**
- **Reported case counts were highest within King, Pierce, Spokane, Snohomish, and Yakima counties.**
- **Each year, more than half of chlamydia cases in Washington were diagnosed as asymptomatic, emphasizing the importance of routine screenings when an individual is sexually active.**

The statewide total reported chlamydia case counts and incidence rate estimates between 2004 and 2023 are presented in Figure 1 and written in Table A. Reported chlamydia cases and rates in Washington generally rose from 2004 to 2019; case counts doubled between those years. From 2019 to 2023, there has been a decrease in reported chlamydia cases and rates. It is unclear whether these are due to true decreases or changes in screening and diagnosis trends, particularly for 2020 to 2021 when the COVID-19 pandemic interrupted routine STI screenings and access to medical care. Washington's rate of chlamydia has consistently remained lower than the national rate of chlamydia reported by the CDC, also shown in Figure 1 (source: CDC).



Data source: PHIMS-STD and WELRS

Table A. Reported Chlamydia Case Counts and Cases per 100,000, WA State, 2004-2023

Year of Diagnosis	Number of Cases	Cases per 100,000
2004	18,674	300.8
2005	18,647	296.0
2006	18,402	286.6
2007	18,913	289.9
2008	21,031	318.3
2009	21,311	319.4
2010	21,461	319.1
2011	23,269	343.5
2012	24,689	361.5
2013	25,166	364.7
2014	26,524	379.3
2015	28,795	406.1
2016	31,229	432.6
2017	32,554	442.9
2018	34,775	465.4
2019	37,804	497.8
2020	31,606	410.1
2021	30,373	391.1
2022	28,719	365.2
2023	28,303	359.9

Data source: PHIMS-STD and WELRS

Table B presents the number of chlamydia cases and rate per 100,000 people by year and county between 2019 and 2023. Trends in reported chlamydia cases over time vary by county. Considering all chlamydia cases between 2019 and 2023, King County has had the highest number of cases, followed by Pierce, Spokane, Snohomish, and Yakima. Higher numbers in these counties are expected, given that they are among the more populous counties.

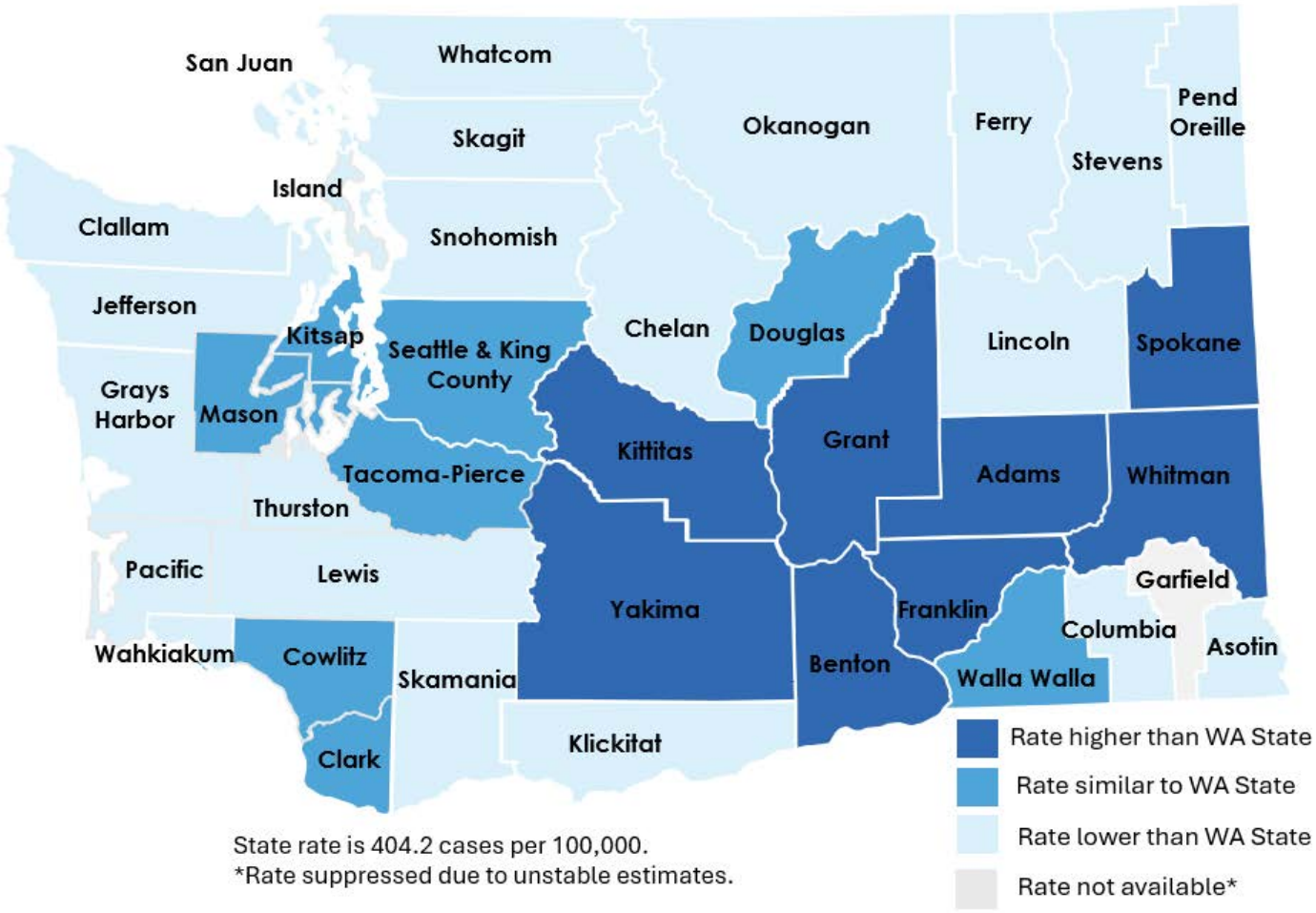
Table B. Chlamydia Cases and Rates by County, 2019-2023 (Data source: PHIMS-STD and WELRS)

County	2019 Cases	2019 Rate	2020 Cases	2020 Rate	2021 Cases	2021 Rate	2022 Cases	2022 Rate	2023 Cases	2023 Rate
ADAMS	116	572.8	80	388.1	126	602.9	123	582.9	194	919.4
ASOTIN	67	301.6	69	309.6	61	271.1	46	203.5	45	199.1
BENTON	1084	534.0	981	474.2	984	469.9	971	457.4	1041	490.3
CHELAN	287	367.6	267	337.4	283	353.8	287	355.9	301	373.2
CLALLAM	185	242.1	134	173.7	154	198.1	136	175.2	112	144.3
CLARK	2089	424.2	1859	369.4	1923	374.8	1868	358.6	1802	345.9
COLUMBIA	8	+	3	+	8	+	10	+	9	+
COWLITZ	564	516.3	469	423.6	411	368.6	396	352.5	379	337.3
DOUGLAS	158	374.9	155	361.0	178	408.7	164	372.7	166	377.3
FERRY	13	+	10	+	10	137.9	29	397.3	14	+
FRANKLIN	726	766.8	628	649.1	649	659.9	635	636.6	653	654.6
GARFIELD	0	0.0	0	0.0	3	+	3	+	2	+
GRANT	466	476.0	394	397.5	512	507.9	541	531.4	524	514.7
GRAYS HARBOR	297	395.9	249	329.2	213	280.1	179	234.3	192	251.3
ISLAND	232	269.8	206	237.2	187	214.7	190	216.6	164	187.0
JEFFERSON	64	196.3	47	142.5	42	126.9	42	125.9	38	113.9
KING	11553	517.0	8285	365.0	7495	327.7	7183	309.9	7364	317.7
KITSAP	1241	454.3	1093	396.6	1061	382.1	1011	359.9	787	280.2
KITTITAS	277	614.2	208	447.6	183	404.6	177	375.0	187	396.2
KLICKITAT	69	307.7	58	255.1	64	278.3	46	198.7	52	224.6
LEWIS	307	378.0	331	402.9	273	330.1	288	345.3	293	351.3
LINCOLN	26	240.6	24	220.7	15	+	19	171.9	20	181.0
MASON	258	396.5	315	479.3	206	313.3	223	336.9	225	339.9
OKANOGAN	144	344.1	122	289.8	107	252.7	155	363.0	164	384.1
PACIFIC	42	182.5	44	188.3	33	140.9	24	101.7	26	110.2
PEND OREILLE	26	195.0	23	171.6	22	163.3	29	212.8	20	146.8
PIERCE	6305	695.7	5569	605.1	5384	580.0	4495	479.5	4505	480.6
SAN JUAN	20	113.9	24	134.9	11	+	15	+	20	110.2
SKAGIT	496	386.3	434	335.1	385	296.2	401	305.5	365	278.1
SKAMANIA	30	260.5	13	+	17	144.7	15	+	15	+
SNOHOMISH	2932	359.0	2601	314.1	2383	284.4	2193	258.8	2137	252.2
SPOKANE	2660	501.5	2467	457.4	2563	472.8	2389	433.8	2213	401.9
STEVENS	97	210.7	84	180.9	92	196.9	84	178.5	59	125.4
THURSTON	1200	414.8	1270	430.8	921	309.3	828	275.5	947	315.1
WAHKIAKUM	9	+	5	+	3	+	8	+	9	+
WALLA WALLA	316	508.0	219	349.9	274	441.2	270	431.1	262	418.4
WHATCOM	883	393.6	724	319.2	752	332.3	834	360.0	648	279.7
WHITMAN	435	909.7	321	669.1	403	903.6	401	838.9	314	656.9
YAKIMA	2117	830.3	1817	707.8	1975	765.2	2007	772.1	2030	780.9

+ For any nonzero counts less than seventeen, rates are not included due to statistical instability.

Map 1 shows aggregate chlamydia rates from 2019 to 2023 by county as compared to the statewide rate. For this five-year time frame, rates in the following counties were higher than the statewide rate: Adams, Benton, Franklin, Grant, Kittitas, Spokane, Yakima, and Whitman.

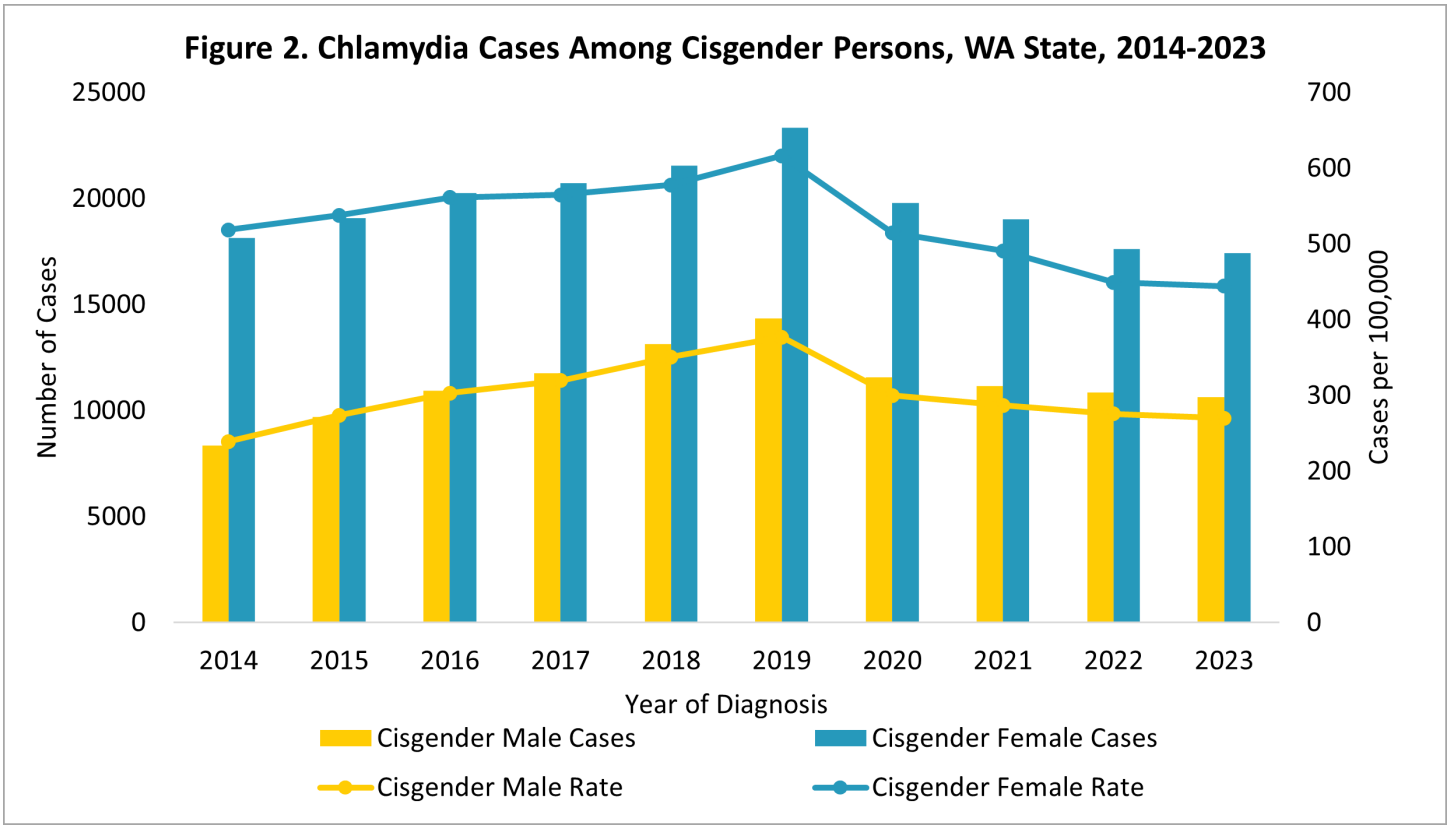
Map 1. Aggregate chlamydia rates by county compared to statewide rate, 2019-2023



Data source: PHIMS-STD and WELRS

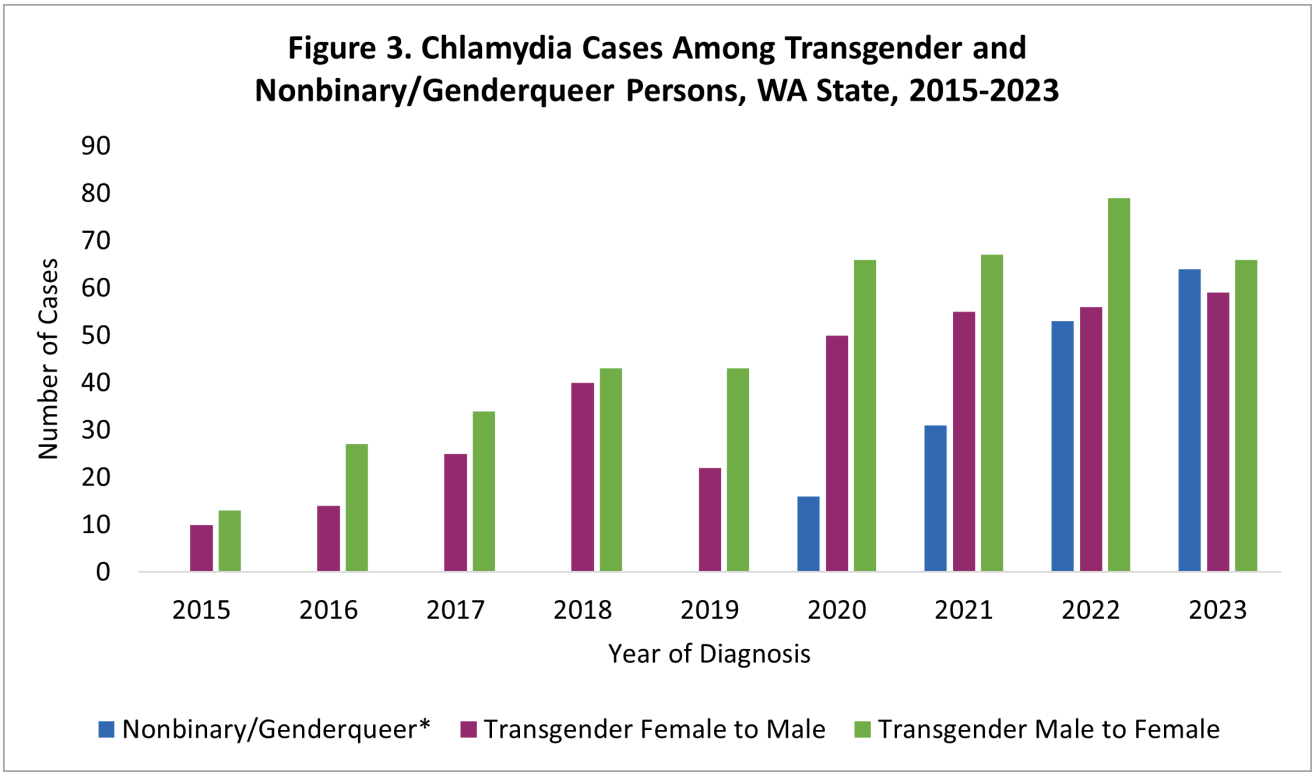
CHLAMYDIA DISTRIBUTION BY GENDER

Figures 2 and 3 show chlamydia cases by gender in Washington from 2014 to 2023, and this information is also presented in Table C. Chlamydia cases have consistently been highest among cisgender females. This may be partly due to higher screenings among pregnancy-capable people during childbearing age, per CDC recommendations. Figure 2 shows that the rate of chlamydia increased among both cisgender females and cisgender males from 2014 to a peak in 2019, then decreased from 2019 to 2023. However, it is unclear whether these are true decreases or due to changes in routine screening resulting from the COVID-19 pandemic.



Data source: PHIMS-STD and WELRS

Figure 3 shows the number of chlamydia cases among transgender and nonbinary/genderqueer persons. Data for nonbinary/genderqueer persons are not available prior to 2020. Rates for transgender and nonbinary/genderqueer people are not presented due to small numbers and limited population data. Transgender and nonbinary/genderqueer cases represented under 1% of all chlamydia cases in 2023.



Data source: PHIMS-STD and WELRS

* Data for nonbinary/genderqueer persons are not available prior to 2020.

Table C. Chlamydia Cases by Gender, WA State, 2014-2023 (Source: PHIMS-STD and WELRS)

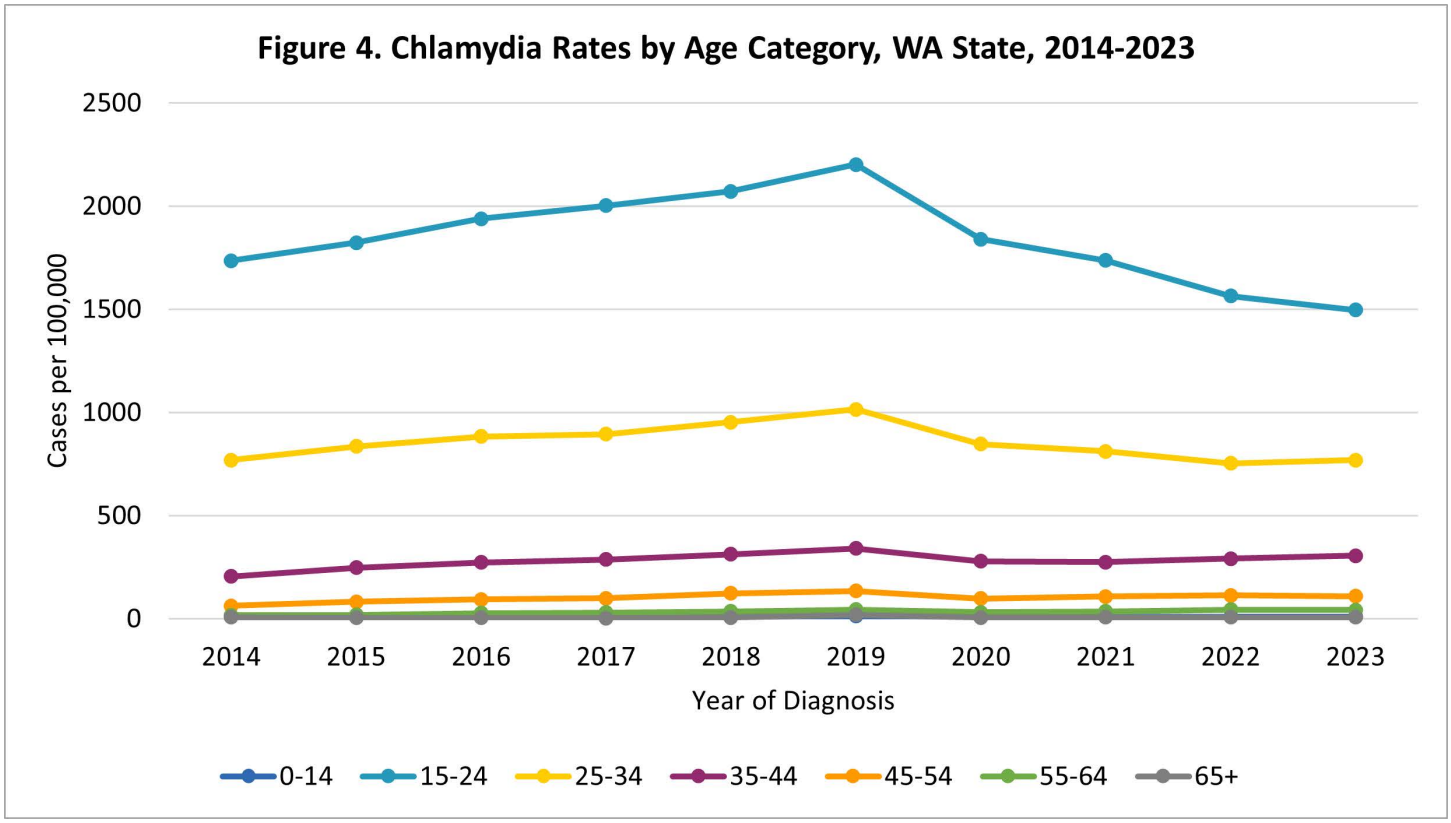
Year of Diagnosis	Cisgender Male Cases	Cisgender Male Rate	Cisgender Female Cases	Cisgender Female Rate	Nonbinary /Genderqueer Cases	Transgender Female to Male Cases	Transgender Male to Female Cases
2014	8354	239.2	18142	518.4	*	+	+
2015	9702	273.7	19070	537.7	*	10	13
2016	10937	302.9	20249	561.3	*	14	27
2017	11755	319.6	20737	564.8	*	25	34
2018	13122	350.7	21559	577.9	*	40	43
2019	14345	377.0	23348	616.2	*	22	43
2020	11575	299.7	19789	514.8	16	50	66
2021	11161	286.7	19011	490.7	31	55	67
2022	10859	275.5	17619	449.1	53	56	79
2023	10633	269.8	17424	444.1	64	59	66

+ Data have been suppressed to protect patient confidentiality due to small numbers.

*Data are not available prior to 2020.

CHLAMYDIA DISTRIBUTION BY AGE

Figure 4 presents Washington's chlamydia rates by age category from 2014 to 2023. Each year, rates have been substantially higher among people aged 15-to-24 years as compared to all other age categories. Within people aged 15-to-24 years, case rates are highest among cisgender females. Rates have consistently been lowest among people aged 0-to-14 and 65+ years.

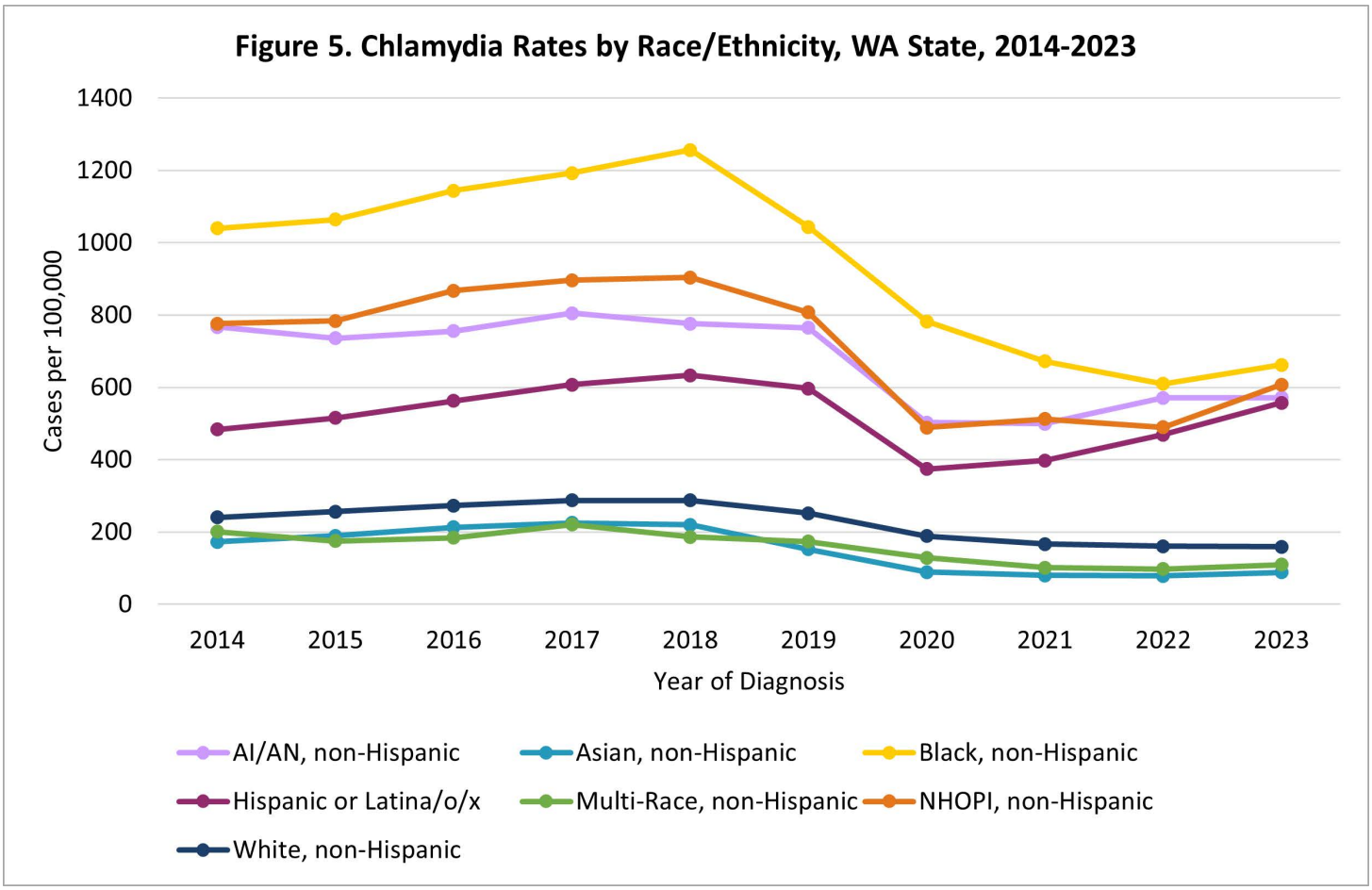


Data source: PHIMS-STD and WELRS

CHLAMYDIA DISTRIBUTION BY RACE AND ETHNICITY

Figure 5 presents chlamydia rates by self-reported race and ethnicity for 2014 to 2023. Communities of color and those with a Hispanic or Latina/o/x ethnicity continue to experience disproportionate rates of chlamydia, which is a product of systemic racism. Black non-Hispanic persons have had the highest rate of chlamydia every year in Washington, which is also seen at the national level. Additionally, chlamydia rates each year among Native Hawaiian or Other Pacific Islander (non-Hispanic), American Indian/Alaska Native (non-Hispanic), Multi-Race (non-Hispanic), and Hispanic/Latina/o/x persons were all much higher than White non-Hispanic and Asian non-Hispanic persons. In 2023, non-Hispanic Black persons were 4.2 times more likely to report chlamydia than White non-Hispanic persons. NHOPI (non-Hispanic), AI/AN (non-Hispanic), and Hispanic/Latina/o/x persons were 3.8, 3.6, and 3.5 times more likely to report chlamydia than White non-Hispanic persons, respectively.

The rates across each race/ethnicity category decreased steadily from 2018 to 2020, although rates for some groups have increased again since 2020. These rates should be interpreted with caution, as the percentage of chlamydia cases without any race or ethnicity reported increased during this time frame from 20% in 2014 to 36% in 2023. With such a high level of cases missing a reported race/ethnicity each year, it is likely that the resulting rates are under-reporting the true rates within each population.



Data source: PHIMS-STD and WELRS

Table D presents the chlamydia case counts by race/ethnicity, along with the number of cases with an unknown race/ethnicity.

Table D. Chlamydia Cases by Race/Ethnicity, WA State, 2014-2023

Race/Ethnicity Category	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
AI/AN, non-Hispanic	685	658	678	727	704	698	461	459	529	530
Asian, non-Hispanic	914	1045	1234	1379	1429	1054	648	600	615	697
Black, non-Hispanic	2561	2685	2982	3210	3501	3021	2340	2063	1952	2120
Hispanic or Latina/o/x	4231	4686	5338	5981	6450	6276	4051	4412	5347	6350
Multi-Race, non-Hispanic	687	643	725	928	835	822	641	510	493	553
NHOPI, non-Hispanic	362	384	449	490	520	489	310	333	331	411
White, non-Hispanic	11674	12493	13347	14122	14171	12411	9324	8212	7920	7848
Unknown	5410	6201	6476	5717	7165	13033	13831	13784	11532	9794

Data source: PHIMS-STD and WELRS

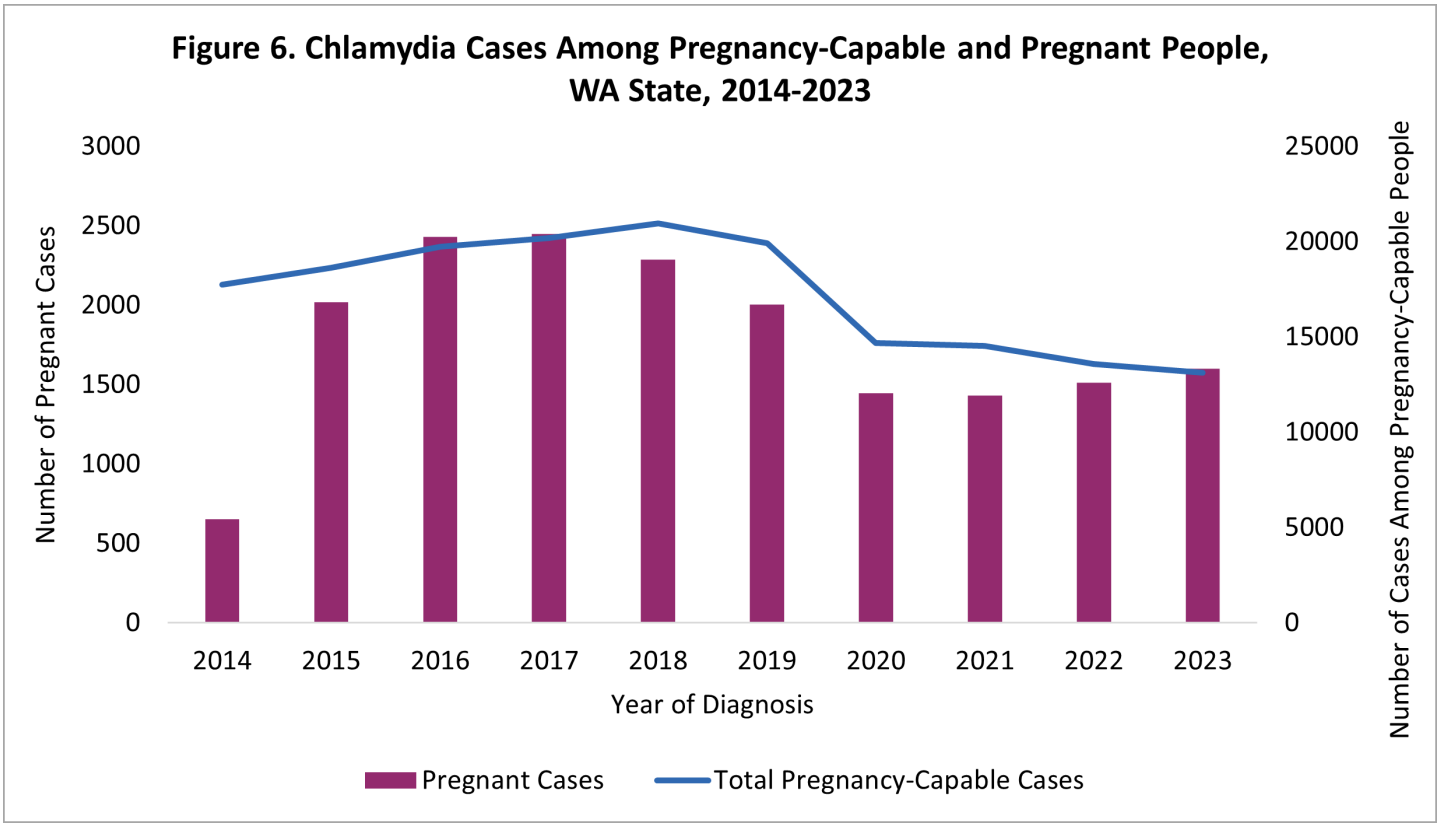
Note: 'Unknown' includes cases in which 'Other' was selected for a patient's race/ethnicity.

CHLAMYDIA AMONG PREGNANT AND PREGNANCY-CAPABLE PEOPLE

Figure 6 presents chlamydia cases from 2014 to 2023 among pregnant and pregnancy-capable people, defined as individuals assigned female at birth aged 15-to-44 years. It is especially important that this population receives screenings for chlamydia and appropriate treatment, if necessary, as chlamydia complications can harm one's reproductive health. From 2014 to 2018, the number of chlamydia cases among pregnancy-capable people increased, followed by a decrease until 2020 and little change into 2023.

Figure 6 also shows the sharp rise in cases reporting pregnancy from 2014 to 2017, followed by a decrease through 2021, and a slight increase into 2023. In 2023, there were 1,600 chlamydia cases among pregnant people. A person who is pregnant and has chlamydia infection is at higher risk of an early birth, and their baby is also at higher risk of health complications. Therefore, it is important that pregnant people are screened for chlamydia and other STIs.

Figure 6. Chlamydia Cases Among Pregnancy-Capable and Pregnant People, WA State, 2014-2023



CHLAMYDIA: TRENDS IN DIAGNOSIS AND ACCESSING OF CARE

Chlamydia case report data can give context into why and how patients are typically diagnosed with chlamydia.

Figure 7 presents the reported reason for provider visit at the time of chlamydia diagnosis from 2014 to 2023. Reasons for provider visit are classified into three categories: an individual is symptomatic, has been exposed to chlamydia, or is visiting for a routine exam. Overall, the percentage of visits for each reason has remained stable over these ten years. For most years, individuals were most likely to visit a provider for a routine exam. 2020 had the lowest proportion of visits for routine exams and the highest percentage of symptomatic exams, likely resulting from fewer routine screenings due to the COVID-19 pandemic.

Regardless of the reason for provider visit at time of chlamydia diagnosis, over half of cases are diagnosed without any symptoms, emphasizing the importance of a screening if one is sexually active.

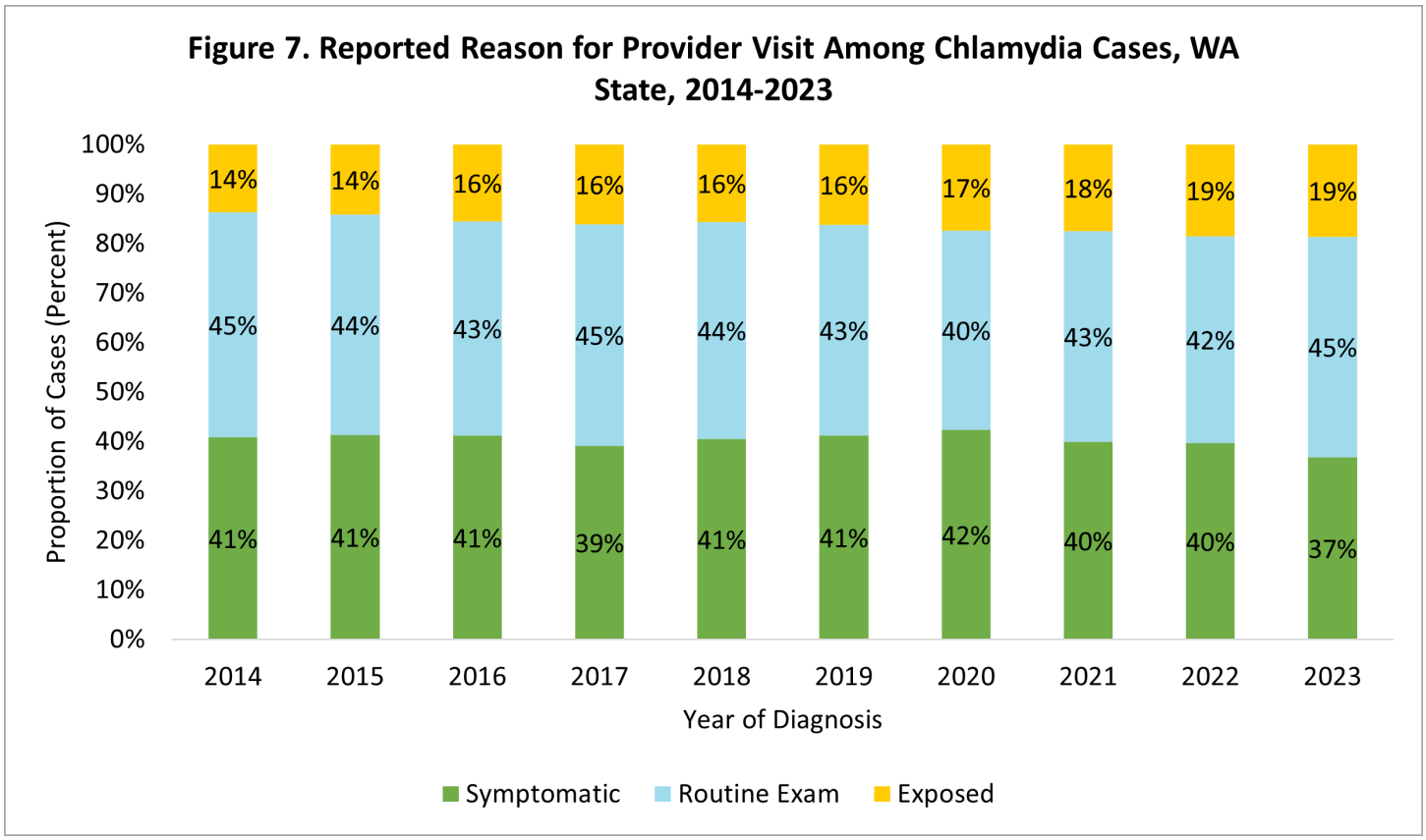
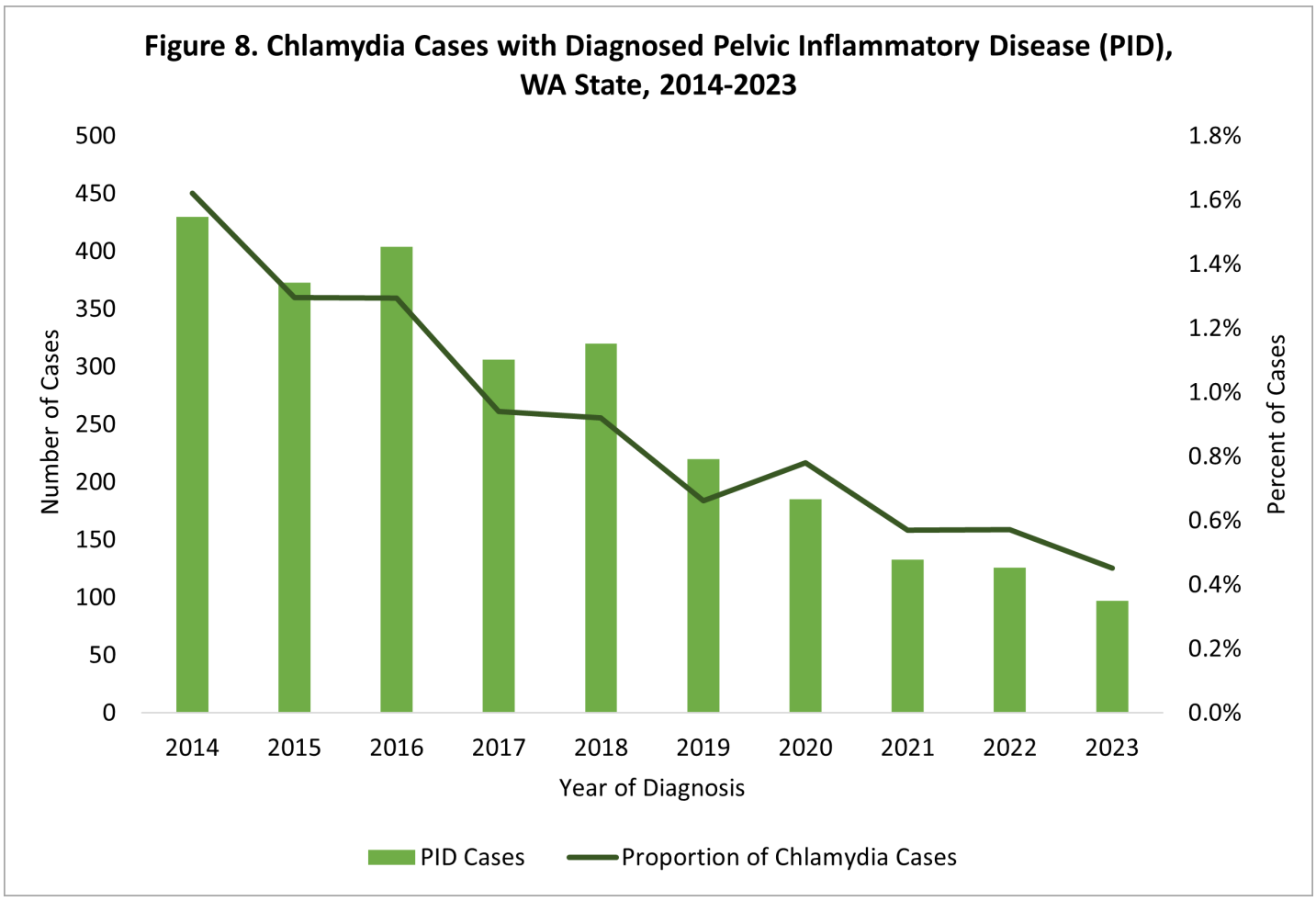


Figure 8 presents chlamydia cases that also had a documented pelvic inflammatory disease (PID) diagnosis. The number of PID cases peaked in 2014, when 1.6% of chlamydia cases had PID. This decreased to 0.5% of chlamydia cases in 2023. When chlamydia cases are discovered and treated early after infection, there is low risk of PID or other complications. More information about PID can be found on the CDC website: Pelvic Inflammatory Disease (PID) - STI Treatment Guidelines (cdc.gov).



SECTION 2. GONORRHEA

CLINICAL BACKGROUND OF GONORRHEA

Gonorrhea is the second most reported sexually transmitted infection nationally and in Washington. It is caused by the bacterium *N. gonorrhoeae*.

Symptoms:

Many people infected with gonorrhea are asymptomatic, which is why routine screenings for infection among sexually active people are so important. Females may experience symptoms of pain or discomfort when urinating, bleeding between periods, or increased vaginal discharge. Since symptoms are often mild and nonspecific, they may be confused for other conditions, such as a vaginal infection. Males that present with symptoms may experience pain or discomfort when urinating or have urethral discharge that typically occurs within two weeks after infection. They also may have testicular or scrotal swelling and pain.

If one has a rectal infection, they may be asymptomatic or have symptoms of anal discharge, soreness, itching, bleeding, or painful bowel movements. If one has a pharyngeal infection, they may feel a sore throat but often will not have any symptoms.

Who should be screened:

All people who are sexually active are at risk of infection with gonorrhea. Anyone who is experiencing symptoms should be screened immediately. One should also see a provider if they have a partner who has recently been diagnosed with any STI.

The CDC recommends that every sexually active female below the age of 25 should receive annual gonorrhea screenings. They also recommend older females receive screenings if they have a new sex partner or multiple partners. Depending upon risk factors, a health care provider may recommend more frequent screening. If someone does have gonorrhea, they should be screened for additional STIs.

Prevention and transmission:

Gonorrhea is spread through sexual contact with an infected partner's penis, vagina, mouth, or anus. The incubation period is typically 2-7 days, but it may be longer when symptoms occur. People can be infectious for long periods of time if they have untreated gonorrhea. It can also be spread from mother to baby through childbirth. If one has been treated for gonorrhea in the past, they still can become infected again.

Where feasible for a person, abstinence from sex (not having oral, anal, or vaginal sex) is an effective way to avoid gonorrhea or other STIs. However, abstinence from sex is not feasible nor appropriate for all people. A person can also effectively avoid STIs through being sexually active only with a partner who is only having sex with them – mutual monogamy – when both partners have either tested negative for STIs or been treated for STIs and then waited the appropriate period after treatment before engaging in sex. Using condoms properly every time during penetrative sex is also a highly effective method of prevention. If one has multiple sexual partners, it is important to speak with each of them about their past behavior (sex and drug use), whether they have been recently

screened or treated for STIs, and to encourage them to be tested if they have not. It is recommended that all sexually active people test regularly for STIs, including HIV, in consultation with their partner(s) and healthcare provider.

Diagnosis:

Gonorrhea is diagnosed through laboratory testing. Nucleic acid amplification testing (NAAT) can be used to diagnosis urogenital cases and requires either a urine or urethral sample for males or a vaginal or endocervical sample for females. Gonorrhea cultures can also be used for diagnosis, and they require endocervical or urethral swab specimens; due to strict incubation requirements for cultures, non-cultures are typically used for screening. Separate diagnostic tests for rectal and oral gonorrhea are available for clinical use.

A case is considered probable if there is demonstration of gram-negative intracellular diplococci in a urethral smear obtained from a male or an endocervical smear from a female. A case is defined as confirmed if a patient has laboratory isolation of typical gram-negative, oxidase-positive diplococcic by culture from a clinical specimen or demonstration of *N. gonorrhoeae* in a clinical specimen by detection of antigen or nucleic acid via nucleic acid amplification or hybridization with a nucleic acid probe.

Complications of untreated gonorrhea:

Untreated gonorrhea can cause serious and irreversible health problems for all people.

For females, if gonorrhea spreads into the uterus or fallopian tubes, it can cause pelvic inflammatory disease (PID). PID symptoms may be mild or very severe and range from abdominal pain to fever. PID can lead to complications of chronic pelvic pain and internal abscesses. It can also cause severe damage that leads to infertility or increases one's risk of an ectopic pregnancy.

Pregnant people may transmit gonorrhea to their baby during birth, which can result in blindness, joint infection, or a life-threatening blood infection for the newborn.

For males, gonorrhea can become complicated by epididymitis, which can lead to infertility in rare cases.

For all people, untreated gonorrhea can spread into the blood and cause life-threatening disseminated gonococcal infection (DGI). This is typically indicated by arthritis, inflammation of a tendon and its sheath (tenosynovitis), and/or dermatitis. People with untreated gonorrhea are also at greater risk of acquiring or spreading HIV.

Treatment:

Gonorrhea is treatable and curable with medication. As of 2022, the CDC recommends one 500 mg intramuscular dose of ceftriaxone to treat gonorrhea. As an alternative, cefixime may be used; however, this can only be used if the patient reports no oral sexual exposure. Due to increasing antibiotic resistance in Washington, use of azithromycin alone is not recommended. Fluoroquinolones are also not recommended anymore due to an increased prevalence of quinolone-resistant *N. gonorrhoae*. If chlamydial infection has not been excluded, a treatment of doxycycline twice daily for seven days should be administered. For genital or rectal infections, the CDC

recommends follow-up testing to ensure the infection has cleared if someone's symptoms persist for more than a few days after they've received treatment. If someone has a pharyngeal infection, a test-of-cure is necessary between 7-14 days after treatment to ensure the infection has cleared in the throat.

An individual infected with gonorrhea and each of their sex partners must avoid any form of sex until their treatment is completed and they no longer experience symptoms; otherwise, individuals are at higher risk of re-infection. All people should be re-screened three months after their initial treatment to ensure it has been successful and since reinfection is common.

If someone is diagnosed with gonorrhea, it is important that they tell all recent sex partners so they may receive treatment themselves and avoid transmitting the infection to others. In Washington, health care providers can give medication to partners of infected individuals if partners are unable to be tested or see a health care provider.

Further Information: Check out these resources for more information about gonorrhea:

- About Gonorrhea | Gonorrhea | CDC
- The latest reporting and investigative guidelines for gonorrhea and all other notifiable conditions are linked at this page:
    - Notifiable Conditions in Washington

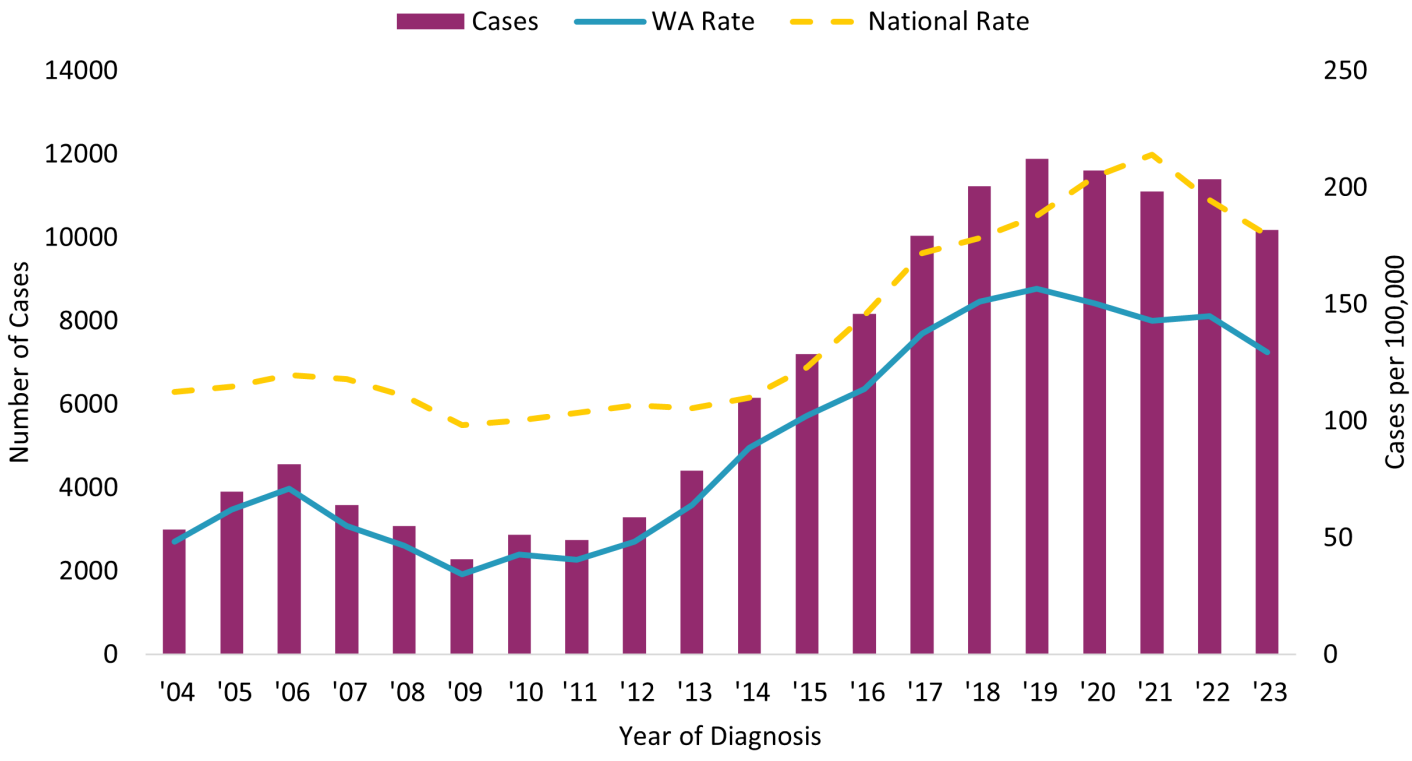
GONORRHEA IN WASHINGTON STATE

SUMMARY OF TRENDS:

- **Between 2004 and 2023, the number and rate of gonorrhea cases reported in Washington State has generally increased.**
- **Between 2014 and 2023, gonorrhea rates have consistently been highest among cisgender males, non-Hispanic Black persons, and, since 2015, persons aged 25-to-34 years.**
- **Gay, bisexual and other men who have sex with men (GBMSM) represented a disproportionate percent of gonorrhea cases between 2014 and 2023.**
- **Reported case counts were highest within King, Pierce, Spokane, Snohomish, and Clark counties.**

The statewide number of reported gonorrhea cases and incidence rate estimates between 2004 and 2023 are presented in Figure 9 and written in Table E. When comparing 2004 to 2023, gonorrhea cases have more than tripled. The reported number and rate of gonorrhea cases in Washington varied between 2004 and 2011, steadily increased through 2019, and has varied into 2023. Washington's rate of gonorrhea has consistently been lower than the national rate of gonorrhea reported by the CDC, also shown in Figure 9.

Figure 9. Reported Gonorrhea Cases and Rates, WA State, 2004-2023



Data source: WELRS and PHIMS-STD

Table E. Reported Gonorrhea Case Counts and Cases per 100,000, WA State, 2004-2023

Year of Diagnosis	Number of Cases	Cases per 100,000
2004	2,992	48.2
2005	3,901	61.9
2006	4,556	71.0
2007	3,580	54.9
2008	3,080	46.6
2009	2,284	34.2
2010	2,870	42.7
2011	2,737	40.4
2012	3,290	48.3
2013	4,408	64.0
2014	6,160	88.4
2015	7,207	102.0
2016	8,172	113.8
2017	10,035	137.3
2018	11,224	151.1
2019	11,887	156.5
2020	11,607	150.4
2021	11,103	142.9
2022	11,396	144.9
2023	10,181	129.5

Data source: PHIMS-STD, WELRS

Table F presents the number of gonorrhea cases and rates per 100,000 people by year and county from 2019 through 2023. Trends in reported gonorrhea cases varied by county. Considering all gonorrhea cases between 2019 and 2023, King County has had the highest number of cases, followed by Pierce, Spokane, Snohomish, Clark, and Yakima. Higher numbers in these counties are expected, given that these are the most populous counties in the state.

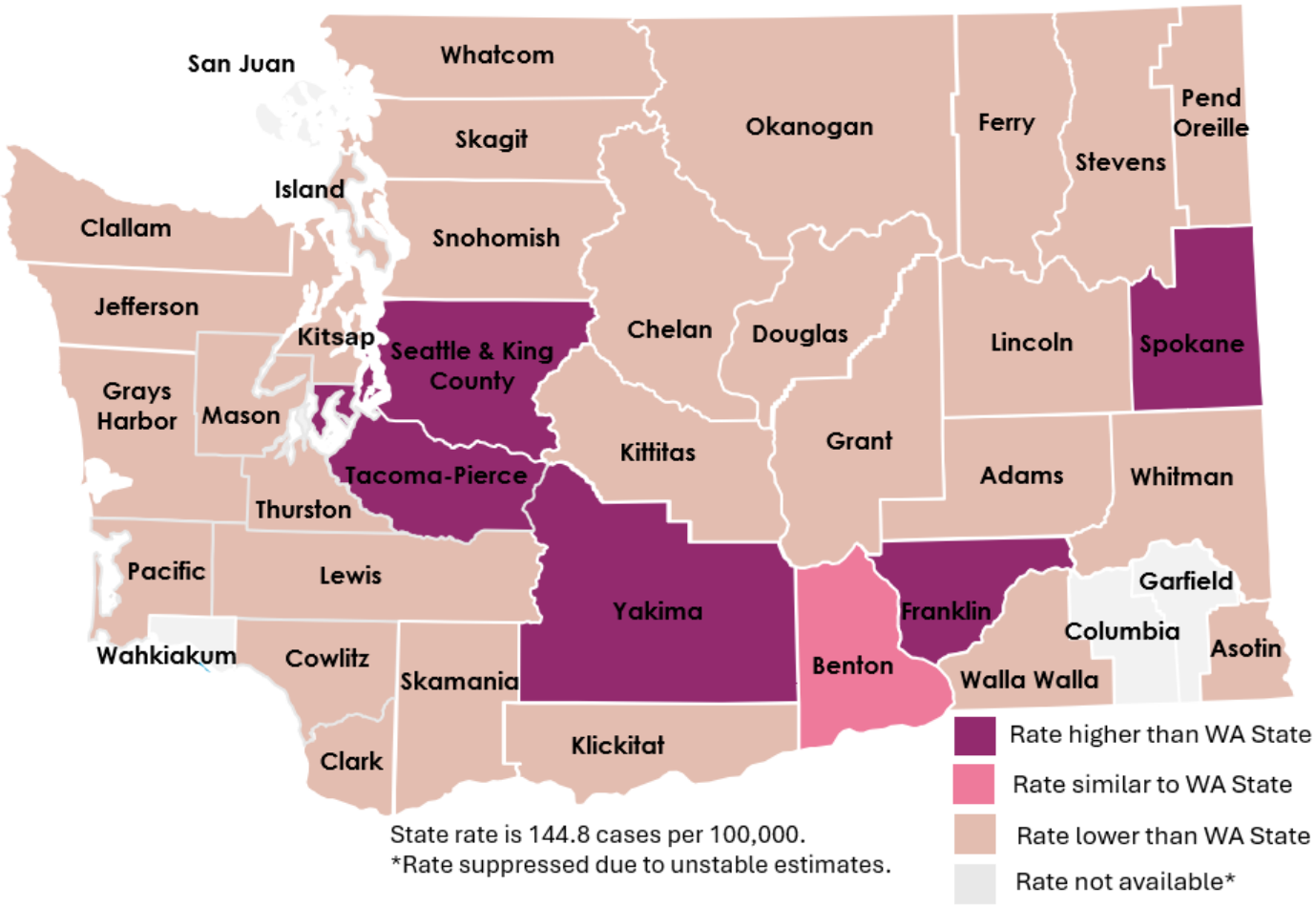
Table F. Gonorrhea Cases and Rates by County, 2019 to 2023 (Data source: PHIMS-STD and WELRS)

County	2019 Cases	2019 Rate	2020 Cases	2020 Rate	2021 Cases	2021 Rate	2022 Cases	2022 Rate	2023 Cases	2023 Rate
ADAMS	11	+	11	+	22	105.3	11	+	13	+
ASOTIN	24	108.0	26	116.7	17	75.6	8	+	3	+
BENTON	250	123.2	380	183.7	338	161.4	284	133.8	244	114.9
CHELAN	38	48.7	40	50.5	37	46.3	60	74.4	52	64.5
CLALLAM	29	38.0	9	+	29	37.3	49	63.1	24	30.9
CLARK	552	112.1	676	134.3	637	124.1	568	109.0	514	98.7
COLUMBIA	3	+	1	+	1	+	7	+	3	+
COWLITZ	101	92.5	73	65.9	84	75.3	81	72.1	89	79.2
DOUGLAS	26	61.7	25	58.2	20	45.9	29	65.9	21	47.7
FERRY	7	+	2	+	3	+	8	+	1	+
FRANKLIN	139	146.8	170	175.7	183	186.1	182	182.5	129	129.3
GARFIELD	1	+	0	0.0	0	0.0	1	+	0	0.0
GRANT	98	100.1	127	128.1	112	111.1	104	102.2	107	105.1
GRAYS HARBOR	73	97.3	83	109.7	77	101.2	53	69.4	54	70.7
ISLAND	42	48.8	31	35.7	31	35.6	32	36.5	32	36.5
JEFFERSON	5	+	10	+	4	+	14	+	10	+
KING	4703	210.5	4273	188.3	4309	188.4	4450	192.0	4515	194.8
KITSAP	240	87.9	259	94.0	260	93.6	276	98.3	189	67.3
KITTITAS	29	64.3	19	40.9	18	39.8	42	89.0	21	44.5
KLICKITAT	18	80.3	8	+	14	+	13	+	13	+
LEWIS	50	61.6	50	60.9	66	79.8	53	63.5	53	63.5
LINCOLN	7	+	6	+	1	+	10	+	9	+
MASON	48	73.8	46	70.0	60	91.3	51	77.0	39	58.9
OKANOGAN	46	109.9	41	97.4	25	59.0	52	121.8	26	60.9
PACIFIC	4	+	4	+	7	+	10	+	11	+
PEND OREILLE	1	+	11	+	4	+	20	146.8	10	+
PIERCE	2133	235.4	2204	239.5	1788	192.6	1735	185.1	1559	166.3
SAN JUAN	2	+	1	+	1	+	7	+	5	+
SKAGIT	116	90.3	136	105.0	99	76.2	86	65.5	70	53.3
SKAMANIA	5	+	1	+	2	+	7	+	5	+
SNOHOMISH	763	93.4	795	96.0	797	95.1	893	105.4	633	74.7
SPOKANE	1074	202.5	900	166.9	879	162.1	1047	190.1	877	159.3
STEVENS	32	69.5	25	53.8	20	42.8	31	65.9	28	59.5
THURSTON	279	96.4	306	103.8	263	88.3	258	85.9	251	83.5
WAHKIAKUM	0	0.0	0	0.0	1	+	1	+	3	+
WALLA WALLA	78	125.4	61	97.5	48	77.3	41	65.5	45	71.9
WHATCOM	159	70.9	187	82.4	216	95.4	222	95.8	144	62.2
WHITMAN	34	71.1	23	47.9	34	76.2	45	94.1	13	+
YAKIMA	667	261.6	584	227.5	595	230.5	555	213.5	363	139.6

+For any counts less than seventeen, rates are not included due to statistical instability.

Map 2 shows aggregate gonorrhea rates from 2019 to 2023 by county as compared to the statewide rate. For this five-year time frame, Franklin, King, Pierce, Spokane, and Yakima all had higher rates than the statewide rate. On the other hand, there were four counties in which rates could not be stably calculated due to fewer than 17 gonorrhea diagnoses (Columbia, Garfield, San Juan, Wahkiakum).

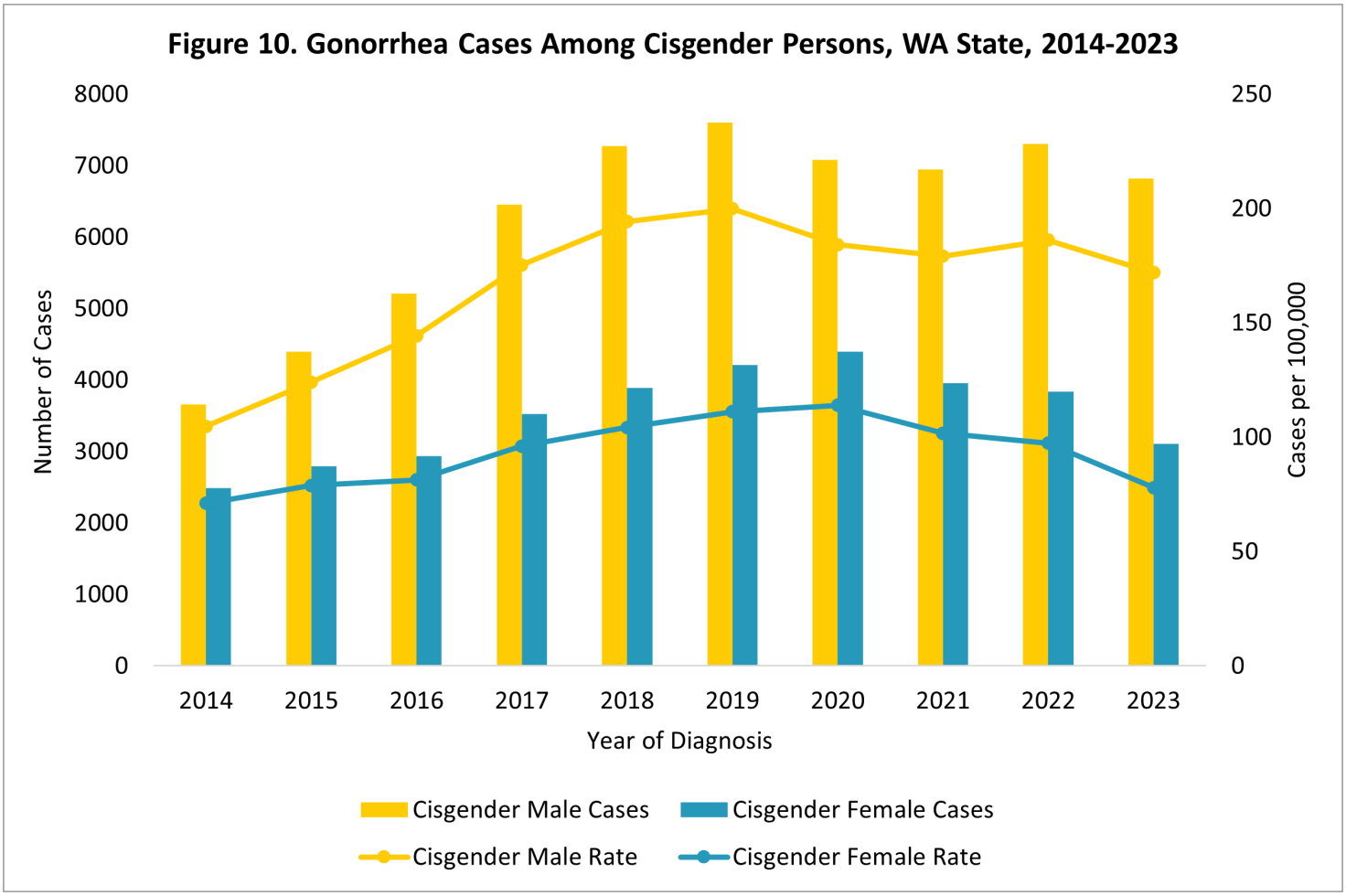
Map 2. Aggregate Gonorrhea Rates by County Compared to WA State Rate, 2019-2023



Data source: PHIMS-STD and WELRS

GONORRHEA DISTRIBUTION BY GENDER

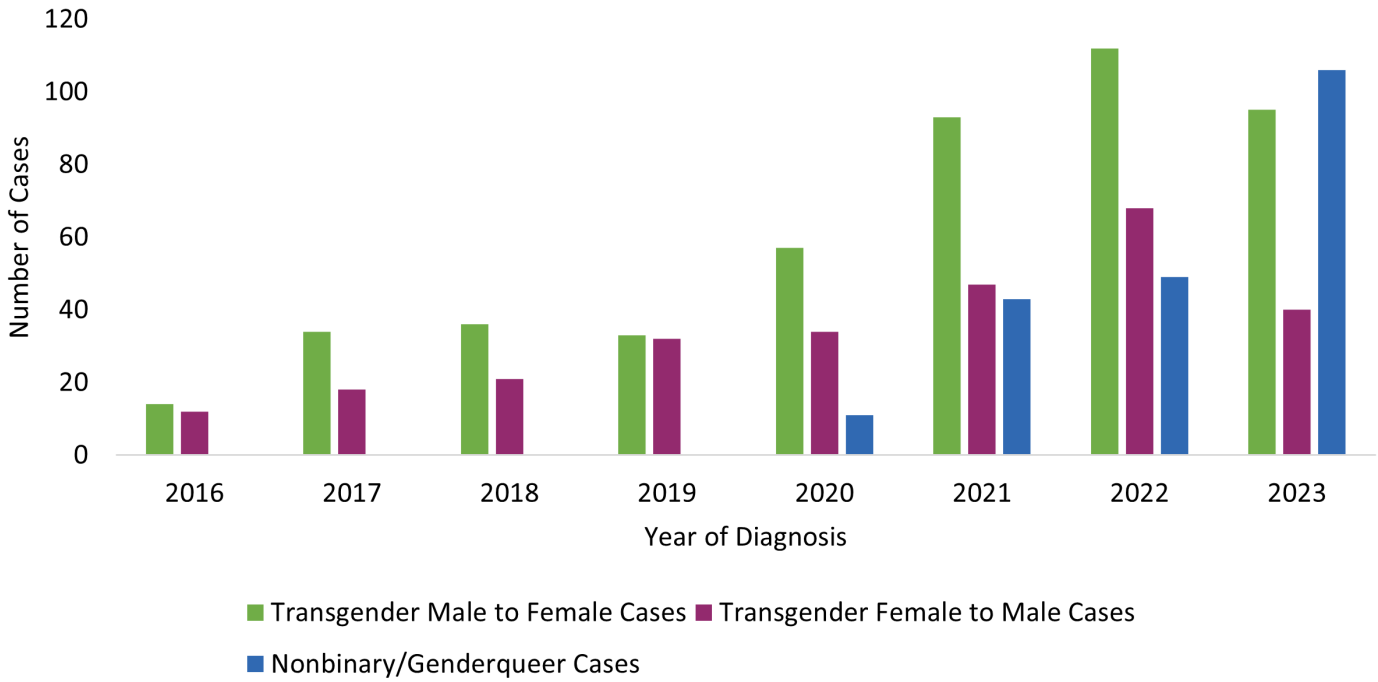
Figures 10 and 11 show gonorrhea case counts by gender in Washington from 2014 to 2023, and this is also presented in Table G. Gonorrhea cases overall have consistently been highest among cisgender males. Figure 10 shows that the rate of gonorrhea increased among both cisgender females and cisgender males from 2014 to 2019, then varied from 2019 to 2023, which is similar to trends seen in gonorrhea cases overall.



Data source: PHIMS-STD, WELRS

Cases among transgender and nonbinary/genderqueer persons are presented in Figure 11, with a notable rise in cases among transgender male to female individuals between 2019 and 2022. Due to small numbers, data for transgender persons are not presented prior to 2016; data for nonbinary/genderqueer individuals are also not available prior to 2020. Rates for transgender and nonbinary/genderqueer persons are not presented due to small numbers and limited population data.

Figure 11. Gonorrhea Cases Among Transgender and Nonbinary/Genderqueer Persons, WA State, 2016-2023



Data source: PHIMS-STD, WELRS

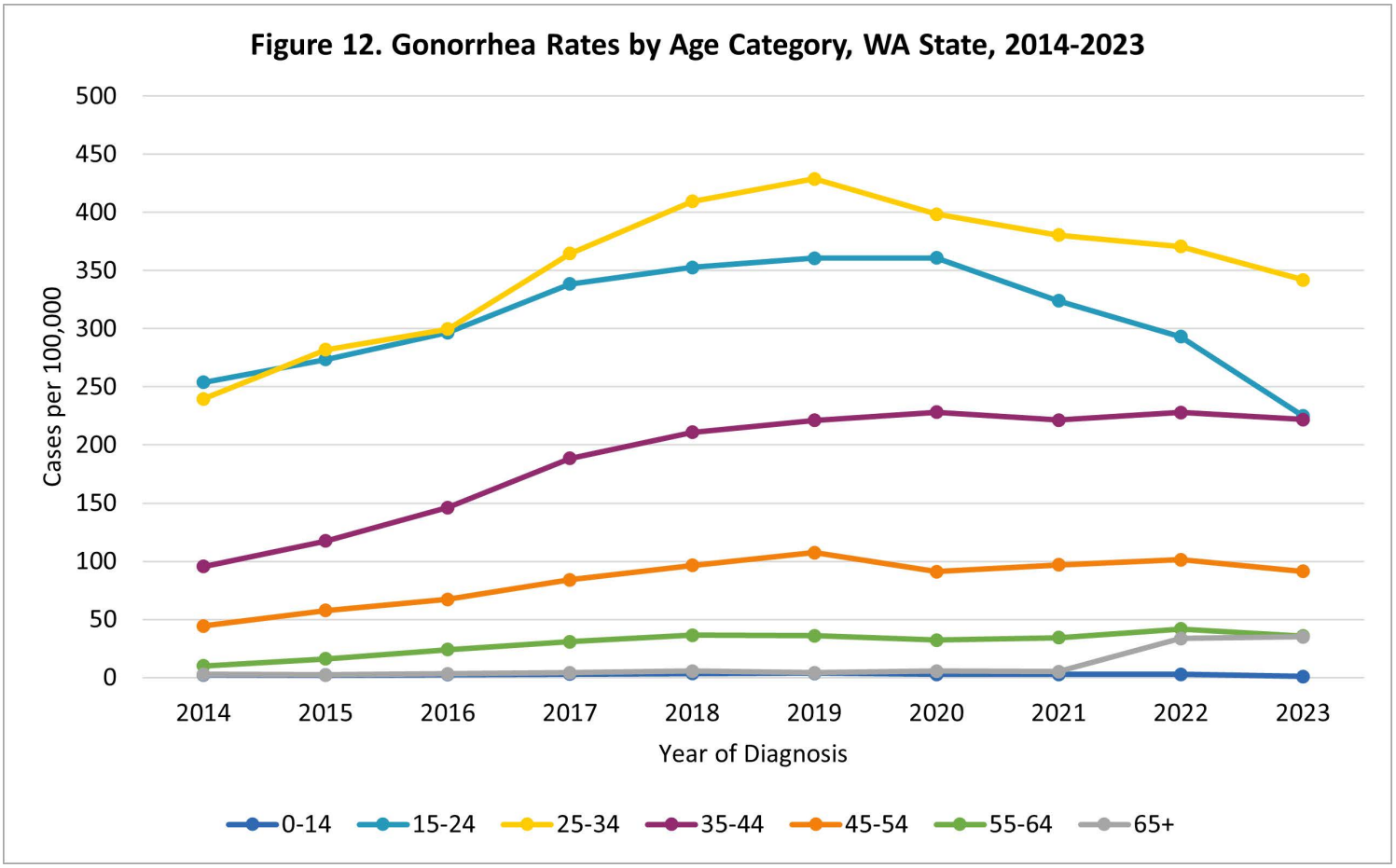
Table G. Gonorrhea Cases by Gender, WA State, 2014-2023 (Data source: PHIMS-STD, WELRS)

Year of Diagnosis	Cisgender Male Cases	Cisgender Female Cases	Cisgender Male Rate	Cisgender Female Rate	Transgender Male to Female Cases	Transgender Female to Male Cases	Nonbinary/Genderqueer Cases
2014	3661	2488	104.8	71.1	+	+	*
2015	4399	2797	124.1	78.9	+	+	*
2016	5212	2934	144.4	81.3	14	12	*
2017	6452	3529	175.4	96.1	34	18	*
2018	7272	3889	194.3	104.3	36	21	*
2019	7605	4211	199.9	111.1	33	32	*
2020	7081	4399	184.2	113.9	57	34	11
2021	6944	3958	179.2	101.7	93	47	43
2022	7305	3840	186.2	97.4	112	68	49
2023	6819	3106	171.9	77.9	95	40	106

+ Data have been suppressed to protect patient confidentiality due to small numbers.
*Data not available prior to 2020.

GONORRHEA DISTRIBUTION BY AGE

Figure 12 presents gonorrhea rates by age category from 2014 to 2023. Since 2015, the highest gonorrhea rates have been among people aged 25-to-34 years, followed by people aged 15-to-24 years and then people aged 35-to-44 years. Rates were lowest for people aged 0-to-14 years and have been suppressed for some years due to those small numbers.

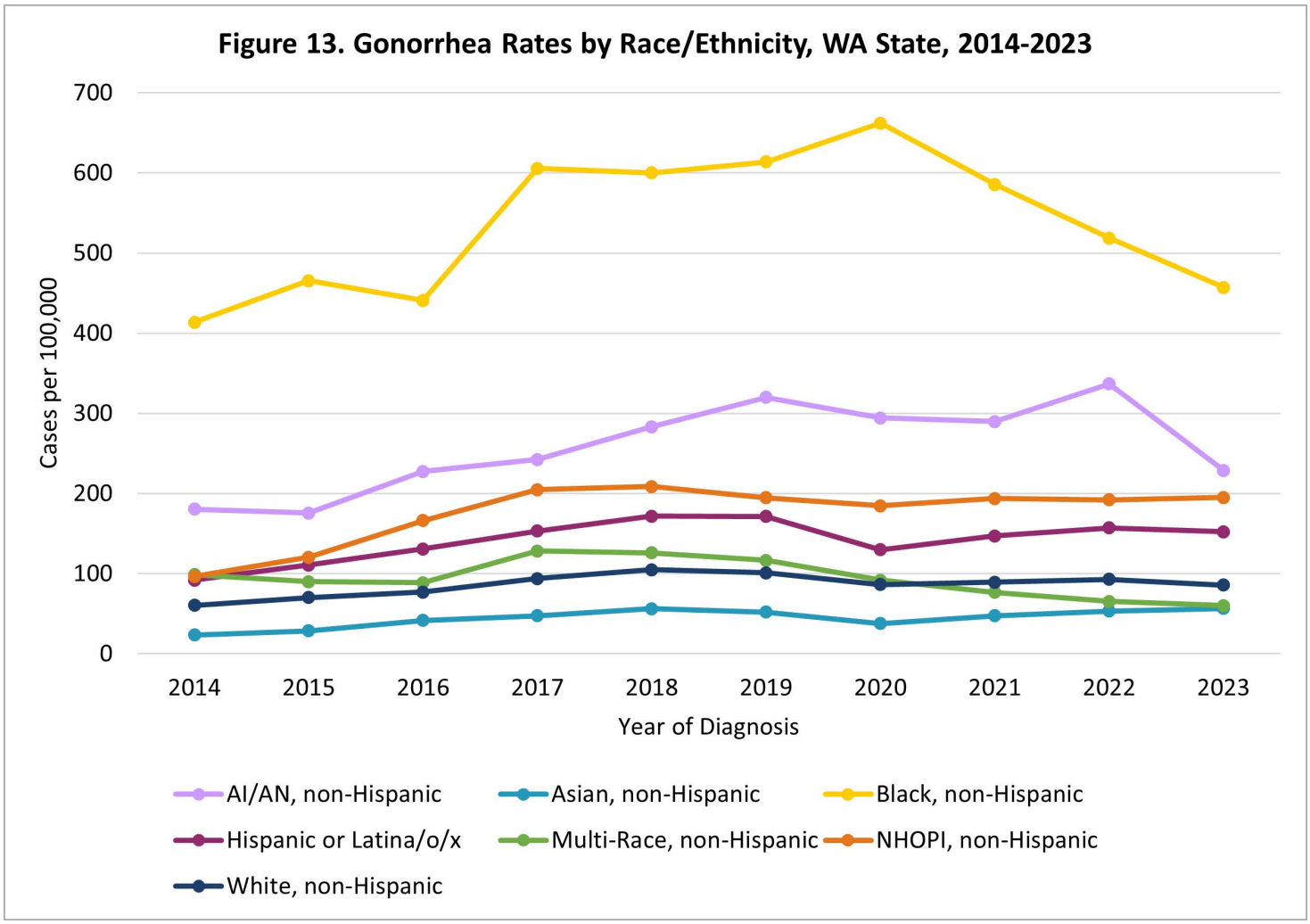


Data source: PHIMS-STD, WELRS

GONORRHEA DISTRIBUTION BY RACE AND ETHNICITY

Figure 13 presents gonorrhea rates by race and ethnicity for 2014 to 2023, and case counts are written in Table H. People of color and those of Hispanic ethnicity continue to experience disproportionate rates of gonorrhea, which is a product of systemic racism. Black non-Hispanic persons have had the highest gonorrhea rate by far throughout this time frame in Washington, which is also seen at the national level (source: CDC STI Surveillance 2023). Additionally, rates each year among AI/AN non-Hispanic, NHOPI non-Hispanic, and Hispanic/Latina/o/x persons were all higher than White non-Hispanic and Asian non-Hispanic persons.

In 2023, Black non-Hispanic persons were 5.3 times more likely to report gonorrhea than White non-Hispanic persons. AI/AN non-Hispanic, NHOPI non-Hispanic, and Hispanic/Latina/o/x persons were 2.7, 2.3, and 1.8 times more likely to report gonorrhea than White non-Hispanic persons, respectively. Although the rates have varied by year, they are generally similar when comparing 2014 and 2023.



Data source: PHIMS-STD, WELRS

Table H. Gonorrhea Cases by Race/Ethnicity, WA State, 2014-2023

Race/Ethnicity Category	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
AI/AN, non-Hispanic	161	157	204	219	257	292	270	266	312	212
Asian, non-Hispanic	124	159	241	290	365	360	275	357	420	445
Black, non-Hispanic	1019	1175	1149	1631	1673	1776	1981	1799	1661	1463
Hispanic or Latina/o/x	804	1006	1240	1510	1749	1802	1407	1629	1792	1734
Multi-Race, non-Hispanic	338	331	349	539	565	552	459	386	330	304
NHOPI, non-Hispanic	45	59	86	112	120	118	117	126	130	132
White, non-Hispanic	2939	3410	3762	4615	5173	4988	4266	4411	4603	4246
Unknown	730	910	1141	1119	1322	1999	2832	2129	2148	1645

Data source: PHIMS-STD, WELRS

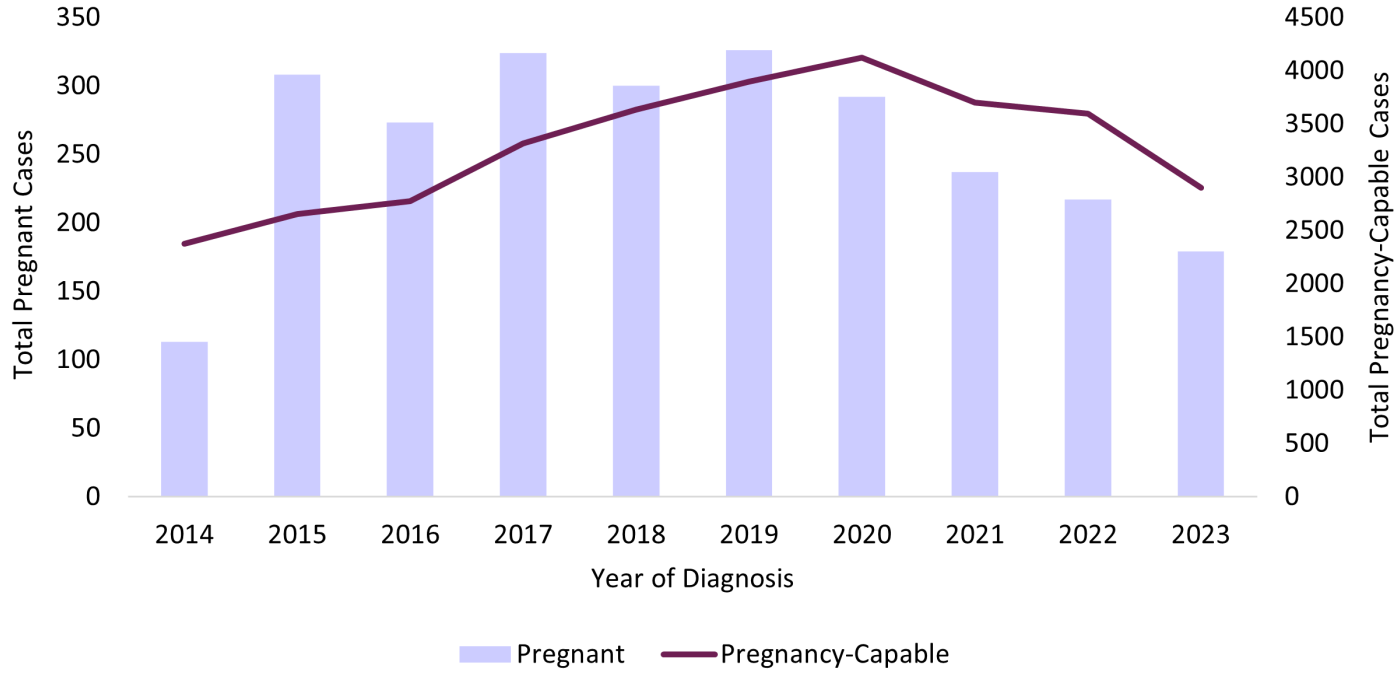
Note: 'Unknown' category includes cases in which 'Other' was selected for a patient's race/ethnicity.

GONORRHEA AMONG PREGNANT AND PREGNANCY-CAPABLE PEOPLE

Gonorrhea cases among pregnancy-capable people followed an increasing trend from 2014 to 2020 and then decreased from 2020 to 2023, shown in Figure 14. Pregnancy-capable is defined as individuals assigned female at birth aged 15-to-44 years old. Although the number of cases among pregnancy-capable people has changed over time, each year they have represented a notable proportion of cases. In 2023, over 28% of reported gonorrhea cases were among pregnancy-capable people.

The number of cases among pregnant people has varied between 2014 and 2023 but is still higher in 2023 than in 2014. It is especially important that pregnant people diagnosed with gonorrhea are treated, as untreated infections can lead to serious health complications for one's baby.

Figure 14. Gonorrhea Cases Among Pregnancy-Capable and Pregnant Persons, WA State, 2014-2023



GONORRHEA DISTRIBUTION BY RISK CATEGORIES

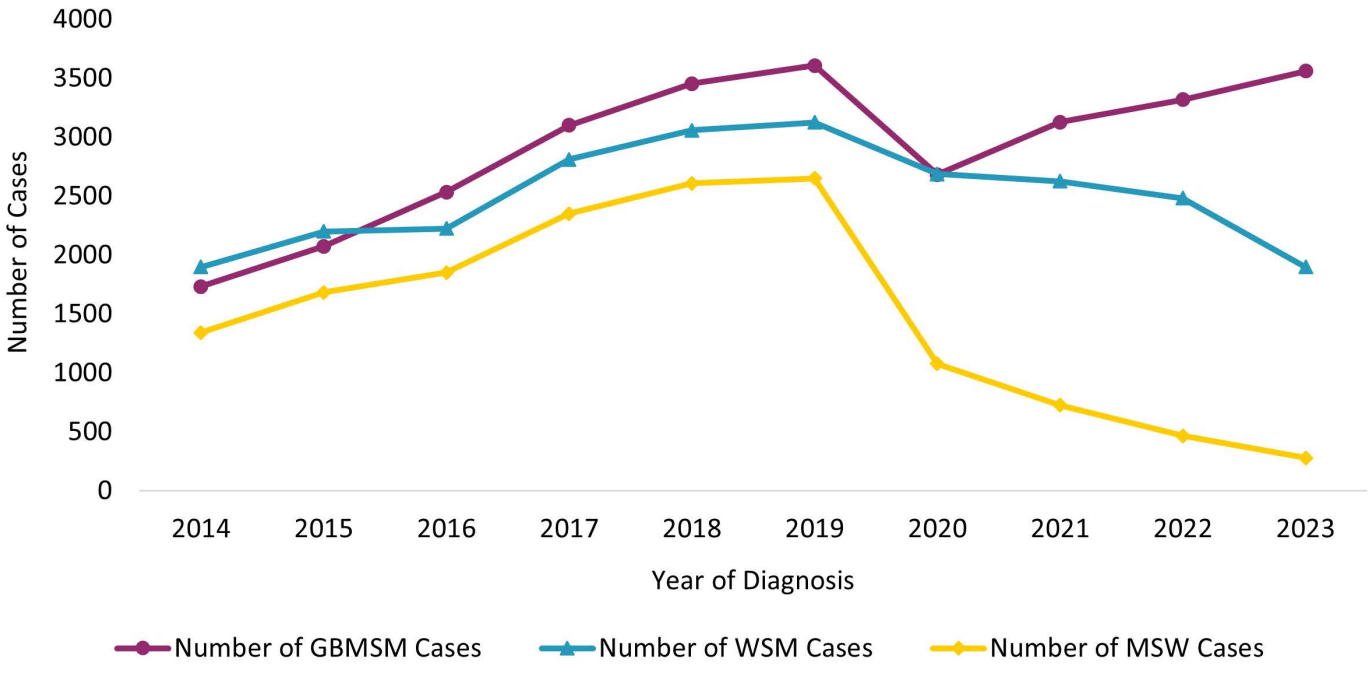
Examining gonorrhea by different risk indicators provides further insight into populations that may be more vulnerable to infection.

Gender and gender of sex partner(s)

When considering gonorrhea cases by risk categories, the trends have shifted between 2014 and 2023. An individual's risk category can be classified by their reported gender and the reported gender(s) of their sex partner(s). The three risk classifications that are typically more vulnerable to infection will be presented here: gay, bisexual, and other men who have sex with men (GBMSM), men who have sex with only women (MSW), and women who have sex with men (WSM). However, this does not encompass all combinations of gender and gender of sex partner(s), and any sexually active individual is vulnerable to gonorrhea infection regardless of their gender and partner's gender.

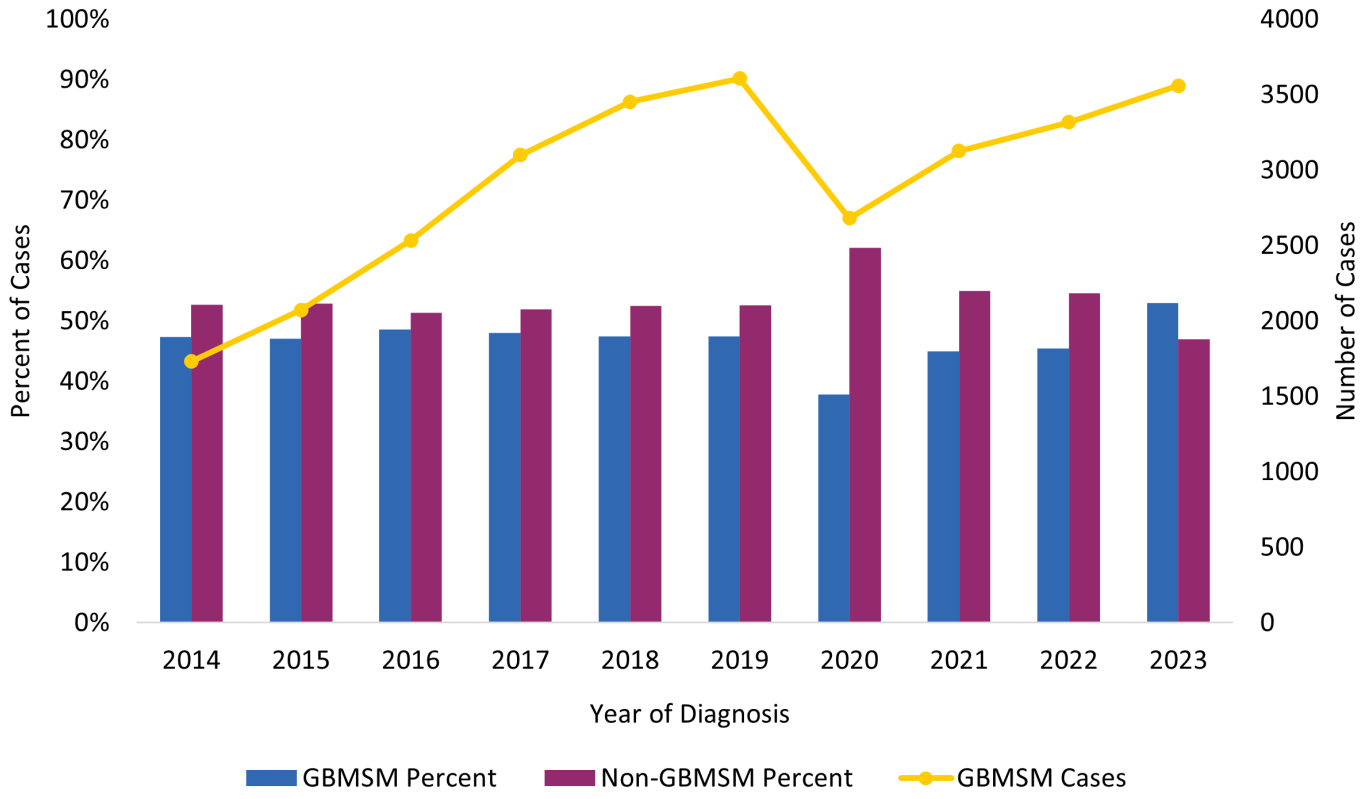
Figure 15 presents the number of gonorrhea cases by categories of gender/gender of sex partner(s) from 2014 through 2023. In each of these categories, there has been a rise in cases from 2014 to 2019, then a dip in 2020. Since information on gender of one's reported sex partner is typically only collected during a patient interview, the decreases in 2020 may be due to COVID-19 limiting patient interviews. Aside from 2020, cases by risk category may generally be under reported since not all cases are interviewed every year. Since 2020, cases increased for GBMSM and decreased for both MSW and WSM.

Figure 15. Gonorrhea Cases by Gender & Gender of Sex Partner(s), WA State, 2014-2023



Focusing specifically on GBMSM, Figure 16 displays male gonorrhea cases among GBMSM versus non-GBMSM from 2014 to 2023. Between 2014 and 2023, GBMSM have composed anywhere from 38% of male gonorrhea cases (in 2020) to 53% of cases (in 2023), despite only making up around 4% of Washington's population. Although the proportion of gonorrhea cases among GBMSM versus non-GBMSM has varied each year, the number of cases of GBMSM still increased at a faster rate than gonorrhea cases overall from 2014 to 2023, emphasizing the ongoing disparities in GBMSM diagnoses.

Figure 16. Male Gonorrhea Cases Among GBMSM versus non-GBMSM, WA State, 2014-2023

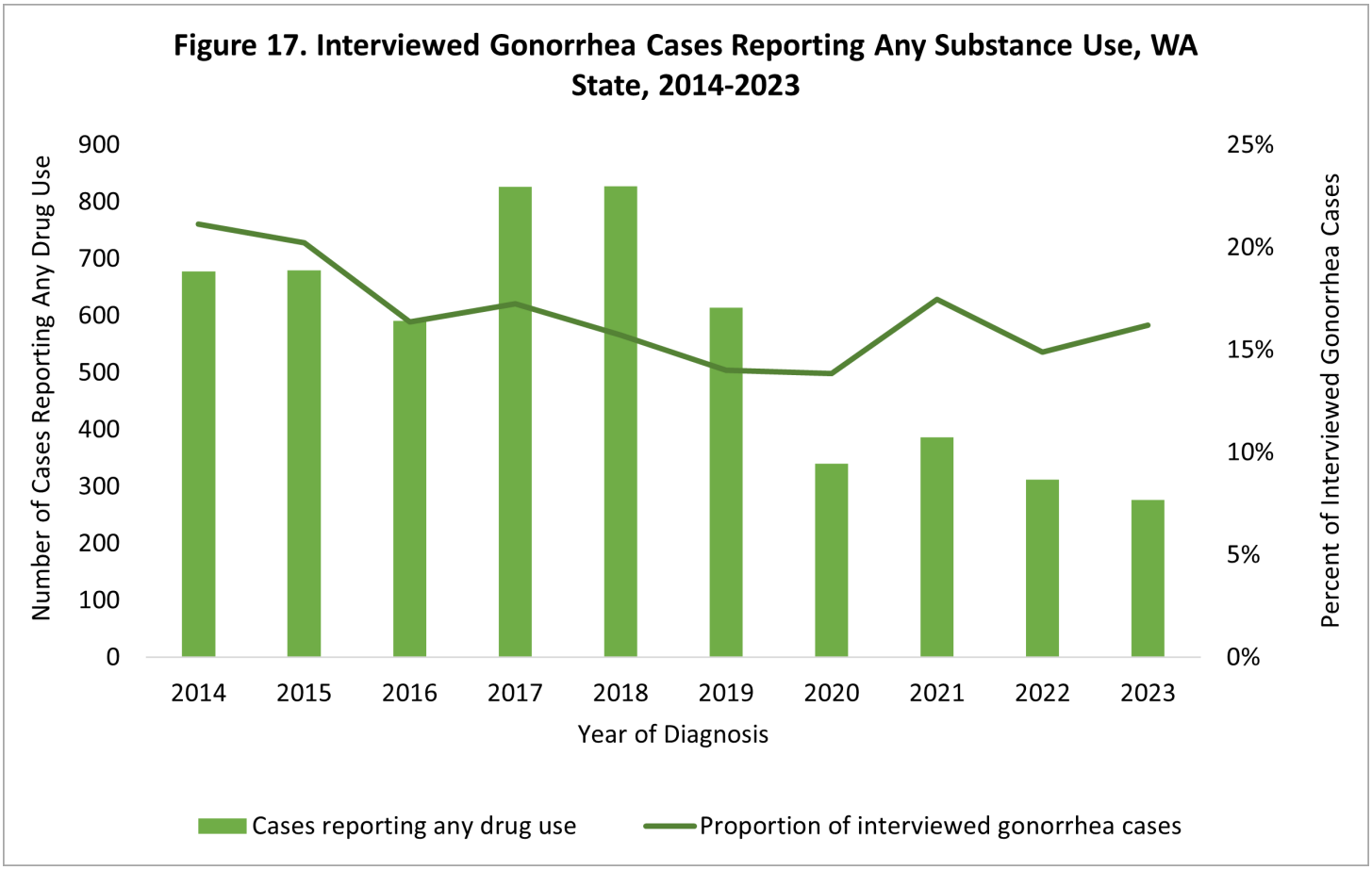


Use of drugs

Use of drugs is another factor that may place individuals at higher vulnerability for gonorrhea infection. Figure 17 presents the number and proportion of interviewed gonorrhea cases reporting any substance use. This includes methamphetamine, heroin, injection drug use, cocaine/crack, opioids, or other drugs. Injection drug use refers to a method of consumption and not necessarily a type of drug, although it is often associated with heroin, opioids, or methamphetamine. This reporting is limited to interviewed cases because this information is only collected during interviews.

The percentage of interviewed gonorrhea cases reporting any drug use peaked in 2014 at over 21% and has varied in the years since, most recently at 16% in 2023. This may be under-reported, since patients might be hesitant to disclose drug use for a variety of reasons.

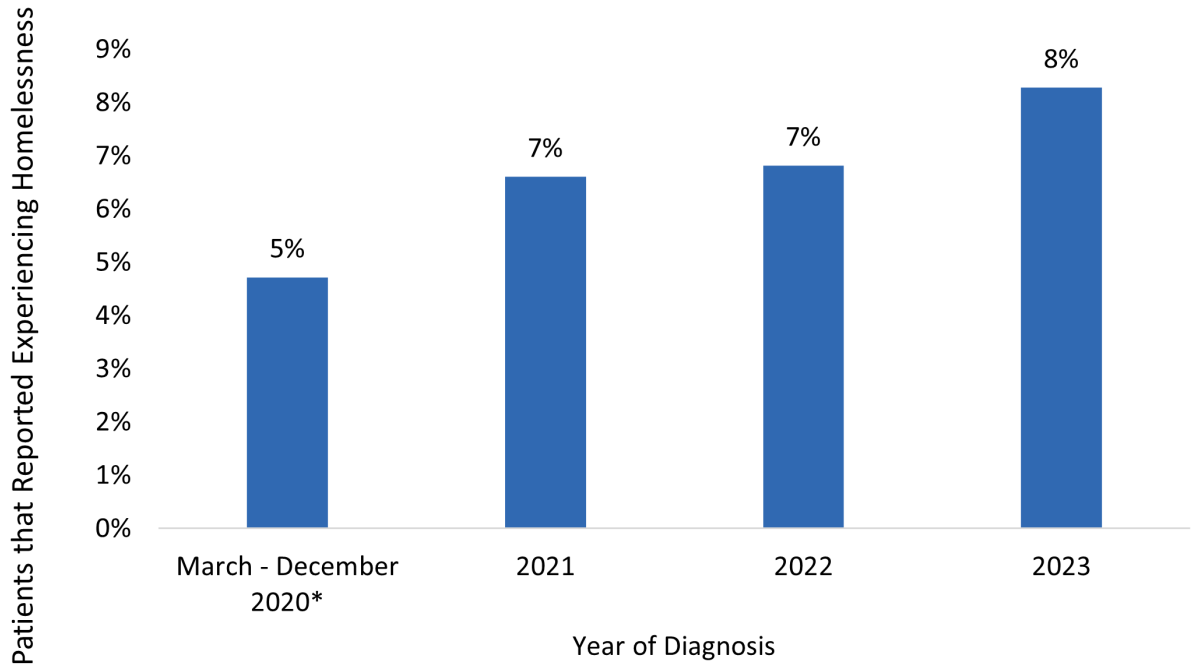
Figure 17. Interviewed Gonorrhea Cases Reporting Any Substance Use, WA State, 2014-2023



Experiencing homelessness

People experiencing homelessness are disproportionately impacted by STIs and face additional challenges with accessing care. Since 2020, the percentage of interviewed cases reporting experiencing homelessness within the prior three months has risen slightly from 5% in 2020 to 8% in 2023 (Figure 18). This is likely under-reported for a variety of reasons, such as a patient not wishing to disclose experiencing homelessness or DIS being unable to locate the patient for follow-up. DOH is exploring methods to more accurately capture homelessness among patients diagnosed with an STI in order to better support this population. Data prior to March 2020 are not available since this was added to reporting in March 2020.

Figure 18. Interviewed Gonorrhea Cases Reporting Experiencing Homelessness, WA State, March 2020-December 2023



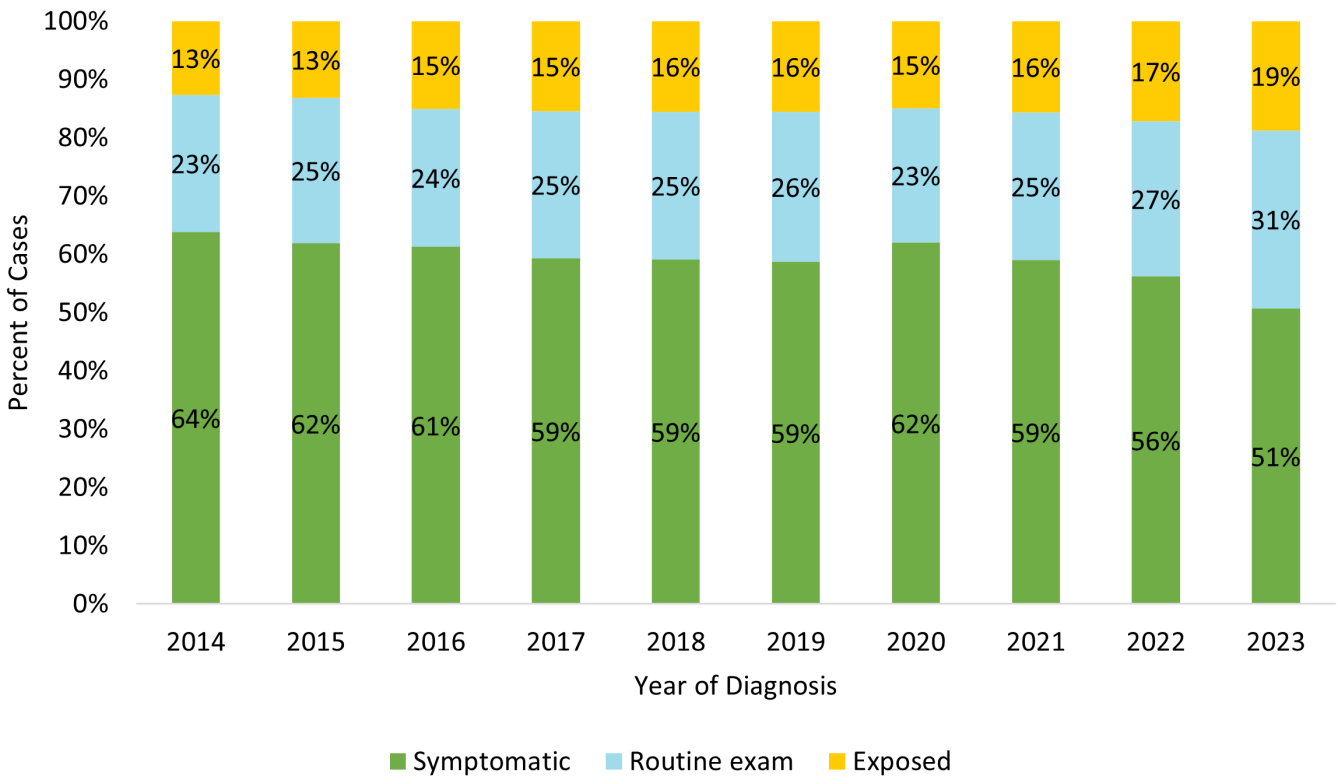
GONORRHEA: TRENDS IN DIAGNOSIS AND ACCESSING OF CARE

Trends in gonorrhea diagnosis and patient access to care can give helpful context into why patients are seeking care and the barriers they may face in this process.

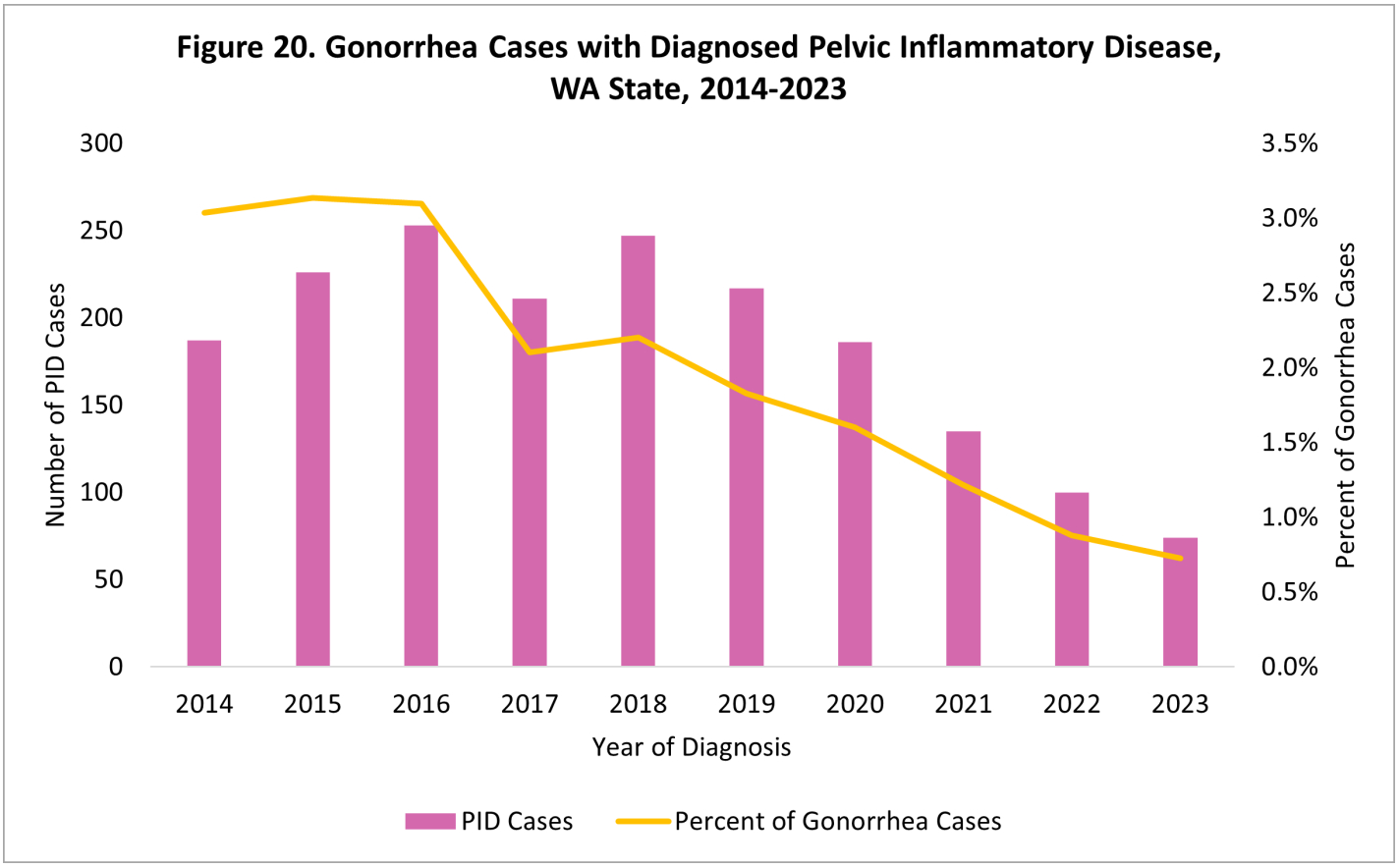
Most people diagnosed with gonorrhea reported experiencing symptoms as their reason for the provider visit in which they were screened for gonorrhea. This remained consistent from 2014 to 2023 when examining all cases that had a reported reason for visit, displayed in Figure 19. The second most common reason for a provider visit was a routine exam, at which 23% to 31% of gonorrhea cases were diagnosed each year. Finally, each year 13% to 19% of cases were screened and diagnosed because of a known exposure to gonorrhea.

Since gonorrhea may occur in multiple sites including the throat and mouth, multi-site and extragenital screening is especially important when screening patients, even if they do not have symptoms.

Figure 19. Reported Reason for Provider Visit at Gonorrhea Diagnosis, WA State, 2014-2023



Examining Pelvic Inflammatory Disease (PID), there has been a decrease in PID cases among people diagnosed with gonorrhea between 2018 and 2023. (Figure 20). In 2023, under 1% of gonorrhea cases were diagnosed with PID. One can reduce their risk of developing PID by receiving routine gonorrhea screenings so an infection can be caught in the early stages before complications develop. More information about PID can be found on the CDC website: [Pelvic Inflammatory Disease (PID) | CDC](#).

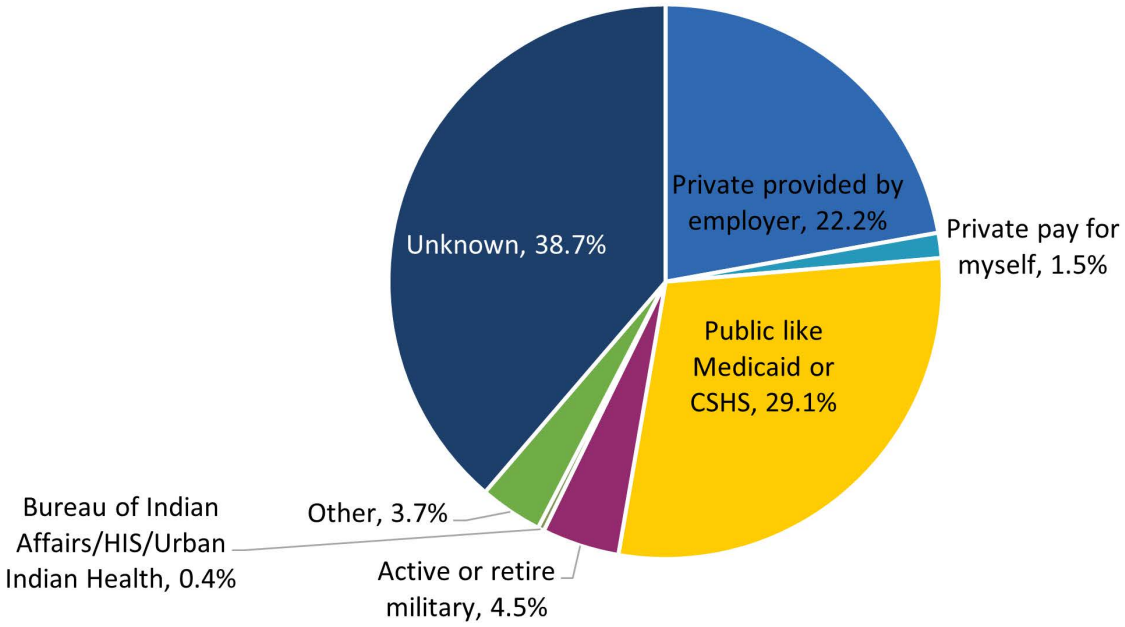


Gonorrhea screenings can be conducted in a wide variety of healthcare facilities. Table I shows which healthcare facility types were utilized the most for gonorrhea screenings and diagnosis from 2019 to 2023. In Washington, people diagnosed with gonorrhea infection have most commonly been screened at a hospital emergency room/urgent care facility, closely followed by a private physician's office/HMO (health maintenance organization). The finding that hospital ERs/urgent care facilities were the number one setting for gonorrhea diagnoses speaks to barriers that patients may face in accessing routine screenings in a non-urgent setting.

Table I. Top Healthcare Facility Types for Gonorrhea Diagnosis, WA State, Aggregate 2019-2023	Percent of GC Cases Diagnosed at Facility Type
Hospital ER/Urgent Care Facility	26%
Private Physician/HMO	25%
Family Planning	10%
Community Health Center/FQHC	10%
Hospital - other than ER	8%
STD Clinic	7%
HIV Care Clinic	3%

Among people diagnosed with gonorrhea who report their type of insurance, the largest proportion have been enrolled in a public insurance program (Figure 21), followed by private insurance provided by the employer. Insurance type was unknown for 39% of gonorrhea patients, so this distribution is an estimate. Many insurance programs will cover routine chlamydia and/or gonorrhea screening, depending upon an individual's risk factors.

Figure 21. Reported Insurance Type Among Interviewed Gonorrhea Cases, WA State, Aggregate 2019-2023



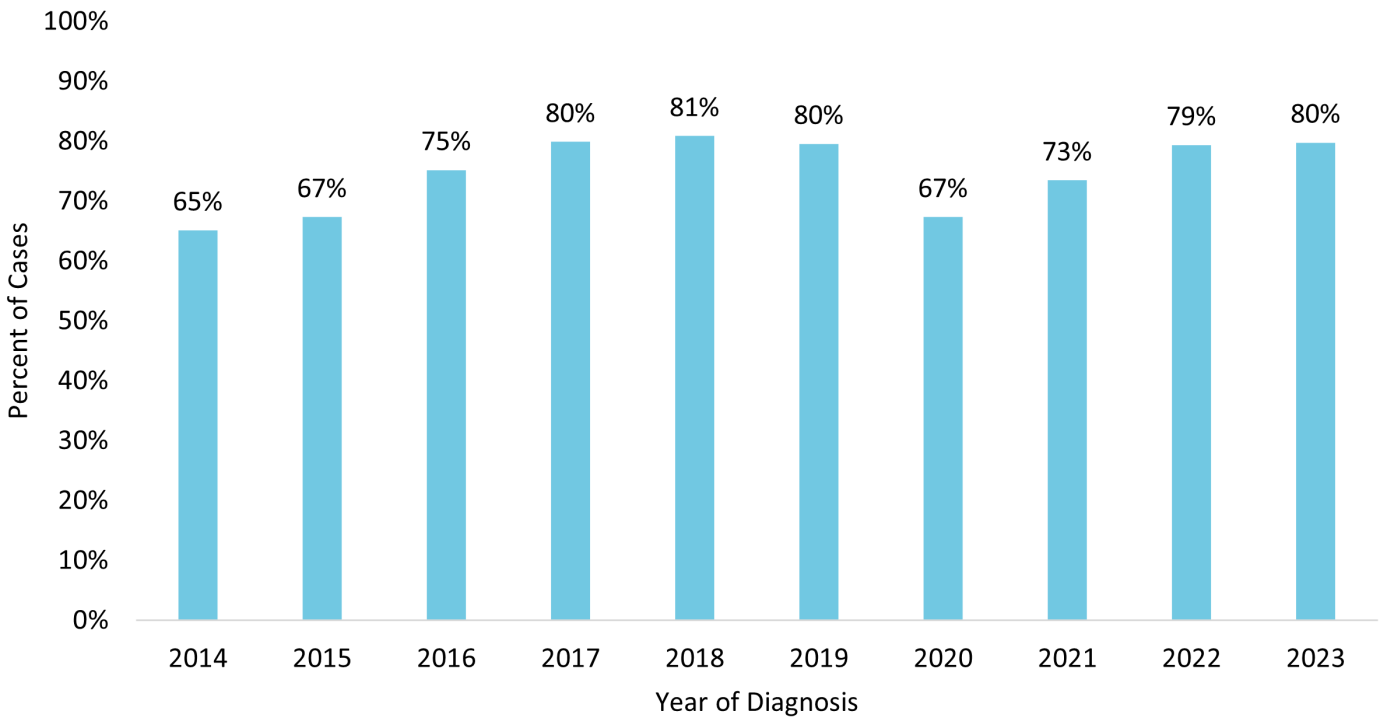
GONORRHEA OUTCOMES: TREATMENT, INTERVENTION, AND FOLLOW-UP

Trends in gonorrhea case treatment, intervention, and follow-up can highlight areas of success as well as those in need of improvement.

Treatment

Proper treatment can cure gonorrhea infection, and it prevents an individual from transmitting it to another partner. Figure 22 shows the percentage of Washington's gonorrhea cases that had appropriate treatment documented between 2014 and 2023. It has varied from a low of 65% in 2014 to a high of 81% in 2018, and most recently was at 80% in 2023. It is very important that CDC-recommended treatment guidelines are followed; there are a percentage of cases each year which receive treatment but not the appropriate treatment to cure gonorrhea.

Figure 22. Gonorrhea Cases With Appropriate Treatment Documented, WA State, 2014-2023

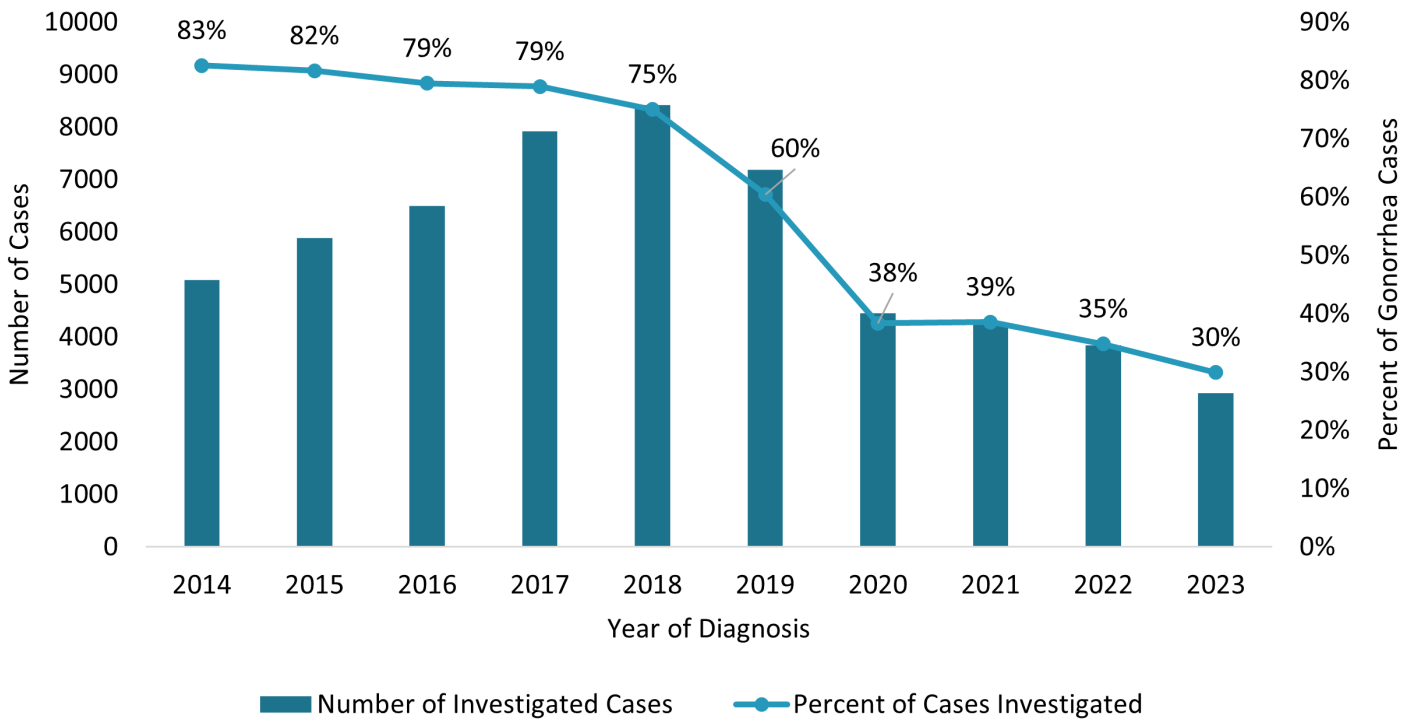


Intervention and Follow-up

After a patient is diagnosed with gonorrhea or another notifiable STI, DIS from DOH and LHJs connect with them for follow-up, which is valuable for the health of the patient and the community.

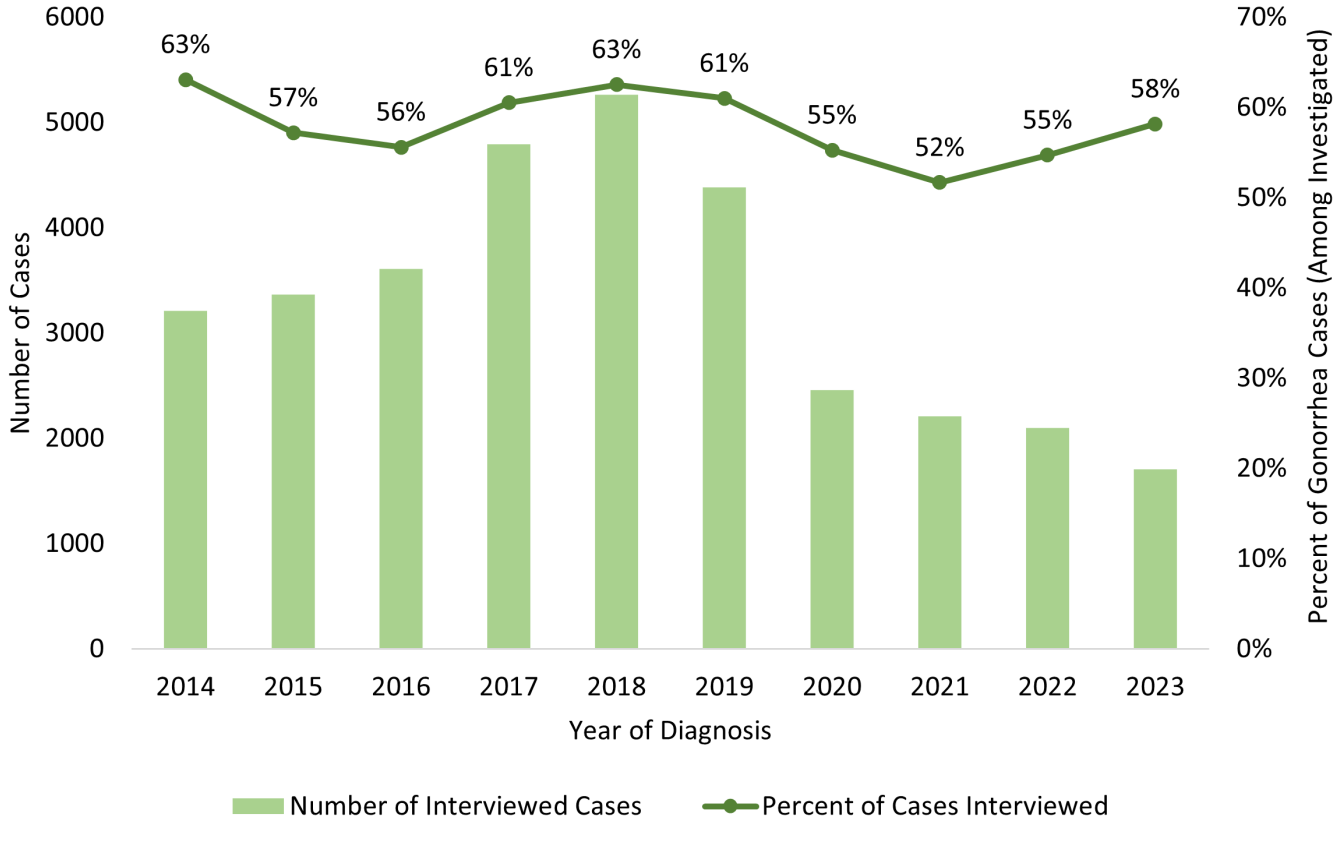
DIS will first investigate a case through contacting the original patient. Figure 23 shows the number and proportion of gonorrhea cases investigated from 2014 through 2023. Here, investigated means contact was attempted between one to three times, or a complete or partial interview is on record. The proportion of gonorrhea cases investigated has decreased from 83% in 2014 to 30% in 2023. The number of investigated gonorrhea cases increased from 2014 to a peak in 2018, then decreased through 2023. The decreases in number and proportion of investigated cases are partly due to the large increase in the total number of gonorrhea cases and other STIs that need follow-up during this timeframe. As the numbers of cases have risen, staff have prioritized cases among more vulnerable populations for investigation.

Figure 23. Investigated Gonorrhea Cases, WA State, 2014-2023



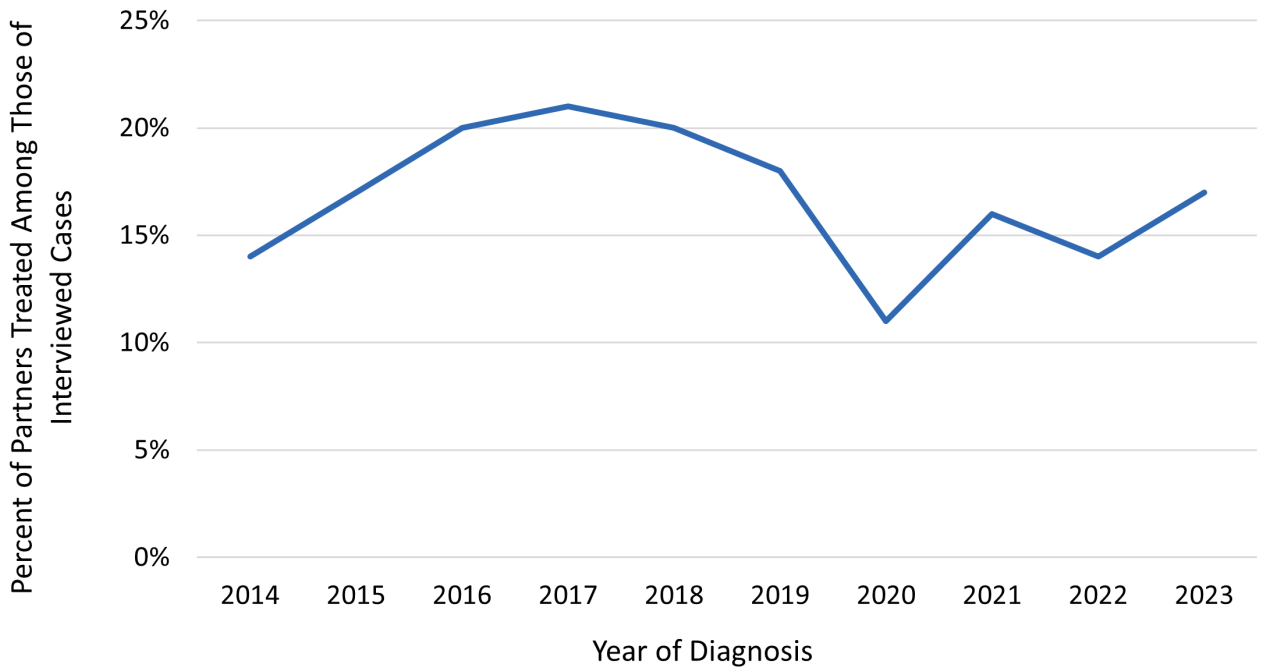
Once a patient has been contacted, DIS aim to interview the patient. These interviews help to gain a better understanding of the populations impacted by STIs in Washington and to ensure patients and their identified partners receive appropriate care. All patient information is kept strictly confidential and used for the purpose of assisting patients and their sexual partners. Figure 24 shows the percentage of gonorrhea cases interviewed among investigated cases from 2014 to 2023. The rate of interviews has varied from a high of 63% in 2018 to a low of 52% in 2021. The number of interviewed cases has decreased since 2018, but there were still over 1,700 gonorrhea cases interviewed in 2023. DIS have maintained high interview rates for high-priority populations over this time period.

Figure 24. Interviewed Gonorrhea Cases Among Investigated Cases, WA State, 2014-2023



Through interviewing original patients, DIS can identify partners and connect them with screening and/or treatment. Figure 25 shows the percentage of partners treated among named partners of the interviewed patients. This has ranged from 11% to 21% over this timeframe; however, a percentage of treated partners may be under reported due to data quality issues. Although it is understandable that patients may have hesitations in naming their sexual partners, this is very important for the health of their partners and the public. By continuing to treat people with gonorrhea or any STI, we curb the spread of infection and reduce the risk and associated complications of infection for everyone.

Figure 25. Gonorrhea Partner Treatment Index, WA State, 2014-2023



SECTION 3. SYPHILIS

CLINICAL BACKGROUND OF SYPHILIS

Syphilis is an infection caused by the bacterium *Treponema Pallidum*. It typically progresses in stages and can lead to serious health consequences if left untreated or passed down to a person's baby. Cases of syphilis have consistently been rising in the United States and Washington since the early 2000s.

Stages and Symptoms:

Primary Infection: The primary stage of syphilis infection is usually marked by the appearance of a single sore (chancre), but there may be multiple sores. The time between infection and the onset of symptoms can range from 10 to 90 days (average 21 days). The chancre is usually firm, round, small, and painless. It appears at the spot where syphilis entered the body, generally the genitalia or anus. A primary lesion may also appear in or around the mouth, or, rarely, in other extragenital places depending on exposure. Lymphadenopathy (swollen lymph nodes) often develops in proximity to the primary lesion. The chancre lasts 1 to 5 weeks (average 3 weeks), and it heals without treatment. However, if appropriate treatment is not administered, the infection progresses to the secondary stage. A person is highly infectious during this stage.

Secondary Infection: Skin rash and mucous membrane lesions characterize the secondary stage. This stage typically starts with the development of a rash on one or more areas of the body. The rash usually does not cause itching. Rashes associated with secondary syphilis can appear as the chancre is healing, or several weeks after the chancre has healed. The characteristic rash of secondary syphilis may appear as rough, red, or reddish-brown spots both on the palms of the hands and the bottoms of the feet. However, rashes with a different appearance may occur on other parts of the body, sometimes resembling rashes caused by other diseases. Sometimes rashes associated with secondary syphilis are so faint that they are not noticed. In addition to rashes, symptoms of secondary syphilis may include fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and fatigue. Mucous patches on mucous membranes, such as in the mouth or vagina, may also appear, as may wart-like lesions called condyloma lata. The signs and symptoms of secondary syphilis will resolve with or without treatment, but without treatment, the infection will progress to the latent and late stages of disease.

Latent Stage: Syphilis infection is referred to as latent when symptoms are not present. This may occur between primary and secondary phases of the disease, or after secondary symptoms have disappeared. Without treatment, the infected person will continue to have syphilis even though there are no signs or symptoms; infection remains in the body. Latent syphilis is divided into two stages: early non-primary non-secondary and unknown duration or late.

a. Early Non-Primary Non-Secondary (formerly "Early Latent"): This stage applies when an individual is asymptomatic and the earliest date of infection or exposure can be determined to have occurred within a year of diagnosis. In some instances, the earliest date of infection can be inferred from a documented negative serologic test result before the current diagnosis, or from onset of documented signs of primary or secondary syphilis.

b. Unknown Duration or Late: This stage applies when an individual is asymptomatic and either the time of infection cannot be determined with certainty or the infection occurred more than 12 months prior to diagnosis. If the case remains untreated, late syphilis can persist for the remainder of the person's life.

Congenital Syphilis:

If a pregnant person has syphilis, it may spread to their unborn baby in a case of congenital syphilis. Untreated syphilis puts one at high risk of a still birth. If a baby is born alive and with syphilis, they could experience serious health complications within a few weeks after birth. If they are not treated, they are susceptible to developmental delays, seizures, and death as a newborn. If a baby is born to someone who tested positive for syphilis during their pregnancy, the baby should receive a thorough exam and congenital syphilis screening.

All pregnant people should be screened for syphilis at their first prenatal visit. If one is at risk of getting syphilis during their pregnancy, they should also be screened again during the third trimester and at delivery. Risk factors for syphilis infection include but are not limited to: sex with multiple partners, sex in conjunction with drug use or transactional sex, use of methamphetamine or heroin, and unstable housing. Although any person may have these risk factors, it is especially important that a pregnant person with these risk factors is re-screened for syphilis at the third trimester.

If a pregnant person tests positive for syphilis, penicillin therapy is extremely effective in treating the infection and preventing transmission to the baby.

Complications:

In any stage of infection, syphilis can enter the nervous system, visual system, and auditory or vestibular system. Signs and symptoms of neurologic manifestations may include: severe headache; muscle weakness, paralysis, or trouble with movements; numbness; changes in mental status, such as confusion or issues focusing; or memory issues. Ocular manifestations may cause eye pain or redness; light sensitivity; changes in vision, such as blurry vision; or floating spots in one's vision, known as "floaters". Otic manifestations may lead to hearing loss; ringing in the ears ("tinnitus"); balance difficulties; or dizziness or vertigo.

Late clinical manifestations typically only occur after many years of infection. These manifestations may include inflammatory lesions of the cardiovascular system, skin, bone, or other tissue. In rare cases, other internal structures may be involved. Neurological effects such as general paresis and tabes dorsalis are also late clinical manifestations.

People with primary and secondary syphilis are also at higher risk of acquiring other STIs or HIV, as syphilis sores allow for easier transmission.

Who Should be Screened:

Any person who is sexually active and has symptoms suggestive of syphilis should be tested. One should also be tested if they have an oral, anal, or vaginal sex partner who has recently been diagnosed with syphilis. Since risk factors vary by individuals, individuals should discuss their risk factors with a health care provider. The CDC recommends routinely screening people who are at higher risk, including sexually active men who have sex with men, sexually active people who are living with HIV, and sexually active people who are taking PrEP for HIV prevention. All pregnant people should also be screened to prevent transmitting syphilis to their baby.

Prevention and Transmission:

Syphilis spreads through direct contact with a chancre, which may be located on or near the vagina, anus, rectum, mouth, or lips. Syphilis is transmissible whenever a lesion is present, regardless of stage of infection. This transmission can occur during vaginal, anal, or oral sex.

The one way to fully prevent infection with syphilis is to not have vaginal, anal, or oral sex; however, that is not feasible nor appropriate for all individuals. Using condoms correctly each time one has sex greatly reduces the risk of getting or transmitting syphilis. However, the infection can still spread when using a condom if it does not cover lesions. Chances of infection are also greatly reduced if one is in a long-term mutually monogamous relationship and their partner does not have syphilis. If one has multiple sex partners, it is important to speak with each of them about their past behavior (sex and drug use), whether they have been recently screened or treated for STIs, and to encourage them to be tested if they have not.

Diagnosis:

Syphilis can be diagnosed through laboratory testing. Treponemal tests detect the antibodies specific to syphilis, which often remain detectable even after treatment. There are a variety of treponemal tests, ranging from TP-PA, rapid treponemal assays, chemiluminescence immunoassays, immunoblots, and EIAs (enzyme immunoassays) that can be used as screening tests. A positive treponema result is followed by a nontreponemal test with titer to confirm a diagnosis and advise patient treatment.

Babies born to someone with a syphilis infection should receive a nontreponemal test. If that is reactive, there are a variety of evaluations that can be done to examine the newborn for evidence of congenital syphilis.

Treatment:

Treatment guidelines for syphilis depend upon the stage of infection. CDC-recommended treatment recommendations by stage are as follows:

For non-pregnant adults:

Primary, Secondary, Early Non-Primary Non-Secondary:

- Benzathine penicillin G (Bicillin L-A) 2.4 million units IM in a single dose

Alternative regimen if patient has true penicillin allergy:

- Doxycycline 100 mg orally twice daily for 14 days **OR** Skin testing for penicillin allergy and desensitization

Unknown Duration or Late:

- Benzathine penicillin G (Bicillin L-A) 7.2 million units total IM as three doses of 2.4 million units each at 7-day intervals
    - 7-day intervals are optimal; 6-9 day intervals are acceptable. Adherence to the 6-9 day interval is strongly advised for non-pregnant people with pregnancy capability to reduce risk of congenital syphilis in future pregnancy.

Alternative regimen if patient has true penicillin allergy:

- Doxycycline 100 mg orally twice daily for 28 days **OR** Skin testing for penicillin allergy and desensitization

For cases with neurosyphilis, ocular syphilis, or otosyphilis clinical manifestations:

- Aqueous crystalline penicillin G 18-24 million units per day, administered as 3-4 million units intravenously every 4 hours or continuous infusion, for 10-14 days is the CDC-recommended first-line therapy
- Ceftriaxone 2 grams IV daily for 14 days is an alternative regimen for non-pregnant patients that may be appropriate for: patients who are not comfortable with an infusion pump OR are unable to administer treatment at home due to unstable/unsafe housing

For pregnant people:

- Penicillin G is the only known effective treatment for fetal infection and to prevent congenital syphilis. Pregnant people should be treated with the recommended penicillin regimen for their stage of infection.
- For pregnant patients with primary, secondary, or early non-primary non-secondary, a second dose of benzathine penicillin G 2.4 million units IM can be administered one week after the initial dose for additional protection.
- For pregnant patients with unknown duration or late syphilis, a 7-day dosing interval is ideal, and 6-9 days is acceptable. The dosing interval is crucial; if any doses are given outside this interval, the treatment series must restart.

These medications can treat syphilis infection, yet they may not heal damage already caused by syphilis. To avoid further spreading the infection, people who are being treated for syphilis should not have sex until their sores are completely healed. They should also notify their sex partners, so they may also receive testing and treatment if needed.

People who have received treatment for syphilis may also experience reinfection or treatment failure. In this situation, they likely will have persistent or recurring signs or symptoms along with a continuous fourfold increase in their nontreponemal test titer.

Further treatment information can be found at: Syphilis - STI Treatment Guidelines.

SYPHILIS IN WASHINGTON STATE

SUMMARY OF TRENDS:

- **Between 2004 and 2023, reported syphilis cases in Washington greatly increased for all stages of syphilis, especially since 2020. Between 2016 and 2020, syphilis cases rose by 46%. From 2020 to 2023, syphilis cases rose by a staggering 116%.**
- **Significant racial and ethnic disparities persisted and widened in syphilis diagnoses. Rates among non-Hispanic American Indian/Alaska Native, non-Hispanic Black, non-Hispanic Native Hawaiian or Other Pacific Islander, and Hispanic or Latina/o/x populations were notably higher than rates among the non-Hispanic White population.**
- **By age and gender, syphilis rates remained consistently highest among cisgender males and persons aged 25-to-34 years between 2014 and 2023.**
- **GBMSM represented a disproportionate percentage of syphilis cases between 2014 and 2023. Through 2020, most syphilis cases were among GBMSM. This switched in 2021 to non-GBMSM representing most cases, although GBMSM cases remained high. This shift is partly due to substantial increases in cases among pregnancy-capable people.**
- **Congenital syphilis cases have dramatically risen from 1 reported case in 2014 to 57 in 2023, with the largest increase seen between 2020 and 2021 (10 to 53 cases, respectively).**
- **Reported cases were highest in King, Pierce, Snohomish, Spokane, and Yakima counties.**

Syphilis in Washington has risen astoundingly between 2004 and 2023, which is visible in Figure 26 and the corresponding Table J with reported syphilis case counts and rates per 100,000 people. The largest jump in cases and rates was between 2020 and 2021, and both continued to increase into 2023. Annual statewide syphilis rates have remained lower than the national rates.

Figure 26. Reported Syphilis (All Stages) Cases and Rates, WA State, 2004-2023

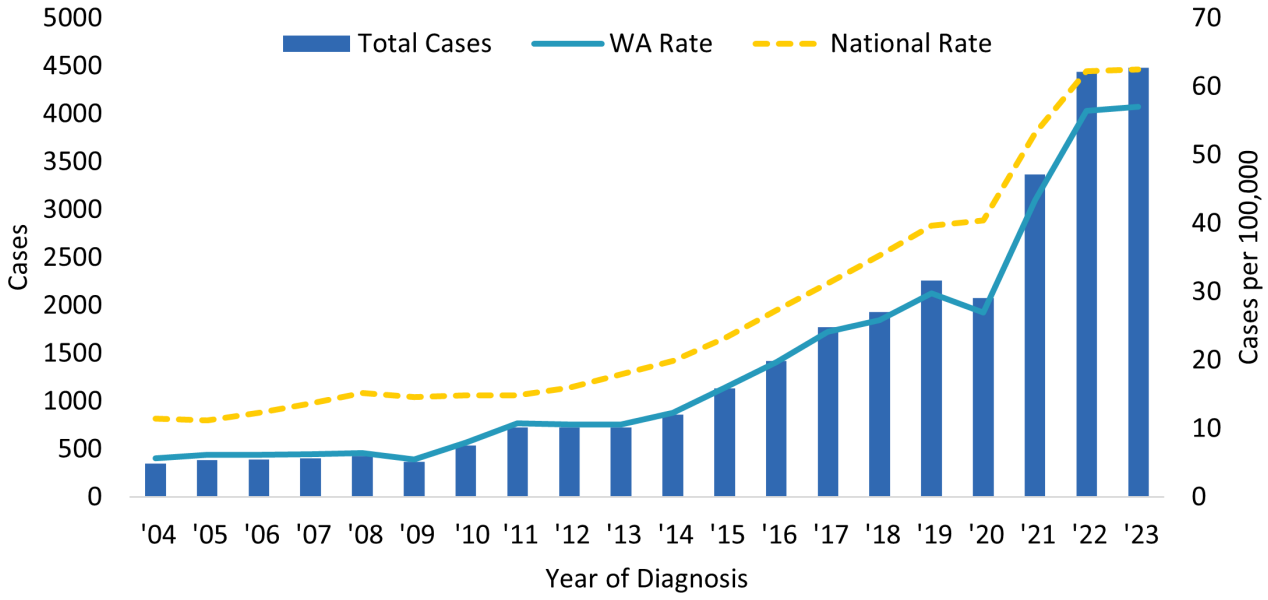


Table J. Reported Syphilis (All Stages) Cases and Cases per 100,000, WA State, 2004-2023

Year of Diagnosis	Number of Cases	Cases per 100,000
2004	349	5.6
2005	387	6.1
2006	393	6.1
2007	404	6.2
2008	425	6.4
2009	363	5.4
2010	535	8.0
2011	725	10.7
2012	723	10.6
2013	727	10.5
2014	859	12.3
2015	1,130	15.9
2016	1,421	19.7
2017	1,770	24.1
2018	1,930	25.8
2019	2,259	29.7
2020	2,073	26.9
2021	3,366	43.3
2022	4,439	56.4
2023	4,480	57.0

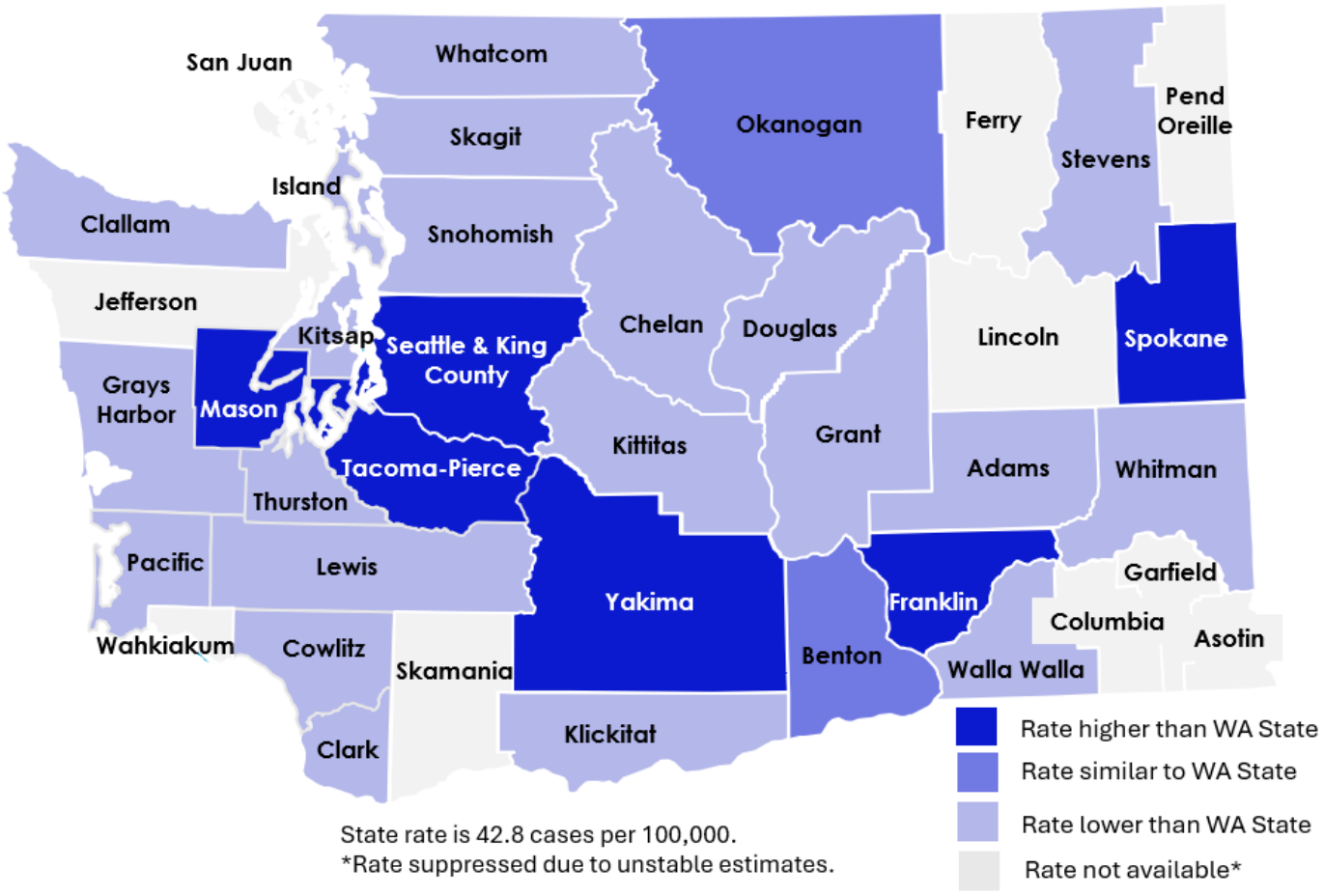
Table K presents the number of syphilis cases and rates per 100,000 people by year and county from 2019 through 2023. Trends in reported syphilis cases vary by county. For any counts less than seventeen, rates are not included due to statistical instability.

Table K. Syphilis Cases and Rates by County, WA State, 2019-2023

County	2019 Cases	2019 Rate	2020 Cases	2020 Rate	2021 Cases	2021 Rate	2022 Cases	2022 Rate	2023 Cases	2023 Rate
ADAMS	5	+	4	+	4	+	9	+	11	+
ASOTIN	0	0.0	2	+	0	0.0	2	+	1	+
BENTON	42	20.7	56	27.1	103	49.2	130	61.2	127	59.8
CHELAN	10	+	5	+	15	+	39	48.4	51	63.2
CLALLAM	6	+	2	+	11	+	4	+	5	+
CLARK	124	25.2	141	28.0	168	32.7	212	40.7	228	43.8
COLUMBIA	0	0.0	0	0.0	2	+	0	0.0	0	0.0
COWLITZ	37	33.9	20	18.1	31	27.8	19	16.9	31	27.6
DOUGLAS	3	+	1	+	10	+	7	+	15	+
FERRY	0	0.0	0	0.0	1	+	1	+	5	+
FRANKLIN	35	37.0	35	36.2	42	42.7	50	50.1	79	79.2
GARFIELD	0	0.0	0	0.0	0	0.0	1	+	0	0.0
GRANT	21	21.5	21	21.2	30	29.8	43	42.2	63	61.9
GRAYS HARBOR	23	30.7	25	33.1	41	53.9	34	44.5	20	26.2
ISLAND	5	+	4	+	9	+	19	21.7	19	21.7
JEFFERSON	0	0.0	3	+	2	+	1	+	4	+
KING	996	44.6	863	38.0	1353	59.2	1713	73.9	1661	71.7
KITSAP	44	16.1	26	9.4	51	18.4	80	28.5	53	18.9
KITTITAS	3	+	2	+	7	+	16	+	11	+
KLICKITAT	0	0.0	0	0.0	6	+	7	+	5	+
LEWIS	12	+	13	+	23	27.8	28	33.6	22	26.4
LINCOLN	0	0.0	2	+	0	0.0	0	0.0	4	+
MASON	40	61.5	33	50.2	40	60.8	70	105.7	133	200.9
OKANOGAN	3	+	4	+	17	40.1	28	65.6	34	79.6
PACIFIC	5	+	5	+	4	+	3	+	6	+
PEND OREILLE	0	0.0	1	+	3	+	4	+	1	+
PIERCE	261	28.8	277	30.1	523	56.3	714	76.2	707	75.4
SAN JUAN	3	+	2	+	3	+	0	0.0	2	+
SKAGIT	11	+	21	16.2	31	23.8	22	16.8	34	25.9
SKAMANIA	1	+	0	0.0	2	+	0	0.0	3	+
SNOHOMISH	151	18.5	159	19.2	261	31.2	284	33.5	231	27.3
SPOKANE	287	54.1	191	35.4	261	48.1	265	48.1	379	68.8
STEVENS	5	+	6	+	3	+	7	+	3	+
THURSTON	51	17.6	58	19.7	80	26.9	106	35.3	98	32.6
WAHKIAKUM	0	0.0	1	+	0	0.0	0	0.0	2	+
WALLA WALLA	4	+	7	+	24	38.6	21	33.5	17	27.1
WHATCOM	26	11.6	28	12.3	28	12.4	41	17.7	52	22.4
WHITMAN	4	+	5	+	3	+	6	+	5	+
YAKIMA	41	16.1	50	19.5	173	67.0	453	174.3	358	137.7

Map 3 presents aggregate 2019-2023 syphilis (all stages) rates by county in Washington, as compared to the statewide rate. Rates in the following counties were higher than the statewide rate: Franklin, King, Mason, Pierce, Spokane, and Yakima.

Map 3. Aggregate Syphilis Rates by County Compared to WA State Rate, 2019-2023



In addition to syphilis data of all stages, this section also presents data for syphilis cases diagnosed solely in primary and secondary stages (P&S). Since P&S cases represent more recently acquired infections, analyzing their trends adds valuable perspective into understanding syphilis incidence. P&S cases are also more infectious compared to later staged syphilis; therefore, they are typically prioritized for investigation and follow-up.

Between 2020 and 2021, the rate of primary and secondary syphilis nearly doubled, an increase shown in Figure 27 and Table L. This increase continued into 2022, and then rates decreased into 2023. As shown in Figure 26 and further discussed on page 55, syphilis cases did not decrease overall, despite this decrease in P&S cases.

Figure 27. Reported Primary & Secondary Syphilis Cases and Rates, WA State, 2004-2023

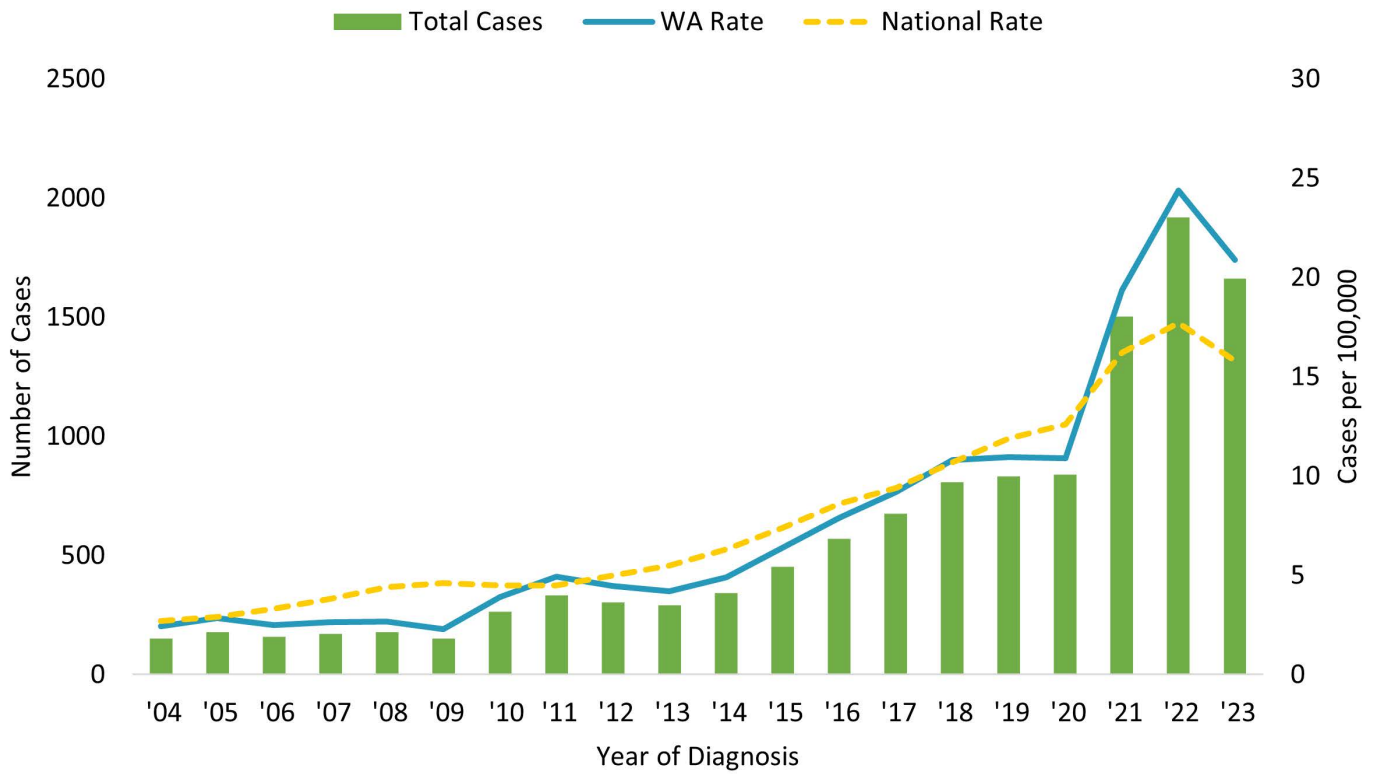


Table L. Reported Primary & Secondary Syphilis Case Counts and Cases per 100,000, WA State, 2004-2023

Year of Diagnosis	Number of Cases	Cases per 100,000
2004	151	2.4
2005	179	2.8
2006	159	2.5
2007	172	2.6
2008	177	2.7
2009	152	2.3
2010	263	3.9
2011	333	4.9
2012	304	4.5
2013	290	4.2
2014	342	4.9
2015	453	6.4
2016	570	7.9
2017	675	9.2
2018	808	10.8
2019	832	11.0
2020	840	10.9
2021	1,503	19.4
2022	1,918	24.4
2023	1,661	20.9

Map 4 displays aggregate 2019-2023 primary & secondary syphilis rates by county as compared to the statewide rate. The following counties had higher rates than the statewide rate: King, Pierce, Spokane, and Yakima.

Map 4. Aggregate Primary & Secondary Syphilis Rates by County Compared to WA State Rate, 2019-2023

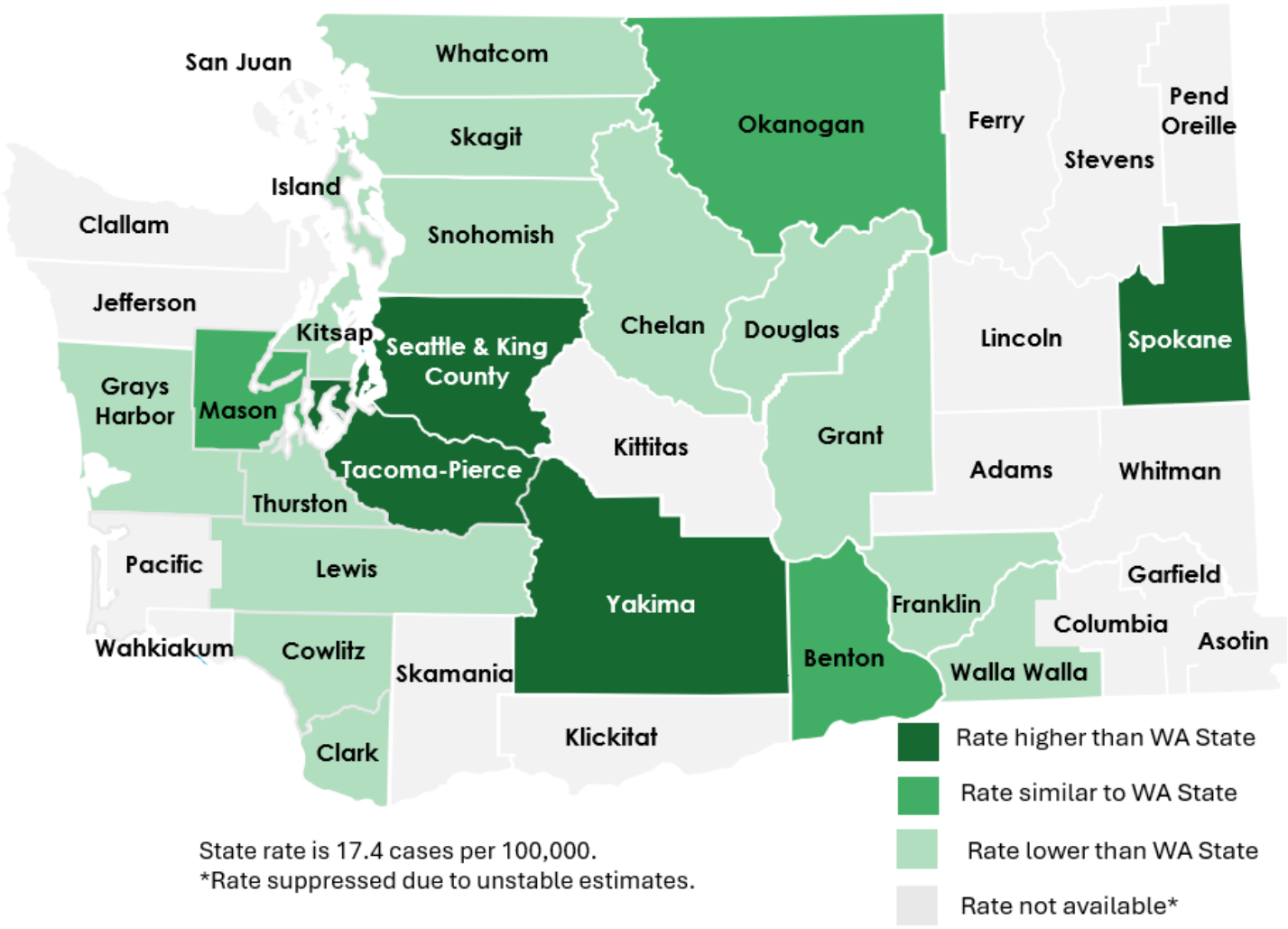


Figure 28 and Table M present syphilis case counts by stage for Washington from 2014 to 2023. Catching syphilis as early as possible is important for preventing complications and progression to further stages, along with stopping transmission. When comparing 2014 and 2023, syphilis diagnoses at all stages increased. From 2014 to 2022, the highest number of diagnoses occurred during primary and secondary stages of syphilis. In 2023, unknown or late duration cases were the most common stage at syphilis diagnosis.

Please note that PHIMS-STD was updated in March 2020 to reflect CSTE's 2018 syphilis case definition. Cases previously classified as Late Latent are included within the Unknown Duration or Late Syphilis case count.

Figure 28. Syphilis Cases by Stage, WA State, 2014-2023

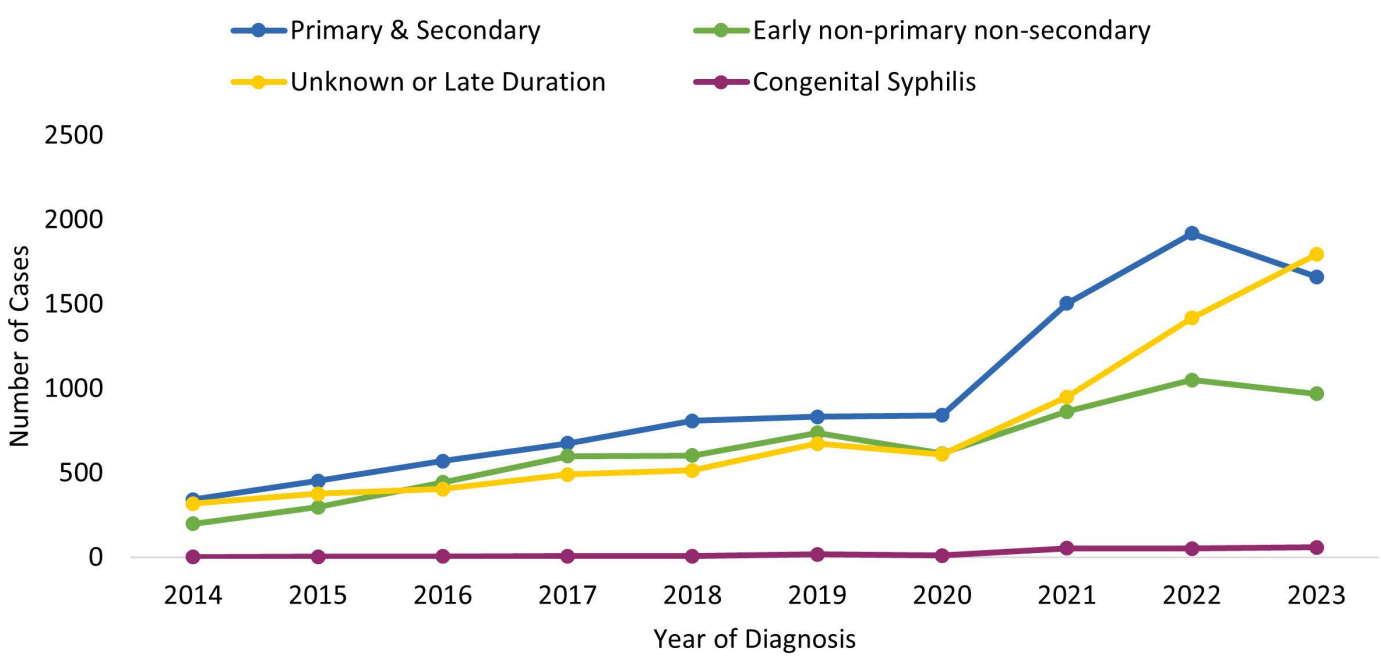


Table M. Syphilis Cases by Stage at Diagnosis, WA State, 2014-2023

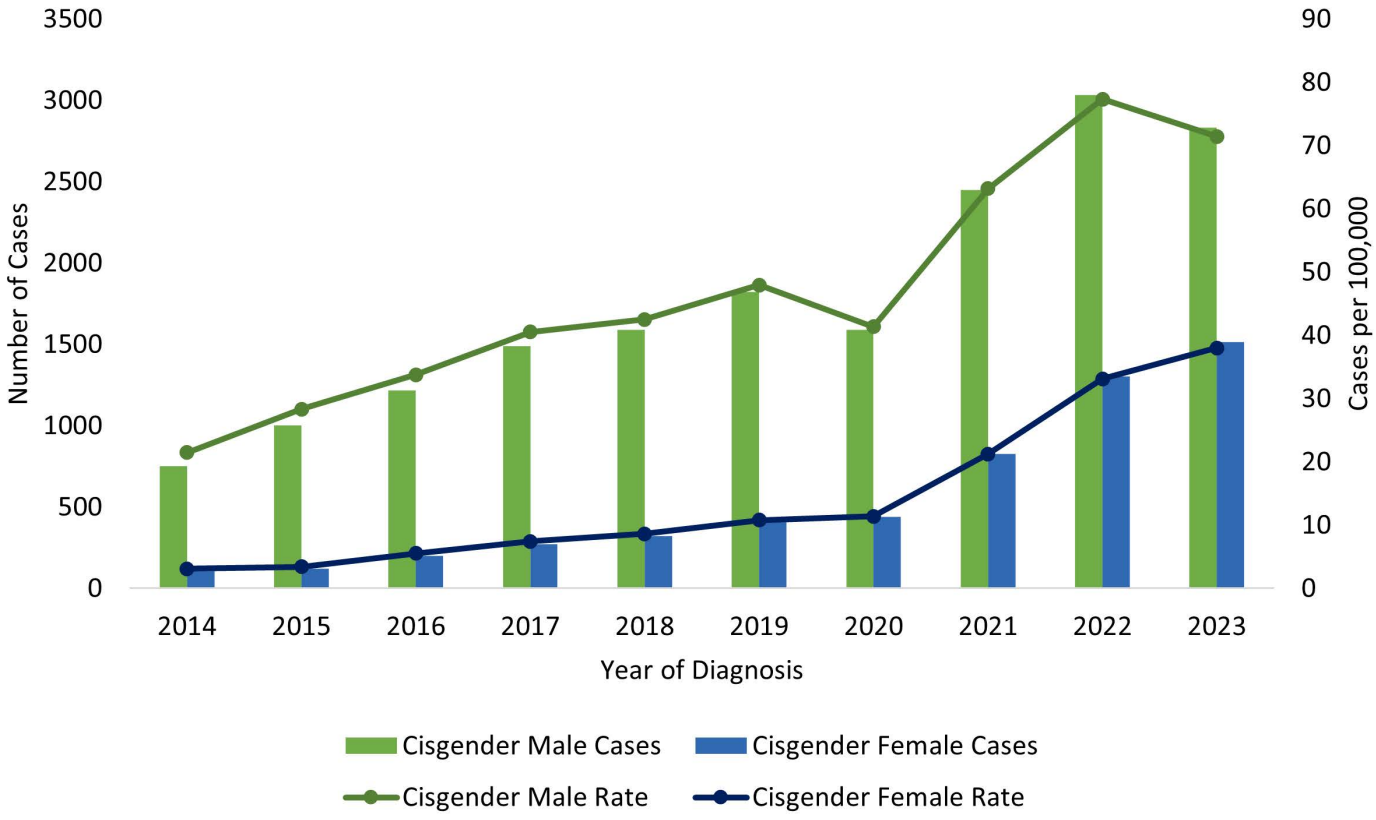
Year of Diagnosis	Primary & Secondary	Early non-primary non-secondary	Unknown or Late Duration	Congenital Syphilis
2014	342	199	317	1
2015	453	297	377	3
2016	570	443	403	5
2017	675	599	490	6
2018	808	602	514	6
2019	832	737	673	17
2020	840	614	609	10
2021	1,503	863	949	53
2022	1,918	1,050	1,417	52
2023	1,661	968	1,794	57

SYPHILIS DISTRIBUTION BY GENDER

Syphilis has increased across genders in recent years, shown in Figures 29 and 30 and Table N.

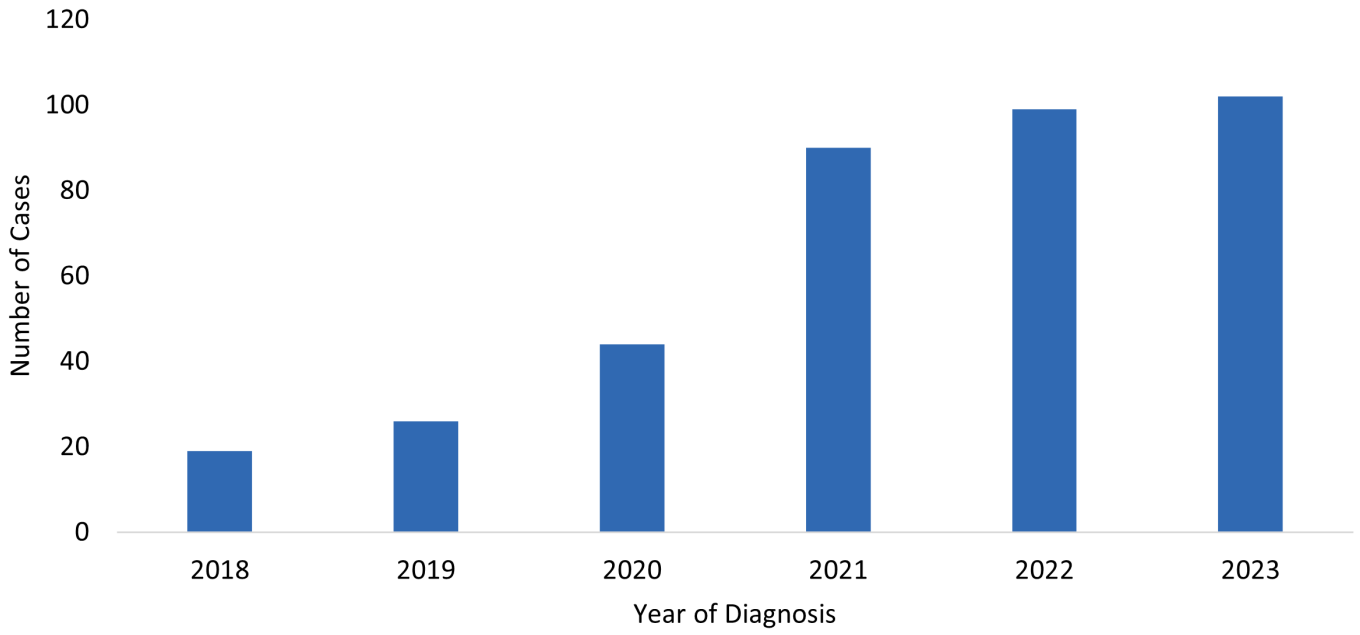
When stratifying by gender, syphilis cases have historically been highest among cisgender men. This is partly due to gay, bisexual, and other men who have sex with men (GBMSM) being disproportionately affected by syphilis infection, which is discussed on page 66. Although syphilis cases were still much higher among cisgender men than cisgender women as of 2023, they have been rising faster among cisgender women. From 2020 to 2023, cases rose by 245% for cisgender women, compared to 78% for cisgender men (Figure 29).

Figure 29. Syphilis (All Stages) Cases Among Cisgender Persons, WA State, 2014-2023



Syphilis cases among transgender and nonbinary/genderqueer persons more than doubled between 2020 and 2021, and they have slightly increased in the following years (Figure 30).

Figure 30. Syphilis Cases (All Stages) Among Transgender and Nonbinary/Genderqueer Persons, WA State, 2018-2023*



*Data for nonbinary/genderqueer individuals are not available until March 2020 when PHIMS-STD was updated.

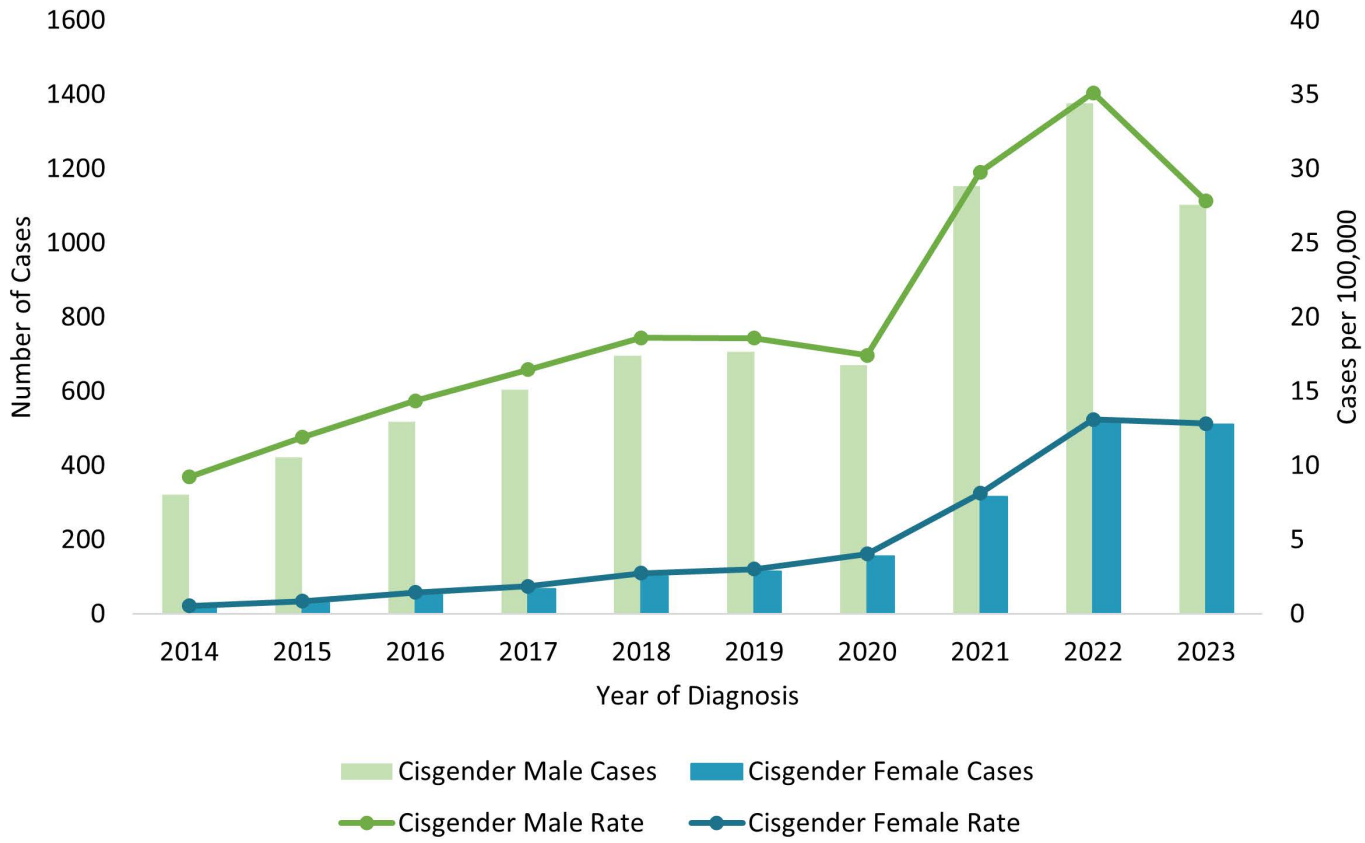
Table N. Syphilis (All Stages) Cases and Rates by Gender, WA State, 2014-2023

Year of Diagnosis	Cisgender Male Cases	Cisgender Male Rate	Cisgender Female Cases	Cisgender Female Rate	Transgender and Nonbinary/Genderqueer Cases
2014	750	21.5	108	3.1	+
2015	1,004	28.3	122	3.4	+
2016	1,219	33.8	200	5.5	+
2017	1,491	40.5	272	7.4	+
2018	1,590	42.5	321	8.6	19
2019	1,824	47.9	409	10.8	26
2020	1,590	41.4	439	11.4	44
2021	2,449	63.2	827	21.2	90
2022	3,033	77.3	1,305	33.1	99
2023	2,833	71.4	1,515	38.0	102

+ Data have been suppressed to protect patient confidentiality due to small numbers.

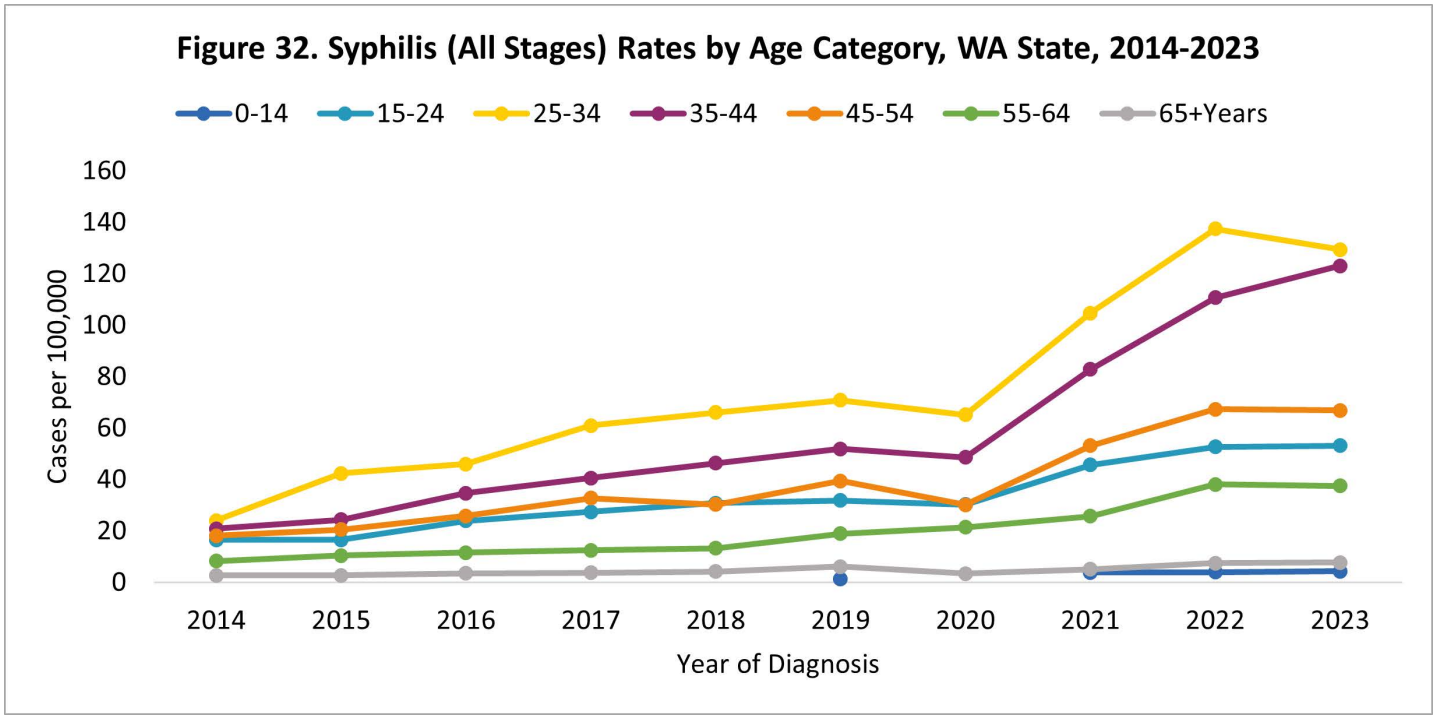
Figure 31 displays primary and secondary syphilis cases and rates among cisgender people from 2014-2023. The trends are in line with trends seen for all stages. Cisgender males have a much higher proportion of P&S cases than cisgender females, but cases have risen at a faster rate among cisgender females from 2020 to 2023. Due to small numbers, data on transgender, nonbinary/genderqueer, and other gender identities are not available when examining only primary and secondary syphilis cases.

Figure 31. Primary & Secondary Syphilis Cases and Rates Among Cisgender Persons, WA State, 2014-2023

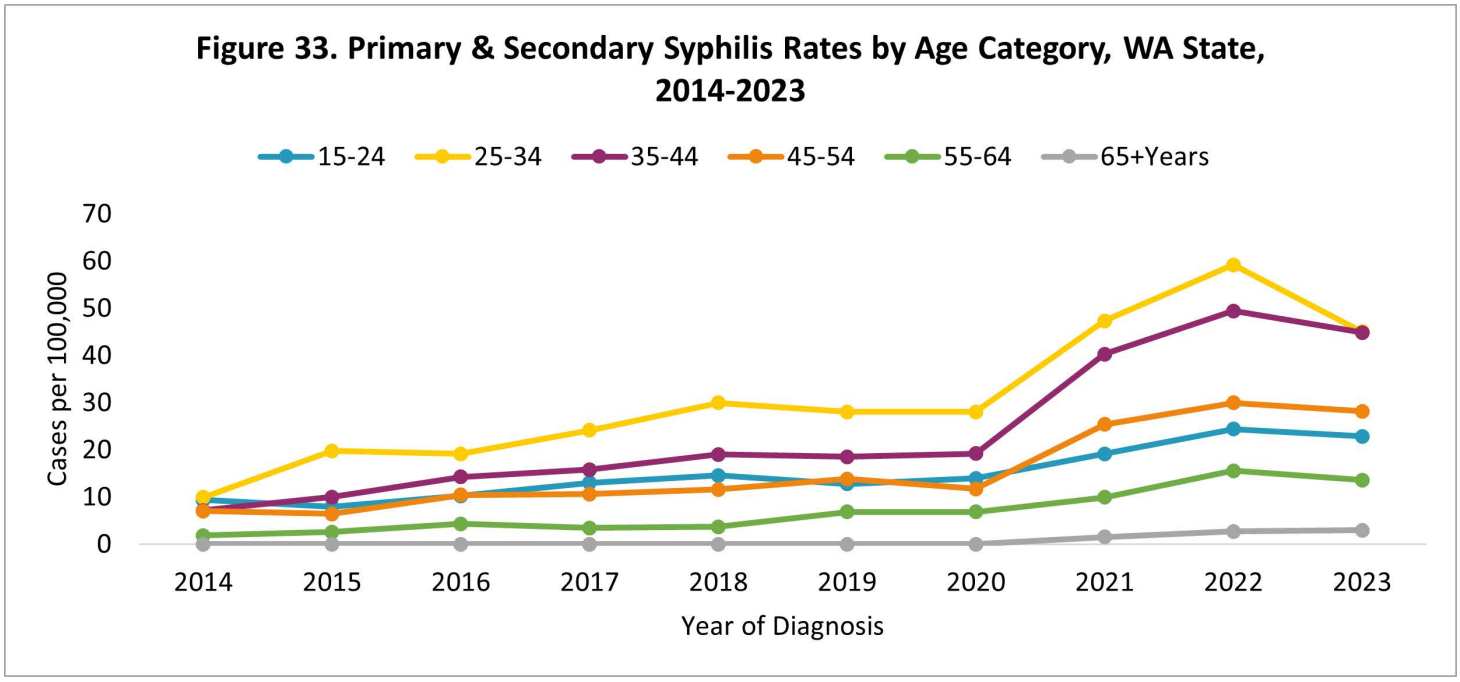


SYPHILIS DISTRIBUTION BY AGE

The distribution of syphilis cases by age is very similar when comparing all stages of syphilis (Figure 32) and P&S (Figure 33). For both, rates have typically been highest among people aged 25-to-34 years, followed by people aged 35-to-44 years. The lowest rates were for people ages 0-to-14 years and 65+ years. Rates increased across all age categories from 2014 to 2023, with notably large increases seen for 25-to-34 years and 35-to-44 years.



Note: Rates for people aged 0-to-14 years have been suppressed for years with small numbers.



Note: rates for ages 0-to-14-years and most of 65+ have been suppressed to protect patient confidentiality due to small numbers.

SYPHILIS DISTRIBUTION BY RACE/ETHNICITY

Syphilis rates by race/ethnicity show the wide disparities from the impacts of systemic racism. Figure 34 presents rates of syphilis by race/ethnicity from 2014 to 2023, and case counts are written in Table O.

Rates of syphilis (all stages) were consistently highest among non-Hispanic Black persons from 2014 to 2022. By 2023, the rate was highest for non-Hispanic American Indian or Alaska Native persons (AI/AN). For both AI/AN and Black persons, the syphilis rates in 2023 were around three times greater than the respective non-AI/AN and non-Black rates; this striking disparity can be seen in more detail in Figures 35 and 36. Additionally, Native Hawaiian or Other Pacific Islander (NHOPI), and Hispanic/Latina/o/x populations had disproportionately high rates as compared to the non-Hispanic White and Asian populations over this timeframe. These racial/ethnic disparities are just as evident when examining only P&S cases (Figure 37 and Table P).

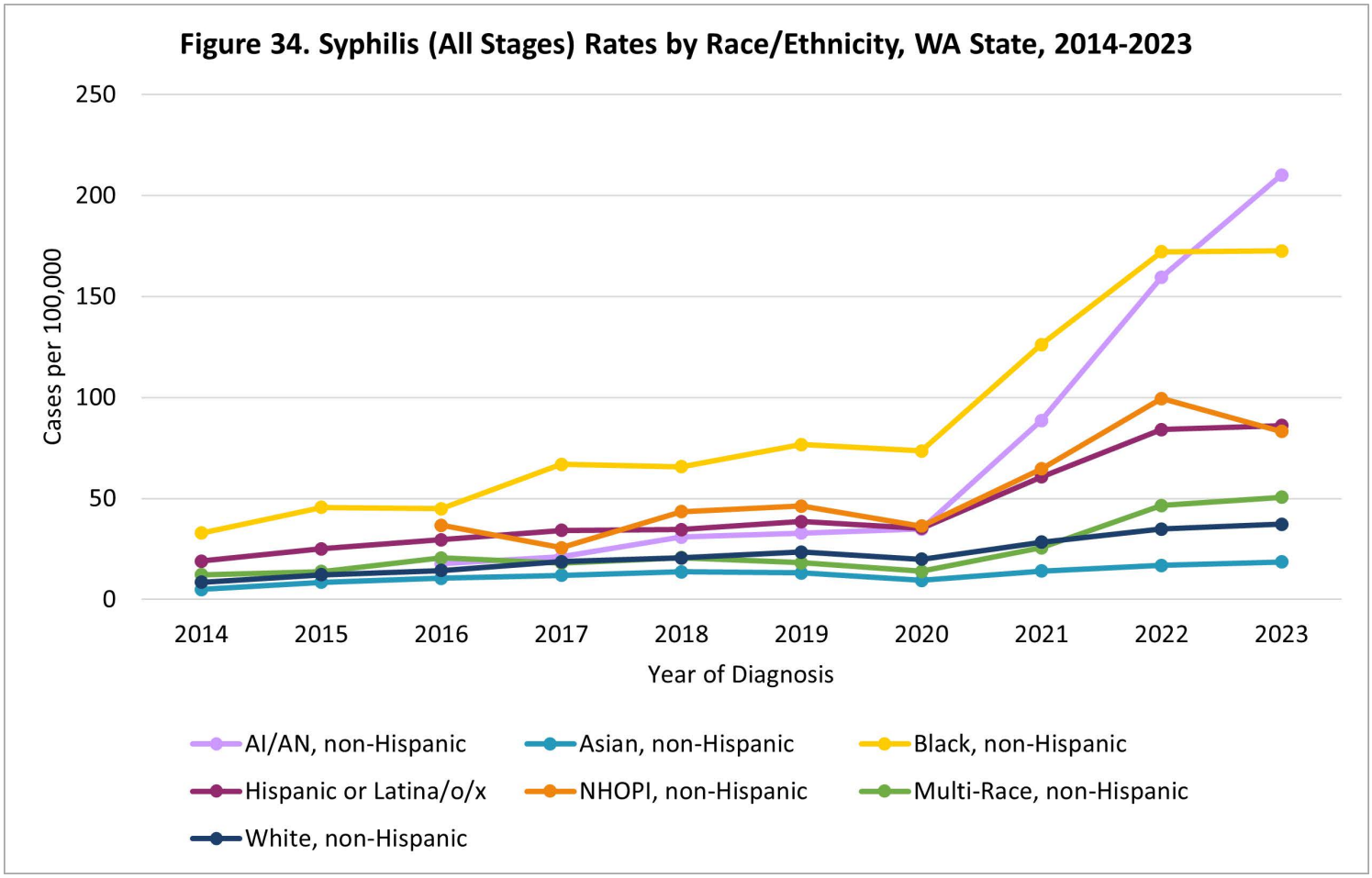


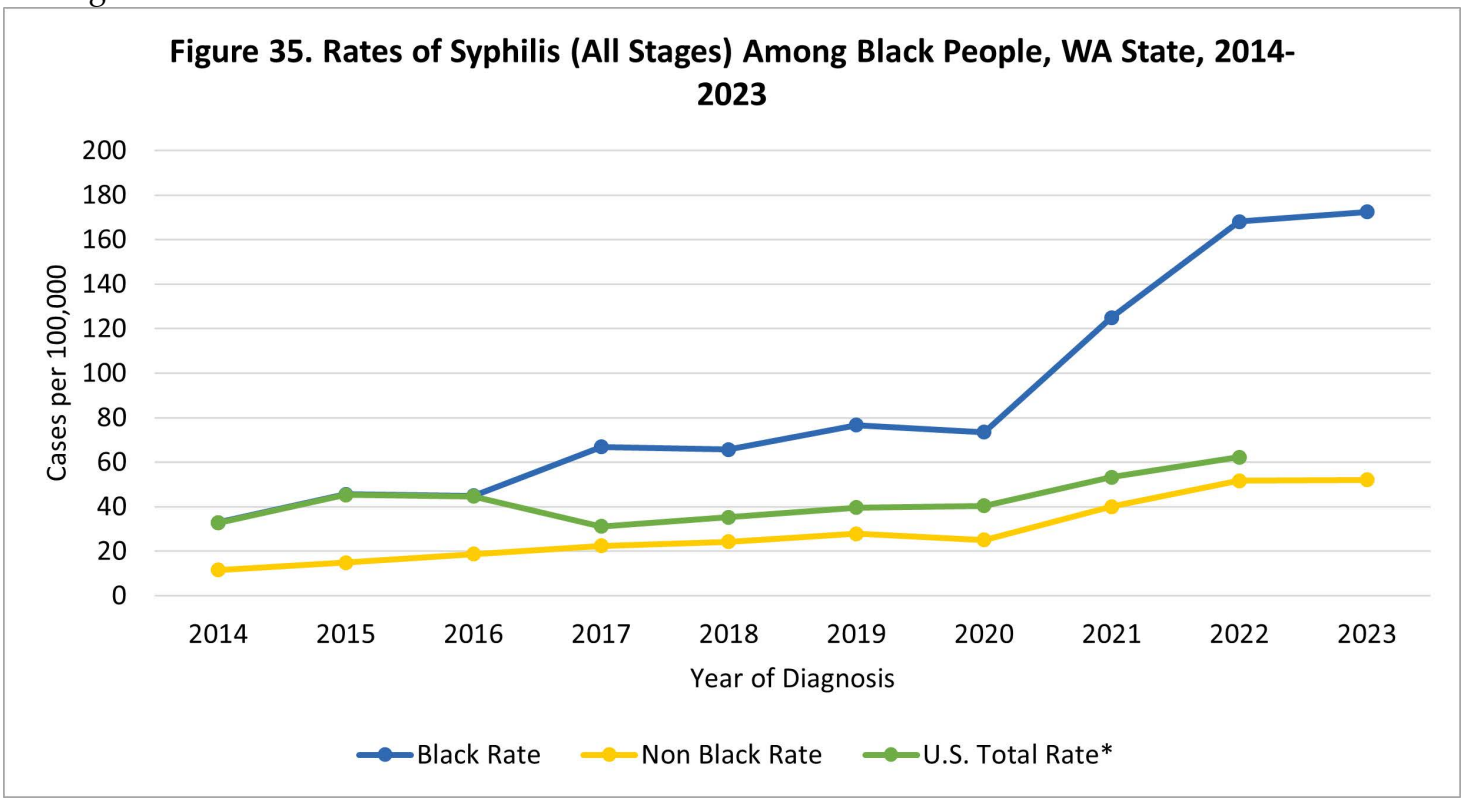
Table O. Syphilis (All Stages) Case Counts by Race/Ethnicity, WA State, 2014-2023

Race/Ethnicity Category	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
AI/AN, non-Hispanic	+	+	16	19	28	30	32	81	145	190
Asian, non-Hispanic	26	47	61	73	89	91	69	105	131	149
Black, non-Hispanic	81	115	117	180	183	222	220	384	538	552
Hispanic or Latina/o/x	166	228	281	337	352	406	382	672	957	1007
NHOPI, non-Hispanic	+	+	19	14	25	28	23	42	67	58
Multi-Race, non-Hispanic	42	51	81	76	93	86	70	129	235	256
White, non-Hispanic	417	593	701	921	1013	1161	980	1401	1726	1846
Unknown	114	79	145	150	147	235	297	552	640	423

+ Data have been suppressed to protect patient confidentiality due to small numbers.
Note: 'Unknown' includes cases in which 'Other' was selected for a patient's race/ethnicity.

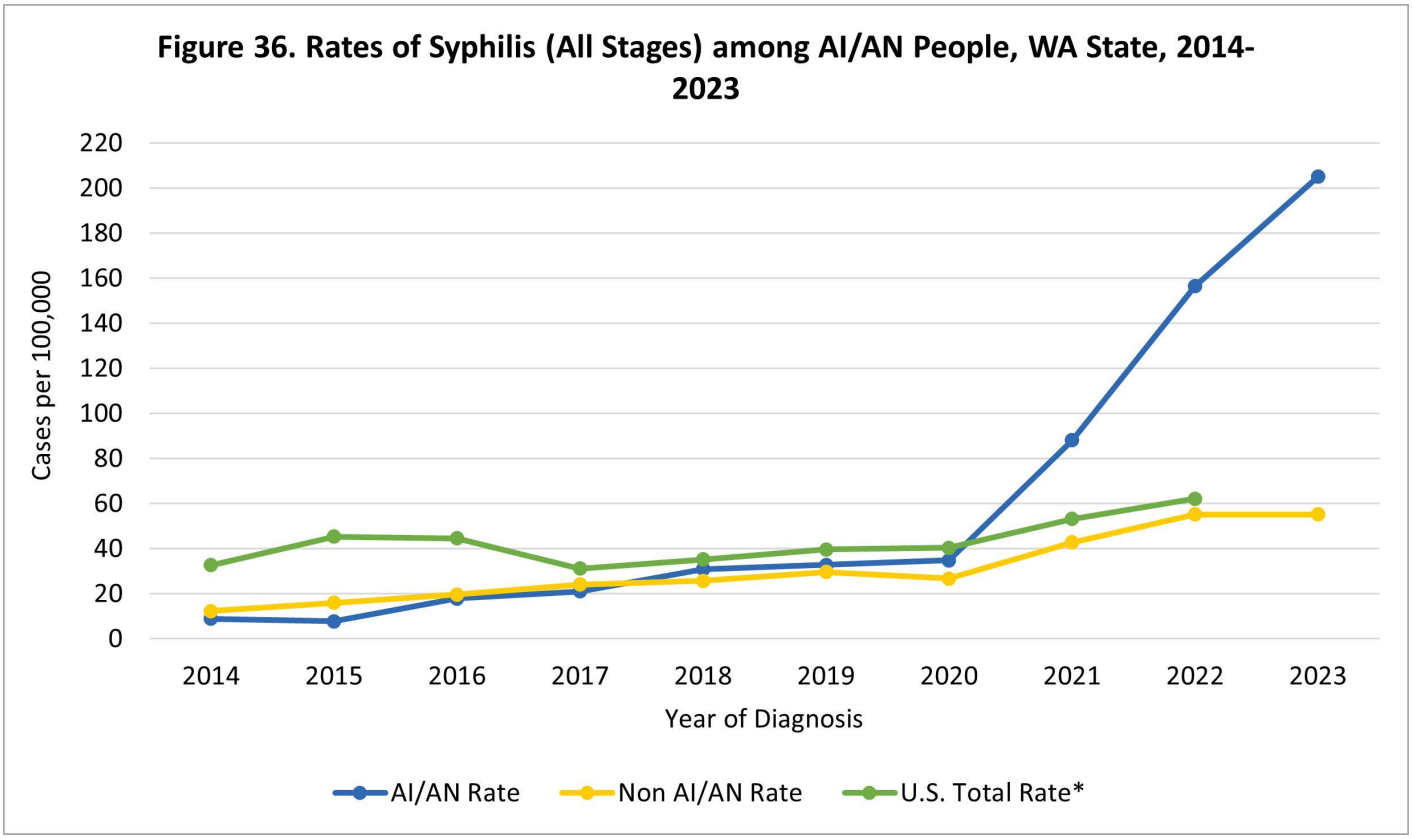
The blue line in Figure 35 shows how the Black rate of syphilis has consistently been higher than the non-Black rate in WA since 2014 and the total U.S. rate since 2016. In 2023, the Black rate was 3.3 times greater than the non-Black rate.

Figure 35. Rates of Syphilis (All Stages) Among Black People, WA State, 2014-2023



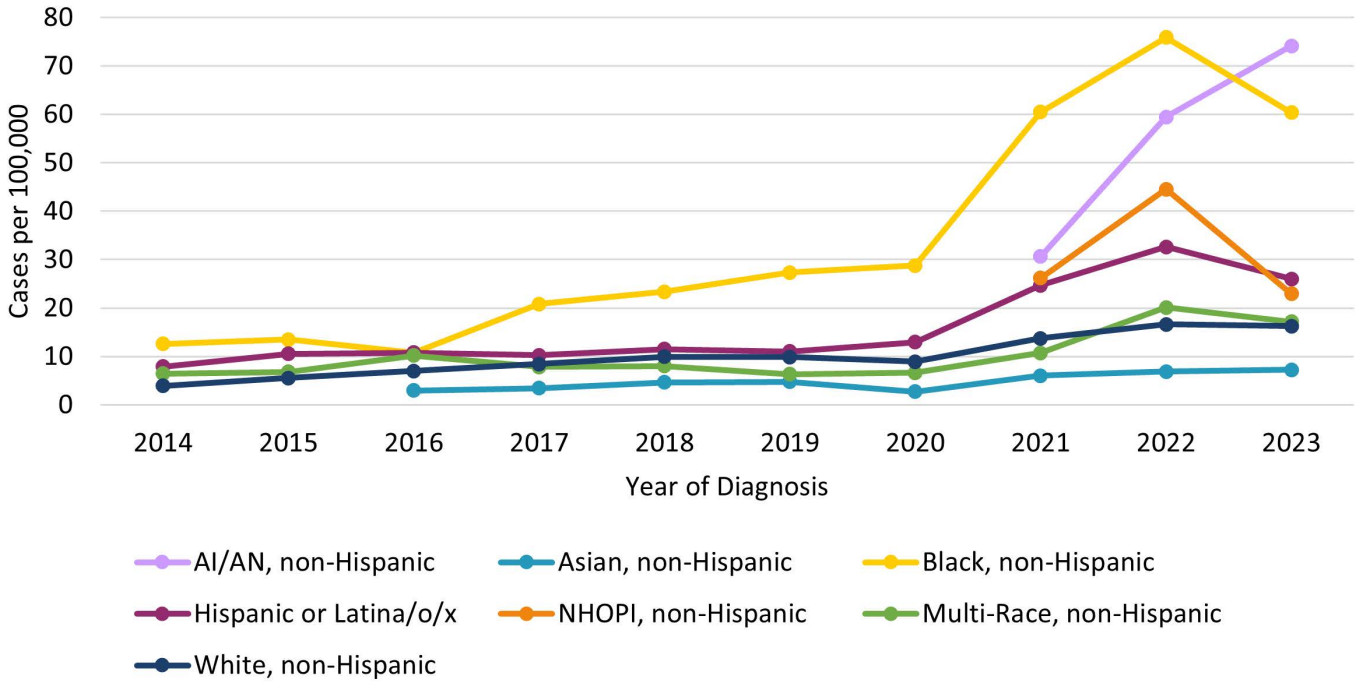
*The 2023 rate was not available at the time of publication.

The blue line in Figure 36 shows how the AI/AN rate of syphilis has been higher than the non-AI/AN rate in WA and the total U.S. rate since 2021. It has increased steeply since 2020 and was 3.7 times greater than the non-AI/AN rate in 2023.



*The 2023 rate was not available at the time of publication.

Figure 37. Primary & Secondary Syphilis Rates by Race/Ethnicity, WA State, 2014-2023



When limited to primary & secondary syphilis, racial/ethnic disparities are still very visible, viewed as rates in Figure 37, with associated case counts shown in Table P.

Note: Rates have been suppressed where counts are <17 due to statistical instability and to protect patient privacy.

Table P. P&S Syphilis Case Counts by Race/Ethnicity, WA State, 2014-2023

Race/Ethnicity Category	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
AI/AN non-Hispanic	+	+	+	10	16	+	16	28	54	67
Asian, non-Hispanic	+	+	17	21	30	33	20	45	53	58
Black, non-Hispanic	31	34	28	56	65	79	86	184	237	193
Hispanic or Latina/o/x	69	96	102	101	117	116	140	273	371	304
NHOPI, non-Hispanic	+	+	+	+	10	+	+	17	30	16
Multi-Race, non-Hispanic	22	25	40	33	36	30	33	55	106	93
White, non-Hispanic	190	270	341	413	489	488	440	677	823	807
Unknown	15	10	33	37	45	70	101	224	244	123

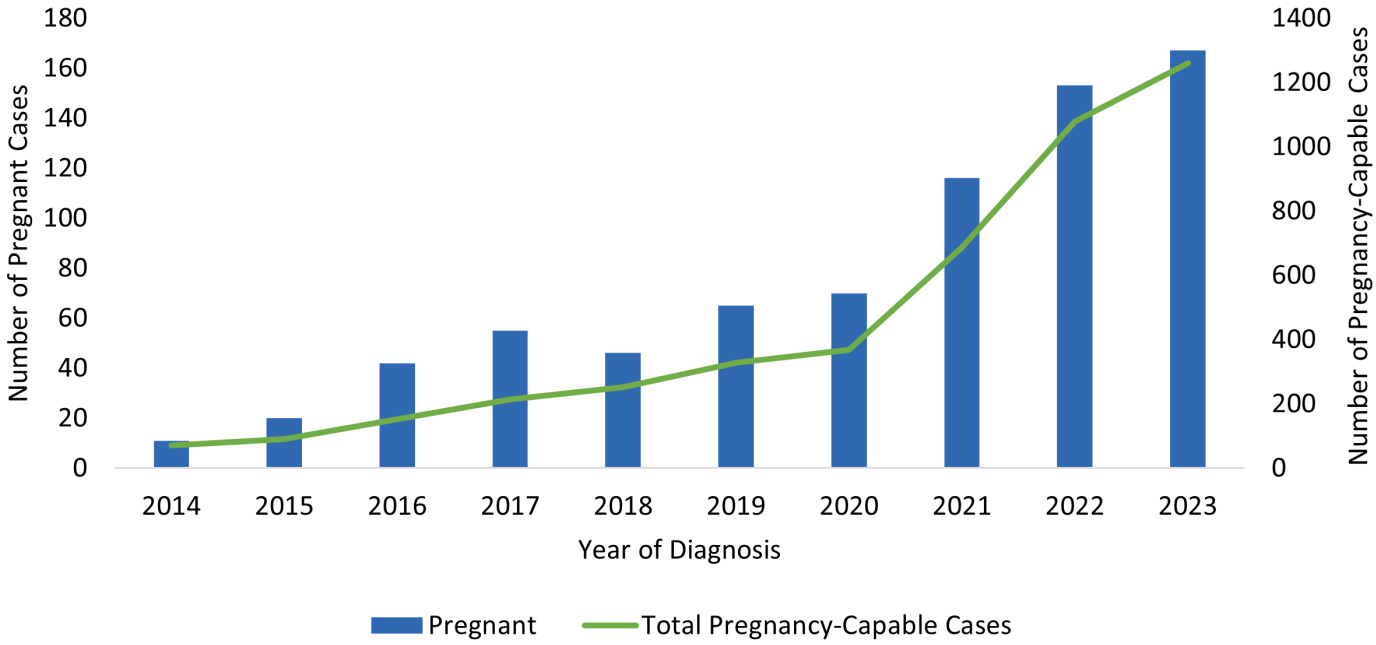
Note: 'Unknown' includes cases in which 'Other' was selected for a patient's race/ethnicity.

+ Data have been suppressed to protect patient confidentiality due to small numbers.

SYPHILIS AMONG PREGNANT AND PREGNANCY-CAPABLE PEOPLE

Syphilis cases among pregnancy-capable and pregnant people have increased substantially from 2014 to 2023 (Figure 38). Pregnancy-capable is defined as individuals assigned female at birth aged 15-to-44 years. In 2014, 8% of all syphilis cases were among pregnancy-capable people; by 2023, this was 28%. This is particularly concerning since pregnant people may transmit syphilis to their newborn, resulting in serious health complications for their baby. For more on congenital syphilis, see the "Congenital Syphilis" section on page 78.

Figure 38. Syphilis Cases Among Pregnancy-Capable and Pregnant Persons, WA State, 2014-2023



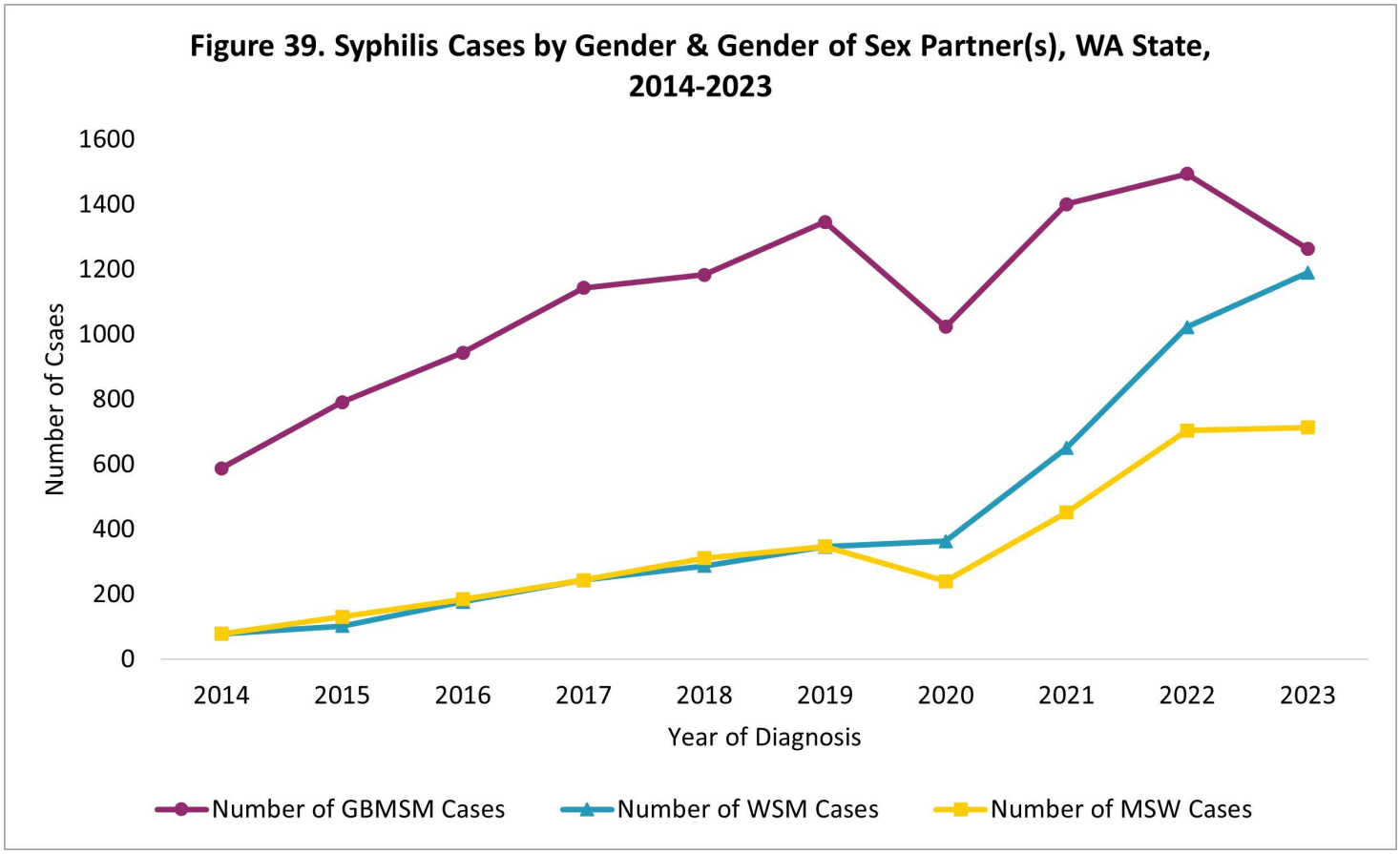
The notably large rise in cases for both pregnancy-capable and pregnant people in recent years can partially be attributed to the spread of syphilis among a wider variety of populations, which is further discussed in the next section "Syphilis Distribution By Risk Categories".

SYPHILIS DISTRIBUTION BY RISK CATEGORIES

Gender and gender of sex partner(s)

When considering syphilis cases by risk categories, the trends have shifted between 2014 and 2023. An individual's risk category can be classified by their reported gender and the reported gender(s) of their sex partner(s). The three risk classifications that are typically more vulnerable to infection will be presented here: gay, bisexual, and other men who have sex with men (GBMSM), men who have sex with only women (MSW), and women who have sex with men (WSM). However, this does not encompass all combinations of gender and gender of sex partner(s), and any sexually active individual is vulnerable to syphilis infection regardless of their gender and partner's gender.

Figure 39 presents the number of syphilis cases by risk category from 2014 through 2023. GBMSM consistently had the highest number of cases when comparing these categories. From 2014 to 2019, case counts were comparable between WSM and MSW. By 2020, WSM case counts became higher than MSW case counts. GBMSM and MSW saw a dip in cases in 2020, which may partially be attributed to changes and interruptions in reporting because of the COVID-19 pandemic, as numbers increased again in 2021. Overall, cases in all three categories have substantially increased when comparing 2014 to 2023, as the total syphilis cases have risen during this timeframe.



Historically, GBMSM have been disproportionately affected by syphilis as compared to non-GBMSM, which is determined as anyone who does not identify as a male with male sexual partners. Figure 40 shows syphilis trends among GBMSM in Washington from 2014-2023. GBMSM represented nearly 70% of syphilis cases in 2014. Since 2015, the percentage of cases among GBMSM has decreased each year. By 2021, GBMSM no longer comprised the majority of syphilis cases. This differed from only primary and secondary syphilis, where GBMSM no longer constituted the majority starting in 2020 (Figure 41). Despite the switch in the distribution of cases from predominantly among GBMSM to non-GBMSM, the actual number of GBMSM syphilis cases remains disproportionately high for both all stages and P&S syphilis (Figures 40 and 41). Even with a decrease in GBMSM cases from 2022 to 2023, they still represented about 45% of male cases for all stages and P&S.

Figure 40. Syphilis (All Stages) Cases Among GBMSM versus non-GBMSM, WA State, 2014-2023

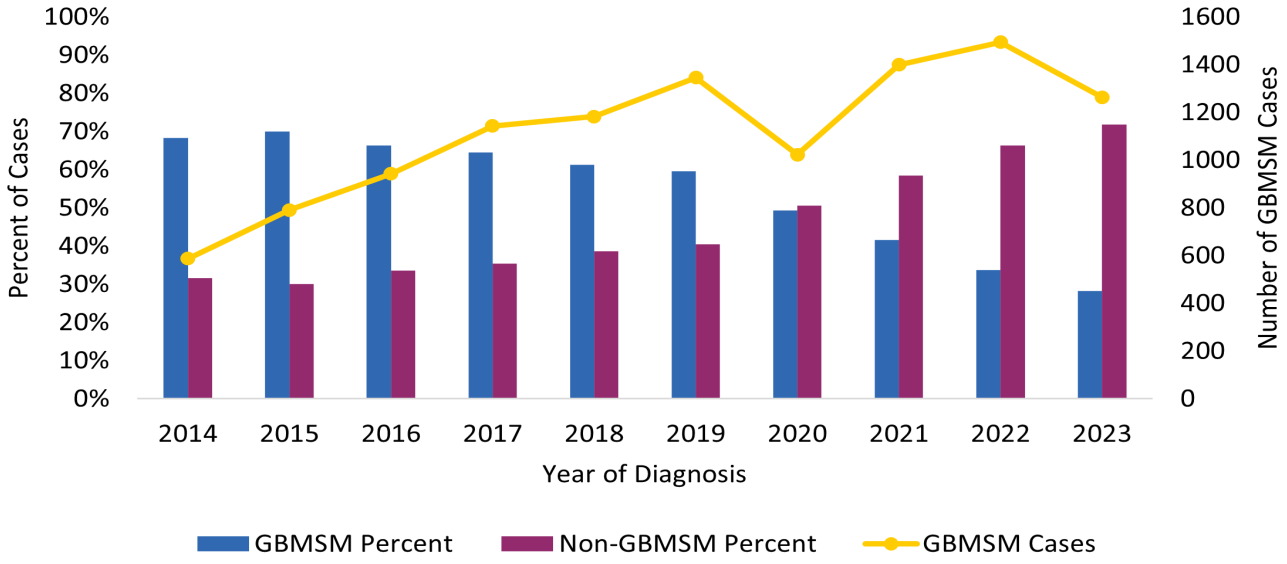
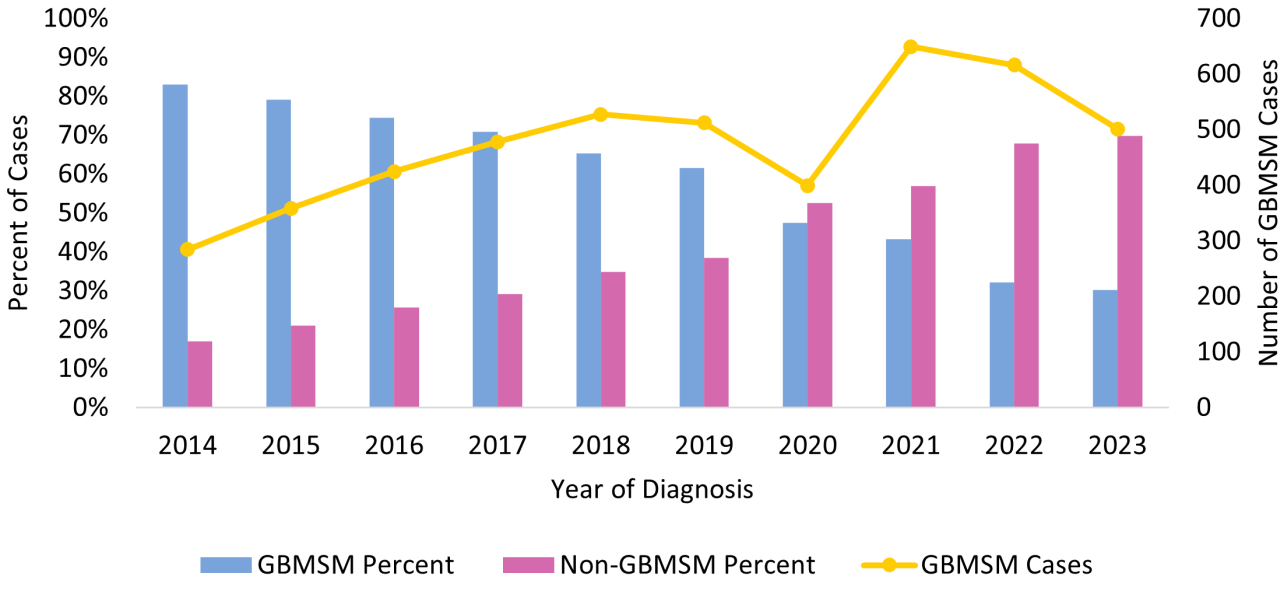


Figure 41. P&S Syphilis Cases Among GBMSM versus non-GBMSM, WA State, 2014-2023



Use of drugs

Substance use can increase one's risk of syphilis infection, especially when injecting drugs. Figure 42 presents the number and proportion of syphilis cases self-reporting any substance use. This information is only collected during interviews; therefore, only interviewed cases are included. Any substance use includes methamphetamine, heroin, injection drug use, cocaine/crack, opioids, and other. Injection drug use focuses on a method of consumption and not a specific type of substance.

For all stages of syphilis, the proportion of interviewed cases self-reporting substance use has varied from 2014 to 2023 between 26-33%. The number of cases self-reporting drug use has had an upward trajectory from 2020 to 2023. The percentage of cases reporting drug use is slighly higher for P&S than for all stages, ranging between 27-35% during the 2014-2023 time frame (Figure 43).

Figure 42. Interviewed Syphilis Cases (All Stages) Self-Reporting Substance Use, WA State, 2014-2023

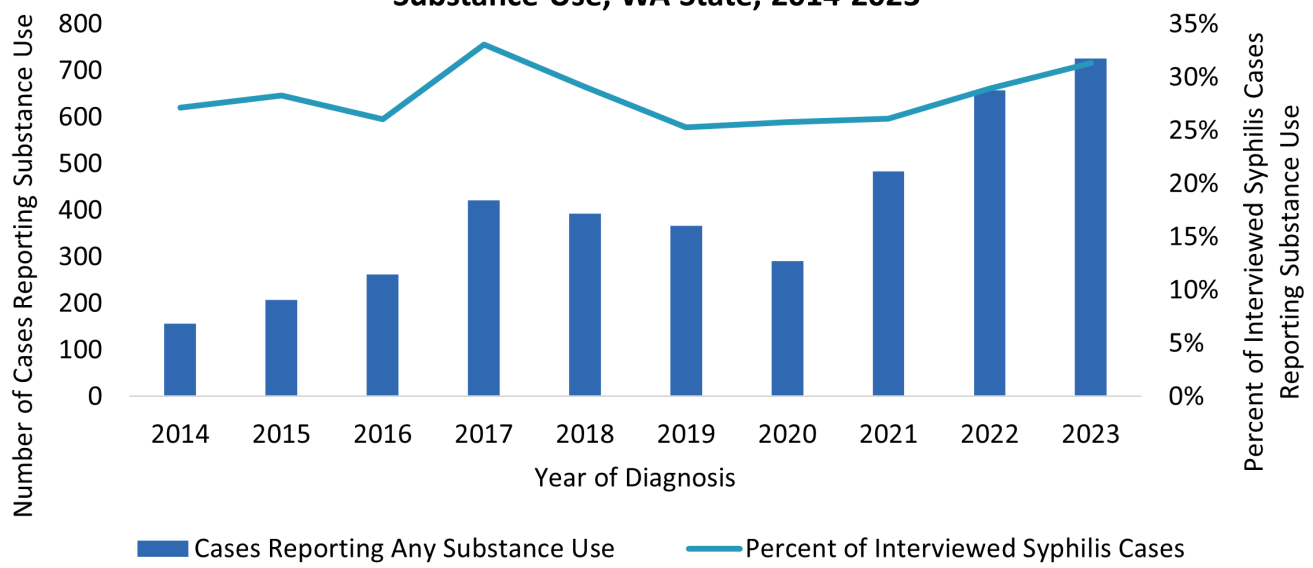
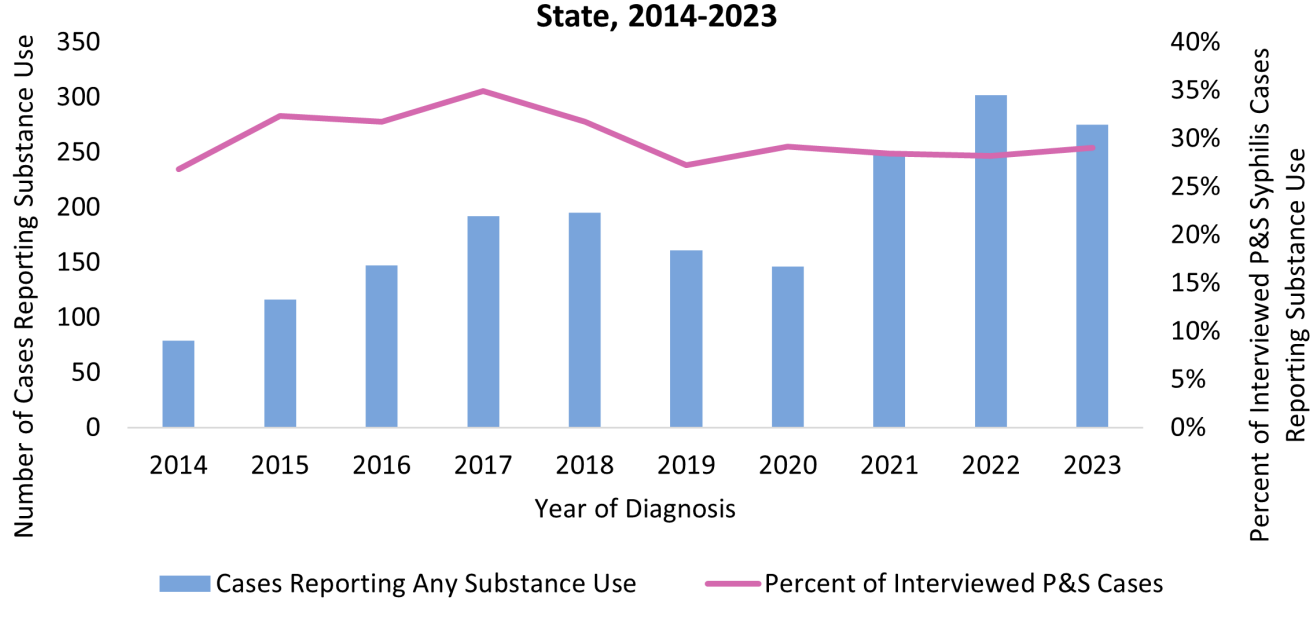


Figure 43. Interviewed P&S Cases Self-Reporting Substance Use, WA State, 2014-2023



Delving further into substance use, self-reported use by type of drug is presented in Figure 44 for all stages of syphilis and Figure 45 for P&S syphilis. This is limited to interviewed cases, since this information is collected during interview. Trends are similar for all stages and P&S. Methamphetamine in any form is the most common type of drug reported every year. For most years, injection drug use of any type of drug is the second most reported. Opioid data were not available prior to March 2020, but opioid use has been rising from 2020 to 2023.

Figure 44. Self-Reported Substance Use by Type, Among Interviewed Syphilis (All Stages) Cases, WA State, 2014-2023

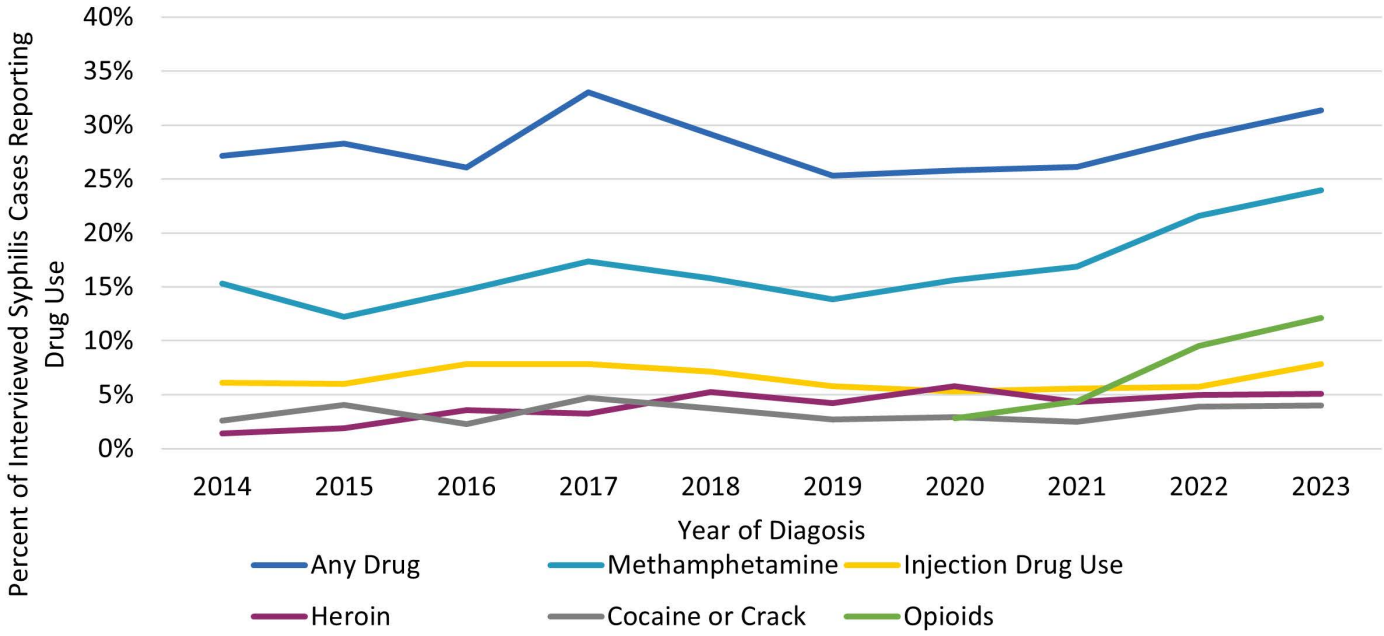
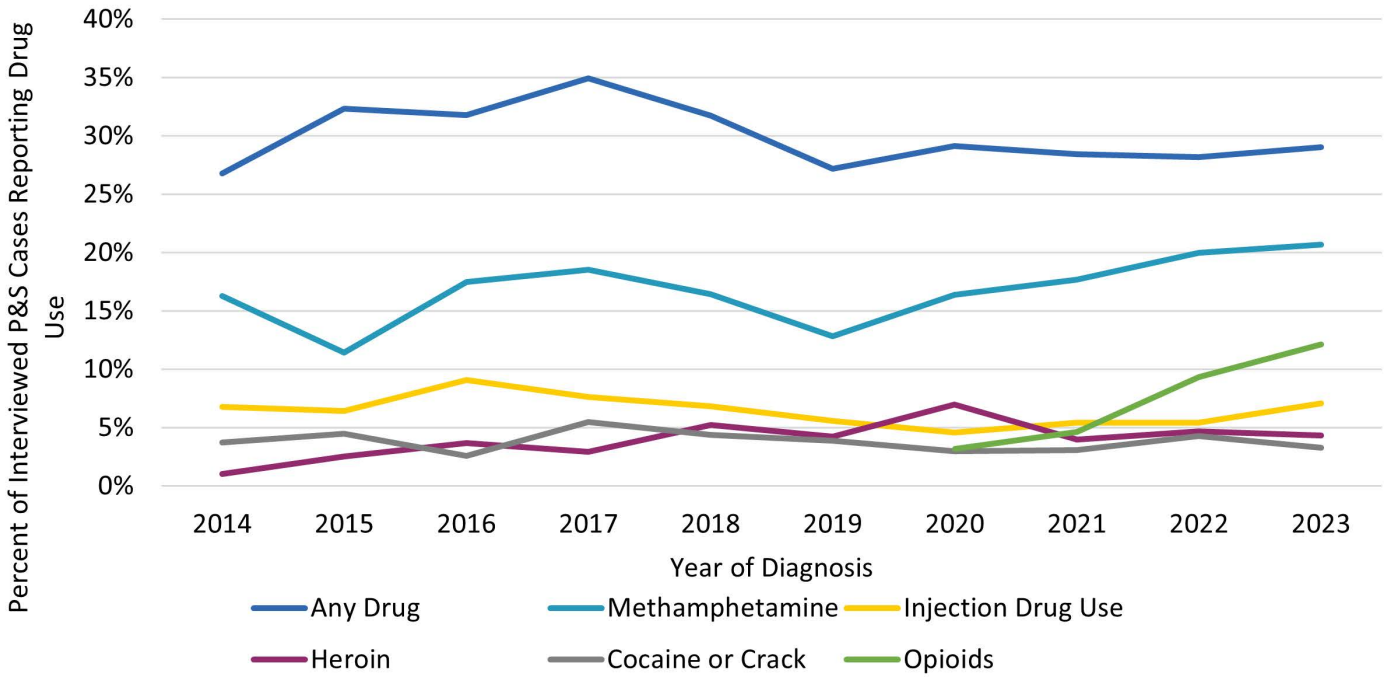
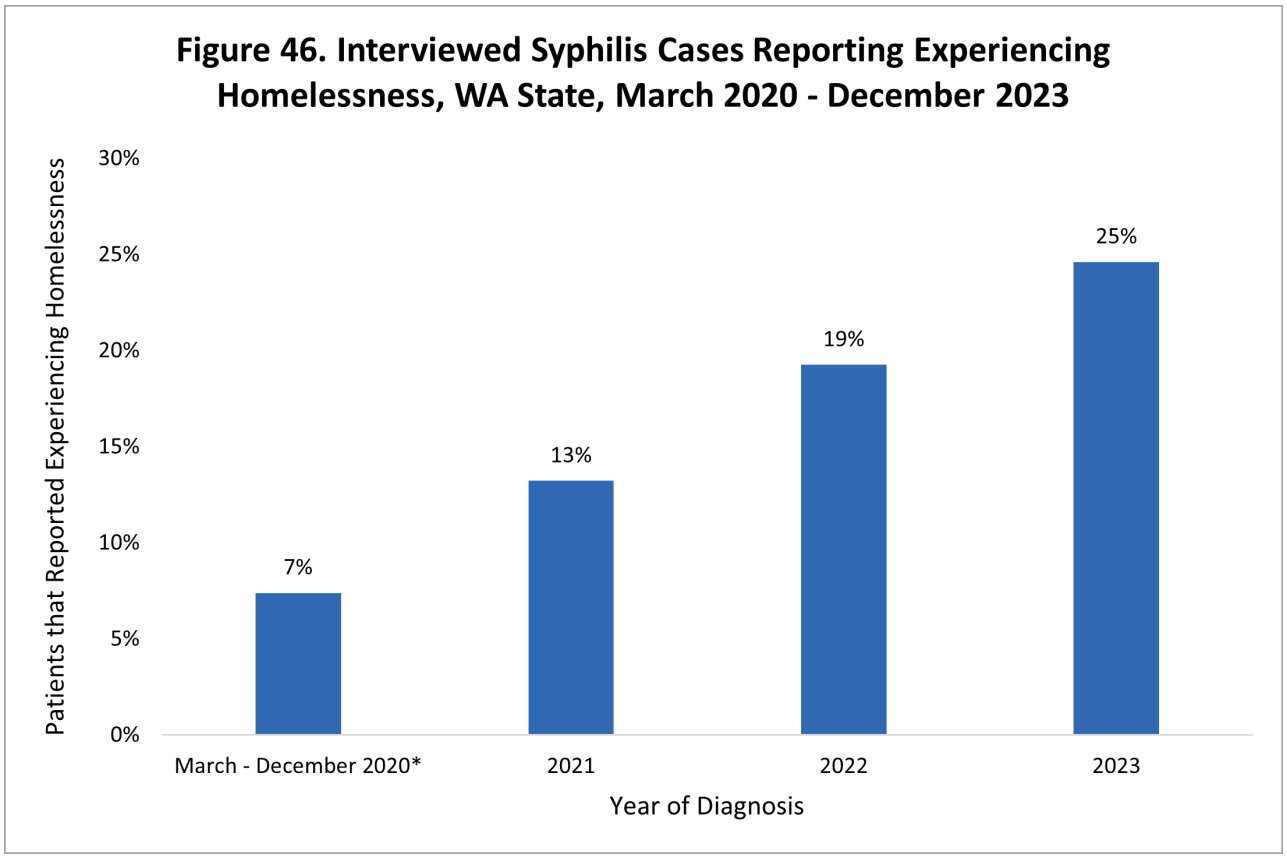


Figure 45. Self-Reported Substance Use by Type, Among Interviewed P&S Syphilis Cases, WA State, 2014-2023



Experiencing Homelessness

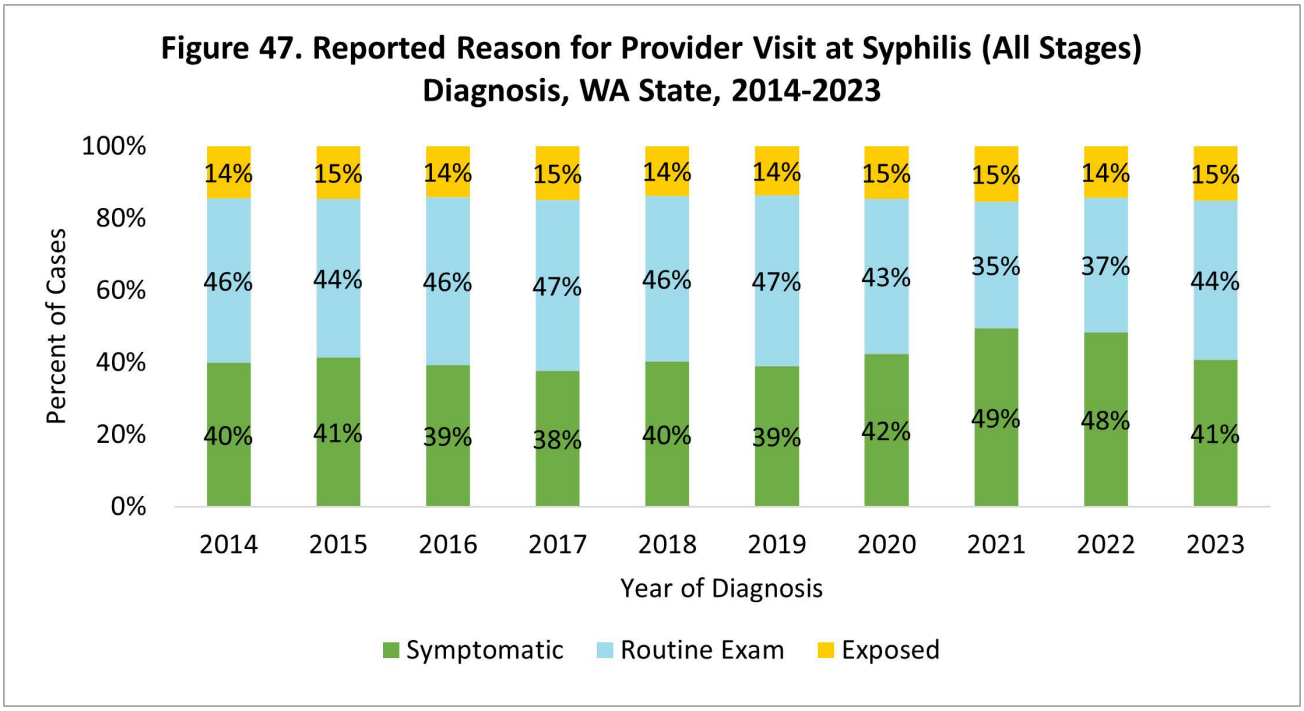
People experiencing homelessness are disproportionately impacted by STIs and face additional challenges to accessing care. The percentage of interviewed cases reporting experiencing homelessness has risen tremendously in Washington from 7% in 2020 to 25% in 2023 (Figure 46). This is likely still under-reported for a variety of reasons, such as a patient not wishing to disclose experiencing homelessness or DIS being unable to locate the patient for follow-up. DOH is exploring methods to more accurately capture homelessness among patients diagnosed with an STI in order to better support this population. This question was not asked within PHIMS-STD prior to March of 2020; hence, data are not available for previous years.

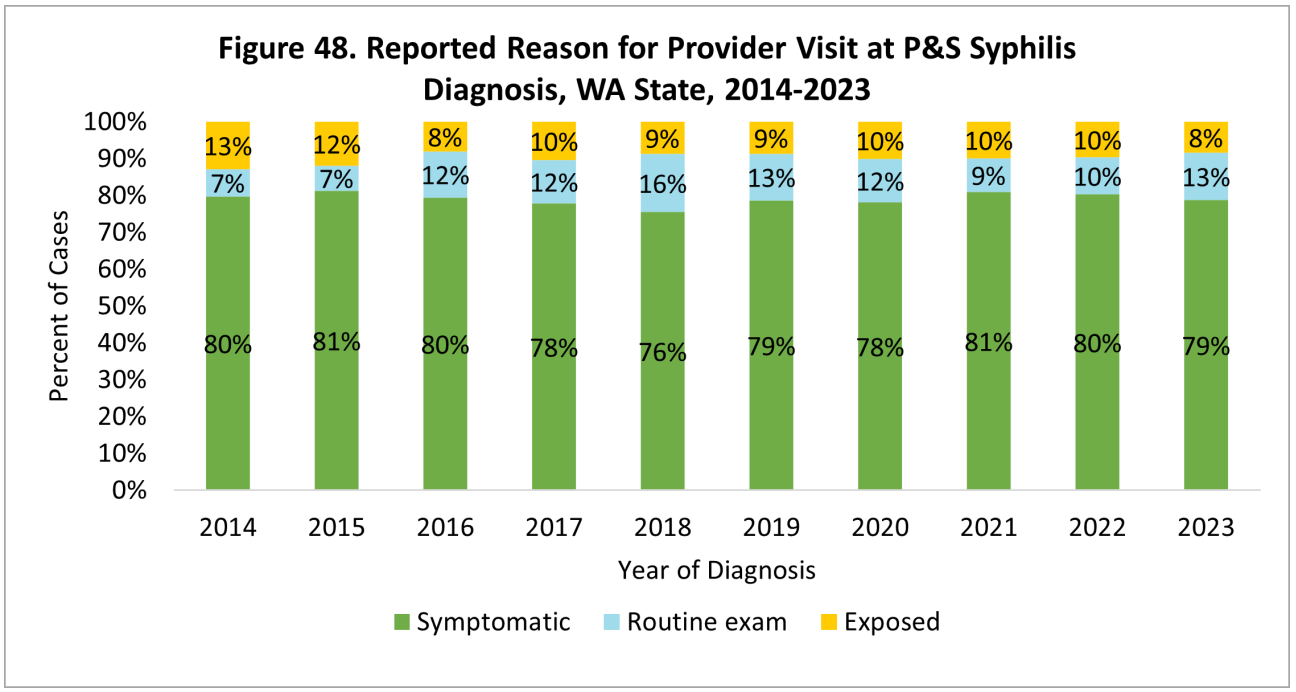


SYPHILIS: TRENDS IN DIAGNOSIS AND ACCESSING OF CARE

An individual's symptoms and reason for provider visit at their time of syphilis diagnosis can vary depending on the syphilis stage. For all syphilis stages from 2014 to 2023, the most common reason for a patient's diagnostic visit fluctuated between a routine exam and experiencing symptoms. In 2023, 44% of all syphilis cases were diagnosed during a routine exam, highlighting the importance of STI screenings if one is sexually active, even if they are asymptomatic (Figure 47).

P&S infections are more likely to be symptomatic simply because that is the nature of syphilis during those stages. In 2023, 79% of P&S diagnosis visits were due to symptoms (Figure 48).

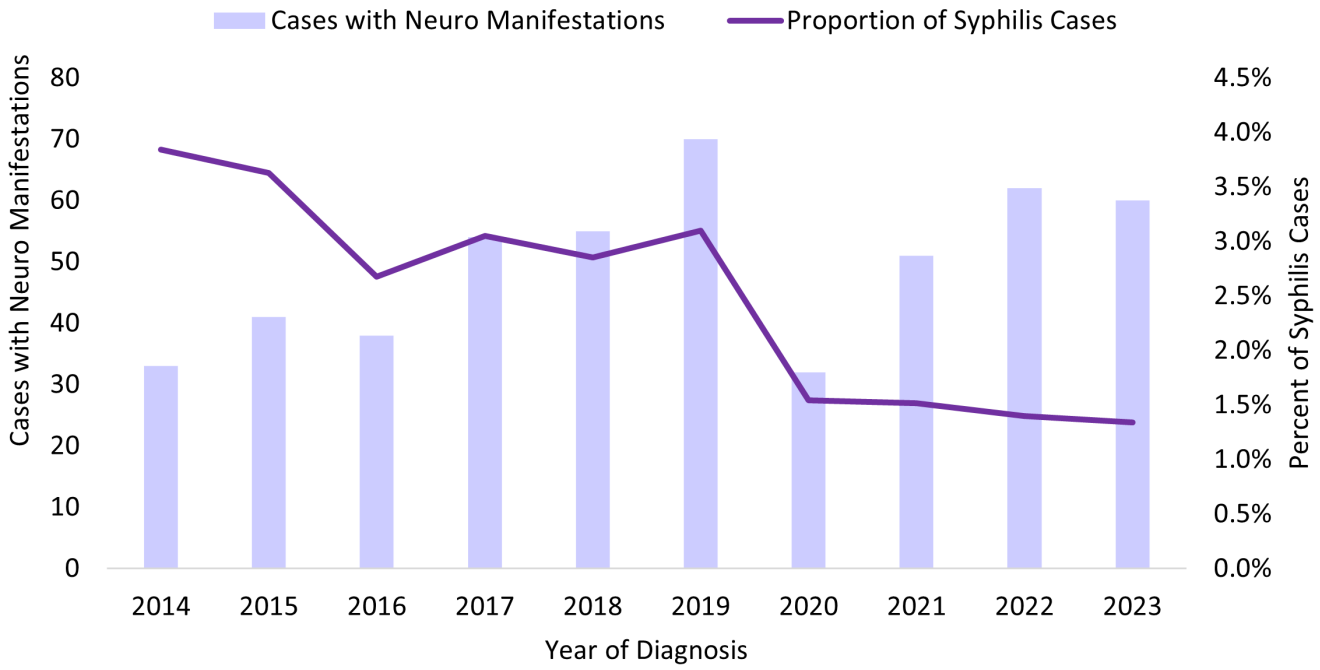




Note: This excludes patients missing a reported reason for visit.

Untreated syphilis infections can lead to many different health complications. Neurological manifestations are one type of syphilis complication of particular concern. Although they are relatively rare, they may occur at any stage of syphilis and may not be treatable once they have progressed. Figure 49 presents syphilis cases (all stages) diagnosed with neuro manifestations. The percentage of cases with neuro manifestations was highest in 2014 at 3.8% and decreased to 1.3% in 2023. Still, the number of cases with neuro manifestations has increased when comparing 2014 to 2023.

Figure 49. Syphilis (All Stages) Cases Diagnosed with Neuro Manifestations, WA State, 2014-2023

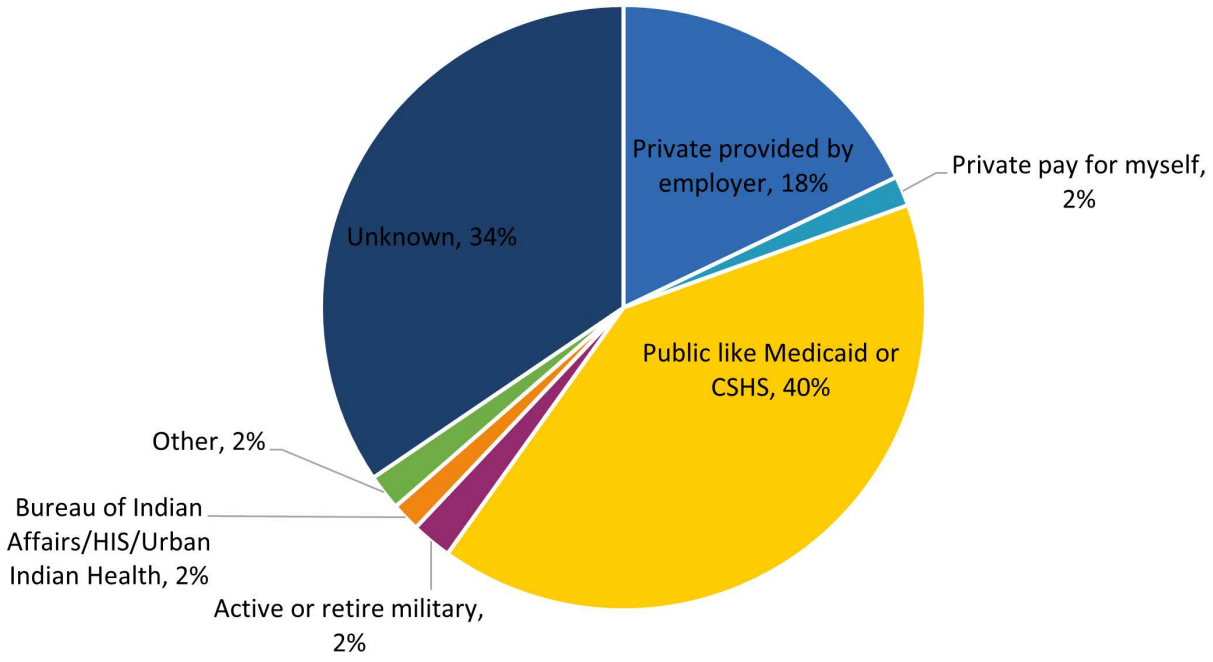


A quarter of syphilis cases from 2019 to 2023 were diagnosed in a private physician office or an HMO (Health Maintenance Organization). Hospital ER/urgent care facilities were the second most common facility type for a syphilis diagnosis, and the others are shown in Table Q.

Table Q. Most Common Healthcare Facility Types for Syphilis (All Stages) Diagnoses, WA State, Aggregate 2019-2023	Percent of Syphilis Diagnoses
Private Physician/HMO	24%
Community Health Center/FQHC	15%
Hospital ER/Urgent Care Facility	15%
Hospital - other than ER	9%
Family Planning	7%
Correctional Facility	6%
STD Clinic	6%
HIV C&T Site	3%
Other Health Dept. Clinic	3%

Out of interviewed syphilis cases, the most common type of insurance reported between 2019 and 2023 was a public type of health insurance, such as Medicaid or CSHS. Private insurance provided by an employer is the other most common insurance type for people diagnosed with syphilis. Figure 50 displays the distribution of insurance types among interviewed cases, although this was not documented for 34% of cases and therefore is an estimate.

Figure 50. Reported Insurance Type Among Interviewed Syphilis (All Stages) Cases, WA State, Aggregate 2019-2023



SYPHILIS OUTCOMES: TREATMENT, INTERVENTION AND FOLLOW-UP

Syphilis treatment is very important for preventing infection from progressing into a further stage, causing other health complications, and limiting syphilis transmission to partners. Figure 51 shows syphilis cases with any treatment documented from 2014 to 2023. Although the percentage has decreased slightly each year since 2018, 93% of cases still received some treatment in 2023 even as total syphilis reached a record high. However, any treatment does not indicate that appropriate treatment was received for the diagnosed stage. That is shown in Figure 52 beginning in March 2020, when appropriate treatment was first documented in PHIMS-STD.

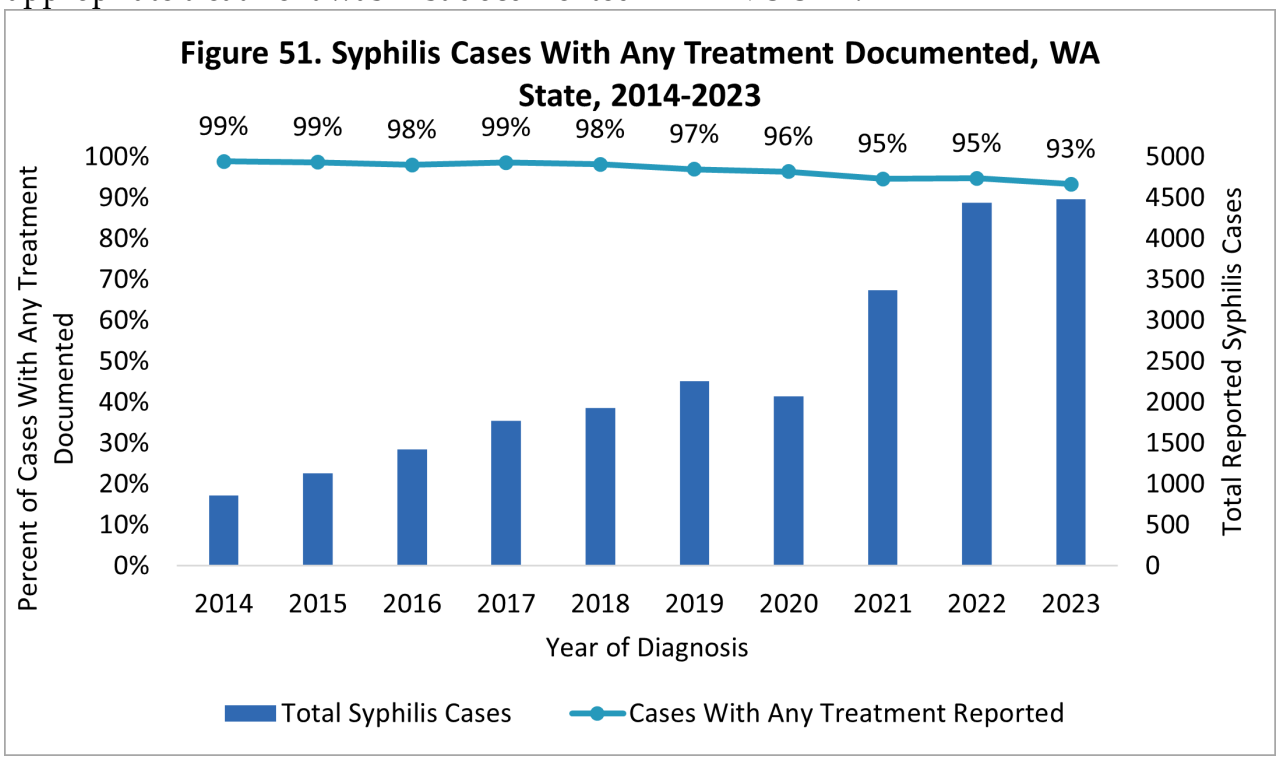
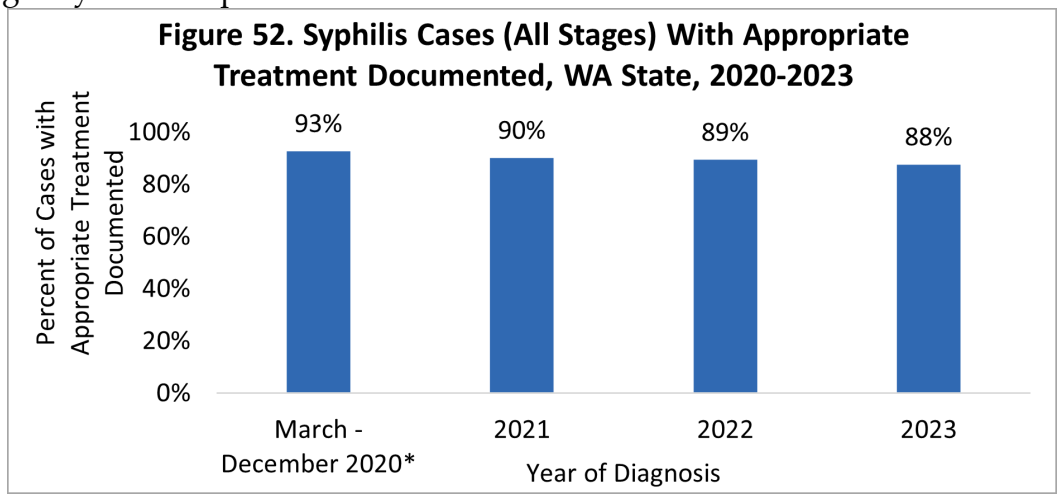
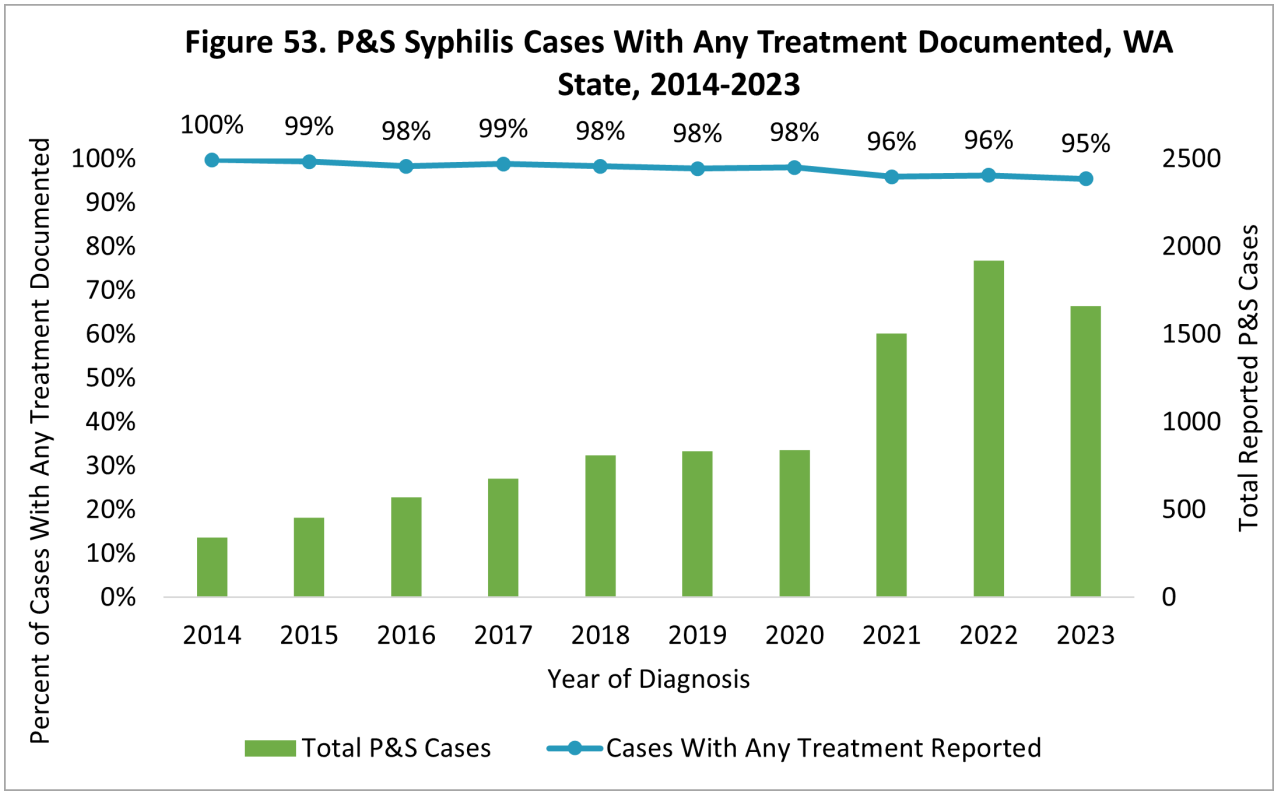
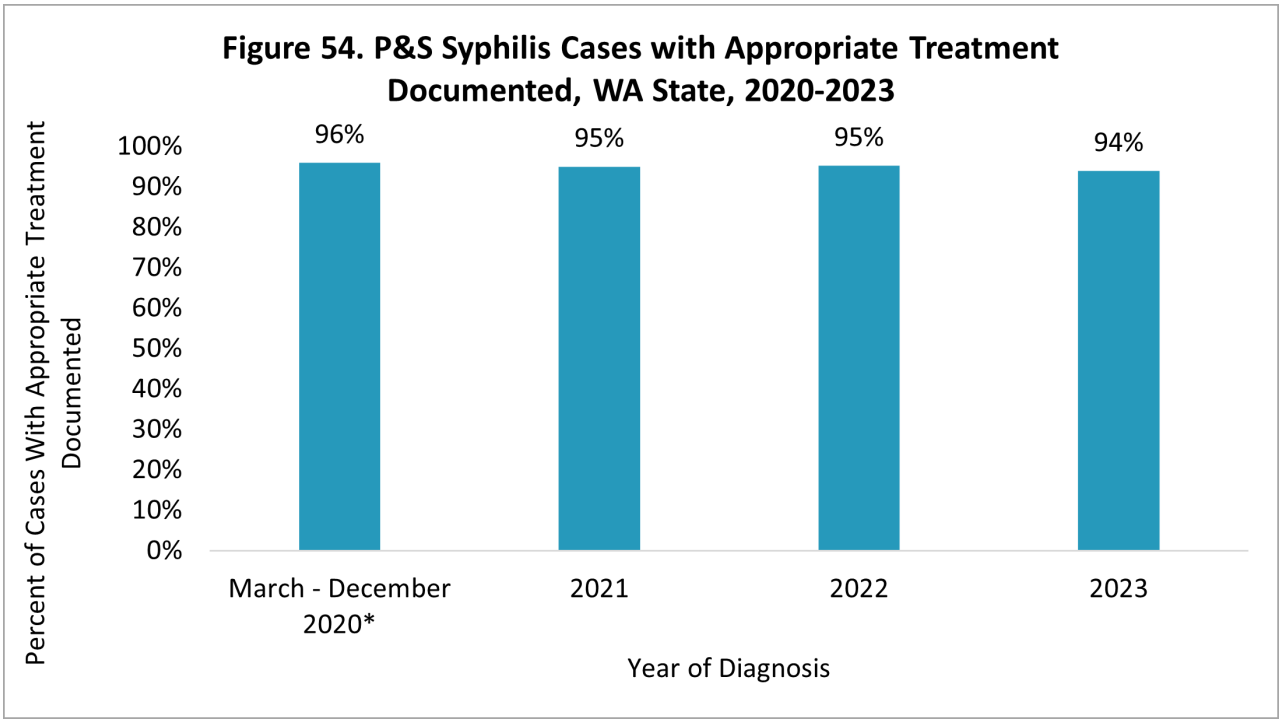


Figure 52 shows that appropriate treatment is lower than cases with any treatment recorded, but it has still remained high. In 2023, 93% of cases had any treatment, and 88% received the appropriate treatment for their stage. Patients may experience stigma and systemic-level barriers that impact their ability to receive treatment, especially if multiple follow-up visits are needed to treat late syphilis. Providers also may improperly treat a patient by not adhering to the CDC-recommended guidelines. DIS work diligently to assist patients with treatment needs.



Figures 53 and 54 show P&S cases with any treatment documented and with appropriate treatment documented, respectively. It is particularly important that P&S cases are properly treated quickly, since syphilis is most transmissible at this point. Compared to syphilis overall, P&S cases were more likely to have any treatment documented and to have received the appropriate treatment, with 95% of cases having any treatment and 94% being appropriately treated in 2023.

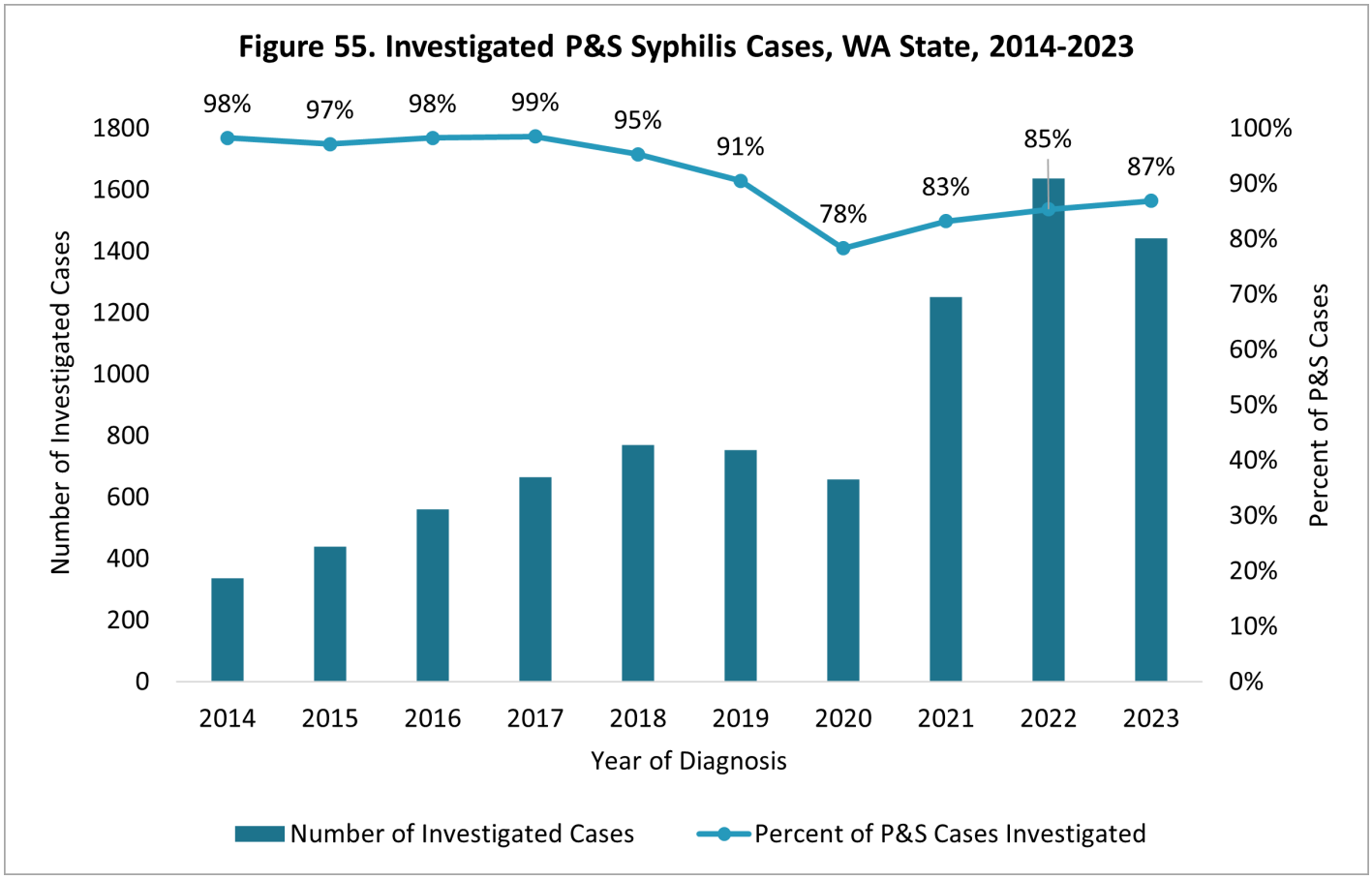




*Appropriate syphilis treatment was first documented in March 2020.

Disease intervention specialists (DIS) from Washington State Department of Health and local health jurisdictions connect with patients diagnosed with syphilis or another notifiable STI infection to ensure they have appropriate follow-up. This includes conducting interviews, which are important for the naming of partners to ensure they also receive care if needed.

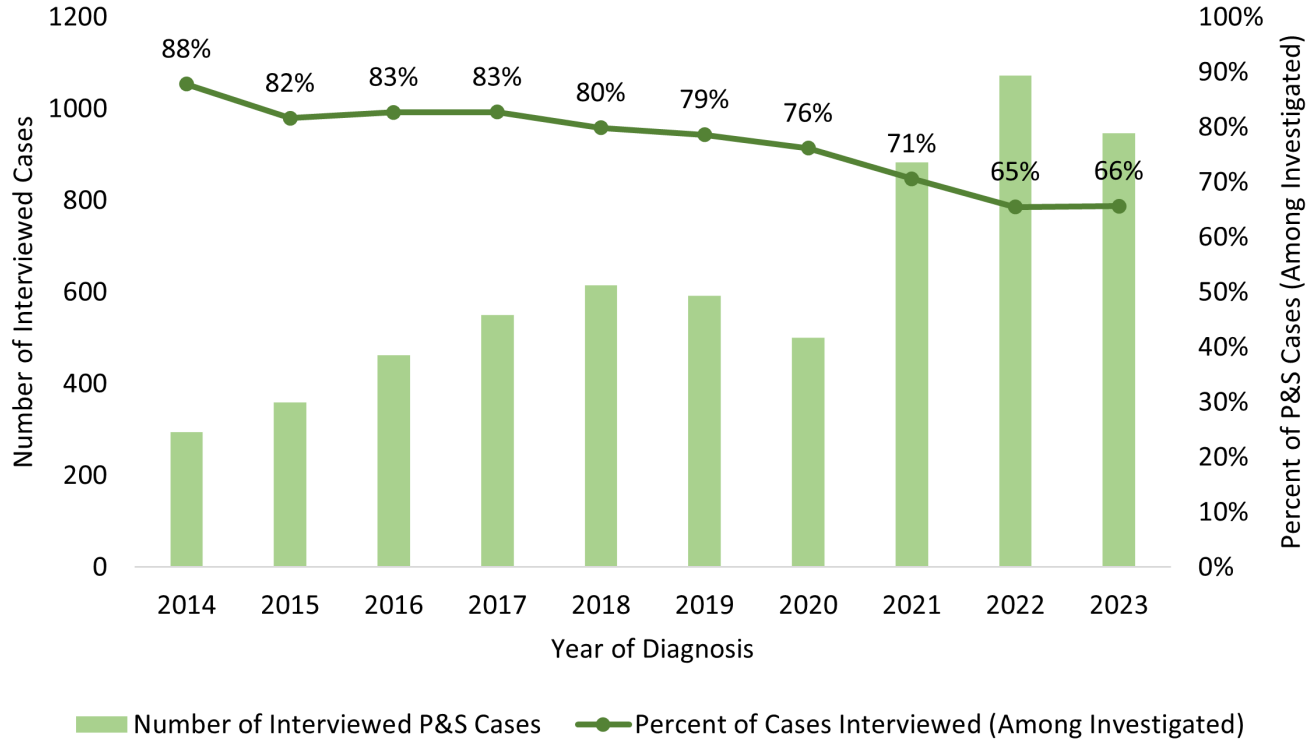
The first step of the intervention cascade is to investigate a case through contacting the original patient. For syphilis, this is prioritized for early cases due to their more infectious nature. Figure 55 shows the proportion of P&S cases 'investigated' from 2014 through 2023 in Washington, meaning contact was attempted between one to three times or a complete or partial interview is on record. This has varied over the years, peaking at over 99% in 2017, and more recently was at 87% in 2023. Given how much syphilis morbidity has increased over these years, it is impressive how DIS have maintained case investigations at such a high rate.



Once a patient has been contacted, DIS aim to interview them. These interviews help to gain a better understanding of the populations impacted by STIs in Washington and to ensure patients receive follow-up care. All patient case report and interview information is kept strictly confidential and used for the purpose of assisting the patient and their sexual partners with appropriate follow-up.

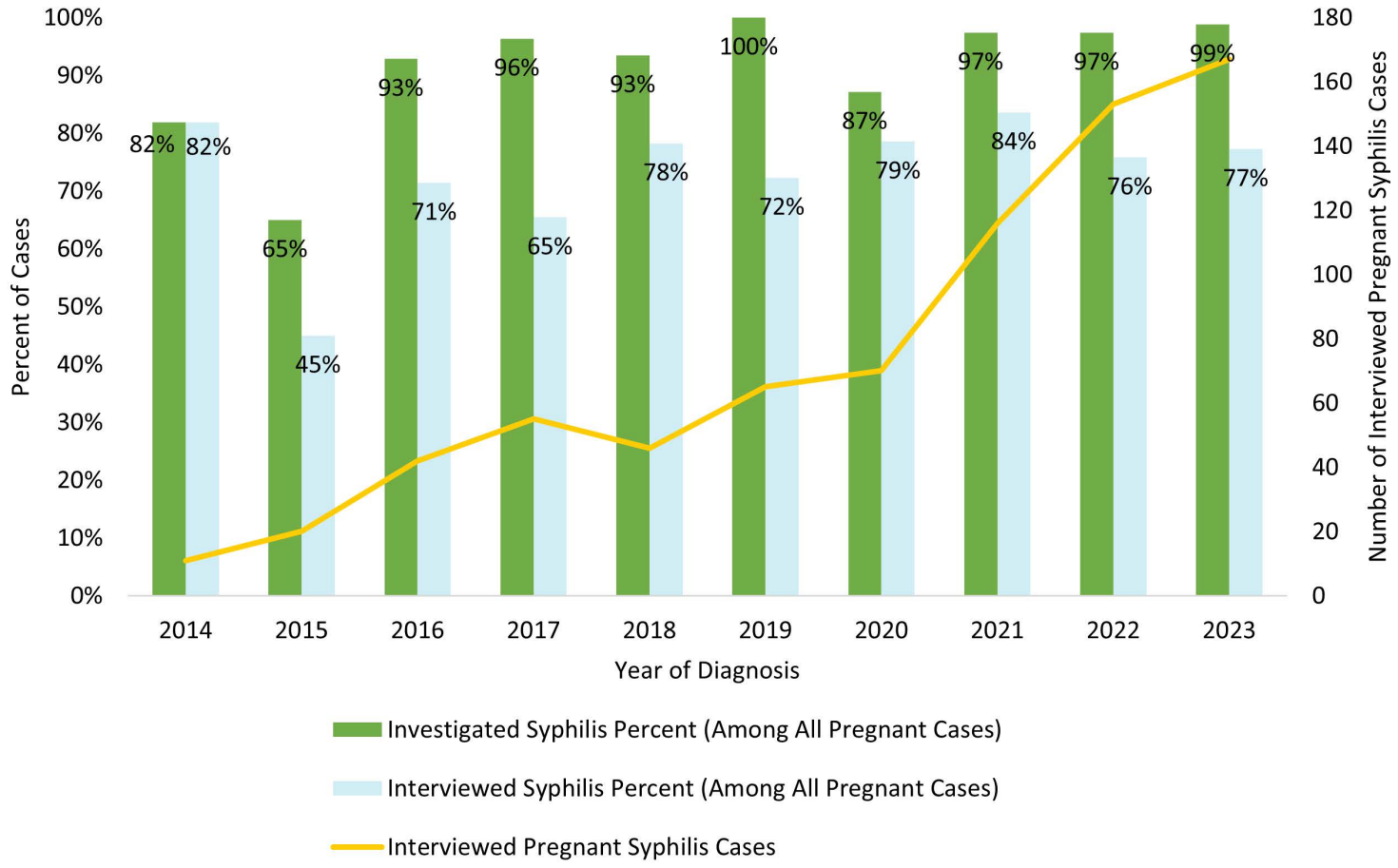
Figure 56 shows the percentage of P&S cases interviewed among contacted cases. Although this decreased from 2014 to 2023, DIS still interviewed 2 out of 3 contacted cases in 2023.

Figure 56. Interviewed P&S Cases Among Investigated Cases, WA State, 2014-2023



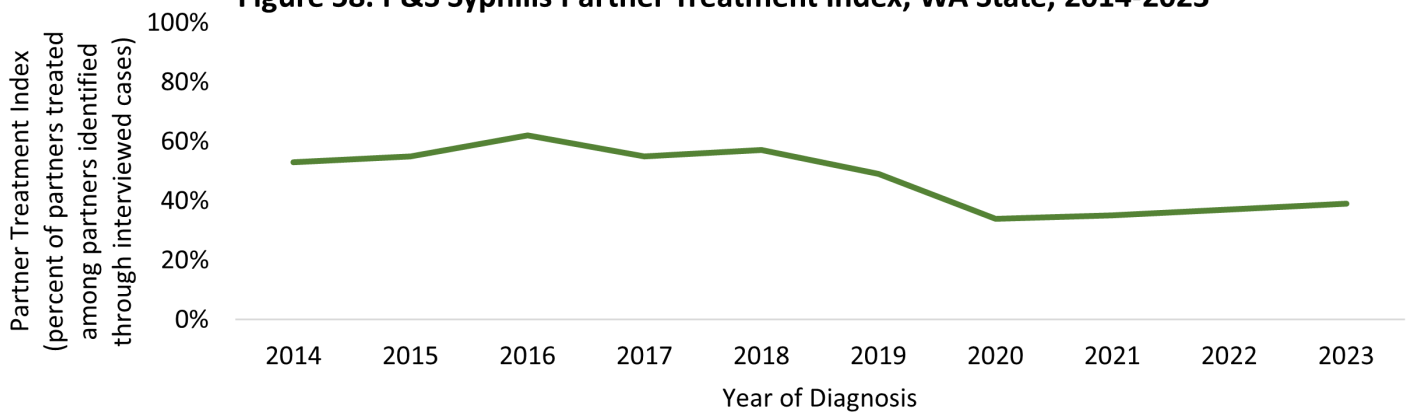
Pregnant syphilis cases are of high priority for follow-up to prevent congenital syphilis. Figure 57 displays the pregnant syphilis case intervention cascade from 2014 to 2023. Over the years, DIS have maintained high follow-up for pregnant cases, even as pregnant and total syphilis cases have risen. In 2023, 99% of pregnant syphilis cases were investigated, and 77% were reached for interview.

Figure 57. Pregnant Syphilis Case Investigation Cascade, WA State, 2014-2023



Through interviews with patients, DIS identify partners and reach out to assist them. Figure 58 presents the percentage of treated partners identified through interviews for P&S syphilis cases. Although more than 50% of partners had been treated from 2014 to 2018, it declined to around 34% by 2020 and has slightly increased since.

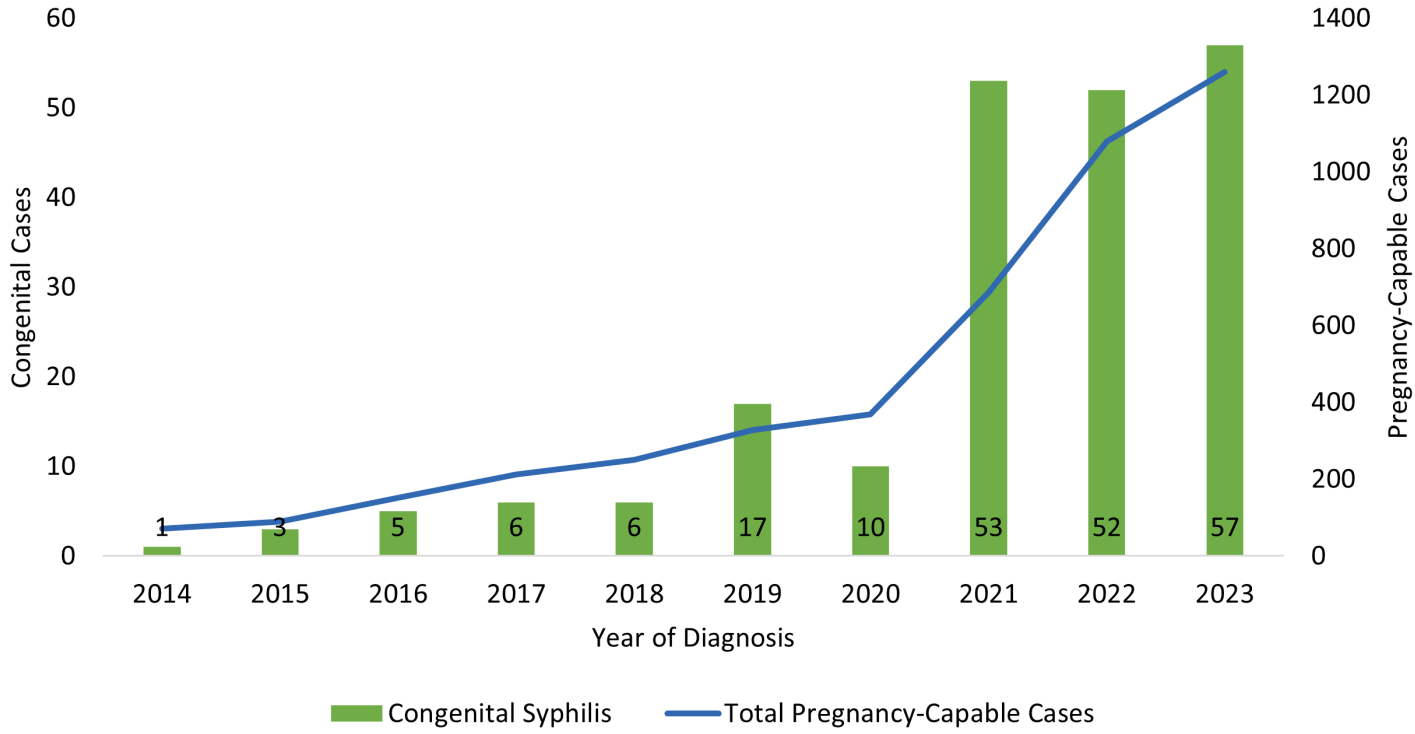
Figure 58. P&S Syphilis Partner Treatment Index, WA State, 2014-2023



CONGENITAL SYPHILIS

Congenital syphilis cases have risen sharply in recent years, both in Washington and nationally. This is of great concern because of the extreme health impacts congenital syphilis can have on a newborn. Babies born to people with untreated syphilis may be stillborn or die later from complications. Figure 59 shows the great rise in congenital syphilis cases in Washington between 2014 and 2023, alongside the rise in cases among pregnancy-capable people. In the years prior to 2017, CS cases had been very rare. Unfortunately, by 2021, WA reached an unprecedented number of 53 CS cases, and that high level was held through 2023.

Figure 59. Congenital Syphilis Cases and Syphilis Among Pregnancy-Capable Persons, WA State, 2014-2023



SECTION 4. HERPES

Genital herpes is caused by the HSV-1 and HSV-2 viruses and can be transmitted through vaginal, anal, or oral sex. Patients infected with herpes may present with one or more blisters around the site of infection. Some people may not notice any symptoms when infected with herpes. For people who do have symptoms, they may experience repeated outbreaks. Using a barrier properly every time one has sex can prevent transmission of herpes. Further information about herpes can be found on the CDC website: Genital Herpes | CDC.

Table R displays the number of cases of adult genital herpes and the rate per 100,000 people in Washington from 2004 to 2023. Although genital herpes is a notifiable condition in Washington, it is known to be drastically under-reported and often goes undiagnosed. As such, the reported numbers are likely significantly underestimated. The lowest number of herpes infections during this time frame was reported in 2023.

Table R. Reported Herpes Cases and Cases per 100,000, WA State, 2004-2023

Year of Diagnosis	Number of Cases	Cases per 100,000
2004	2,147	34.6
2005	2,305	36.6
2006	2,426	37.8
2007	1,947	29.8
2008	1,981	30.0
2009	1,881	28.2
2010	2,029	30.2
2011	2,160	31.9
2012	2,199	32.2
2013	2,233	32.4
2014	2,195	31.4
2015	2,528	35.7
2016	2,555	35.4
2017	2,086	28.4
2018	1,613	21.6
2019	1,744	23.0
2020	1,381	17.9
2021	1,192	15.3
2022	1,110	14.1
2023	1,205	15.3

SECTION 5. RARE STIs

Cases of neonatal herpes, lymphogranuloma venereum, chancroid, and granuloma inguinale are notifiable yet very rare in Washington. The number of confirmed cases of each of these conditions for 2014 to 2023 is reported in Table S. In those ten years, Washington has not had one confirmed case of chancroid or granuloma inguinale.

Table S. Rare STIs in WA, 2014-2023

Year of Diagnosis	Neonatal herpes	Lymphogranuloma venereum (LGV)	Chancroid	Granuloma inguinale
2014	1	0	0	0
2015	1	1	0	0
2016	2	1	0	0
2017	5	1	0	0
2018	3	1	0	0
2019	1	2	0	0
2020	2	0	0	0
2021	4	0	0	0
2022	6	0	0	0
2023	1	3	0	0

SECTION 6. STIs FROM A SYNDEMIC LENS

Although we have presented individual sections for the most reported STIs in Washington, it is important to recognize that there is high overlap in the risk factors for all STIs, HIV, and viral hepatitis. Patients diagnosed with one STI, such as gonorrhea, are also more likely to acquire another STI, such as syphilis. This section presents data on the 'syndemic' nature of these conditions.

STI Co-Infections

Every year, a significant portion of STI cases are concurrent diagnoses, meaning the patient has been diagnosed with at least two STIs at the same time. Figure 60 shows that 27% of gonorrhea cases between 2014 and 2023 were additionally diagnosed with chlamydia or syphilis at the time of their gonorrhea diagnosis. Figure 61 shows that 14% of syphilis patients were diagnosed with chlamydia or gonorrhea at their time of syphilis diagnosis.

Figure 60. Gonorrhea Cases Co-infected with Another STI at Time of Diagnosis, WA State, 2014-2023

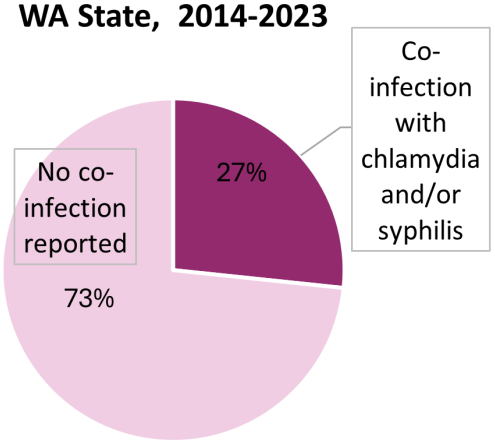
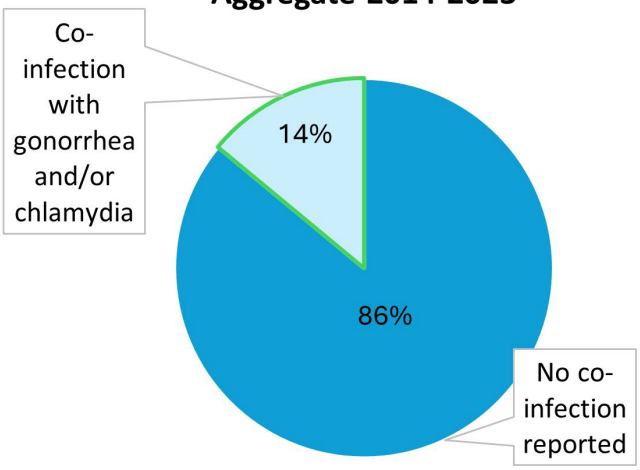


Figure 61. Syphilis Cases with STI Co-infection at Time of Diagnosis, WA State, Aggregate 2014-2023



Repeated STI Infections

Many patients diagnosed with one STI have either had an STI previously or will acquire another infection in the future. This may be due to ongoing exposure to factors that increase one's likelihood of acquiring an STI. Figure 62 shows that among all patients diagnosed with gonorrhea in Washington from 2014 to 2023, 34% had previously been diagnosed with chlamydia, gonorrhea, and/or syphilis. Figure 63 shows that for patients diagnosed with syphilis infection in Washington from 2014 to 2023, 34% had been previously diagnosed with chlamydia, gonorrhea, and/or syphilis.

Figure 62. Gonorrhea Patients with a Previous STI Diagnosis, WA State, 2014-2023

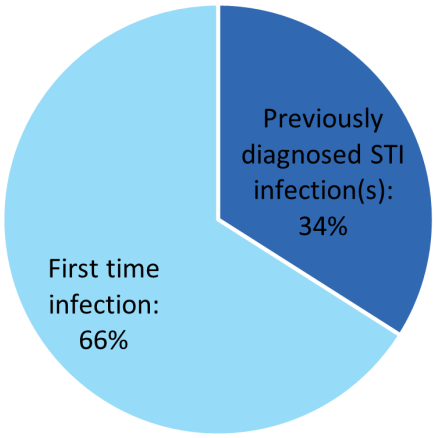
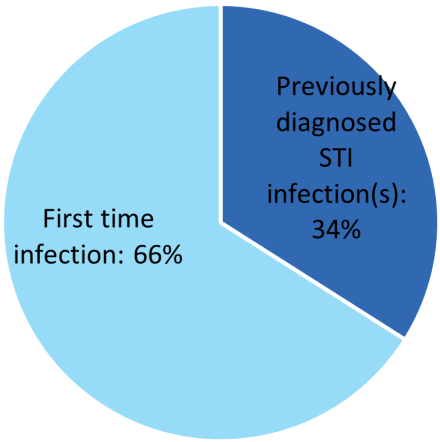


Figure 63. Syphilis Patients with a Previous STI Diagnosis, WA State, 2014-2023

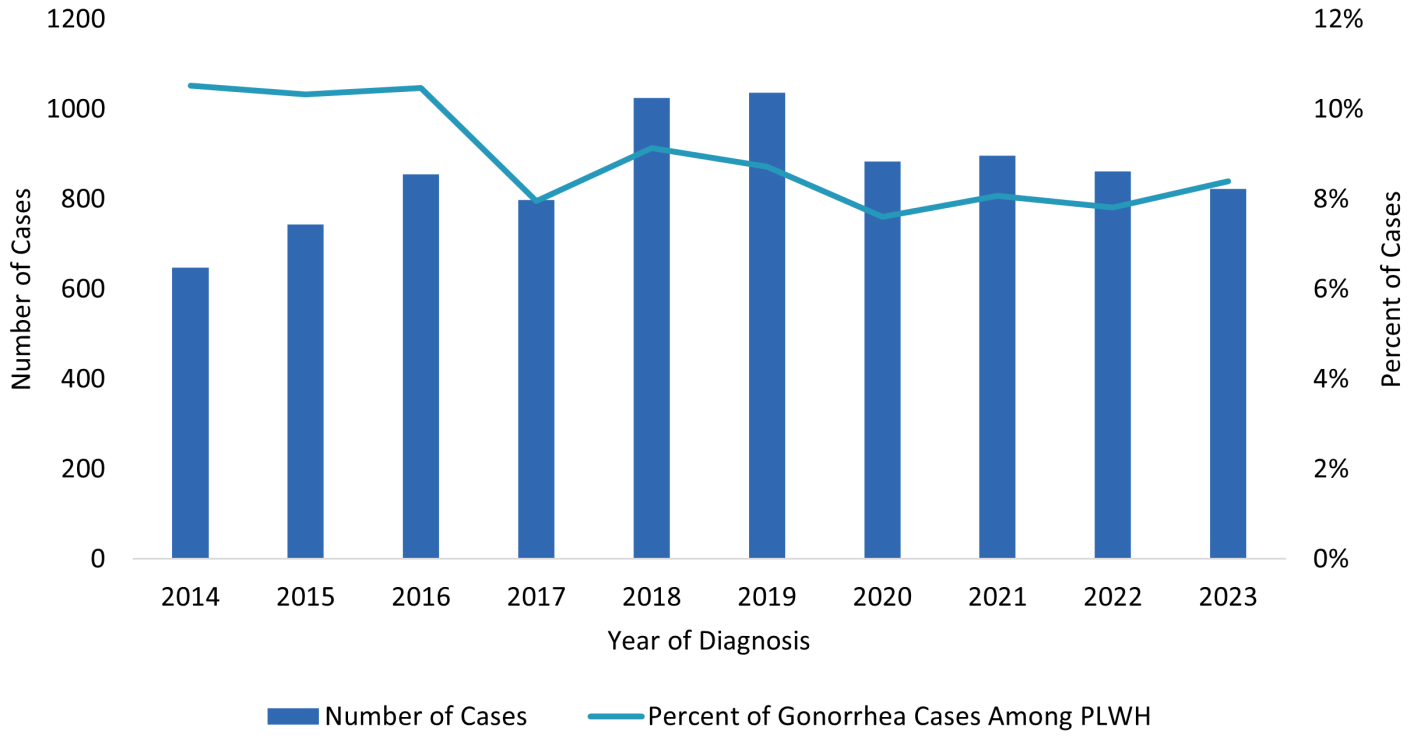


STIs Among People Living With HIV

People living with HIV (PLWH) are more likely to contract STIs, including gonorrhea and syphilis, compared to people not living with HIV, due to similar risk factors and modes of transmission. Additionally, patients presenting with chancres (sores) from syphilis may be more likely to become infected with HIV due to the skin opening at the site of the sores.

Figure 64 shows the number of gonorrhea cases with HIV co-infection and the percentage of all gonorrhea cases that are among PLWH. In 2023, 8% of gonorrhea cases also had HIV. To better understand the increased risk for gonorrhea among PLWH, Figure 67 on page 88 shows gonorrhea rates among PLWH vs. not living with HIV, along with the same metrics for syphilis.

Figure 64. Gonorrhea Cases Among PLWH, WA State, 2014-2023



Examining syphilis cases co-infected with HIV, Figures 65 and 66 show that the percentage of syphilis cases among PLWH has decreased significantly from 2014 to 2023 for all stages and P&S. Still, in 2023, 10% of all syphilis cases and 11% of P&S cases were co-infected with HIV.

Figure 65. Syphilis (All Stages) Cases Among PLWH, WA State, 2014-2023

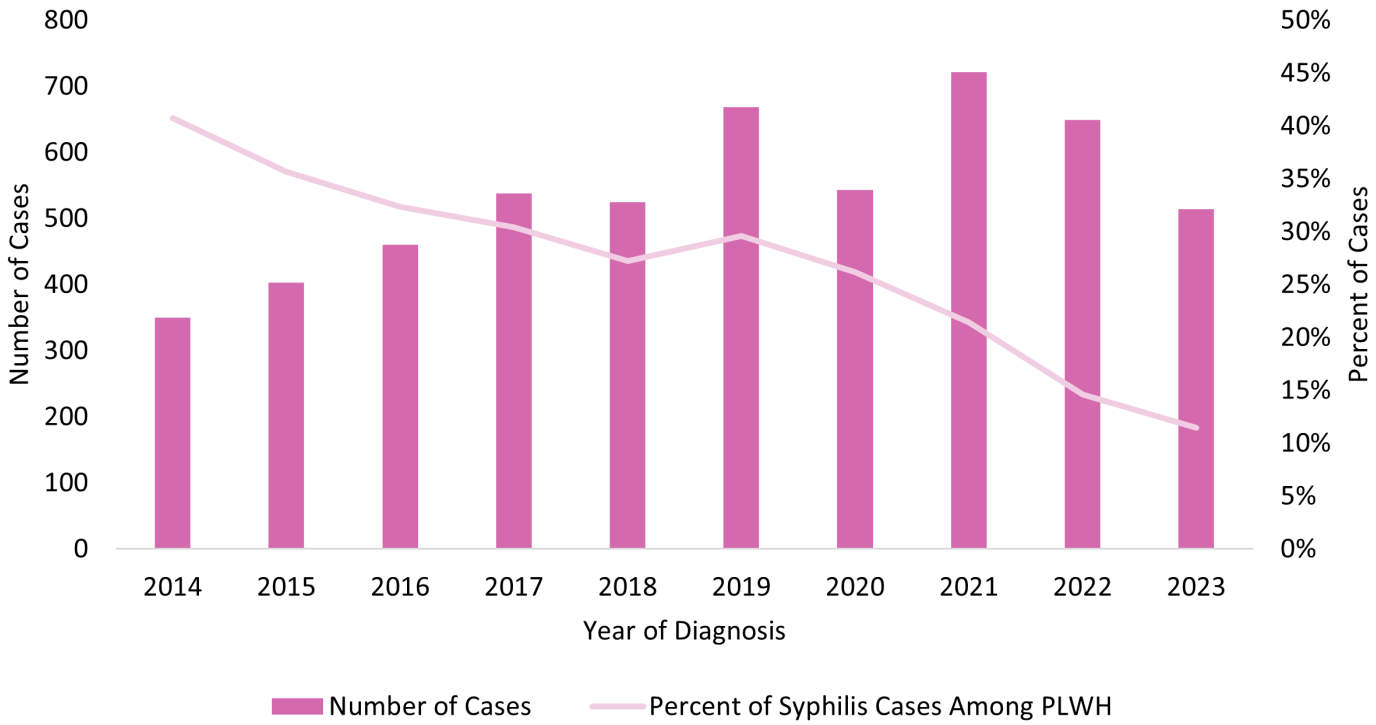


Figure 66. P&S Syphilis Cases Among PLWH, WA State, 2014-2023

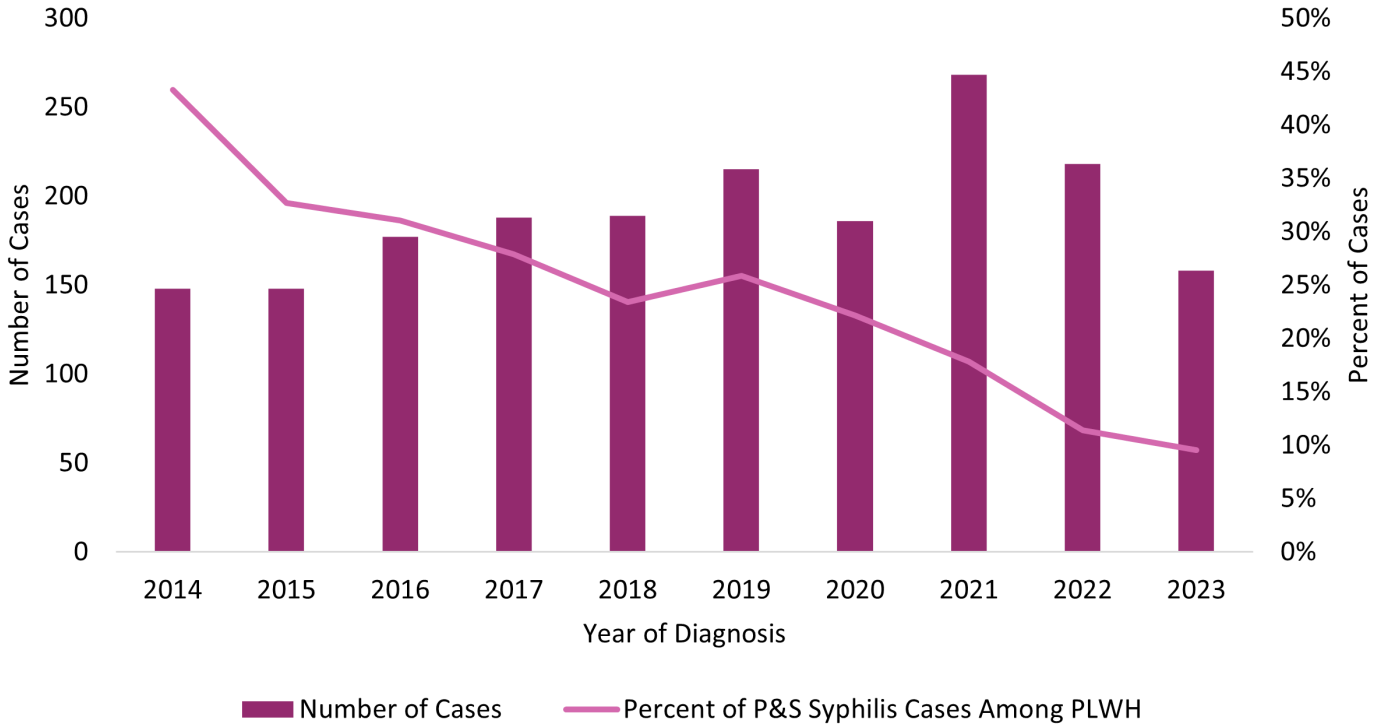
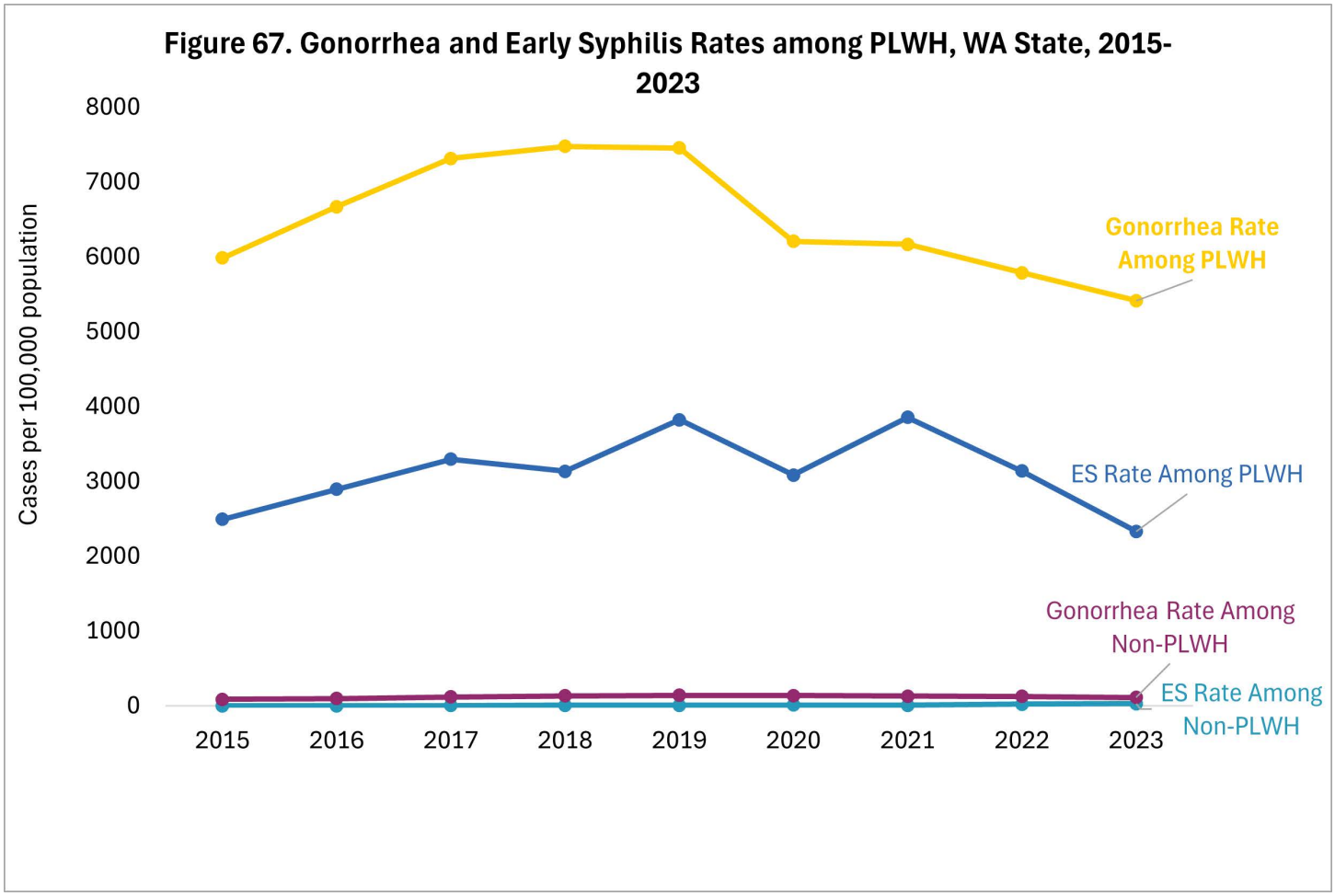


Figure 67 shows the striking differences in gonorrhea and early syphilis rates among PLWH compared to non-PLWH. In 2023, the rate of gonorrhea was 47 times higher for PLWH than non-PLWH. For early syphilis, the rate was 70 times greater for PLWH than non-PLWH. These differences highlight the syndemic nature of these infections and the importance of targeting them simultaneously in our prevention efforts.



SECTION 7. SYSTEMIC FACTORS: SOCIO-ECONOMIC STATUS & STIs

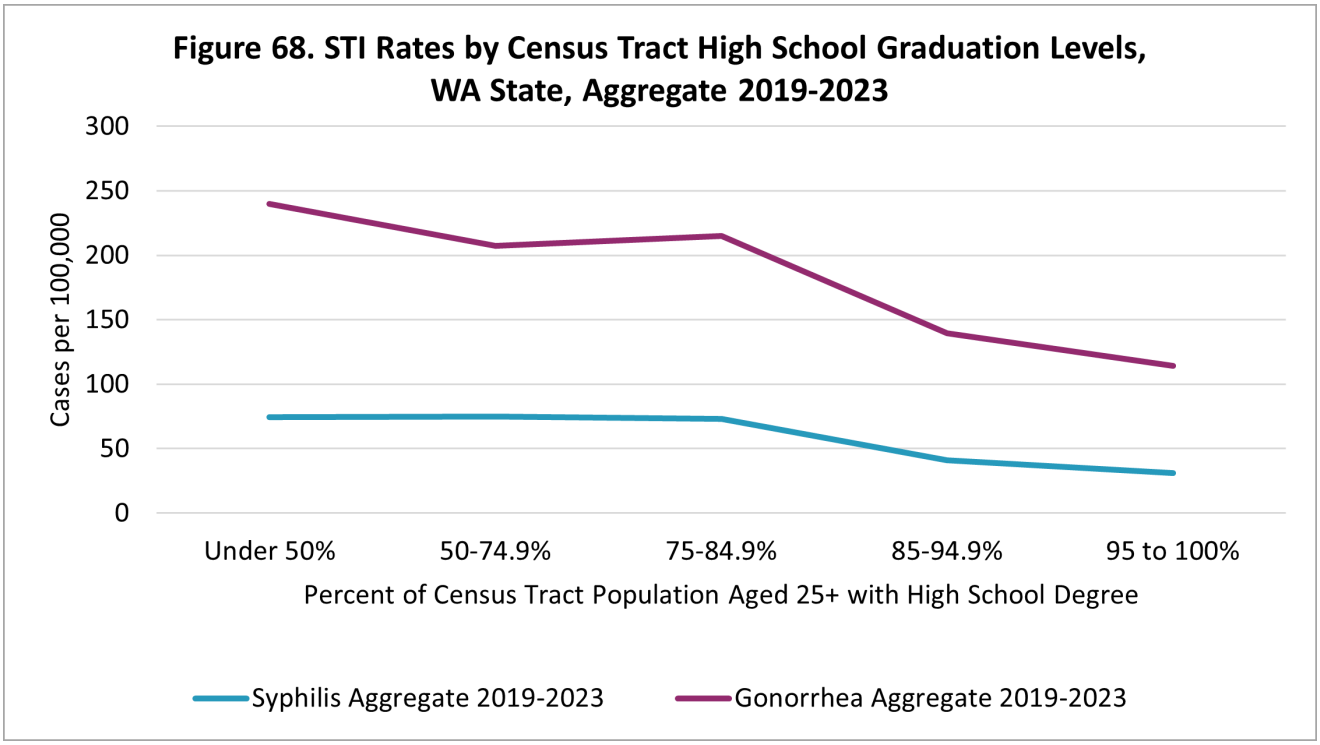
An individual's risk for adverse health outcomes is influenced by much more than their individual behaviors. Systemic, non-medical factors play a large role in health outcomes at a population level and affect an individual's risk for STI infection and consequently receiving treatment and follow-up.

This section provides a broad overview of the relationship between socio-economic status (SES) and STI infections in Washington. Information on SES is not routinely collected in PHIMS-STD for individual case reports. Yet, we can view patient census tracts within PHIMS-STD and match them to census tract level data reported through the American Community Survey (ACS)[1]. This helps us estimate how STI trends vary based on population-level differences.

Although a number of factors will be presented separately, it is important to recognize the complex interactions between many components at the systemic level. For example, education and income level are related to each other and both may impact health outcomes[2]. There are also wide disparities in SES evident by race/ethnicity. Previous sections throughout this report have shown the significantly higher rates of STIs in historically marginalized racial and ethnic groups. Systemic level factors are not necessarily causative for acquiring an STI; yet they absolutely can contribute to increased vulnerability for infection and more barriers in accessing screenings and treatment. Through reviewing SES trends, we may gain insight into broader context for addressing STI prevention in Washington.

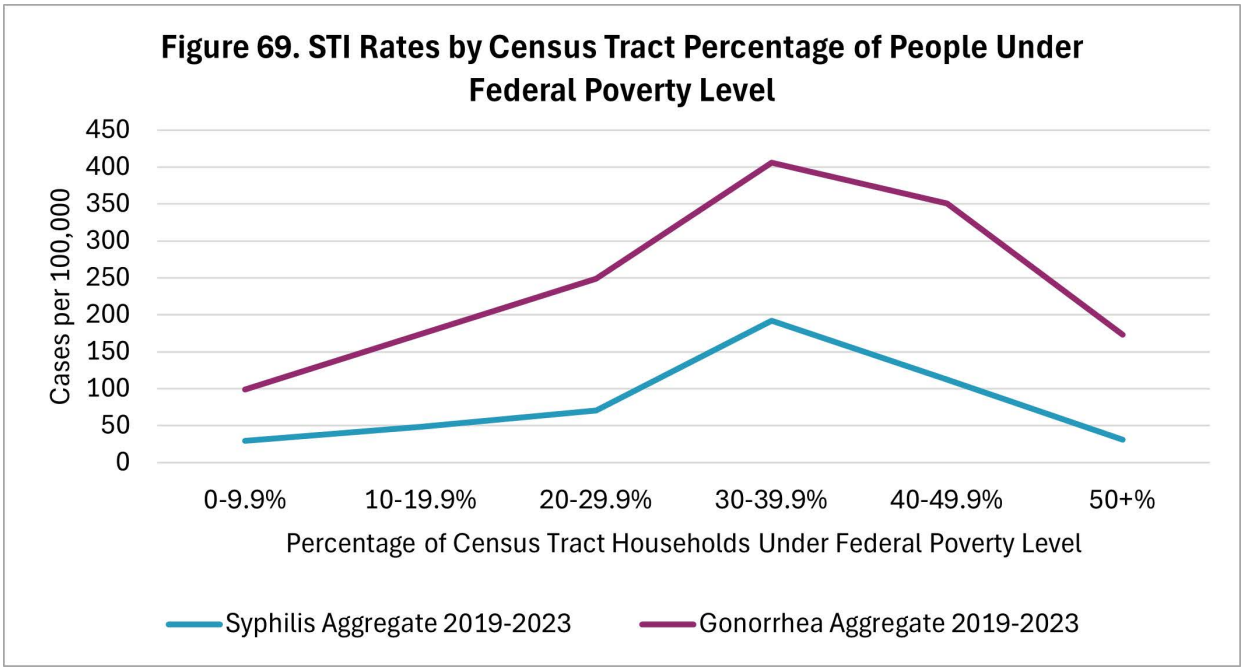
STIs by High School Graduation Rates

Figure 68 shows that as high school graduation rates increase, syphilis and gonorrhea rates tend to decrease. The gonorrhea and syphilis rates were about doubled in census tracts with a less than 50% high school graduation rate as compared to those with 95 to 100% graduation rate. This is in line with plenty of research that has shown positive health outcomes associated with education level.



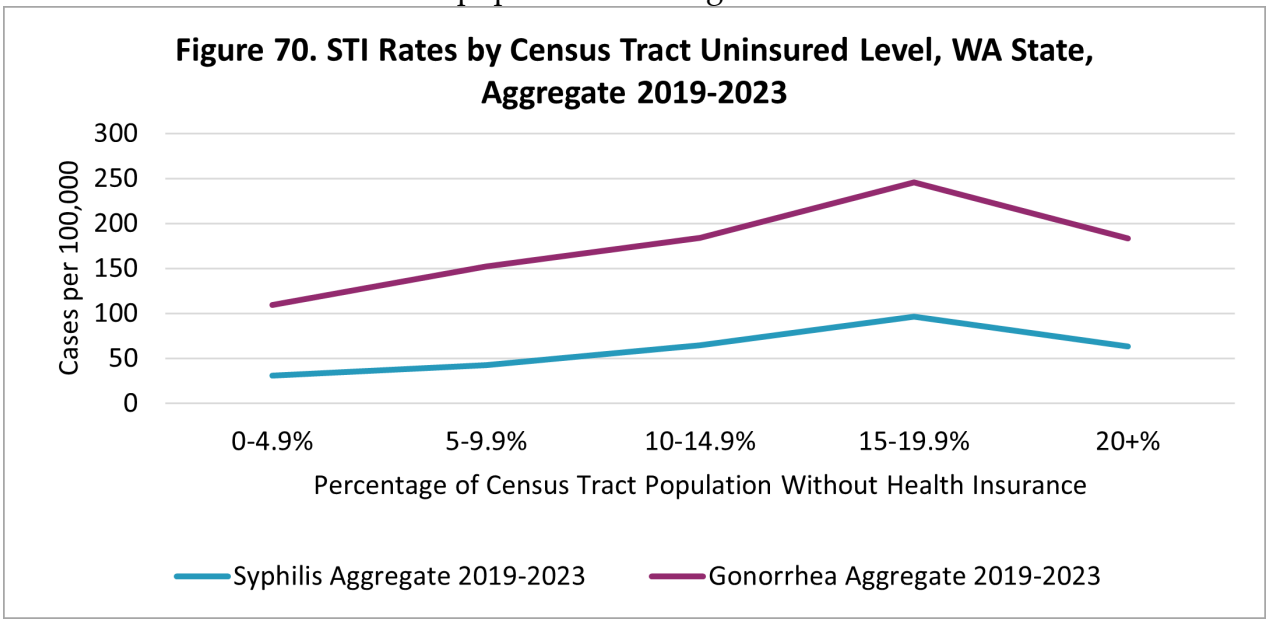
STIs by Federal Poverty Rates

Figure 69 shows STI rates by the percentage of population under the federal poverty level (FPL). Rates increase from 0-9% FPL level to a peak of 30-39.9% for both syphilis and gonorrhea. Then they decrease as poverty levels become greater than 40%. This does not necessarily mean that STI rates are or are not decreasing at that level. It's possible there may be fewer health resources available in communities with higher levels of poverty, which could lead to under-screening of patients. Living in poverty may also make it more difficult to access transportation to receive medical services.[3]



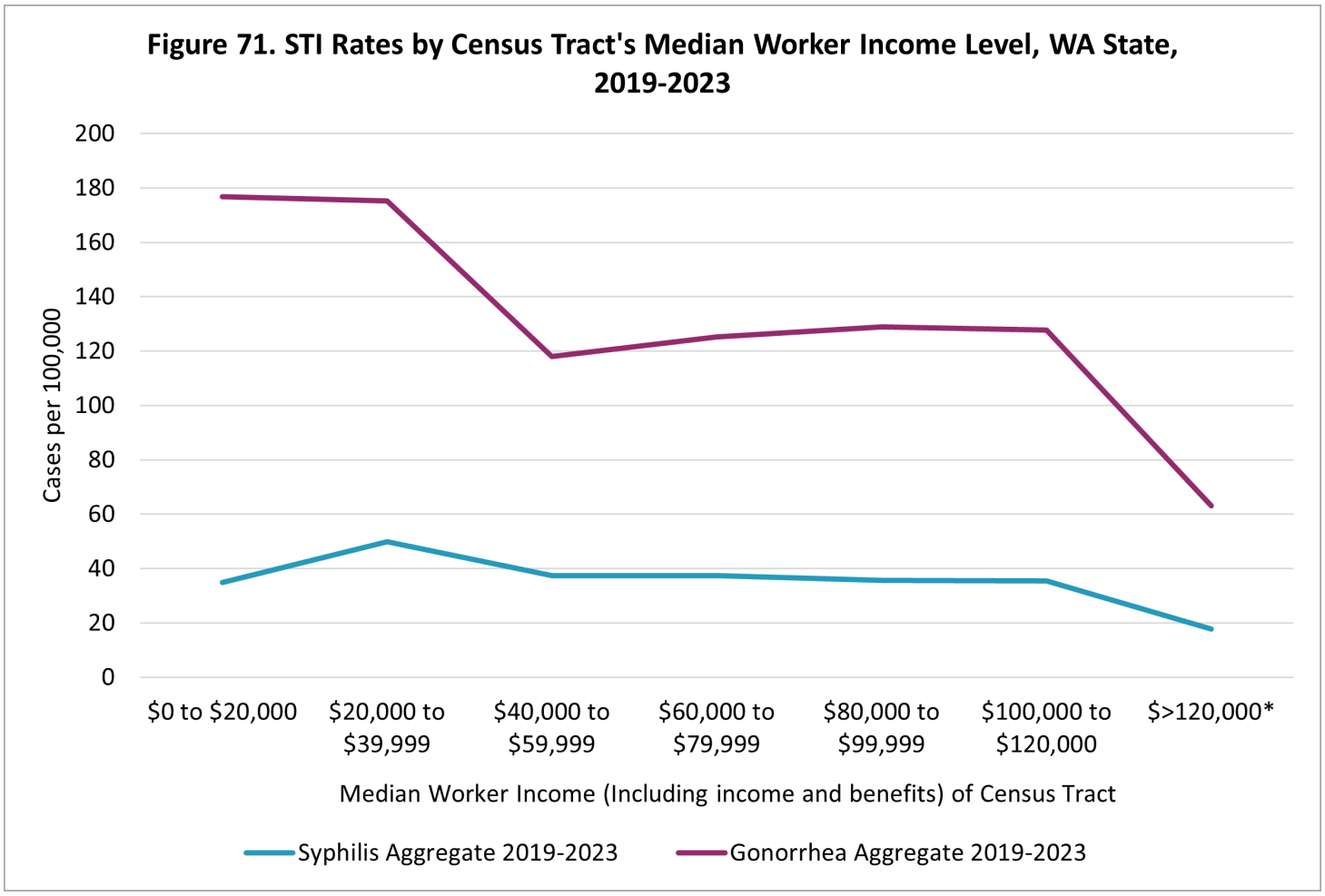
STIs by Lack of Health Insurance

Figure 70 shows STI rates by the percentage of population without health insurance. Rates are lowest in areas with only 0-4.9% of the population lacking health insurance coverage. This is in line with research that has shown that lack of health insurance is strongly associated with higher STI incidence.[4] As fewer people have health insurance, STI rates increase steadily in Washington until a peak in locations with 15-19.9% of the population lacking insurance.



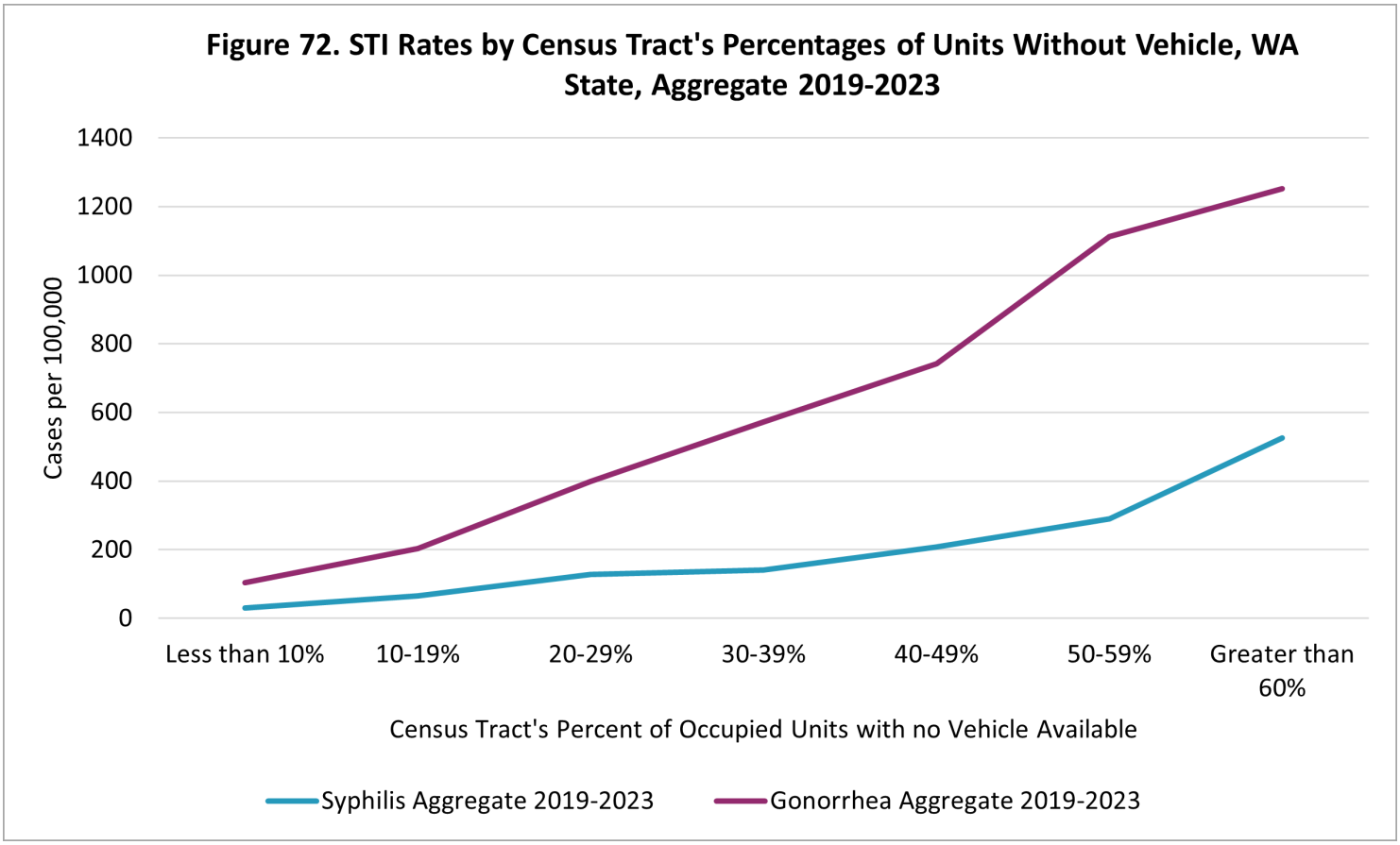
STIs by Median Worker Income

Income has been shown to play a role in STI risk, as states with increases in minimum wages have seen resulting decreases in gonorrhea and syphilis cases.[5,6] Figure 71 displays STI rates by median worker income level. Rates were higher for incomes of $0 to 39,999, then decreased once median income reached $40,000. They remained fairly steady and then dropped to their lowest rates in census tracts with median income above $120,000.



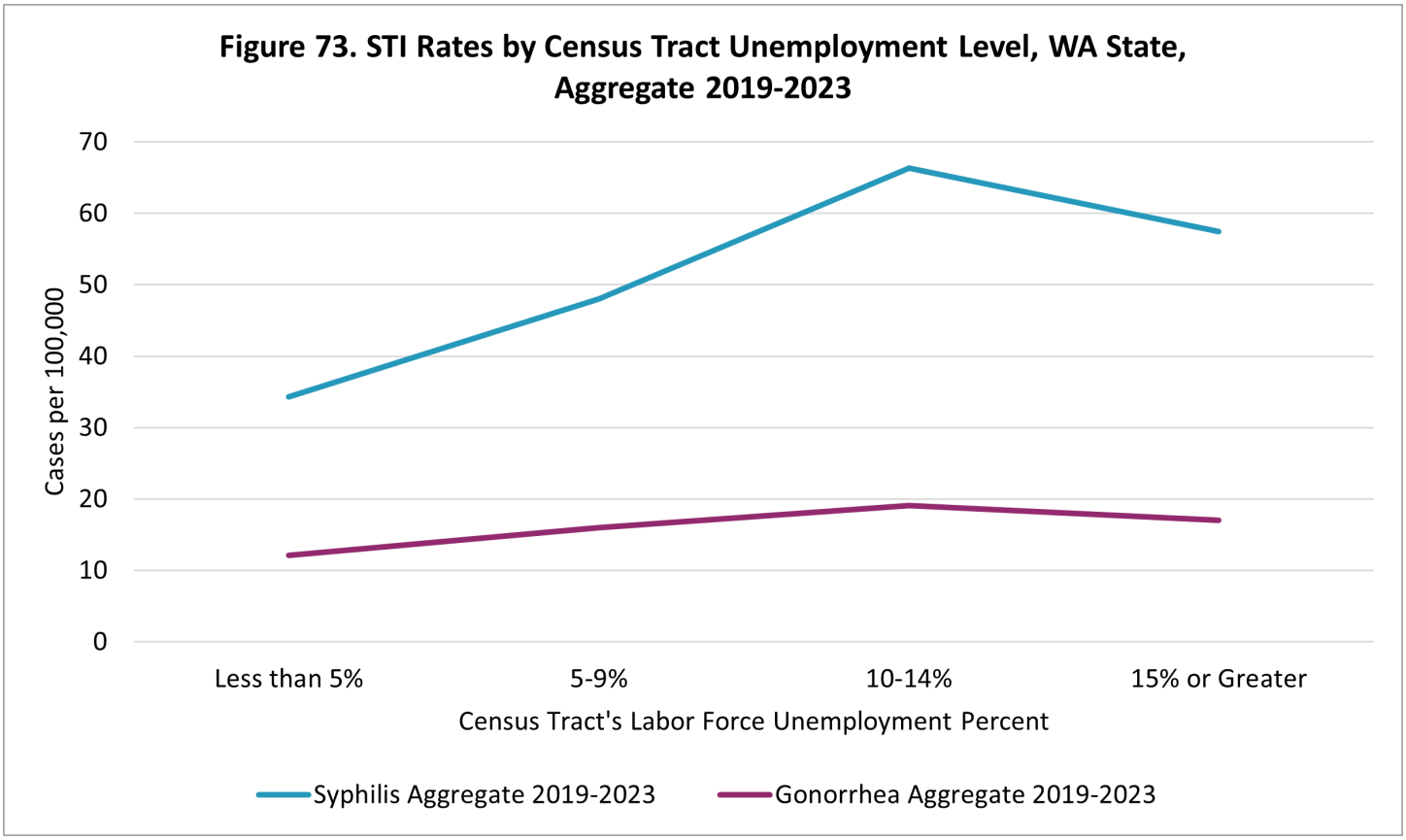
STIs by Vehicle Access

Figure 72 shows how STI rates vary as the percentage of household units without a vehicle increases. For both syphilis and gonorrhea, there is a steady increase in rates as a higher percentage of the population lacks a vehicle. A lack of a vehicle may make it more difficult to access health services including STI screenings. Or, a lack of a vehicle may signify that someone lives in an urban area with access to public transportation replacing the need for a personal vehicle. Use of public transportation has been shown to be strongly associated with higher STI rates,[4] and urban areas in which public transportation is usually more available also trend higher for STI rates as compared to rural and peri-urban areas.



STIs by Unemployment Level

Figure 73 shows how STI rates change as unemployment levels increase within census tracts. Syphilis and gonorrhea rates are both lowest in tracts with an under 5% unemployment rate. They increase steadily until unemployment rates reach 15% or greater.



Section 7 References:

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Conclusions

Overall, STI caseloads in Washington have increased within the past two decades. Syphilis cases have risen at great speed recently and remained high in 2023. While chlamydia and gonorrhea case counts have stabilized in recent years, they were still much higher in 2023 compared to historical numbers in 2004. As STI incidence has increased, most populations have experienced an increase in cases. STIs continued to disproportionately affect many populations that have had historically high case numbers, while also shifting into new populations. Although any STI has potential for complications and long-term damage, syphilis infection is of particular priority. The rise in syphilis among pregnancy-capable persons and resulting higher congenital syphilis cases is of great public health concern and a continued priority for STI case follow-up.

Once again, the DOH STI Surveillance team would like to acknowledge and thank the local health jurisdictions and DIS across the state for their ongoing, diligent efforts to provide appropriate care and follow-up to people diagnosed with an STI. We also want to recognize the many people in clinical facilities statewide who initially screen patients and report positive STI laboratory results. Every step of this work is extremely valuable to protect the health of people in Washington and prevent further transmission.

There is still much progress to be made in reducing the overall STI burden and the large gaps in STI diagnoses and outcomes across populations. DOH is committed to actively supporting measures to improve health equity, and the STI Surveillance team will continue to routinely report STI trends for transparency.

For questions or further information about STI surveillance in Washington State, the STI Surveillance team may be contacted at STD_surveillance@doh.wa.gov. We thank you for your interest in STI surveillance and support of public health in Washington.

Washington State Department of HEALTH

DOH 150-224 December 2024

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