

2022 Annual Report

# SEXUALLY TRANSMITTED INFECTIONS

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**Office of STI Control**

Bureau of Infectious Disease and Services

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ARIZONA DEPARTMENT  
OF HEALTH SERVICES

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# Executive Summary



From 2021 to 2022, there was a 4% decrease in STIs overall. Chlamydia and gonorrhea decreased, while syphilis had a smaller increase of 8%, compared to a 29% increase from 2020 to 2021.

## Why do we monitor STIs?

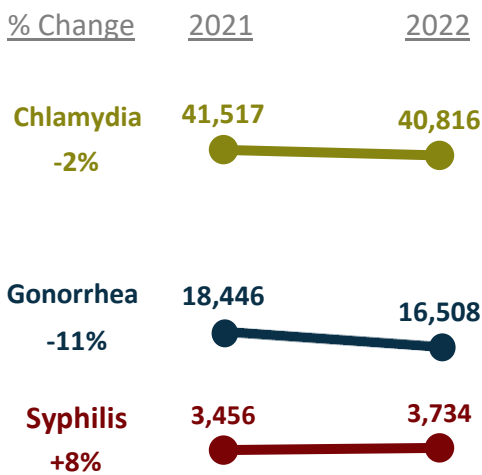
Sexually transmitted infections (STIs) are serious infections that can lead to severe outcomes if left untreated, including infertility.<sup>1</sup> People with an STI are also more likely to become infected with human immunodeficiency virus (HIV).<sup>2</sup>

## How common are STIs?

STIs have been increasing in Arizona for years; however, there was a 4% decrease in cases from 2021 to 2022.

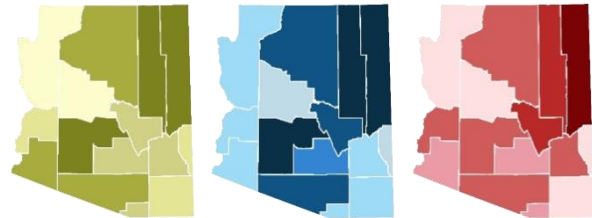


**Chlamydia** continues to be the most common reportable STI in Arizona, followed by **gonorrhea** and **syphilis**\*.



\*Includes primary, secondary, and early latent syphilis cases.

**Chlamydia, gonorrhea, and syphilis** are widespread.



\*Darker shades indicate a higher rate.

## Syphilis in Arizona

In Arizona, syphilis (primary, secondary, and early latent) is the only STI that had an increase (+8%) in 2022. Although males continue to make up the largest proportion of syphilis cases, the increase of syphilis among females is a serious concern. Largely reflecting the increase in syphilis among females of childbearing age, Arizona’s **congenital syphilis** cases **increased by 20%** from 2021 to 2022. In 2022, Arizona had the **third highest rate of congenital syphilis** in the U.S. with a rate of **281** compared to the U.S. rate of 103.<sup>3</sup> Regular testing and appropriate treatment for syphilis in pregnant persons can help prevent syphilis infection in babies. The increase in congenital syphilis highlights missed opportunities for prevention.

## References

- Centers for Disease Control and Prevention. 10 Ways STDs Impact Women Differently from Men – CDC Fact Sheet. <https://www.cdc.gov/std/health-disparities/STDs-Women-042011.pdf>.
- Centers for Disease Control and Prevention. STDs and HIV-CDC Detailed Fact Sheet. <https://www.cdc.gov/std/hiv/stdfact-std-hiv-detailed.htm>.
- Centers for Disease Control and Prevention. Sexually Transmitted Infections Surveillance, 2022. Congenital Syphilis. <https://www.cdc.gov/std/statistics/2022/tables.htm>

# Prevention



**STI prevention** saves lives.



Controlling the spread of STIs in Arizona requires a broad effort, including the **public, healthcare providers, and health departments.**

## Prevention saves lives

Pregnant women infected with an STI can pass the infection to their child during gestation or at delivery, causing the baby to develop serious health problems if not treated. Untreated syphilis is particularly severe and can lead to miscarriage, stillbirth, and infant death.



**In Arizona, pregnant women should be screened at their first prenatal visit, third trimester, and delivery.<sup>1</sup>**

## How can you prevent STIs?



Use condoms or other prevention methods when having any type of sex. If you live in Arizona and need condoms, visit [NicePackage.org](https://www.nicepackage.org) for a free delivery once every month.



Reduce number of anonymous sex partners.



Get tested for STIs between partners. Visit this [CDC website](https://www.cdc.gov) to find free/low-cost STI testing near you.



Evaluation, treatment, and counseling of sex partners of persons who are infected with an STI.<sup>2</sup>



Doxy-PEP can prevent STIs in adults assigned male at birth. Visit [Doxy as STI PEP FAQs](#) for more information.



**Condoms are effective in reducing risk for: HIV, syphilis, chlamydia, gonorrhea, hepatitis B, trichomoniasis, HPV, and herpes.<sup>3</sup>**

## How can healthcare providers help prevent STIs?

Providers can help by adhering to [current treatment guidelines](#), working closely with their local health department to treat and follow up with partners, and using the [clinical consultation network](#). For patients with chlamydia or gonorrhea, healthcare providers can offer additional medication to treat partners without performing a physical exam. Expedited partner therapy ([EPT](#)) allows for cost-effective and timely treatment of partners and helps prevent re-infection.

## STI Control Successes

In 2022, the Arizona Department of Health Services (ADHS) provided funding to **screen both uninsured and underinsured people**, local health departments **treated 1,686 partners**, and **230 potential congenital cases were prevented.**

## References

1. Arizona Department of Health Services. Congenital Syphilis - Providers. <https://www.azdhs.gov/preparedness/epidemiology-disease-control/disease-integration-services/std-control/congenital-syphilis/index.php#cs-providers>.
2. Centers for Disease Control and Prevention. Clinical Prevention Guidance. <https://www.cdc.gov/std/treatment-guidelines/clinical.htm>.
3. Centers for Disease Control and Prevention. Primary Prevention Methods. <https://www.cdc.gov/std/treatment-guidelines/clinical-primary.htm>.

## Syphilis: It's Complicated but Curable



**Syphilis** can only be spread if the person is **symptomatic** or **pregnant**; however, the symptoms of syphilis can be subtle and often missed.

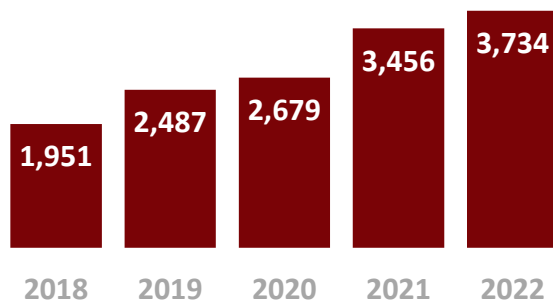


Syphilis infection can lead to **severe outcomes** in untreated people, including vision and hearing loss.



All stages of syphilis can be treated with **antibiotics**.

### Syphilis\* is increasing in Arizona

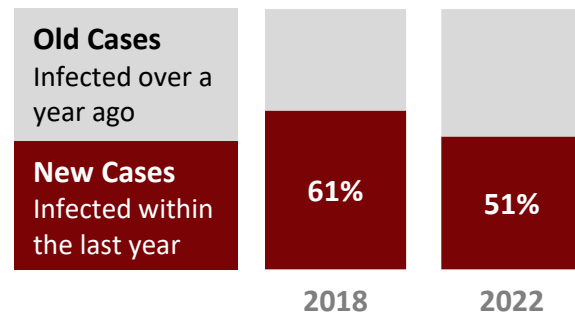


\*Includes primary, secondary, and early latent syphilis cases.

### How do you know it's a new case?

In the first year of infection, a person with syphilis switches between **having symptoms** to **not having symptoms**. Infected persons can only pass the infection to partners in the first year when **symptoms are present**. However, pregnant persons can pass the infection to their developing baby at any time. Usually, a year after infection, **syphilis symptoms disappear**. For a syphilis quick guide and staging flowchart please see [Arizona Syphilis Outbreak: Women and Babies](#).

### Over half of the syphilis cases reported in Arizona are new cases



### Syphilis can be treated with antibiotics

The CDC **recommended treatment** is long-acting Benzathine penicillin G. Early infections (primary, secondary, and early latent) can be treated with one dose, while late latent or unknown duration infections should be treated with three doses administered at weekly intervals.

### Syphilis can be severe

When left untreated, syphilis can travel through the body and cause problems in the **bones, ears, eyes, heart, and brain**.<sup>1</sup> These problems can occur at any time, even years after initial infection.



### Neurological symptoms can be rare

In 2022, about 2% of syphilis cases had neurologic, visual, or auditory symptoms. Treatment for these patients is more invasive in comparison to other stages of syphilis, as it involves administration of aqueous crystalline penicillin G intravenously for 10-14 days. Visit [this website](#) for more information regarding neurological syphilis symptoms and treatment.

### References

Centers for Disease Control and Prevention. Syphilis – CDC Fact Sheet. <https://www.cdc.gov/std/syphilis/stdfact-syphilis.htm>.

Center for Disease Control and Prevention. Neurosyphilis, Ocular Syphilis, and Ootosyphilis. <https://www.cdc.gov/std/syphilis/neuro-ocular-oto.htm>

## Congenital Syphilis



In Arizona, there was a **20% increase in syphilis in babies** from 2021 to 2022.



Rates of syphilis are rapidly **increasing in females**.



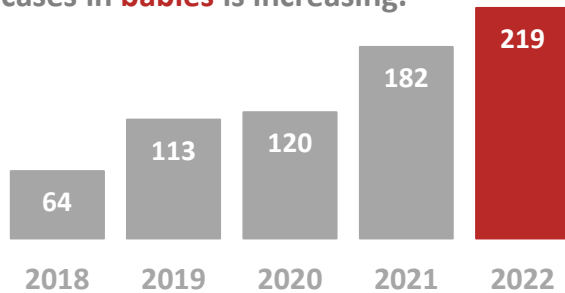
In Arizona, congenital syphilis frequently occurred as a result of **late or no access to prenatal care, being infected late in pregnancy, or issues obtaining adequate treatment**.

### Congenital syphilis

Pregnant persons with untreated syphilis can pass the infection to their developing baby at any time, causing **bone disorders, deafness, other congenital defects, or even death**.<sup>1</sup>



In Arizona, the number of syphilis cases in **babies** is increasing.

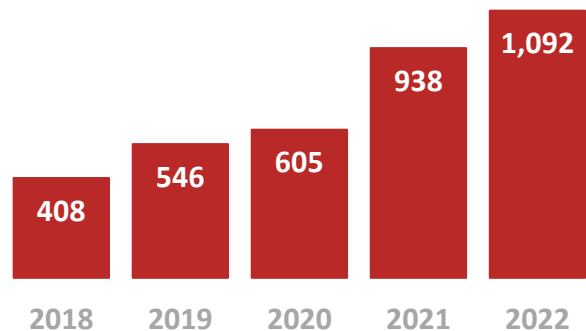


**In 2022, 32 babies died of syphilis in Arizona and 41 were symptomatic.**

### Why is congenital syphilis increasing?

A lack of timely prenatal care and syphilis testing is a large contributor to the increase of congenital syphilis.<sup>2</sup> Additionally, instances in which pregnant persons were diagnosed efficiently, lack of adequate treatment was also shown to be a factor.<sup>2</sup> The increase in congenital syphilis largely reflects the

**increase of syphilis overall.** In Arizona, from 2021 to 2022, cases of syphilis in babies increased 20% while the number of cases **cases\* in persons assigned female at birth** increased 16% as shown in the graph below.



\*Includes primary, secondary, and early latent syphilis cases.

### Access to prenatal care is important

CDC recommends screening all pregnant persons for syphilis in their first trimester.<sup>1</sup> In Arizona, pregnant persons should be screened at their **first prenatal visit, in the third trimester, and at delivery**.<sup>3</sup> Many pregnant persons with syphilis struggle to access consistent prenatal care, if they are able to access prenatal care at all. Actively screening all pregnant persons at their first prenatal visit, and again in the third trimester can lead to timely treatment and prevent complications for both mother and baby.<sup>1</sup> View the updated Arizona syphilis screening recommendations [here](#).

### References

- Centers for Disease Control and Prevention. Congenital Syphilis – CDC Fact Sheet. <https://www.cdc.gov/std/syphilis/stdfact-congenital-syphilis.htm>.
- Kimball A, Torrone E, Miele K, et al. Missed Opportunities for Prevention of Congenital Syphilis - United States, 2018. *MMWR Morb Mortal Wkly Rep.* 2020;69(22):661-665. doi:10.15585/mmwr.mm6922a1. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6922a1.htm>.
- Arizona Department of Health Services. Congenital Syphilis - Providers. <https://www.azdhs.gov/preparedness/epidemiology-disease-control/disease-integration-services/std-control/congenital-syphilis/index.php#cs-providers>.

# Chlamydia and Gonorrhea



Chlamydia is the most commonly reported STI in Arizona and the US.<sup>1</sup>

In Arizona, 40,816 new cases of chlamydia were reported in 2022, which accounted for the majority of all reported STIs.

**Chlamydia**  
67%

**Other STIs**

## Symptoms and adverse outcomes

Most chlamydia infections are asymptomatic. However, for persons that develop symptoms, they may include: a burning sensation while urinating and abnormal vaginal, penile, or rectal discharge.<sup>2</sup>

An untreated chlamydia infection can lead to additional health problems. Women may develop [pelvic inflammatory disease \(PID\)](#), which can lead to an abscess, chronic pelvic pain, infertility, or ectopic pregnancy. Prompt treatment with antibiotics is key to preventing permanent scarring and damage to reproductive organs. If women do not respond to PID treatment, surgery may be required.<sup>3</sup> Men are at risk of developing inflammation of the tube that carries sperm, along with testicular pain and swelling.<sup>2</sup>

## Screening guidelines

Screening guidelines vary by gender for chlamydia. Sexually active women are recommended to have routine screening, resulting in women being more likely to be tested in comparison to men.<sup>2</sup> The difference in screening guidelines may be a driver for higher chlamydia rates reported among women. In Arizona, 63% of reported chlamydia cases were among women.

[Chlamydia](#) and [gonorrhea](#) are treated with antibiotics; review the current treatment guidelines [here](#).

## References

- Centers for Disease Control and Prevention. National Overview. <https://www.cdc.gov/std/statistics/2022/overview.htm>.
- Centers for Disease Control and Prevention. About Chlamydia. <https://www.cdc.gov/chlamydia/about/index.html>.
- Centers for Disease Control and Prevention. Pelvic Inflammatory Disease (PID). <https://www.cdc.gov/std/treatment-guidelines/pid.htm>.
- Centers for Disease Control and Prevention. About Gonorrhea. <https://www.cdc.gov/gonorrhea/about/index.html>.



Gonorrhea is the second most commonly reported STI in Arizona and the US.<sup>1</sup>

Gonorrhea is another common bacterial STI that can infect the genitalia, throat, and rectum.<sup>4</sup> In Arizona, there were 16,508 cases reported in 2022.

## Symptoms and adverse outcomes

Similar to chlamydia, gonorrhea can infect both men and women, and most infections are asymptomatic. When symptoms do occur, men typically experience painful urination and urethral discharge, while women may develop painful urination, vaginal discharge, and vaginal bleeding.<sup>4</sup>

When a gonorrhea infection remains untreated, both men and women are at risk for further complications. Women are at risk of developing [PID](#) and men may develop inflammation of the tube which carries sperm, both of which can lead to infertility.<sup>4</sup>

## Antibiotic resistance



Gonorrhea bacteria can quickly develop resistance to antibiotics, so adhering to treatment guidelines is key.<sup>1</sup>

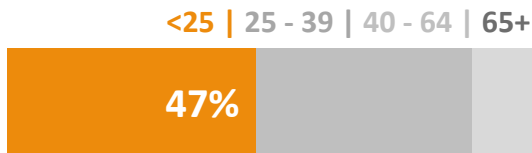
Each month, specimens from Arizona are tested for antibiotic resistance to ensure recommended treatments remain effective. In 2022, **411 specimens were submitted for testing**, and **NONE demonstrated resistance** to ceftriaxone, the recommended gonorrhea treatment in 2022.

# Adolescents and Young Adults

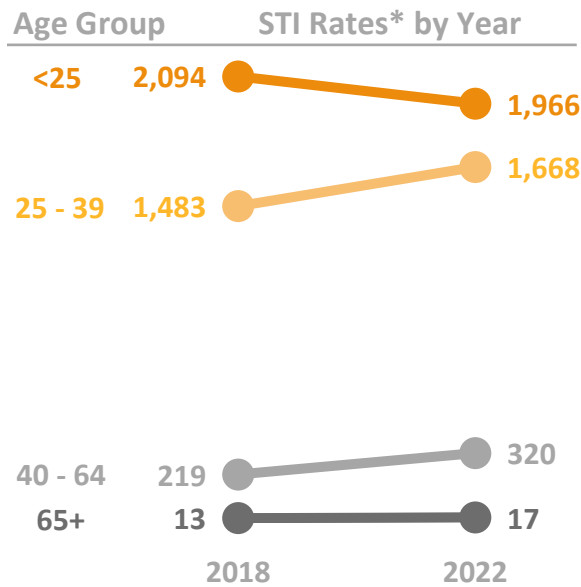
**<25Y** Youth aged 15 through 24 years old have the highest rates of STIs and should be offered **annual screening**.

## Youth are disproportionately burdened by STIs

About half of all STIs are reported in persons under the age of 25.



As STIs rise, **youth continue to have the highest rates of STIs** when compared to other age groups. Although STI rates in youth decreased from 2018 to 2022, their rate is still 18% higher than in persons aged 25 to 39.



\*Age adjusted rates are calculated per 100,000.

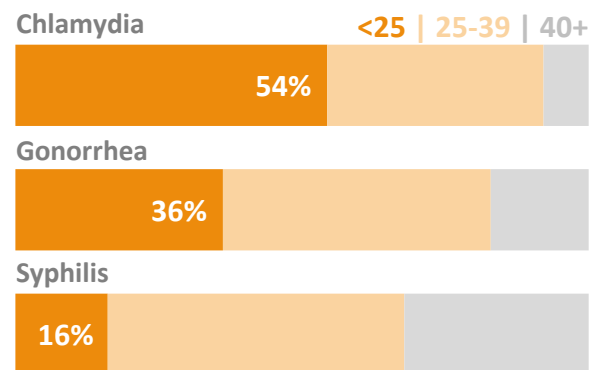
## Why are youth at risk?

Adolescents and young adults are learning how to navigate relationships, prevention services, and **advocate for their health with their partners**. They are also at increased risk because they have limited access to screening and treatment, have concerns about confidentiality, are biologically more susceptible to STIs, and may have multiple sex partners between screening and treatment.<sup>1</sup> **CDC recommends annual screening for sexually active women under 25 years old.**<sup>2</sup>

**Less than 1% of STIs occur in persons 65 years and older in Arizona.**

## Are there differences by infection?

In Arizona, youth (<25) represent over half of all chlamydia cases, 36% of all gonorrhea cases, and 16% of syphilis cases.



### References

- Centers for Disease Control and Prevention. Information for Teens and Young Adults: Staying Healthy and Preventing STDs – CDC Fact Sheet. <https://www.cdc.gov/std/life-stages-populations/stdfact-teens.htm>.
- Centers for Disease Control and Prevention. STD & HIV Screening Recommendations. <https://www.cdc.gov/std/prevention/screeningrecs.htm>.



## Sexual Orientation and Gender Identity (SO/GI)



Men who have sex with men (MSM) and gender expansive persons are disproportionately impacted by STIs.

Demographic information, particularly SOGI data, is severely limited for chlamydia and gonorrhea.

### SO/GI

**Sexual orientation** is a person's physical, romantic, and/or emotional attraction to another person or people.<sup>1</sup> **Gender identity** is different than sexual orientation. It is a person's internal sense of their own gender and it is not visible to others. Gender identity may align with a person's assigned sex at birth. Transgender and non-binary individuals identify with a gender that does not align with their assigned sex at birth.

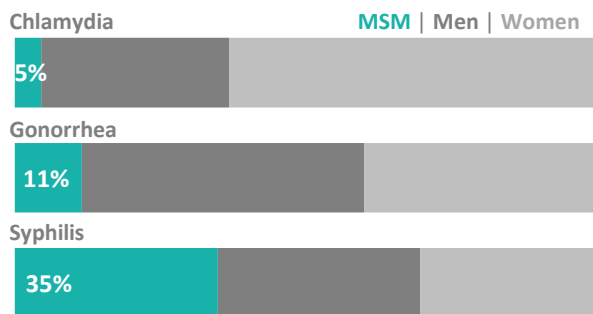
Transgender and gender diverse individuals often experience stigma and barriers to healthcare, which can result in missed opportunities for treatment and prevention of STIs.<sup>2</sup> MSM may also experience stigma and discrimination that can affect access to healthcare. This, in combination with a greater likelihood of MSM encountering partners with an STI, raises their risk of acquiring STIs.<sup>3</sup>

Culturally competent care is critical for obtaining accurate health histories to inform clinical screening practices and supporting accurate data collection for data driven planning of resource allocation. For example, the CDC recommends screening **gay, bisexual, and other MSM** for chlamydia, gonorrhea, syphilis, and HIV **at least annually**. For **transgender and gender diverse persons**, CDC screening recommendations are **based on anatomy**,

as well as **reported sexual behaviors and exposures**.<sup>4</sup>

### STIs in MSM

In Arizona, **35%** of syphilis cases were reported among **MSM** in 2022. Conversely, only **5%** of all chlamydia cases and **12%** of gonorrhea cases identified as MSM. MSM might be underrepresented in chlamydia and gonorrhea cases due to missing SO/GI data. We heavily rely on provider reporting to capture demographic information and often receive incomplete SO/GI data. STI case investigations can obtain the missing SO/GI data, however, syphilis investigations are typically prioritized above chlamydia and gonorrhea due to the possibility of severe outcomes of syphilis if untreated.



### STIs in transgender persons

Determining STI case counts and rates in transgender persons relies on having sufficient gender identity information, which is often missing. Out of the 61,277 cases of STIs in 2022, less than 1% were reported as transgender persons.

### References

1. GLAAD. Glossary of Terms: LGBTQ. GLAAD Media Reference Guide – 11th Edition. <https://glaad.org/reference>.
2. Centers for Disease Control and Prevention. Transgender and Gender Diverse Persons. <https://www.cdc.gov/std/treatment-guidelines/trans.htm>.
3. Centers for Disease Control and Prevention. What Gay, Bisexual and Other Men Who Have Sex with Men Need to Know About Sexually Transmitted Diseases. <https://www.cdc.gov/std/life-stages-populations/stdfact-msm.htm>.
4. Centers for Disease Control and Prevention. Sexually Transmitted Infections Treatment Guidelines, 2021. <https://www.cdc.gov/std/treatment-guidelines/screening-recommendations.htm>.

# HIV Coinfections



Repeat infections can put people at risk for more severe health outcomes and make them vulnerable to getting infected with another STI or HIV.



STI prevention is HIV prevention.

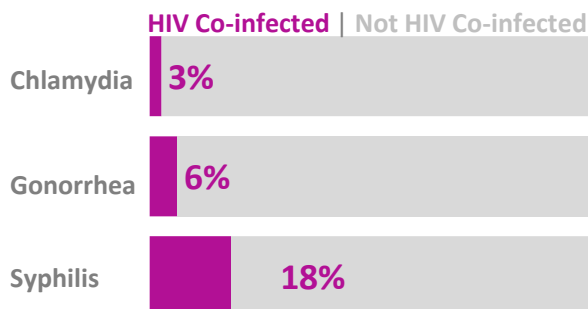


Among those infected with an STI, HIV coinfections are more common in men who have sex with men and older persons.

## STI/HIV coinfections

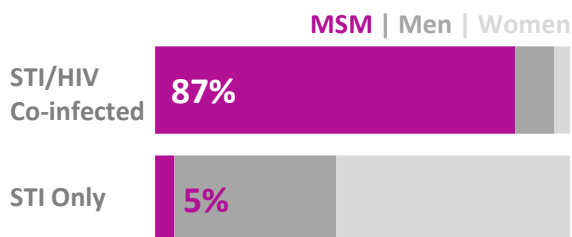
STIs and HIV have similar factors that put someone at risk of acquiring an infection, so **STI prevention is HIV prevention**. Due to the similar risk factors, individuals can have an STI and HIV at the same time, known as a **coinfection**.\*

## HIV coinfections are most common with syphilis

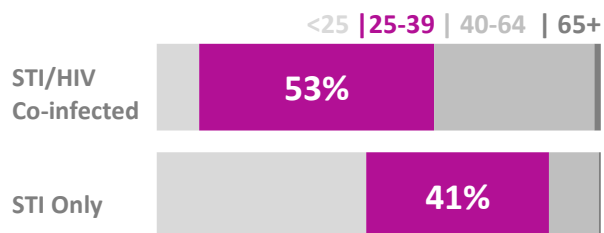


## HIV coinfection disparities

Most STI cases coinfecting with HIV are among **men who have sex with men**.



STI/HIV coinfections were more commonly reported in **25-39-year-olds** than STI-only cases.



## HIV prevention

HIV can be prevented by taking **PrEP** (pre-exposure prophylaxis). PrEP is a medicine, available as a pill or injection, which can reduce the chances of getting HIV from a sex partner living with the virus.<sup>1</sup>

Getting tested and treated for STIs can lower the risk of getting HIV.<sup>2</sup> Therefore, using condoms regularly, reducing the number of anonymous sexual partners, and not drinking alcohol or using drugs before sex can help prevent **both** STIs and HIV.<sup>3</sup> Learn more about HIV prevention methods and find services near you at this [link](#).

\*New and previous HIV positive cases are included in the coinfection counts.

### References

- Centers for Disease Control and Prevention. About PrEP. <https://www.cdc.gov/hiv/basics/prep/about-prep.html>.
- Centers for Disease Control and Prevention. Protect Yourself During Sex. <https://www.cdc.gov/hiv/basics/hiv-prevention/protect-yourself-during-sex.html>.
- Centers for Disease Control and Prevention. STDs and HIV-CDC Basic Fact Sheet. <https://www.cdc.gov/std/hiv/stdfact-std-hiv.htm>.

## A message from the Office of STI Control (OSTIC)

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The ADHS OSTIC is committed to addressing the rise in STIs, especially syphilis, by collaborating with internal and external partners to promote prevention and control. Notable ADHS partners include the Centers for Disease Control and Prevention (CDC), county and tribal health departments, community-based organizations, and Arizona medical providers. It is important that the Arizona public and leaders encourage dialogue about sexual health and infection prevention, particularly among communities that are most impacted by these infections. Promoting prevention, screening, treatment, and access to services can improve the sexual health and wellness of all Arizonans.

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# Arizona Department of Health Services

## Bureau of Infectious Disease and Services

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### Mission

The Mission of the Arizona Department of Health Office of STI Control (OSTIC) is to improve the sexual health of all Arizonans by strengthening the prevention and control of sexually transmitted infections in Arizona through education, surveillance, collaboration, and program development.

Note: Department organization and staff titles are accurate as to the time of publication and may not correspond to the time period of the report.

Appendix 1: Data Dashboards

2022 STIs in Arizona

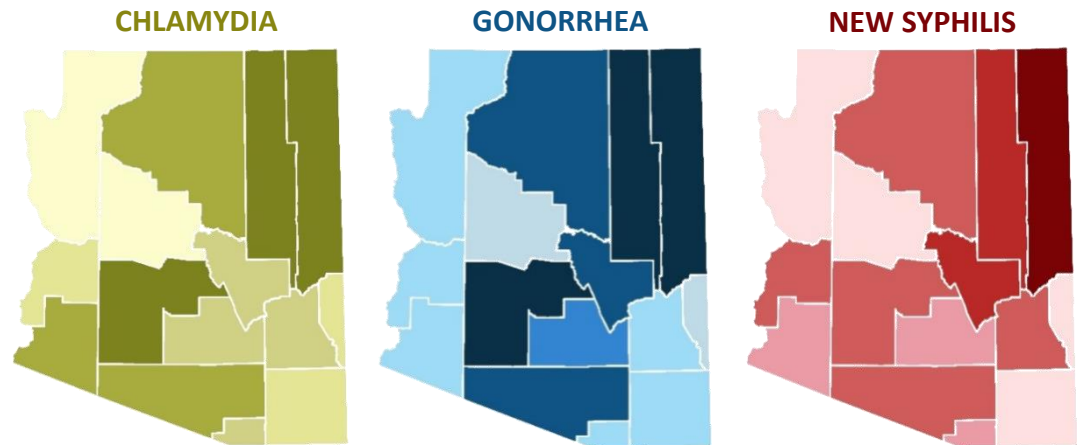
STIs decreased from 2021 to 2022.

STI cases have almost doubled since 2012.

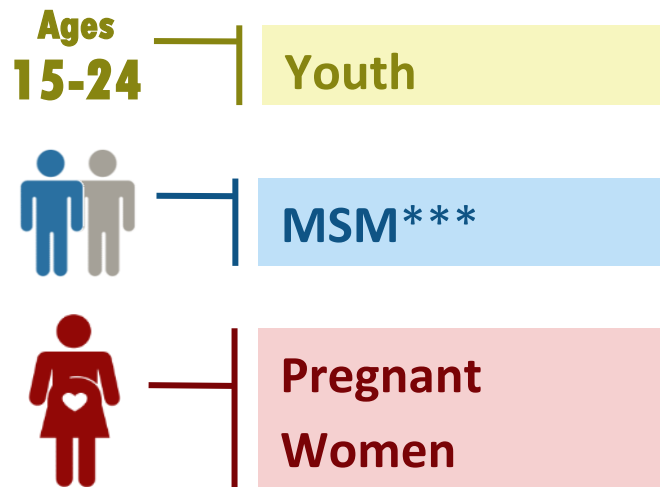


STIs are common throughout Arizona.

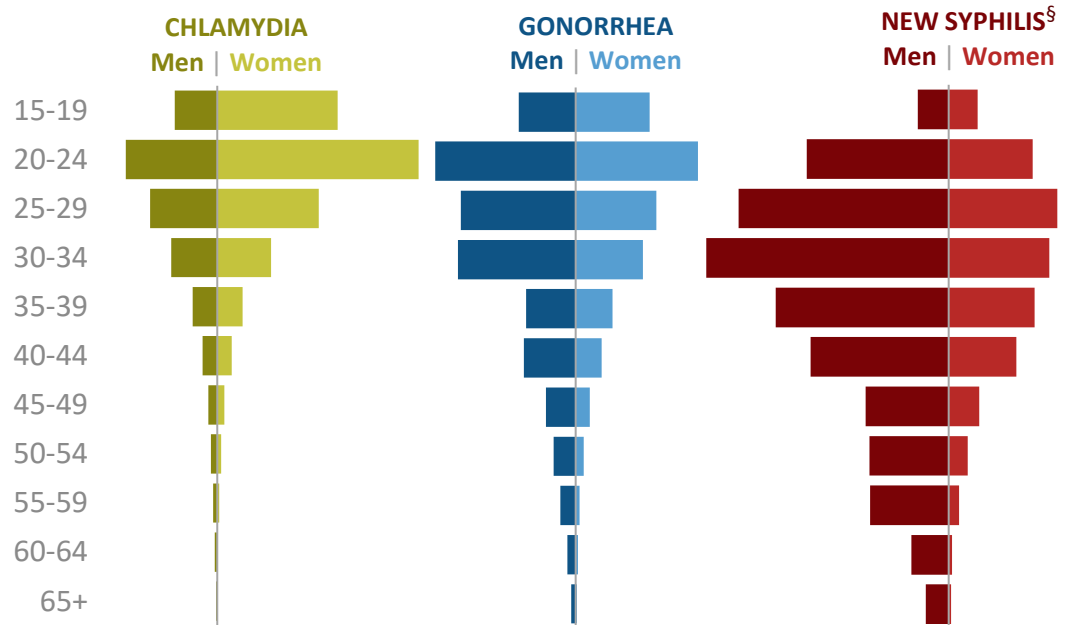
2022 STI Rates\* by County\*\*



Key Populations



STI cases differ by gender and age.



Note: Chlamydia screening recommendations differ by gender.

\*Rates calculated per 100,000.

\*\*Darker shades indicate higher rates.

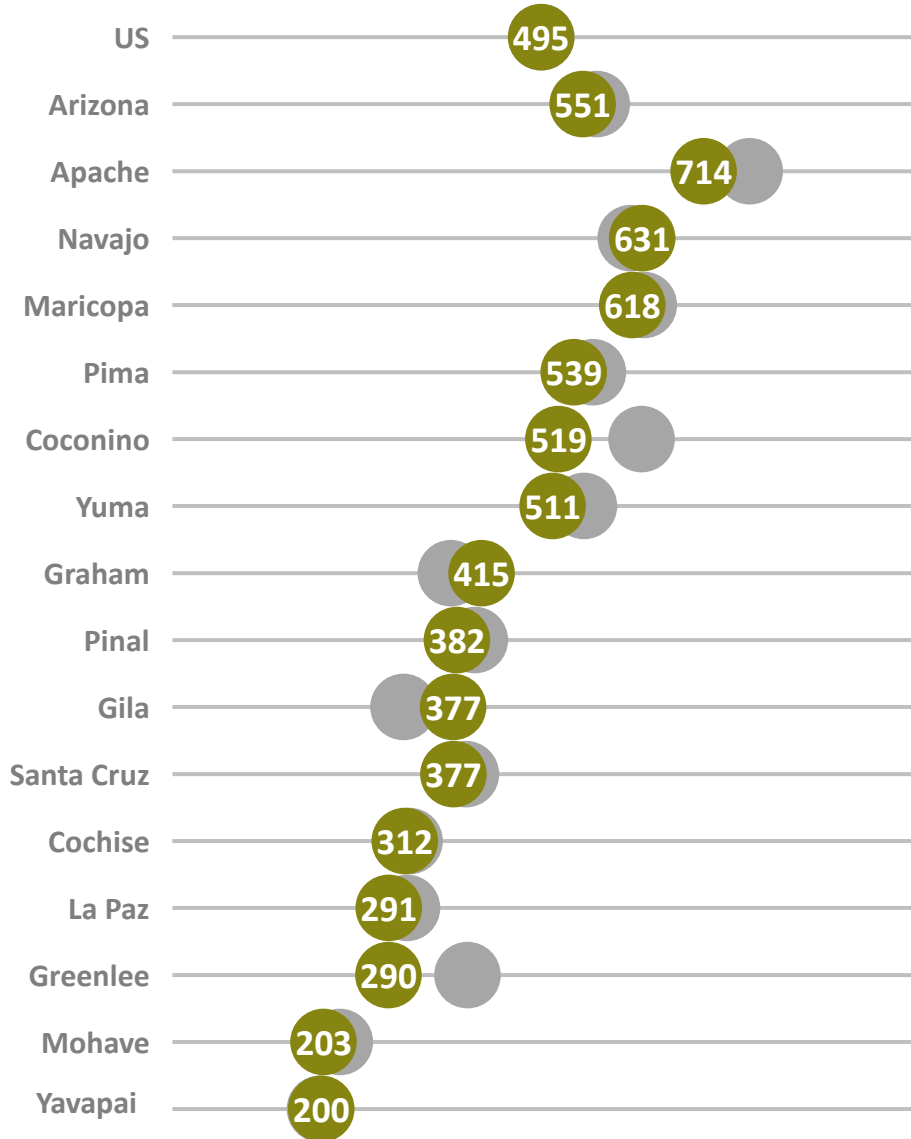
\*\*\*MSM = Men who have sex with men.

§Includes primary, secondary, and early latent syphilis only.

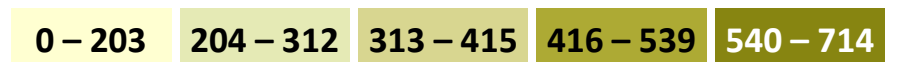
**Rates\* of chlamydia decreased in almost every county between 2021 and 2022.**

**The highest chlamydia rates\* are in both rural and urban counties.**

In 2022, 62% of the Arizona population resided in Maricopa county, while 2% resided in Apache and Navajo counties.



Chlamydia Rates

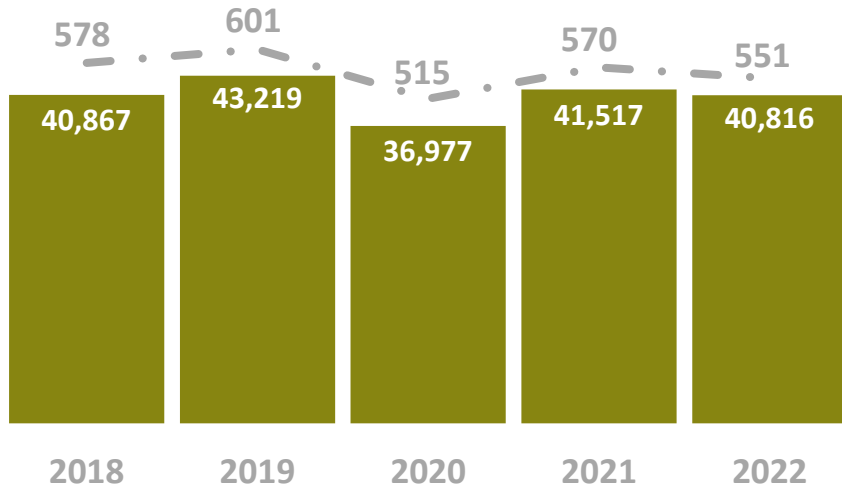


\*Rates calculated per 100,000 using finalized population denominators of the most recent year available.

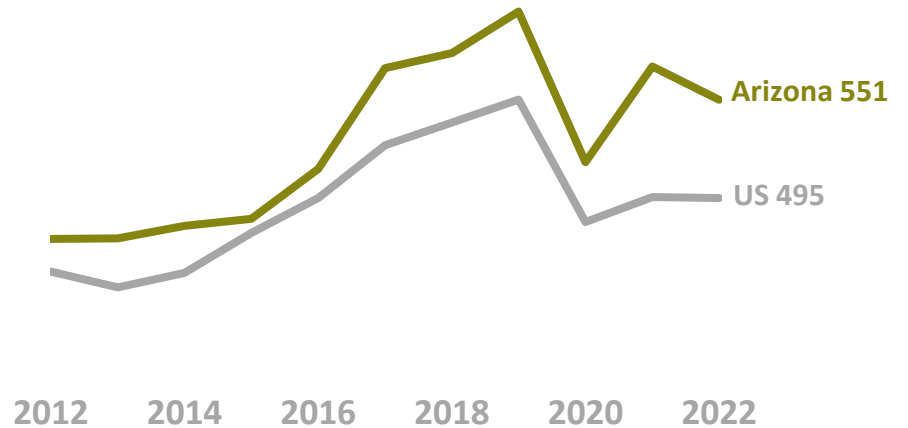
**References**

1. Arizona Office of Economic Opportunity. Population Estimates for 1980-2023. <https://oeo.az.gov/population/estimates>.

**In Arizona, chlamydia cases and rates\* decreased from 2021 to 2022.**

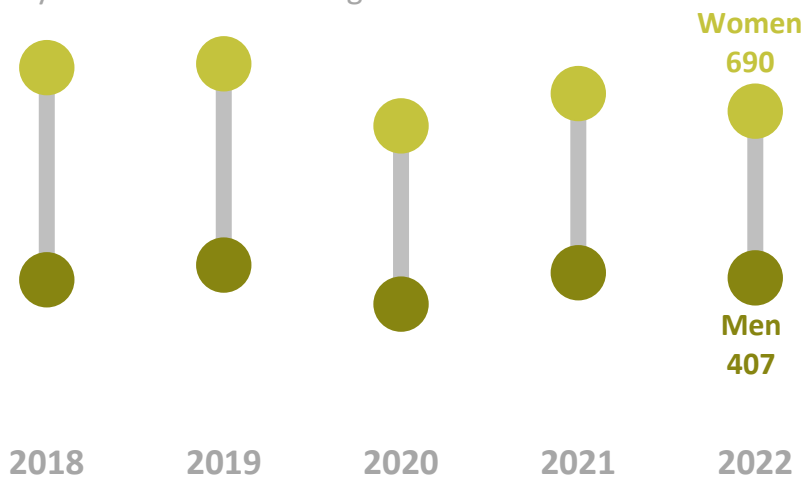


**Chlamydia rates\* decreased in Arizona and the United States from 2021 to 2022.**

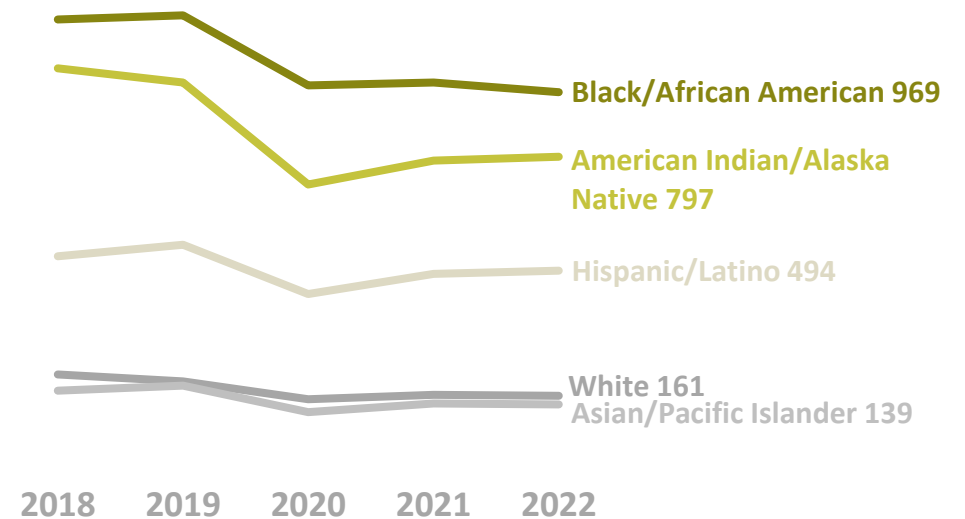


**Women consistently have higher rates\* of chlamydia than men.**

Women are recommended to have routine screening which likely contributes to the higher rates of infections detected.



**Chlamydia rates\* increased in American Indian/Alaska Natives and Hispanic/Latinos in 2022.**

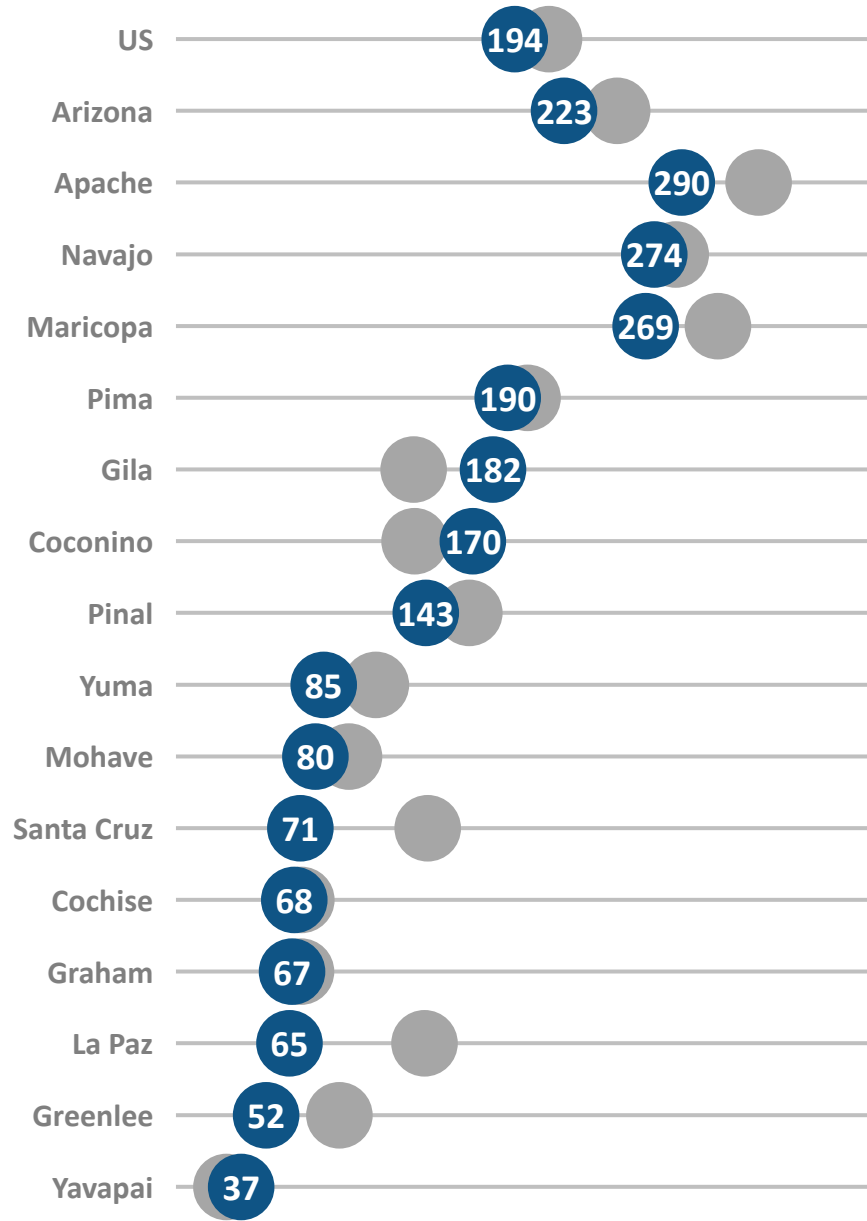


\*Rates calculated per 100,000 using finalized population denominators of the most recent year available.

\*\*Race and ethnicity are not frequently reported for chlamydia. In 2022, 36% of cases were missing race and ethnicity information.

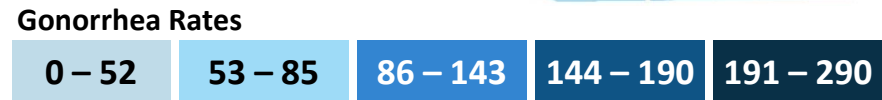
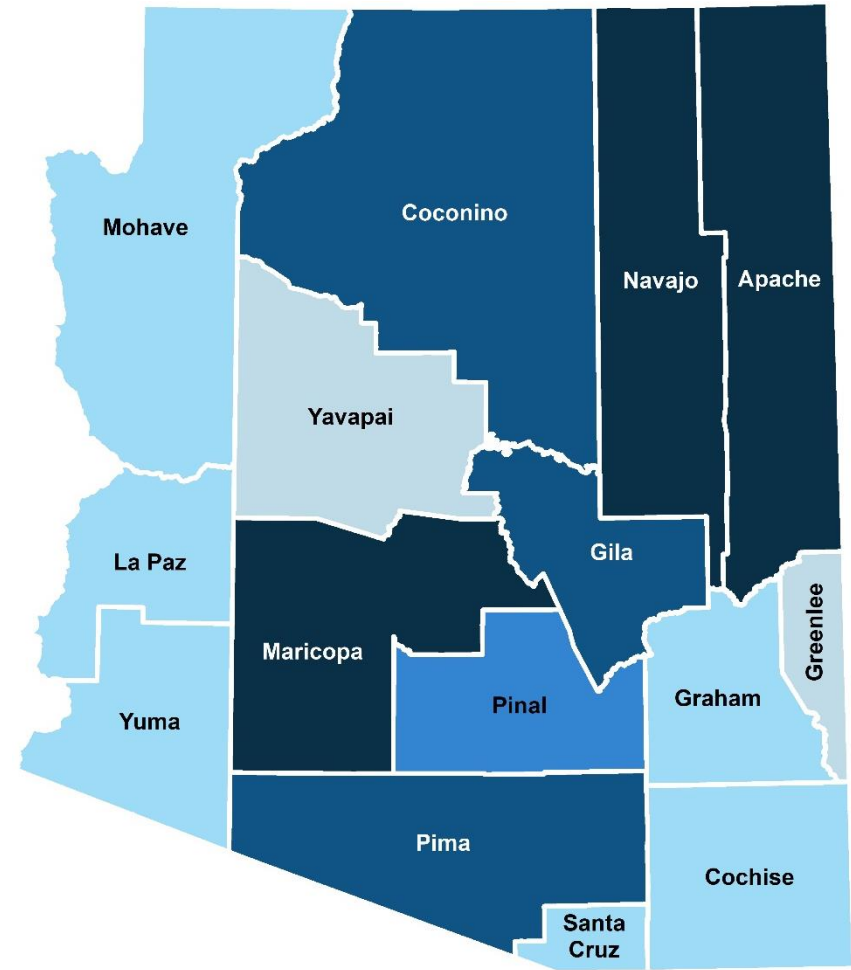
Note: Caution in interpreting 2020 chlamydia data. For details on the COVID-19 impact on chlamydia case rates, see 2020 annual report.

**Gonorrhea rates\* by county in 2021 and 2022.**



**Apache, Navajo, and Maricopa counties have the highest rates\* of gonorrhea.**

Despite both Apache and Navajo county having the highest rates, both counties reported fewer than 300 cases, while Maricopa county reported over 12,000.



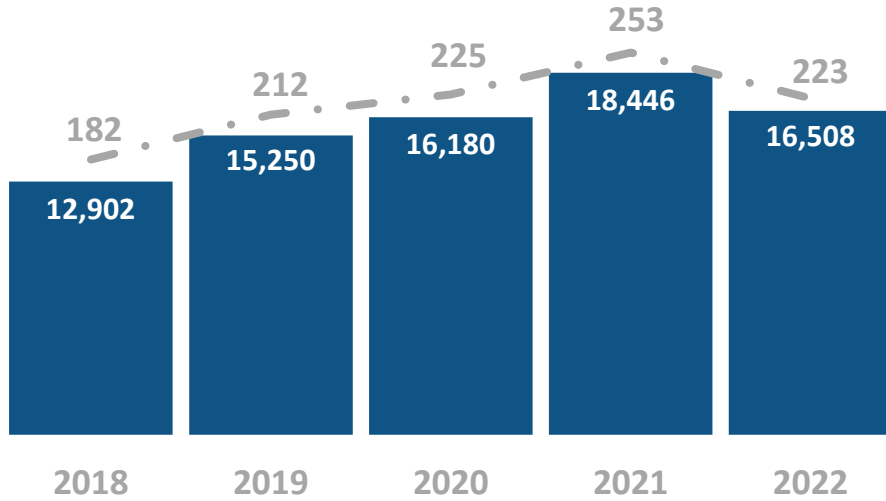
\*Rates calculated per 100,000 using finalized population denominators of the most recent year available.

**References**

1. Arizona Office of Economic Opportunity. Population Estimates for 1980-2023. <https://oeo.az.gov/population/estimates>.

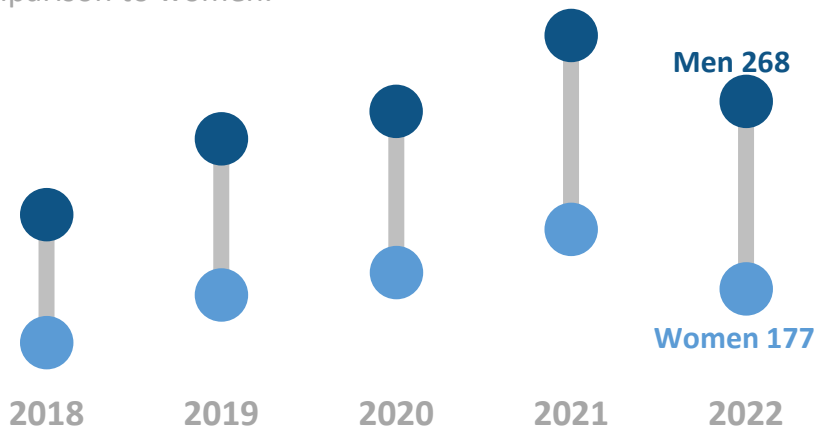


In Arizona, gonorrhea cases and rates\* decreased from 2021 to 2022.

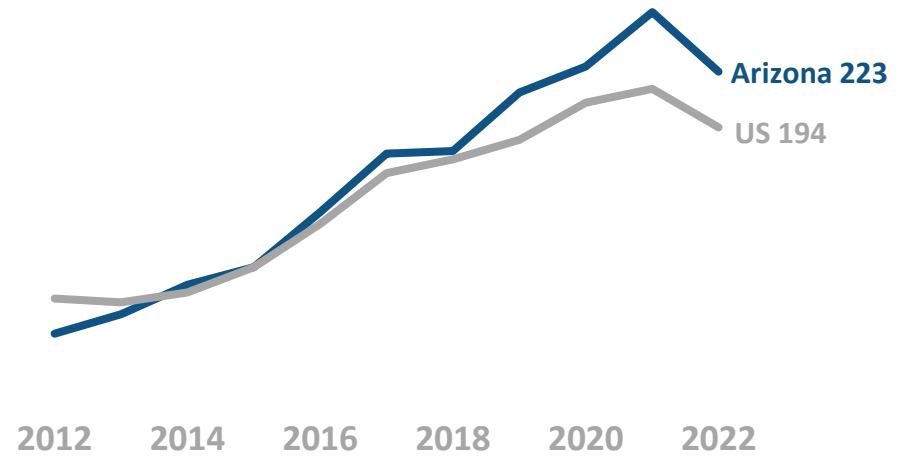


Men consistently have higher rates\* of gonorrhea than women.

Men are more likely to notice symptoms and seek out testing in comparison to women.

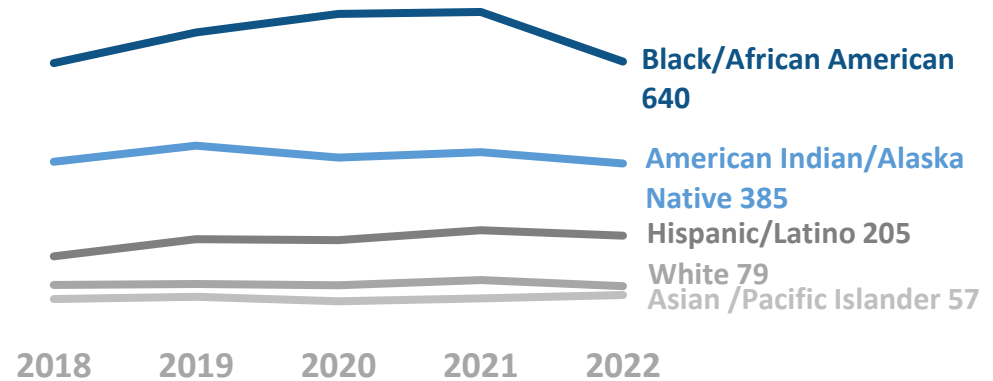


Gonorrhea rates\* decreased in Arizona and the United States in 2022.



Gonorrhea rates\* decreased in almost all racial and ethnic groups in Arizona in 2022.

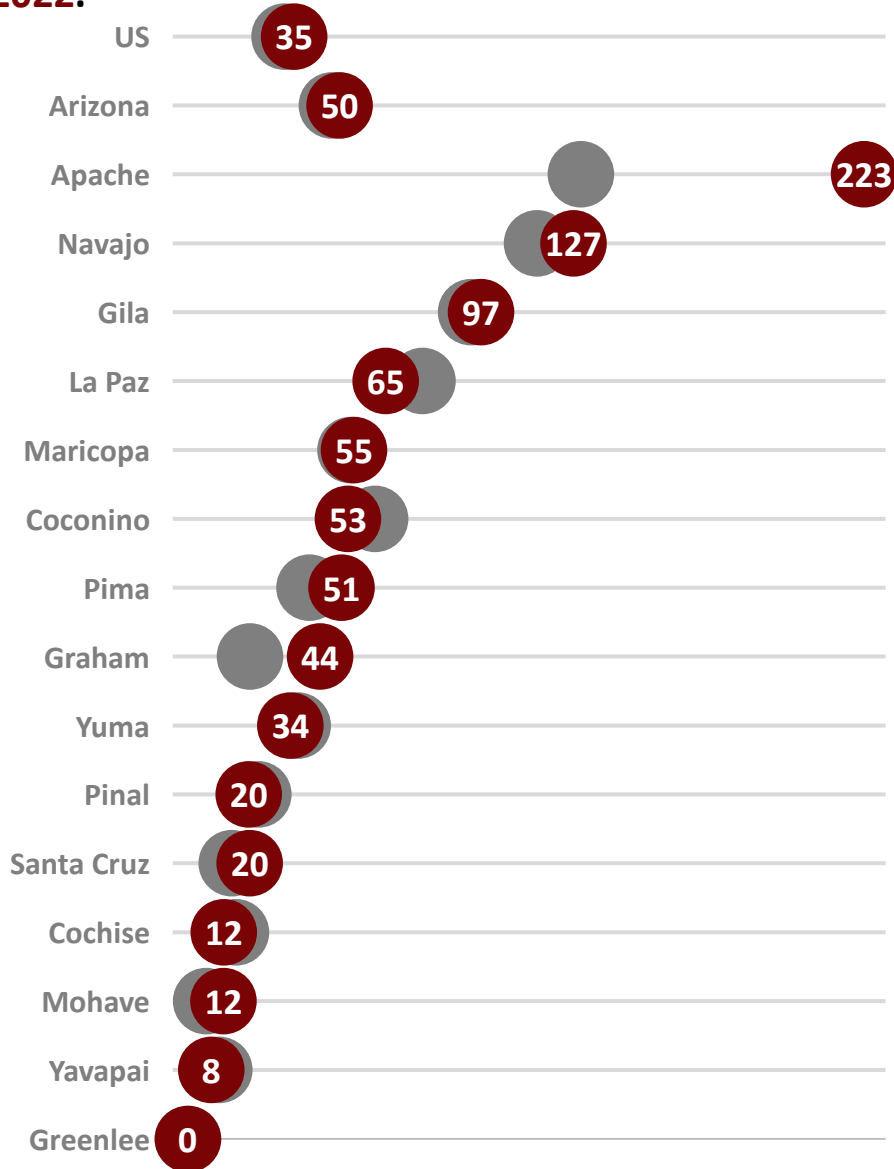
Racial and ethnic minority groups face barriers to accessing quality health services. Learn more by visiting [this CDC website](#).



\*Rates calculated per 100,000 using finalized population denominators of the most recent year available.

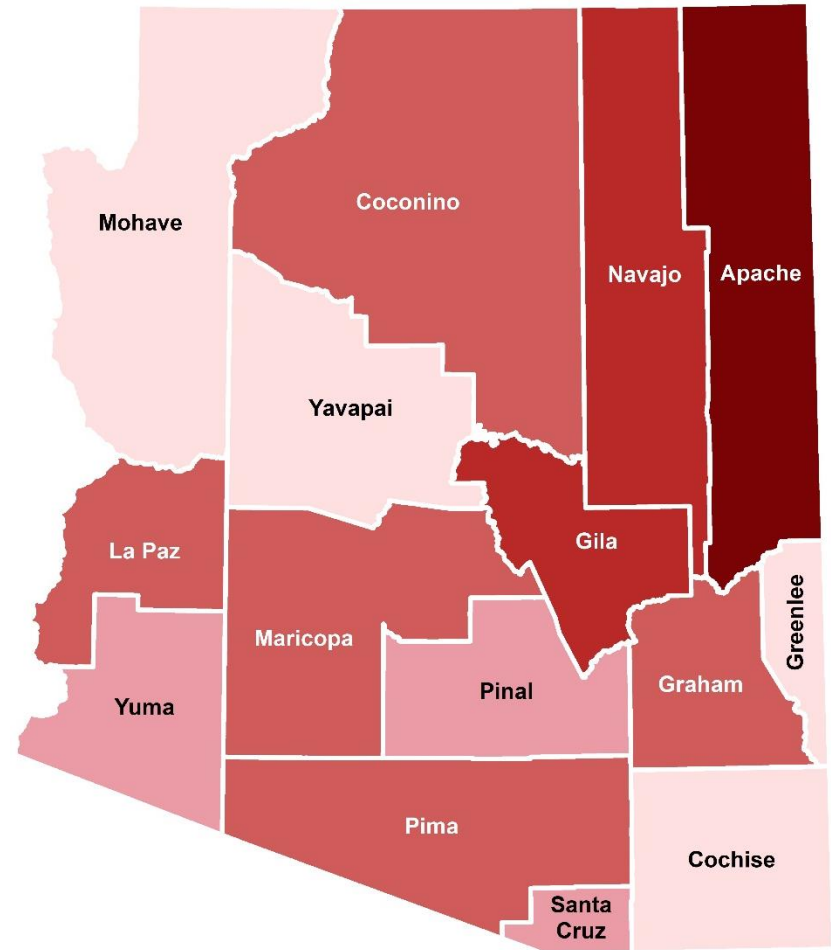
\*\*Race and ethnicity are not frequently reported for gonorrhea. In 2022, 25% of cases were missing race and ethnicity information.

**New syphilis\* rates\*\* by county in 2021 and 2022.**



**Apache county had the highest rate\*\* of new syphilis\*.**

People living in rural areas are at a greater risk of poor health outcomes. Limited options of healthcare providers and transportation are some rural barriers to accessing care.<sup>1</sup>



**New Syphilis Rates**



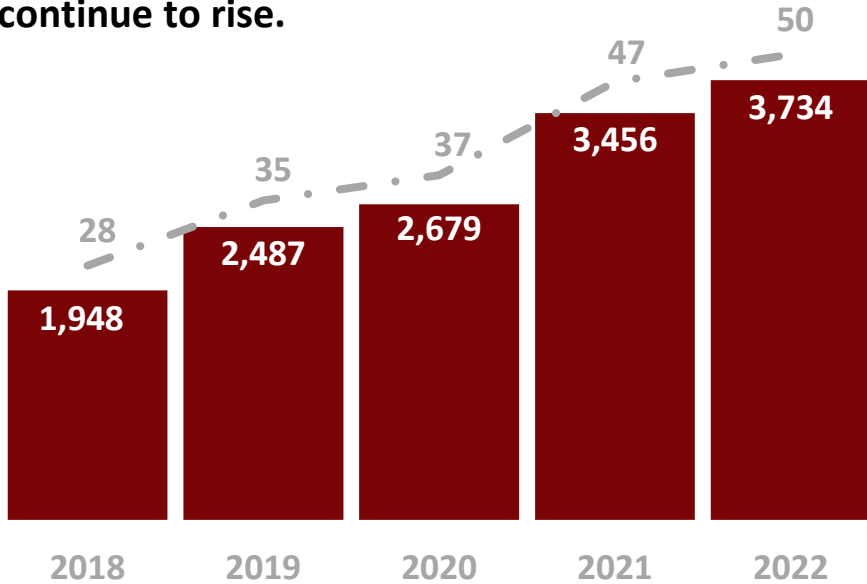
\*Includes primary, secondary, and early latent syphilis only.

\*\*Rates calculated per 100,000 using finalized population denominators of the most recent year available.

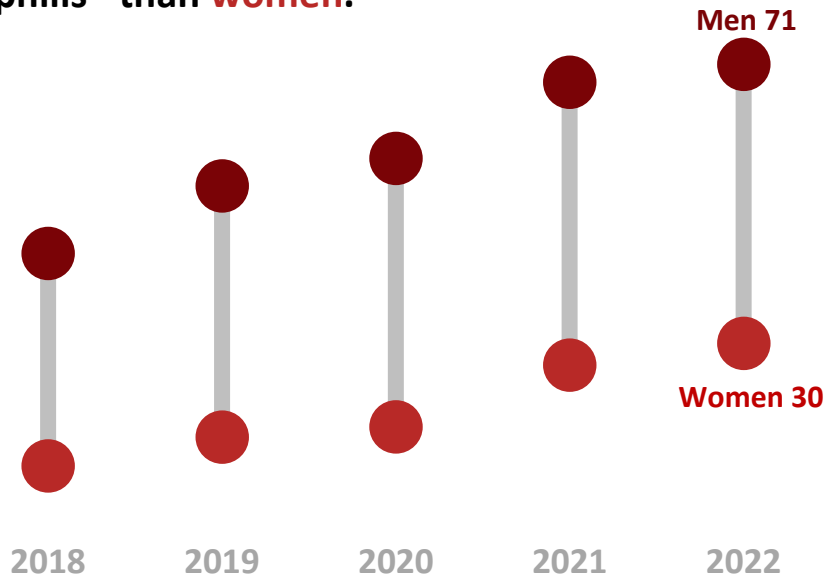
**References**

1. U.S. Food & Drug Administration. Rural Health. <https://www.fda.gov/consumers/minority-health-and-health-equity-resources/rural-health>.
2. Arizona Office of Economic Opportunity. Population Estimates for 1980-2023. <https://oeo.az.gov/population/estimates>.

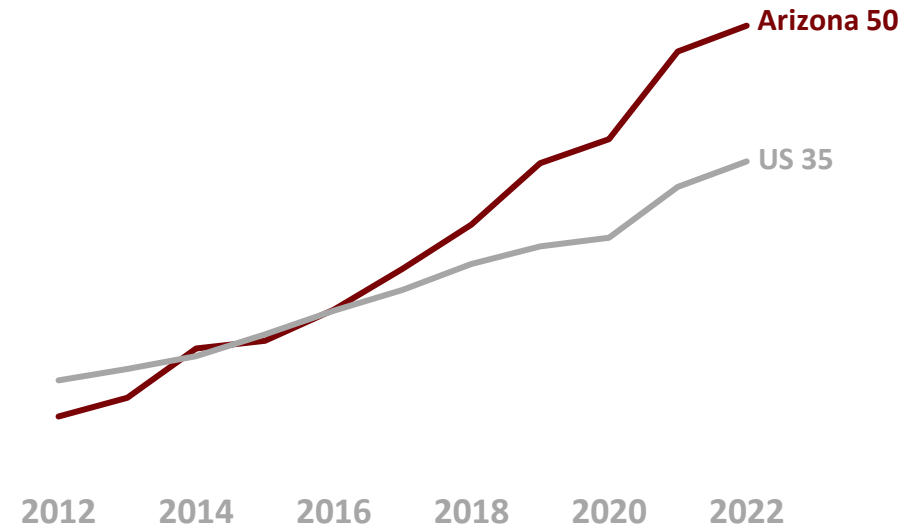
**In Arizona, new syphilis\* cases and rates\*\* continue to rise.**



**Men consistently have higher rates\*\* of new syphilis\* than women.**

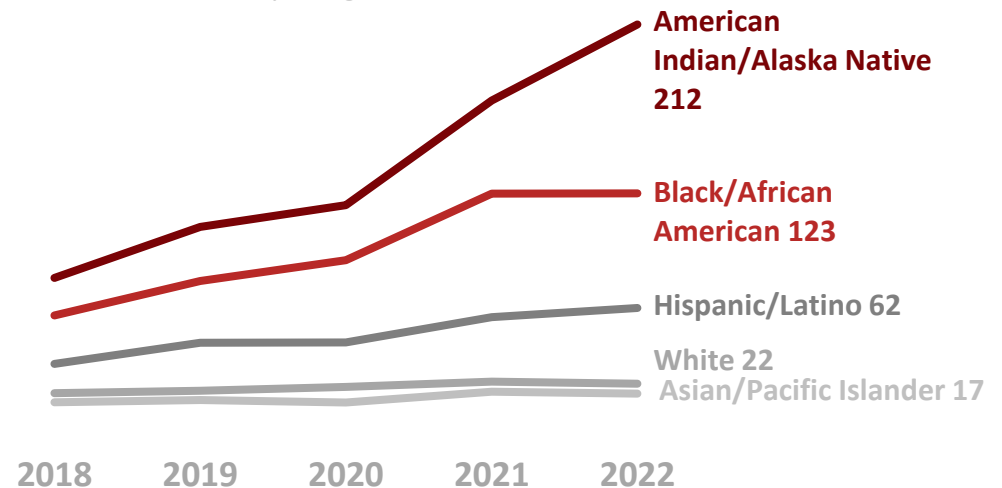


**Arizona has a higher rate\* of new syphilis than the United States.**



**New syphilis\* rates\*\* disproportionately impact American Indian/Alaska Natives.**

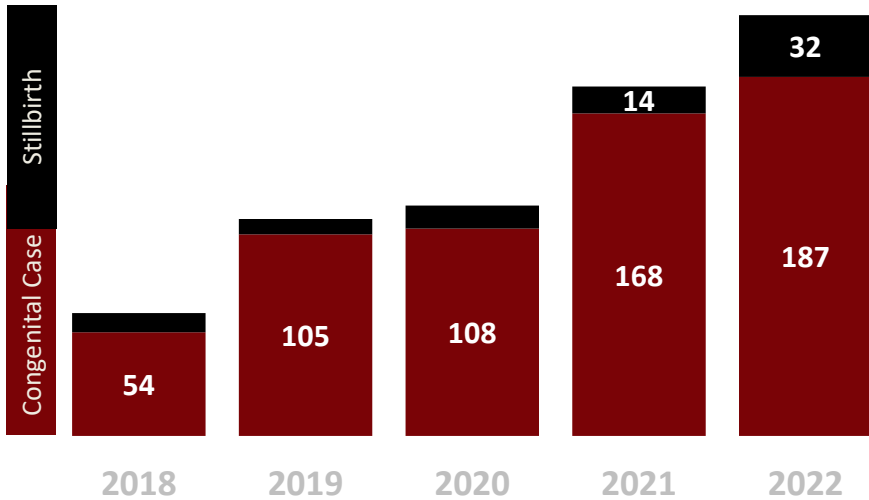
Racial and ethnic minority groups face barriers to accessing quality health services. Learn more by using [this CDC website](#).



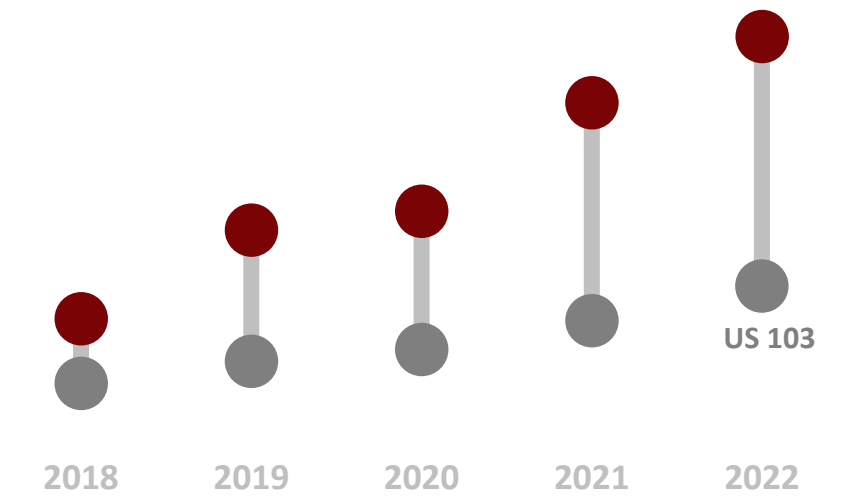
\*Includes primary, secondary, and early latent syphilis only.

\*\*Rates calculated per 100,000 using finalized population denominators of the most recent year available.

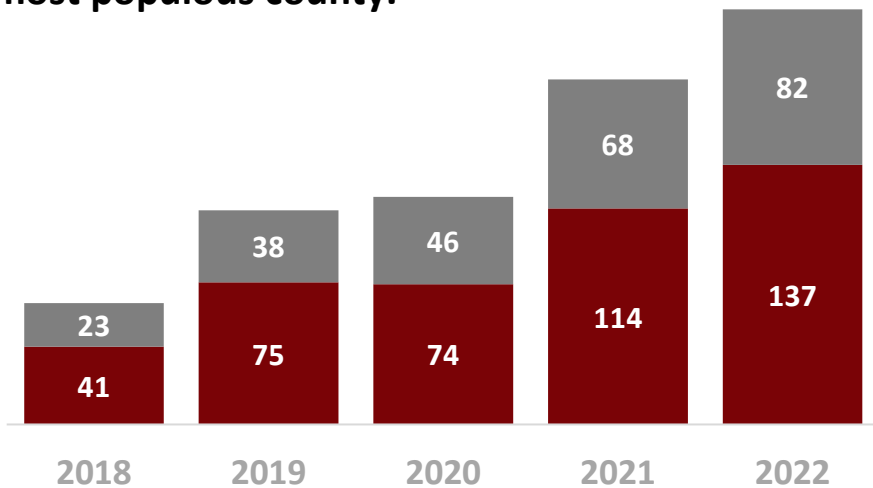
**Congenital syphilis continues to increase with stillbirths\* more than doubling from 2021 to 2022.**



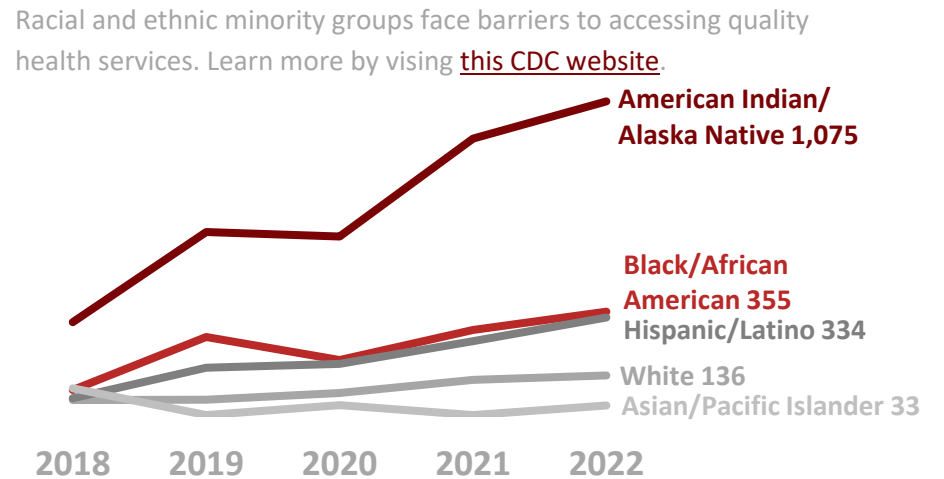
**Arizona has a higher rate\*\* of congenital syphilis than the United States.**



**Cases are increasing statewide. 63% of cases occur in Maricopa County, Arizona's most populous county.**



**Congenital syphilis rates\*\* disproportionately impact persons who identify as American Indian/Alaskan Native.**



\*Stillbirths/baby deaths are a subset of congenital syphilis.

\*\*Rates calculated per 100,000 live births. Congenital syphilis denominator based upon ADHS Vital Statistics Birth Population.

Note: Congenital syphilis cases are reported by year of birth, even if they are identified at a later date. Prior year case counts may be updated upon receipt of new information. Therefore, congenital syphilis case counts may vary.

Appendix 2: Tables

**Table 1**  
**Sexually Transmitted Infections: Cases and Rates per 100,000 by County, Arizona, 2022\***

County	Chlamydia		Gonorrhea		New Syphilis**		Congenital Syphilis	
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Apache	477	714	194	290	149	223	*	*
Cochise	395	312	86	68	15	12	*	*
Coconino	776	519	225	170	79	53	*	*
Gila	203	377	98	182	52	97	6	1,327
Graham	162	415	26	67	17	44	*	*
Greenlee	28	290	*	*	0	0	0	0
La Paz	49	291	11	65	11	65	*	*
Maricopa	28,330	618	12,360	269	2,513	55	137	273
Mohave	449	203	177	80	26	12	*	*
Navajo	685	631	298	274	138	127	15	1,240
Pima	5,780	539	2,042	190	543	51	23	231
Pinal	1,735	382	651	143	91	20	6	124
Santa Cruz	185	377	35	71	10	20	*	*
Yavapai	490	200	92	37	19	8	*	*
Yuma	1,072	511	178	85	71	34	15	518
<b>Arizona</b>	<b>40,816</b>	<b>551</b>	<b>16,510<sup>†</sup></b>	<b>223</b>	<b>3,734</b>	<b>50</b>	<b>219</b>	<b>281</b>

\*Case counts under 6 and associated rates are excluded.

\*\*Includes Primary, Secondary, and Early Latent Syphilis.

<sup>†</sup>Sum rounded to nearest tens unit due to non-zero addend less than 6.

Note: Rates calculated per 100,000. Congenital syphilis rates are calculated per 100,000 live births

**Table 2**  
**Chlamydia Cases and Rates per 100,000 by Age Group, Arizona 2020-2022**

Age Group*	2020		2021		2022	
	N	Rate	N	Rate	N	Rate
<b>15-19</b>	8,152	1,729	8,510	1,798	7,877	1,636
<b>20-24</b>	13,588	2,778	14,836	2,990	14,154	2,806
<b>25-29</b>	7,173	1,383	8,274	1,590	8,138	1,538
<b>30-34</b>	3,687	777	4,418	899	4,824	965
<b>35-39</b>	1,989	432	2,334	503	2,422	513
<b>40-44</b>	925	219	1,330	307	1,411	320
<b>45-49</b>	548	128	677	159	769	178
<b>50-54</b>	339	82	495	118	497	117
<b>55-59</b>	215	49	267	61	301	67
<b>60-64</b>	97	23	126	29	154	35
<b>65+</b>	69	5	97	7	91	7
<b>Total</b>	36,782	512	41,364	568	40,638	548
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Under 25</b>	21,935	59	23,499	57	22,209	54
<b>Under 30</b>	29,108	79	31,773	77	30,347	74

\*Ages 0-14 not shown.

**Table 3**  
**Chlamydia Cases by Age Group and County, Arizona 2022**

Age Group**	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
<b>Apache</b>	89	135	80	58	51	31	16	*	6	*	*	474
<b>Cochise</b>	89	159	63	44	15	11	*	*	*	*	*	395
<b>Coconino</b>	135	322	122	96	54	23	10	7	*	*	*	776
<b>Gila</b>	50	70	34	23	10	7	*	*	0	0	*	203
<b>Graham</b>	35	46	34	28	*	7	*	*	*	*	0	161
<b>Greenlee</b>	7	12	6	*	0	*	0	0	0	0	0	27
<b>La Paz</b>	9	12	10	7	8	*	*	0	0	*	0	49
<b>Maricopa</b>	5,231	9,867	5,789	3,359	1,682	975	564	380	215	95	58	28,215
<b>Mohave</b>	81	163	90	55	28	12	*	7	*	*	*	448
<b>Navajo</b>	119	185	130	127	57	27	11	9	9	*	*	679
<b>Pima</b>	1,229	2,011	1,072	644	332	208	92	59	54	27	19	5,747
<b>Pinal</b>	433	547	327	194	100	59	31	16	*	9	*	1,725
<b>Santa Cruz</b>	49	59	48	23	*	*	*	0	0	0	0	185
<b>Yavapai</b>	119	176	85	52	25	16	*	*	*	*	0	488
<b>Yuma</b>	202	390	248	113	52	32	20	*	*	*	*	1,066
<b>Arizona</b>	7,877	14,154	8,138	4,820 <sup>†</sup>	2,422	1,411	769	497	301	154	91	40,640 <sup>†</sup>

\*Denotes count <6.

\*\*Ages 0-14 not shown.

<sup>†</sup>Sum rounded to nearest tens unit due to non-zero addend less than 6.

**Table 4**  
**Gonorrhea Cases and Rates per 100,000 by Age Group, Arizona 2020-2022**

Age Group*	2020		2021		2022	
	N	Rate	N	Rate	N	Rate
<b>15-19</b>	2,090	443	2,210	467	1,975	410
<b>20-24</b>	3,970	812	4,504	908	3,957	784
<b>25-29</b>	3,438	663	3,838	738	3,208	606
<b>30-34</b>	2,535	534	3,048	620	2,782	556
<b>35-39</b>	1,707	371	1,831	395	1,723	365
<b>40-44</b>	936	221	1,189	275	1,170	266
<b>45-49</b>	611	143	724	170	658	152
<b>50-54</b>	385	93	469	112	451	106
<b>55-59</b>	258	59	311	71	292	65
<b>60-64</b>	113	26	157	36	159	36
<b>65+</b>	70	5	108	8	85	6
<b>Total</b>	16,113	225	18,389	252	16,460	222
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Under 25</b>	6,127	38	6,771	37	5,980	36
<b>Under 30</b>	9,565	59	10,609	58	9,188	56

\*Ages 0-14 not shown.



**Table 5**  
**Gonorrhea Cases by Age Group and County, Arizona 2022**

Age Group**	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
<b>Apache</b>	18	32	19	36	39	21	19	6	*	0	0	190 <sup>†</sup>
<b>Cochise</b>	9	31	13	15	9	*	*	*	0	*	0	86
<b>Coconino</b>	14	52	45	66	31	25	10	*	*	*	*	255
<b>Gila</b>	12	20	22	16	12	6	8	*	0	*	0	98
<b>Graham</b>	*	6	*	*	*	*	*	*	*	0	0	26
<b>Greenlee</b>	*	*	0	*	0	0	0	0	0	0	0	*
<b>La Paz</b>	*	0	*	*	*	*	0	*	0	*	0	11
<b>Maricopa</b>	1,480	3,083	2,400	2,035	1,266	856	484	346	206	109	59	12,324
<b>Mohave</b>	8	35	39	37	19	14	10	9	*	*	0	176
<b>Navajo</b>	24	45	62	73	37	24	11	10	7	*	*	297
<b>Pima</b>	242	448	415	337	219	144	87	47	53	29	15	2,036
<b>Pinal</b>	99	137	135	112	60	54	18	17	6	7	*	650 <sup>†</sup>
<b>Santa Cruz</b>	7	6	*	7	6	*	0	*	*	0	0	35
<b>Yavapai</b>	17	18	14	15	9	6	*	*	*	*	*	92
<b>Yuma</b>	40	42	33	26	11	10	*	*	*	*	*	176
<b>Arizona</b>	1,975	3,960 <sup>†</sup>	3,208	2,782	1,723	1,170	658	451	292	159	85	16,460 <sup>†</sup>

\*Denotes count <6.

\*\*Ages 0-14 not shown.

<sup>†</sup>Sum rounded to nearest tens unit due to non-zero addend less than 6

**Table 6**  
**New<sup>§</sup> Syphilis Cases and Rates per 100,000 by Age Group, Arizona 2020-2022**

Age Group**	2020		2021		2022	
	N	Rate	N	Rate	N	Rate
15-19	104	22	123	26	126	26
20-24	422	86	446	90	474	94
25-29	518	100	679	131	669	126
30-34	485	102	678	138	720	144
35-39	366	80	483	104	543	115
40-44	227	54	349	81	432	98
45-49	170	40	228	54	238	55
50-54	163	39	200	48	206	48
55-59	126	29	152	34	187	42
60-64	62	14	69	16	85	19
65+	36	3	47	3	53	4
<b>Total</b>	<b>2,679</b>	<b>37</b>	<b>3,454</b>	<b>47</b>	<b>3,733</b>	<b>50</b>
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Under 25</b>	526	20	571	17	601	16
<b>Under 30</b>	1,044	39	1,250	36	1,270	34

<sup>§</sup>Includes Primary, Secondary, and Early Latent Syphilis.

\*\*Ages 0-14 not shown.

**Table 7**  
**New<sup>§</sup> Syphilis Cases by Age Group and County, Arizona 2022**

Age Group**	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
Apache	*	13	21	34	35	21	11	6	*	*	*	149
Cochise	*	*	*	*	*	0	*	*	*	*	0	15
Coconino	*	10	13	13	15	11	7	*	*	*	0	78
Gila	*	9	16	7	6	*	*	*	0	0	*	52
Graham	0	*	*	6	*	*	0	0	*	0	0	17
Greenlee	0	0	0	0	0	0	0	0	0	0	0	0
La Paz	*	*	*	*	*	0	0	0	0	*	0	11
Maricopa	80	332	471	490	326	279	154	151	134	60	36	2,513
Mohave	*	*	*	*	*	*	*	*	*	*	*	26
Navajo	9	15	25	28	26	12	7	*	10	*	0	138
Pima	17	65	76	97	94	79	38	28	29	12	8	543
Pinal	*	13	12	16	16	12	12	*	*	0	*	91
Santa Cruz	*	0	*	*	0	*	0	0	0	0	0	10
Yavapai	*	*	*	*	*	*	0	*	0	*	*	19
Yuma	*	9	18	11	11	*	*	*	*	*	*	71
<b>Arizona</b>	126	474	669	720	543	432	238	206	187	85	53	3,733

<sup>§</sup>Includes Primary, Secondary, and Early Latent Syphilis.

\*Denotes count <6.

\*\*Ages 0-14 not shown.

†Sum rounded to nearest tens unit due to non-zero addend less than 6.

**Table 8**  
**Syphilis Cases by Stage, Arizona 2022**

Stage*	2020		2021		2022	
	N	%	N	%	N	%
Primary	628	14	935	15	1,047	14
Secondary	814	18	1,046	17	1,106	15
Early Latent	1,237	28	1,475	23	1,581	21
Late Latent/Unknown Duration	1,631	37	2,692	43	3,545	47
Congenital**	120	3	182	3	219	3
<b>Total</b>	<b>4,430</b>		<b>6,330</b>		<b>7,498</b>	

\*Stage is an indication of where a case is at in their infection. Primary and secondary cases are symptomatic and infectious (they can spread the infection to others). Early latent cases were infected sometime within the past year and were symptomatic and infectious sometime within the last year. Late latent/unknown duration cases were infected over a year ago and can no longer spread the infection to others.

\*\*Congenital syphilis case reporting is an ongoing process; prior year case counts may be updated upon receipt of new information. Therefore, congenital syphilis case counts may vary.

Appendix 3: Background

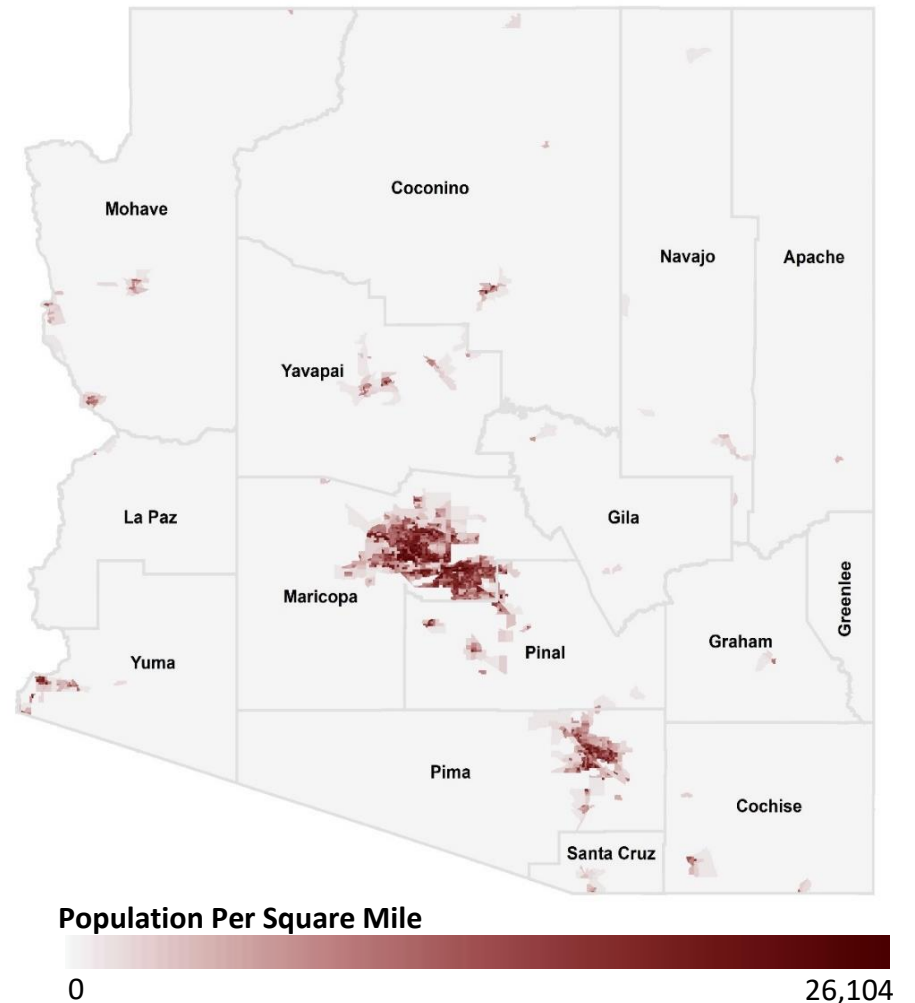
**Arizona Population Density and STI Population**

Arizona is comprised of 15 counties and is home to 22 federally recognized tribes. The majority of Arizona counties are geographically large; however, the county population varies widely. In 2022, 62% of the state’s population resided in Maricopa County and 14% resided in Pima County.

Table 9  
STI Population vs AZ Population, Arizona 2022

County	AZ STI Population		AZ Population	
	N	%	N	%
Apache	824	1%	66,848	1%
Cochise	497	1%	126,648	2%
Coconino	1,114	2%	149,647	2%
Gila	359	1%	53,838	1%
Graham	206	0%	39,010	1%
Greenlee	33	0%	9,652	0%
La Paz	72	0%	16,860	0%
Maricopa	43,340	71%	4,586,431	62%
Mohave	655	1%	221,105	3%
Navajo	1,136	2%	108,580	1%
Pima	8,388	14%	1,072,298	14%
Pinal	2,483	4%	453,924	6%
Santa Cruz	232	0%	49,039	1%
Yavapai	602	1%	245,389	3%
Yuma	1,336	2%	209,920	3%
<b>Total</b>	<b>61,277</b>		<b>7,409,189</b>	

Population Density, Arizona 2020



References

1. Arizona Office of Economic Opportunity. Historic Estimates. Population Estimates for 1980-2023. <https://oeo.az.gov/population/estimates>