Sexually Transmitted Diseases

2017 Annual Report

ARIZONA DEPARTMENT
OF HEALTH SERVICES

Office of Disease Integration and Services
STD Control Program
150 N. 18th Ave, Suite 110
Phoenix, AZ 85007

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Executive Summary

STDs have been **increasing** in Arizona for years.

The most vulnerable populations include **pregnant women, women of childbearing age, youth,** and **men who have sex with men (MSM).**

Why do we monitor STDs?

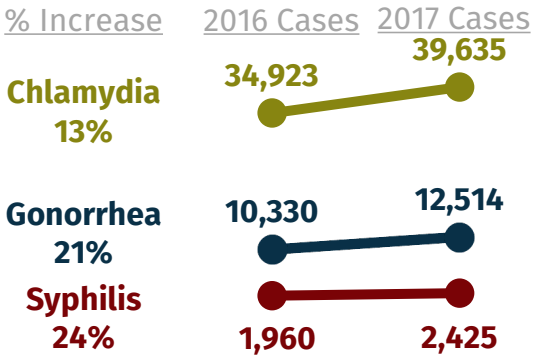
STDs are serious diseases that can lead to severe outcomes, including, infertility, pelvic inflammatory disease, and complications during pregnancy.[1]

Syphilis can lead to problems with the eyes, ears, heart, and brain.[2]

How common are STDs?

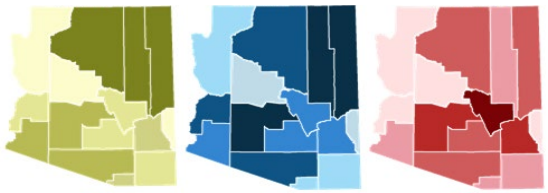
STDs have been increasing in Arizona for over 15 years.

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



*This includes new and old syphilis cases. For more information on case classification, please see page 4.

Chlamydia, gonorrhea, and syphilis are widespread.



* Darker shades indicate a higher rate.

Who is most impacted by STDs?

Women of childbearing age suffer some of the most severe outcomes, including pelvic inflammatory disease and complications during pregnancy.

Up to 40% of untreated syphilitic pregnancies can result in stillbirth or newborn death.[2]

Youth (ages 15-24) and men who have sex with men (**MSM**) have some of the highest rates of STDs reported in Arizona. Additionally, American Indian and black Arizonans continue to have the highest rates of reportable STDs.

References

1. C. f. D. C. a. Prevention, "10 Ways STDs Impact Women Differently from Men – CDC Fact Sheet," [Online]. Available: https://www.cdc.gov/std/health-disparities/stds-women-042011.pdf.
2. C. f. D. C. a. Prevention. "STD Facts – Congenital Syphilis [Online]Available: https://www.cdc.gov/std/syphilis/stdfact-congenital-syphilis.htm

Prevention

Prevention saves lives and money.

Controlling the spread of STDs in Arizona will require the help of the **health department, general public,** and **healthcare providers**.

Prevention saves money.

When left untreated, chlamydia and gonorrhea may lead to **serious, irreversible complications** such as infertility in men and women, Pelvic Inflammatory Disease (PID), premature delivery and ectopic pregnancy in women[1].

PID costs: $3,202 per case[2]

Prevention saves lives.

Pregnant women infected with an STD can pass the infection to their newborn during delivery, causing the baby to develop serious health problems, if left untreated. Syphilis is particularly severe and can lead to miscarriage, stillbirth, and infant death if left untreated.

In 2017, three Arizonan babies died of syphilis.

How does the health department control the spread of STDs?

The health department increases access to STD testing and treatment among high risk populations. In 2017, the Arizona Department of Health Services provided funding to screen 18,138 people, local health departments treated 2,126 partners, and 83 potential baby syphilis cases were prevented.

How can individuals prevent STDs?

- Use condoms when having any type of sex
- Reduce number of sex partners
- Get tested for STDs regularly.

How can healthcare providers prevent STDs?

For patients with chlamydia/ gonorrhea, healthcare providers can offer additional medication to treat partners without performing a physical exam. This practice allows for cost-effective and timely treatment of partners and helps to prevent re-infection. Providers can also help by adhering to the 2015 treatment guidelines and using the clinical consultation network.

References

1. S. M. Vranic, "Chlamydia trachomatis Infections of the Adults," Sexually Transmitted Infections, 2012.
2. Owusu-Edusei K, Chesson HW, Gift TL, et al. The estimated direct medical cost of selected sexually transmitted infections in the United States, 2008. Sex Transm Dis 2013; 40: 197–201.

STD Fast Stats

Chlamydia is the most commonly reported STD in the US.[1]

In 2017 there were 39,635 cases of chlamydia reported to the Arizona Department of Health Services. Nearly 67% of cases are in women. Chlamydia accounts for the majority of all reported STDs.

In Arizona, gonorrhea has increased 94% in the last 5 years.

Gonorrhea bacteria have developed resistance to most available treatments.

Each month, specimens from Arizona are tested for antibiotic resistance.

Of the 373 samples submitted by Arizona for testing in 2017,

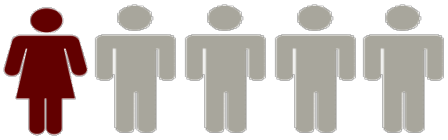
NONE

were found resistant to both ceftriaxone and azithromycin, the recommended treatment for gonorrhea.

In 2017 a syphilis outbreak was detected in women and babies

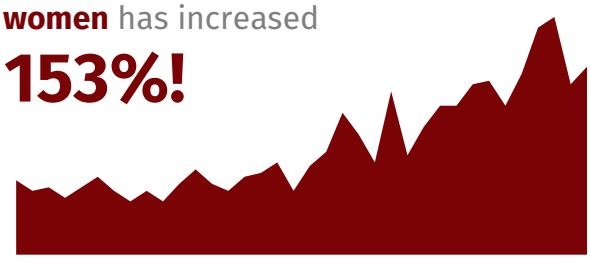
Although syphilis is the least common reportable STD, it has some of the worst outcomes, including miscarriage and stillbirth. Historically, syphilis is more common in men who have sex with men.

In Arizona, 1 in 5 cases of syphilis are in women.



However, since January 2015 the **monthly average of syphilis cases in women** has increased

153%!



This increase has led to an outbreak of syphilis in babies. **In 2017, congenital syphilis doubled.**

References

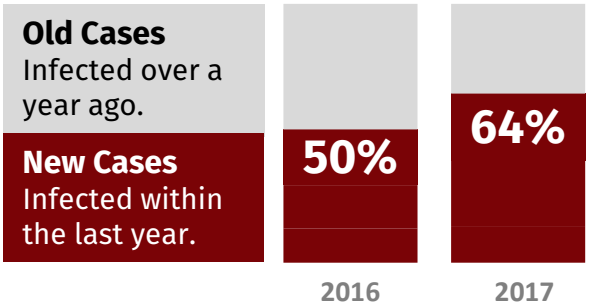
1. C. f. D. C. a. Prevention, "Chlamydia statistics," [Online]. Available: https://www.cdc.gov/std/chlamydia/stats.htm

Syphilis: It's Complicated

Syphilis can be only be spread if the person is **symptomatic or pregnant**.

Although syphilis is the least common STD, it has some of the most **severe outcomes**.

Most of the syphilis cases reported in Arizona are new cases.

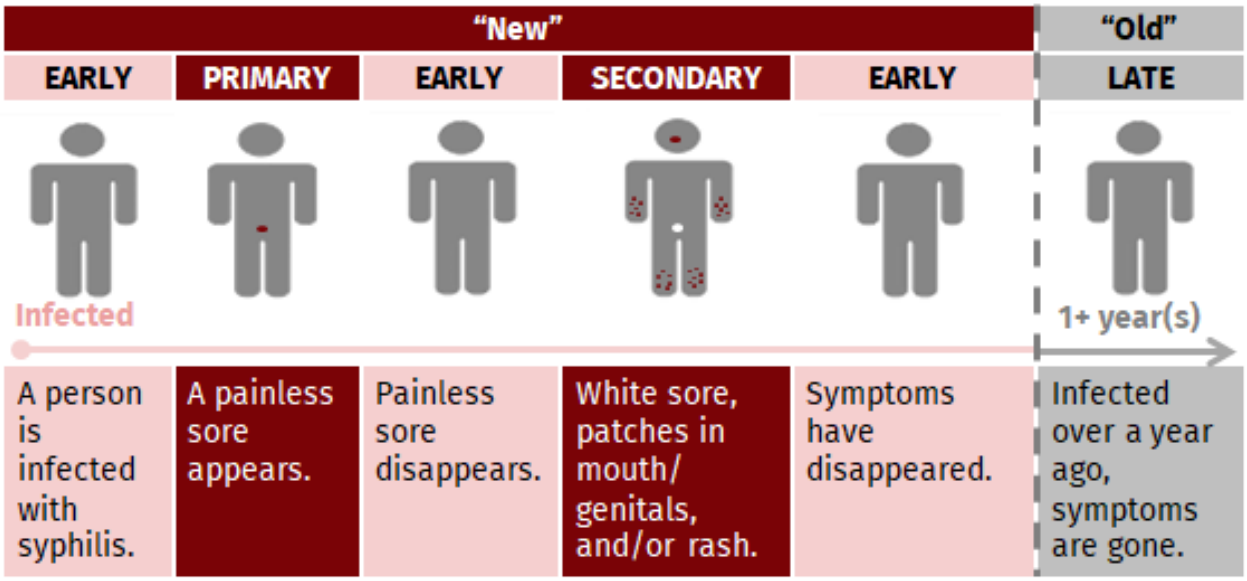


Syphilis can be severe

When left untreated, syphilis can travel through the body and cause problems with the **bones, ears, eyes, heart, and brain**.[1] These problems can occur at any time, even years after initial infection.

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

In the first year, a person with syphilis switches between **having symptoms** to **not having symptoms.** Cases can only pass the disease to partners in the first year when **symptoms are present**; however pregnant women can pass the disease to their developing baby at any time. **A year after infection, the symptoms disappear.**



Reference

1. C. f. D. C. a. Prevention, "Syphilis – CDC Fact Sheet," [Online]. Available: https://www.cdc.gov/std/syphilis/stdfact-syphilis.htm.

Syphilis in Babies

Syphilis in babies doubled from 2016 to 2017.

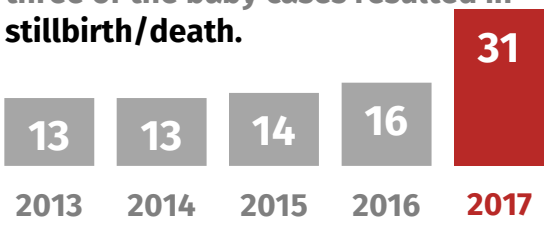
Rates of syphilis are rapidly **increasing in women**.

Syphilis in Arizonan babies occurred as a result of **late or no access to prenatal care or mom being infected late in her pregnancy.**

Syphilis in babies

Pregnant women with untreated syphilis can pass the infection to their developing baby at any time, causing **bone disorders, deafness, other congenital defects, or even stillbirth/death.**[1]

In 2017, syphilis in babies doubled and three of the baby cases resulted in stillbirth/death.

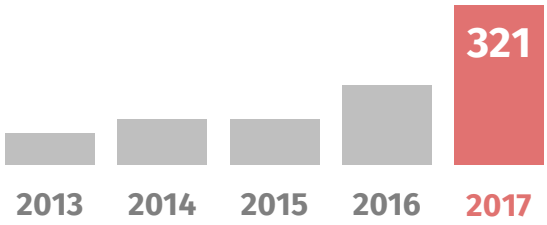


83 potential baby syphilis cases were prevented in 2017.

One in three baby syphilis cases were reported **outside Maricopa County.** This is a significant increase from 2016.

Why is syphilis increasing in babies?

The increase in babies is due, in part, to the **increase of syphilis in women.**



Access to prenatal care is important.

CDC recommends screening all pregnant women in their first trimester. Although providers are screening pregnant women, many women struggle to access prenatal care in time.

Third-trimester screening is important.

Nine (29%) of the women who gave birth to syphilitic babies **were infected or re-infected after their first test.**

References

1. C. f. D. C. a. Prevention, "Congenital Syphilis – CDC Fact Sheet," [Online]. Available: https://www.cdc.gov/std/syphilis/stdfact-congenital-syphilis.htm.
2. C. f. D. C. a. Prevention, "STDs during Pregnancy – CDC Fact Sheet (Detailed)," [Online]. Available:https://www.cdc.gov/std/pregnancy/stdfact-pregnancy-detailed.htm.

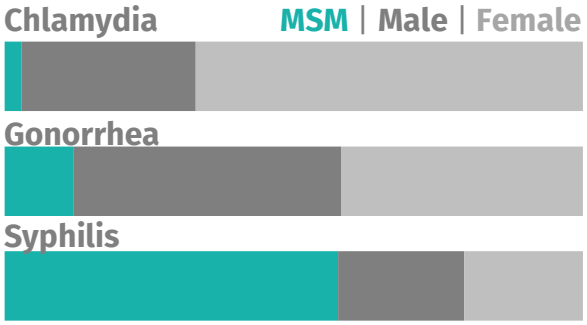
Men Who Have Sex with Men (MSM)

MSM data for chlamydia and gonorrhea are severely limited.

MSM are disproportionately impacted by STDs.

MSM have higher rates of STDs compared to non-MSM.

In Arizona, 58% of syphilis cases were reported as MSM in 2017.



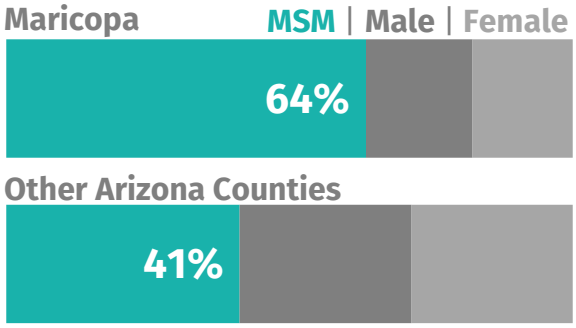
Conversely, **2.8%** of all chlamydia cases and **12%** of gonorrhea cases identified as MSM, however data quality for gender of sex partners is limited.

Why is data limited for chlamydia and gonorrhea?

The Arizona Department of Health Services receives over 100,000 reports annually. It is challenging to capture missing data for all reported cases, so the health department prioritizes the most severe diseases for case investigation (i.e. syphilis). Furthermore, chlamydia and gonorrhea are site-specific tests. If the exposure occurred in the throat or rectum but the person provided a urine sample, the sample may not test positive and would not be reported.

Are there differences by region?

A higher proportion of syphilis cases in Maricopa County are **MSM**, compared to other counties.



Although MSM represent a smaller proportion of rural cases, compared, they are disproportionately impacted by syphilis relative to males who claim to only have female sex partners. For that reason, **CDC recommends annual STD screening for MSM**.[1]

References

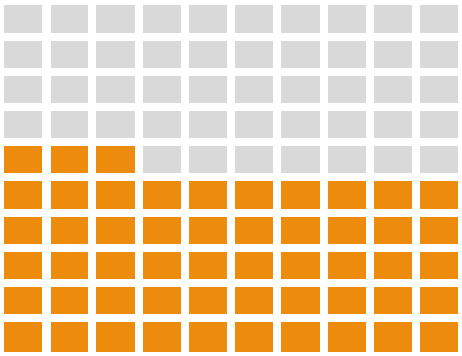
1. C. f. D. C. a. Prevention, "STD & HIV Screening Recommendations," [Online]. Available: https://www.cdc.gov/std/prevention/screeningreccs.htm.

Adolescents and Young Adults

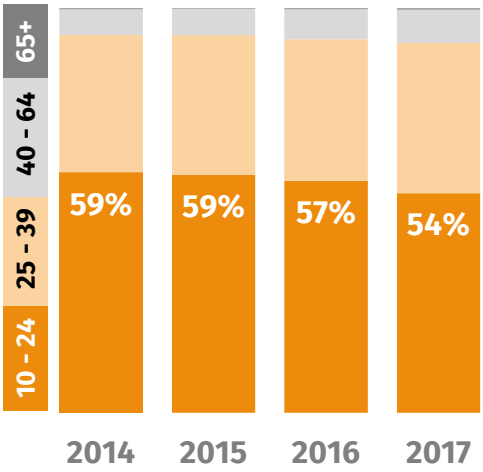
<24 Over half of all Arizona STDs occur in persons **10-24 years of age.**

Youth have the highest rates of STDs

About 20% of Arizona's population is between the ages of 10-24; however **53% of STD cases in Arizona are in persons 10-24 years old.**



Although rates of STDs are increasing in **10-24 year olds,** STDs are increasing at a faster rate in persons aged 25-39.



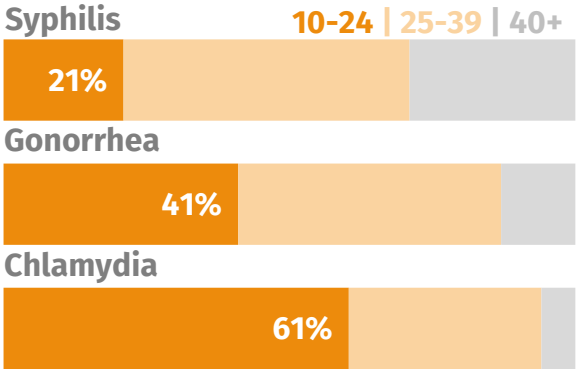
Why are youth at risk?

Adolescents and young adults are at increased risk because they are biologically more susceptible to STDs, receive insufficient screening, may have concern for confidentiality, lack of access to healthcare, and have multiple sex partners.[1] **CDC recommends annual screening for sexually active women under 24 years old.**[2]

Less than 1% of STDs occur in persons 65 years and older.

Are there differences by disease?

Youth (10-24) represent the majority of chlamydia cases, almost half of all gonorrhea cases, and 20% of syphilis cases.



References

1. CDC, "Sexually Transmitted Infections Among Young Americans," [Online]. Available: https://www.cdc.gov/std/products/youth-sti-infographic.pdf
2. CDC, "STD & HIV Screening Recommendations," [Online]. Available: https://www.cdc.gov/std/prevention/screeningreccs.htm.

HIV Coinfections and STD Reinfections

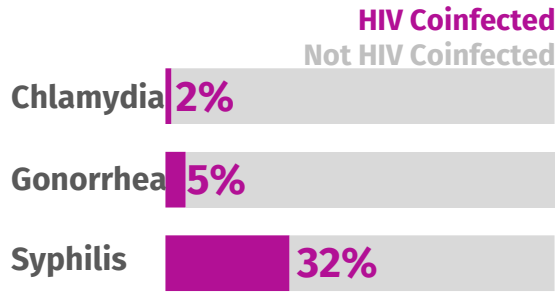
Repeat infections can put people at risk for more severe health outcomes and comorbidity.

STD prevention is HIV prevention.

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

STD/HIV Coinfections

Overall, a small percentage of STD cases are coinfected with HIV. However, coinfection is more common with syphilis.

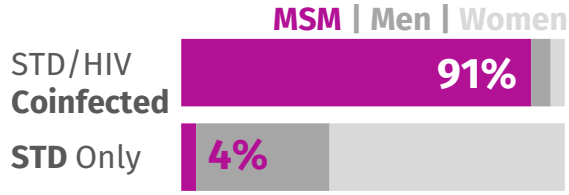


Other STDs can be cured, but HIV requires a lifetime of management through treatment and access to healthcare. Persons with STDs have similar risk factors as those who develop HIV, so **STD prevention is HIV prevention**.

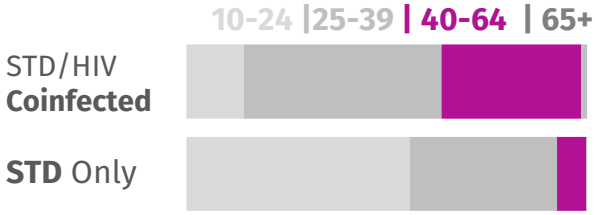
HIV Coinfection Disparities

There is a huge disparity by sexual orientation and age among STD/HIV coinfected persons.

Most STD cases coinfected with HIV are **men who have sex with men.**

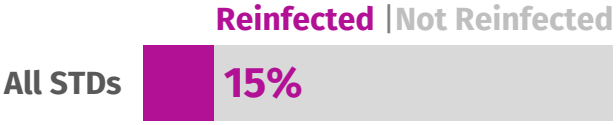


STD/HIV coinfected cases are more common in **older people** than STD only cases.



Reinfection

18% of gonorrhea/syphilis and 14% of chlamydia cases are **reinfected** with another STD (chlamydia, gonorrhea, or syphilis) within 12 months.



Why do we care about reinfections?

Although repeat infections make up a small proportion of the total number of cases, repeat infections can cause scarring that can put people at risk for more severe health outcomes and comorbidities.[1] Additionally, individuals who have been infected with an STD are significantly more likely to acquire another STD.

Reference

1. C. f. D. C. a. Prevention, "Chlamydia – CDC Fact Sheet (Detailed)," [Online]. Available: https://www.cdc.gov/std/chlamydia/stdfact-chlamydia-detailed.htm.

A message from the STD Control Program

The sustained increase in overall STD, as well as the increase in congenital syphilis cases in Arizona is alarming. The ADHS STDCP is committed to addressing this issue by collaborating with internal and external partners to promote STD prevention and control. ADHS partners include the Centers for Disease Control and Prevention, county and tribal health departments, community-based organizations, and Arizona medical providers. It is important that the Arizona public and community leaders encourage dialogue about sexual health and disease prevention. Promoting screening, medical treatment and services can improve the sexual health of all Arizonans.

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Arizona Department of Health Services Office of Disease Integration and Services

STD Control Program

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Acknowledgements
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Mission

The Mission of the Arizona Department of Health Services (ADHS) STD Control Program (STDCP) is to improve the sexual health of all Arizonans by strengthening the prevention and control of sexually transmitted disease in Arizona through education, surveillance, collaboration, and program development.

Staff and Contributors

Rebecca Scranton, MPH STDCP Manager, was appointed to the position of program manager in 2018 after serving as the Syphilis Epidemiologist. Ms. Scranton has previous experience as a data analyst and for the Maricopa County Department of Public Health. She also has five years of experience coordinating research projects focused on understanding the social determinants of health.

Breanne Anderson, MPH, Syphilis Epidemiologist, has been with the STD team for over a year. In addition to conducting syphilis surveillance, Ms. Anderson also conducts quality assurance review and provides technical assistance to county and tribal partners. Prior to working with the STD team, Ms. Anderson spent several years working on various women's health projects

Kaitlyn Sykes, MPH, Chlamydia/Gonorrhea Epidemiologist, has been with the STD team for 6 months. Prior to working with STDs, Kaitlyn was a CSTE Applied Epidemiology Fellow stationed at Maricopa County working on a variety of infectious disease and behavioral health projects.

Linda Ripley, Administrative Assistant, has been with ADHS since 2006. Linda processes the chlamydia and gonorrhea labs received and assists with a variety of administrative duties.

Letty Medina, Program and Project Specialist, has been with ADHS for 5 years. Letty facilitates the transfer of out-of-state case reports to state partners. She also assists with special projects and planning events. Additionally, she manages financial aspects of the program, including procurement and managing expenditure reports.

Rosalinda Avila, Data Entry Specialist, has been with ADHS for over a year. Rosie processes the syphilis labs received and assists with a variety of data cleaning projects.

Aline Indatwa, MPH, STD Epidemiologist, has been with the STD team for 4 months.

Cymone Gates, MPH, Epidemiologist and PRISM Database Manager, has been with the STD team for 3 months. Prior to working with the STD Control Program, Cymone worked in enteric disease surveillance at the CDC and Georgia's Emerging Infections Program.

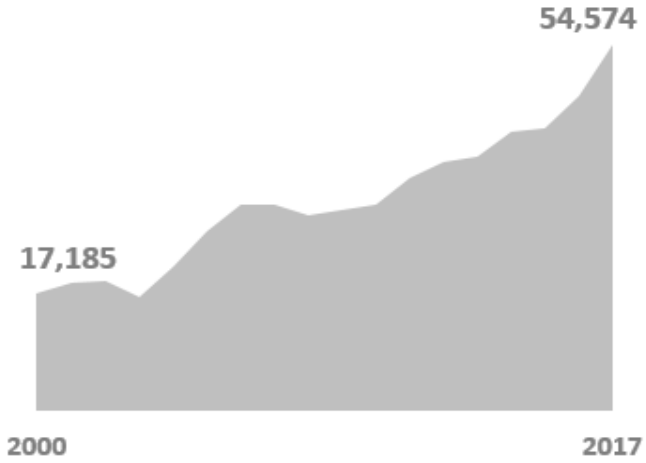
Katherine Browne, BA, CDC Public Health Advisor with 27 years of experience working in state and local STD Programs (County of Los Angeles, State of Indiana, and the State of Arizona – Maricopa County and Pima County STD Programs). She currently provides technical assistance to county and tribal partners. Ms. Browne holds a BA in Human Biology.

Appendix 1: Data Dashboards

2017 STD Rates in Arizona

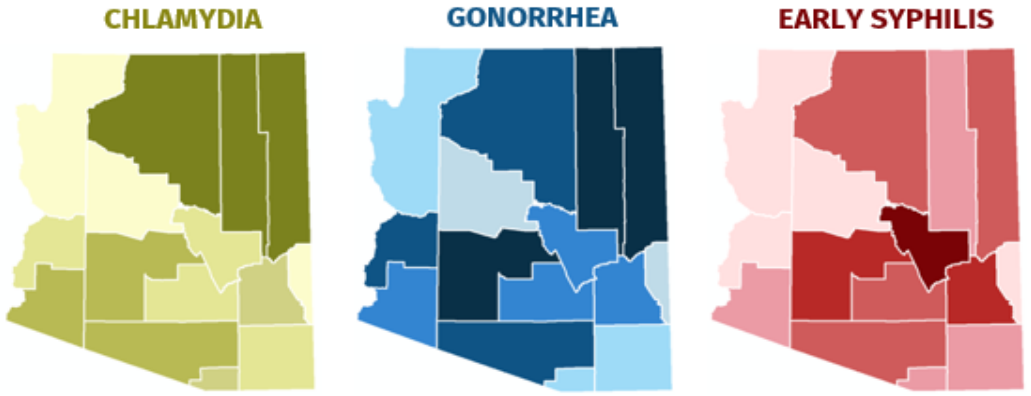
STDs are on the rise.

STD cases have tripled since 2000!



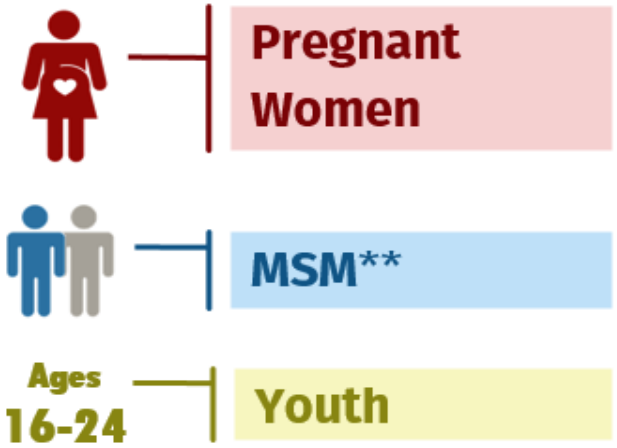
STDs are present in every Arizona County.

2017 Rates* by County



*Darker shades indicate higher rates. Rates calculated per 100,000.

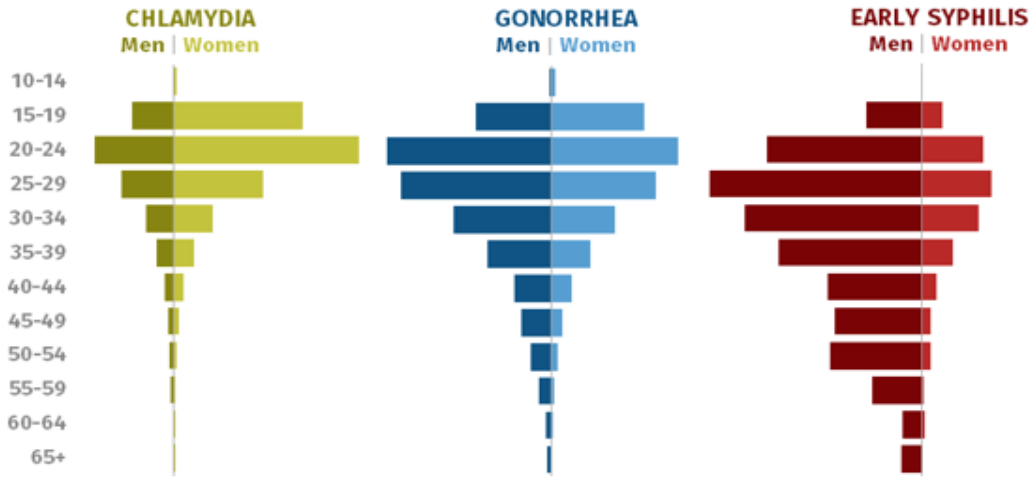
Key populations



**MSM = Men who have sex with men

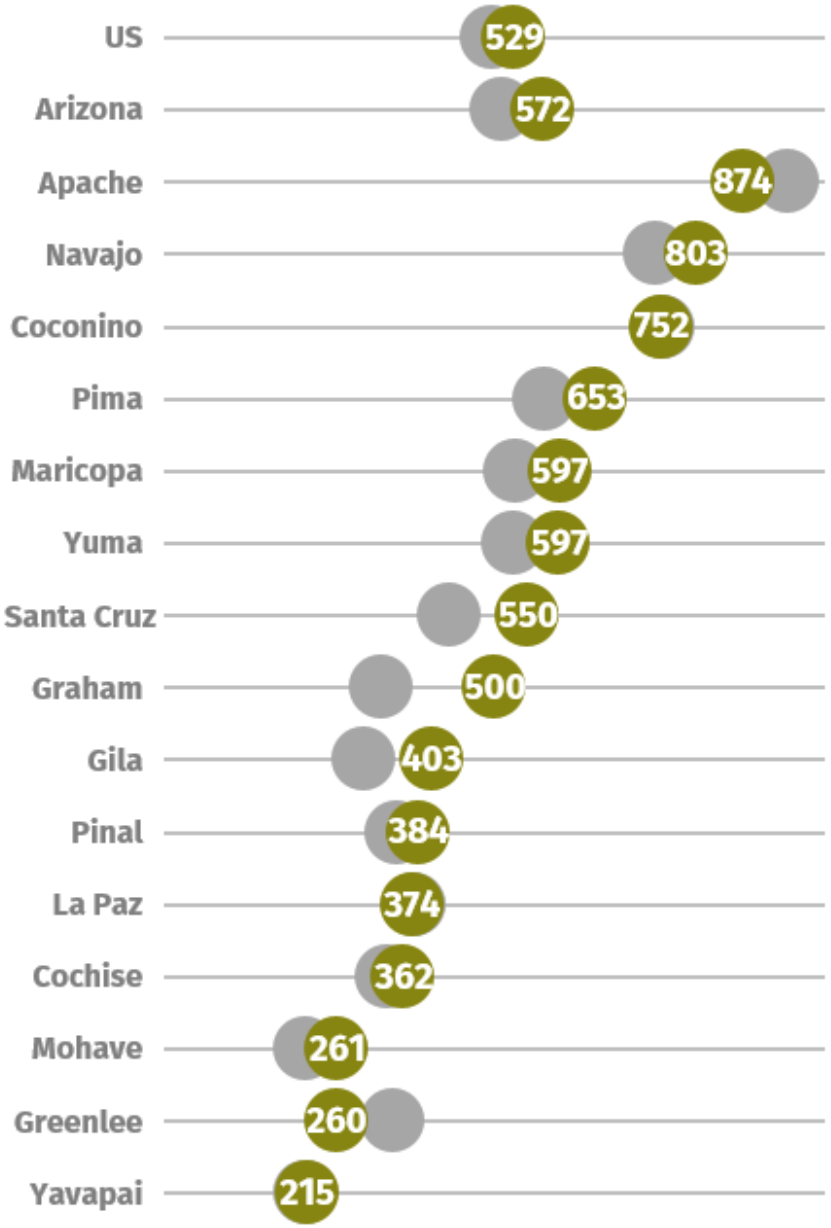
Youth have the highest rates of STDs.

STD rates* differ by gender.



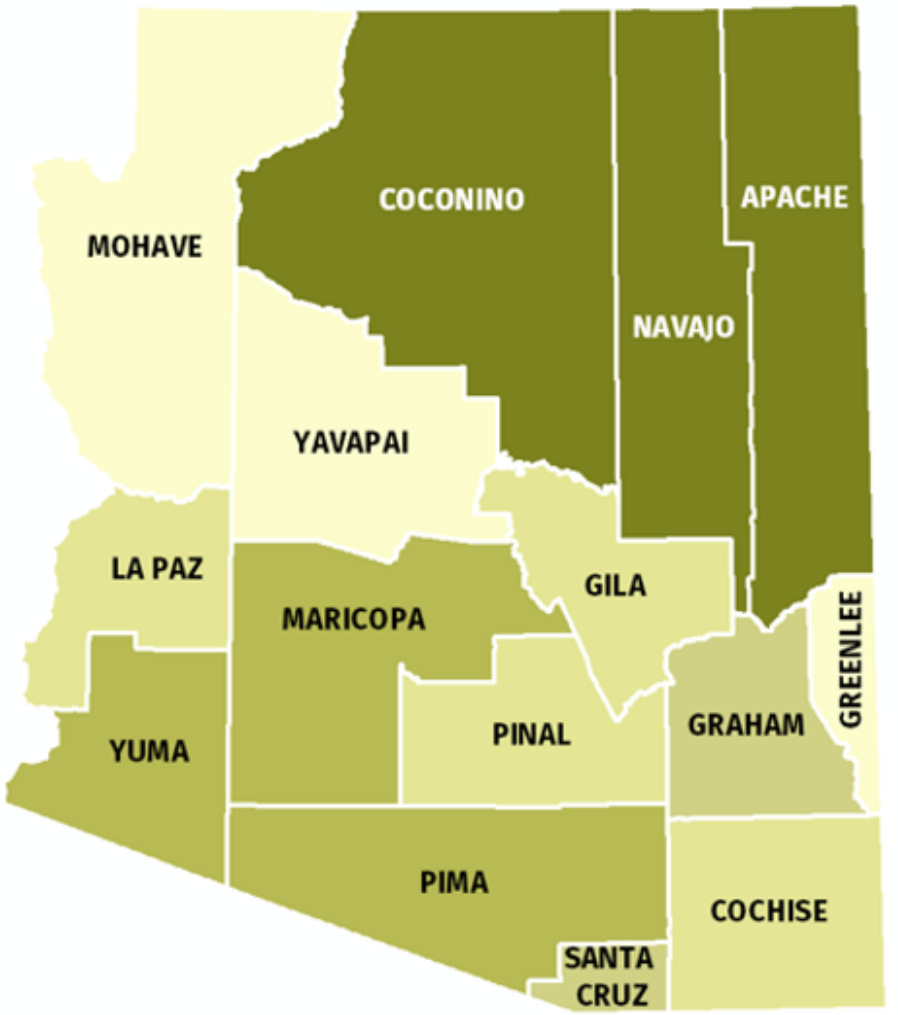
*Rates calculated per 100,000.

The majority of Arizona counties had higher rates* of chlamydia in 2017 than in 2016.

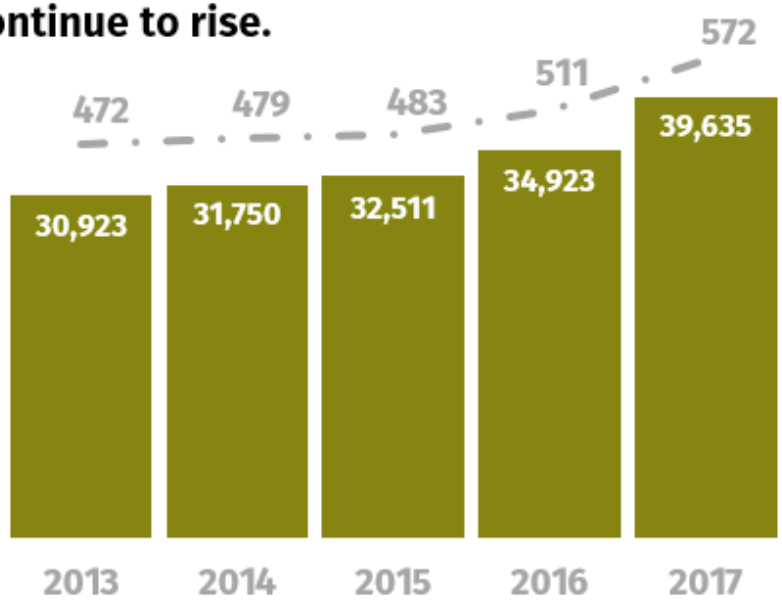


*Rates calculated per 100,000

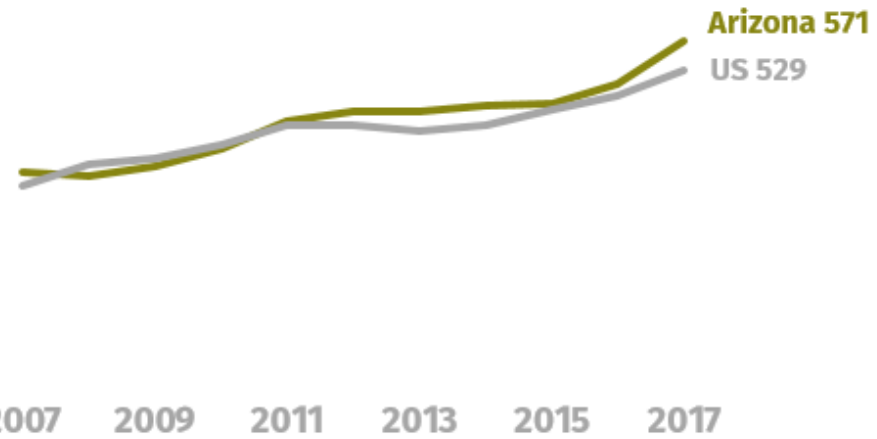
The highest chlamydia rates* are in the northeast corner of Arizona.



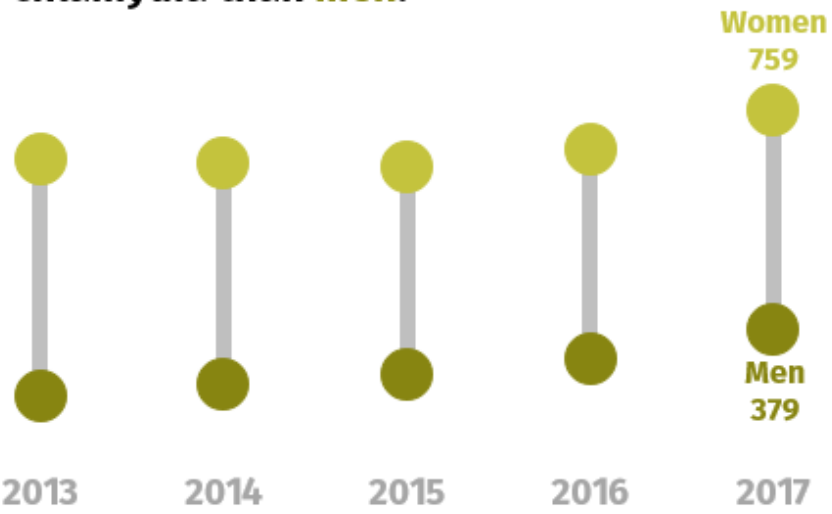
In Arizona, chlamydia cases and rates* continue to rise.



Arizona continues to have slightly higher rates* of chlamydia than the United States.

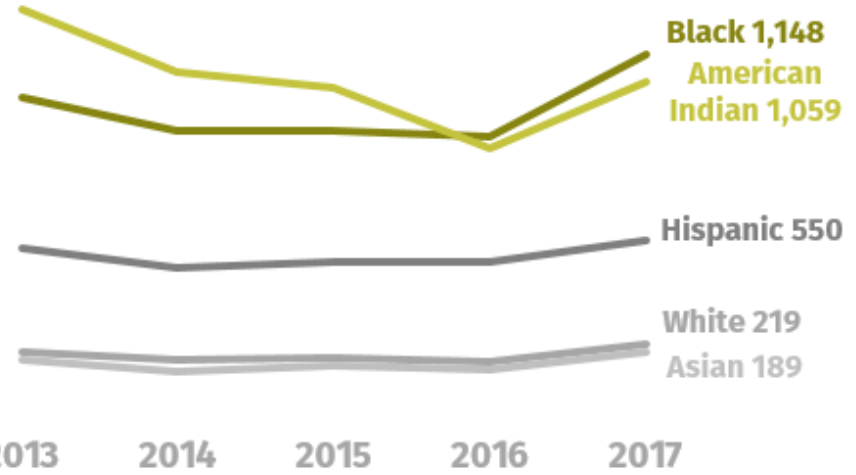


Women consistantly have higher rates* of chlamydia than men.



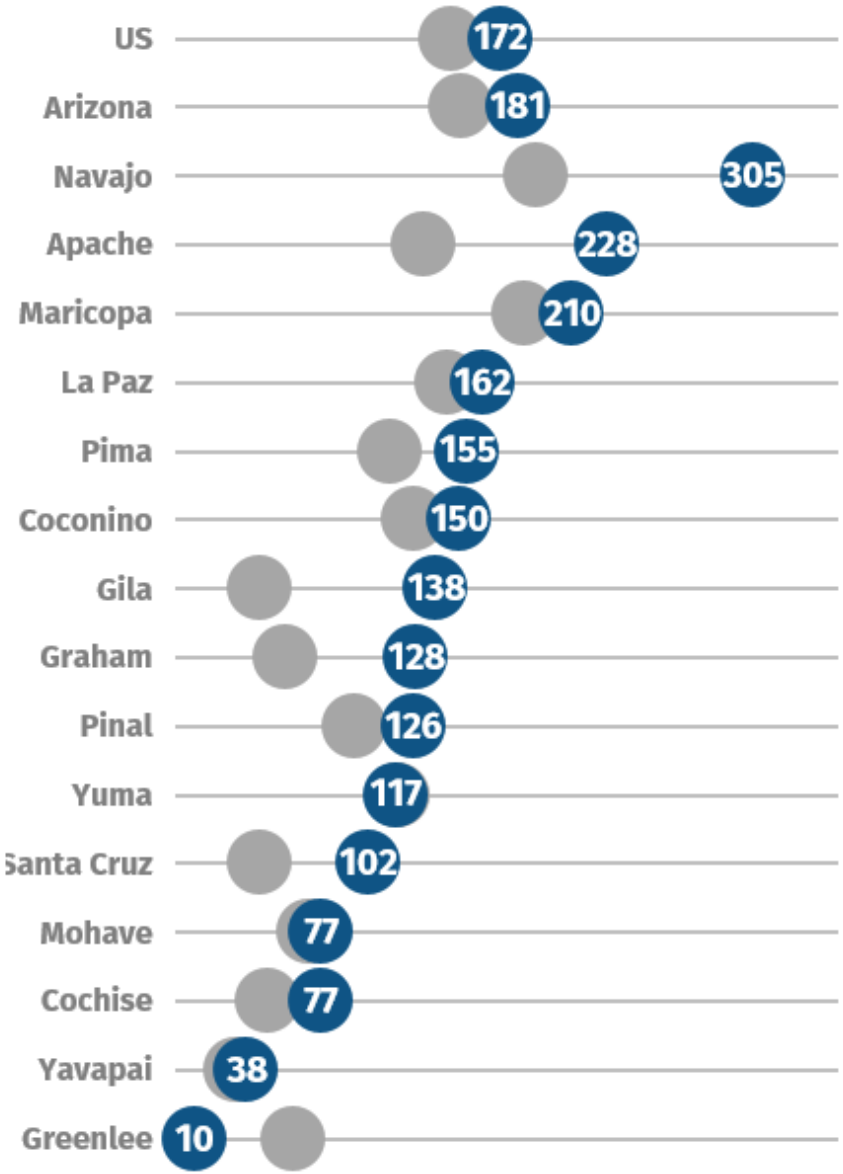
*Rates calculated per 100,000

Black and American Indian populations have consistently higher rates* of chlamydia.



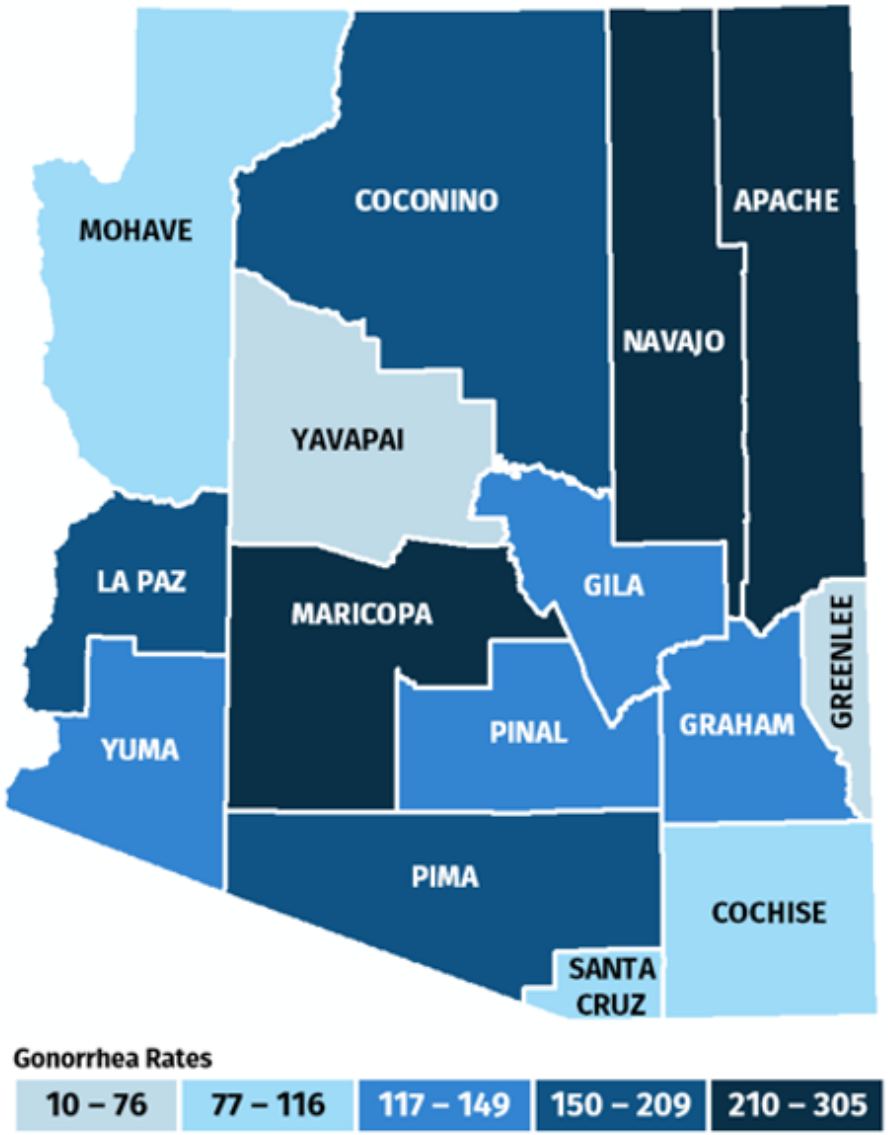
**Race is frequently not reported for chlamydia. In 2017, 30% of cases were missing race information. Comparatively, 2013 had 21% of cases missing race.

Most Arizona counties had higher rates* of gonorrhea in 2017 than in 2016.

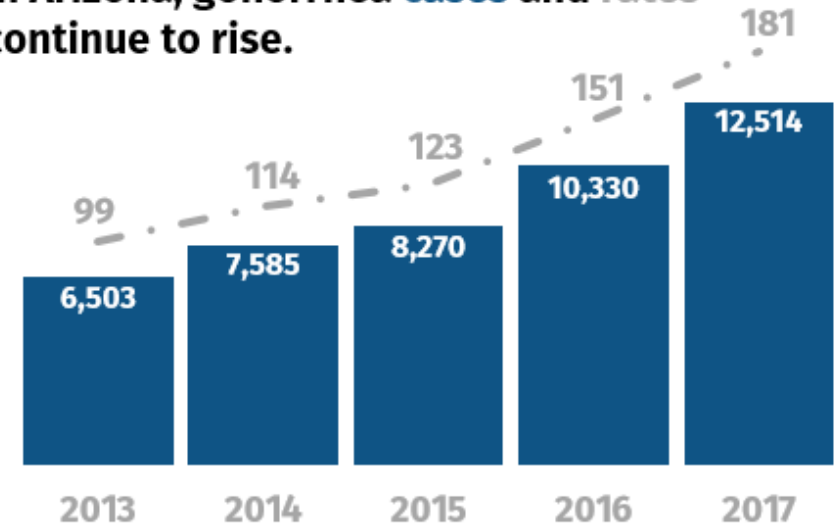


*Rates calculated per 100,000

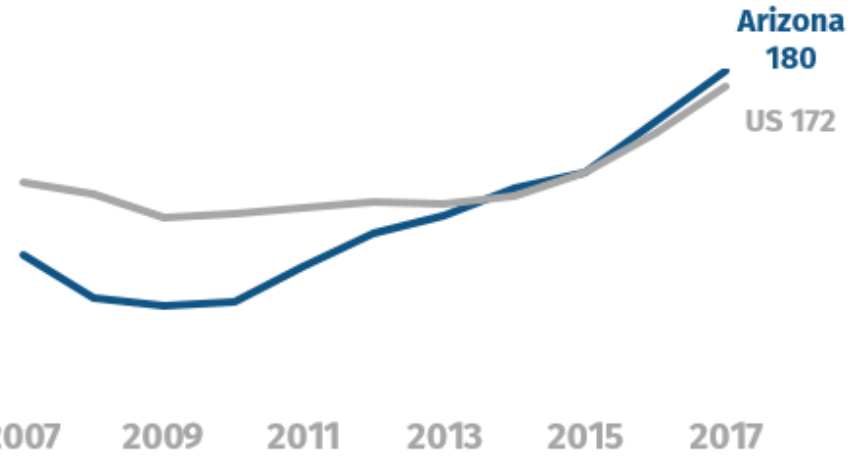
The northeast and southwest corners of Arizona have the highest rates* of gonorrhea.



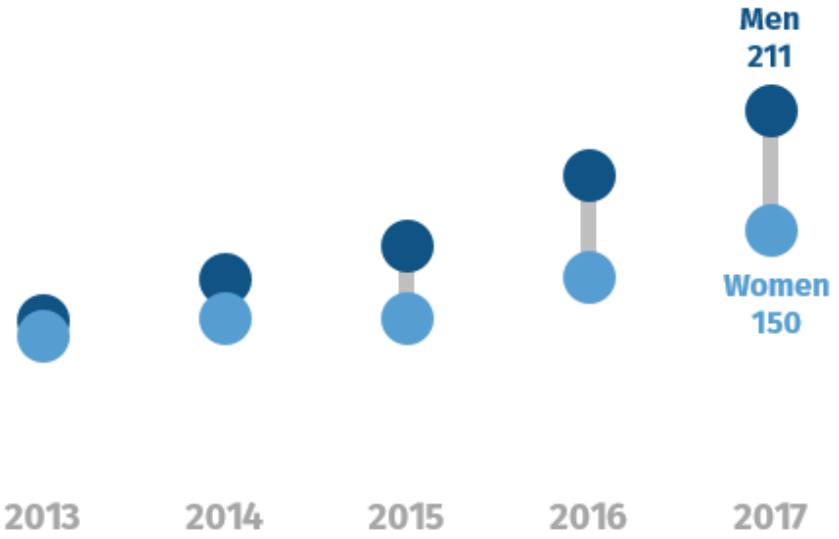
In Arizona, gonorrhea cases and rates* continue to rise.



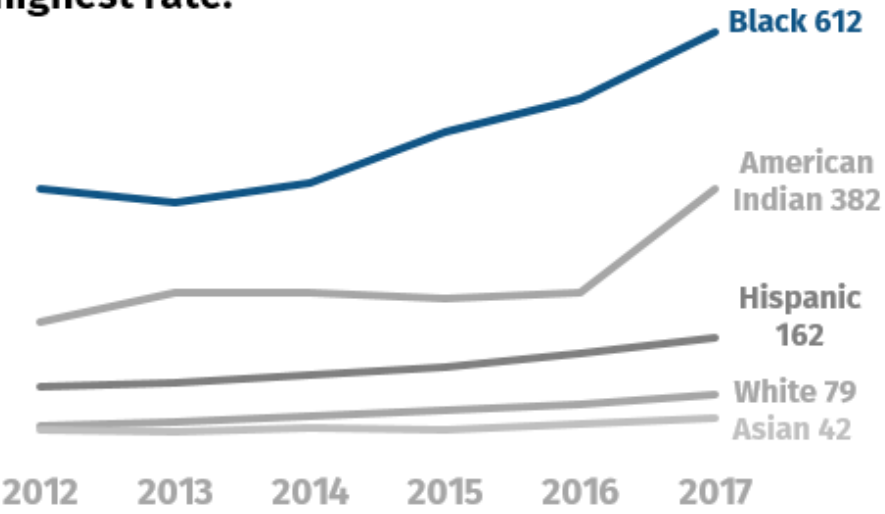
The rate* of gonorrhea in Arizona has passed the United States rate.



Recently, men have had higher rates* of gonorrhea than women.



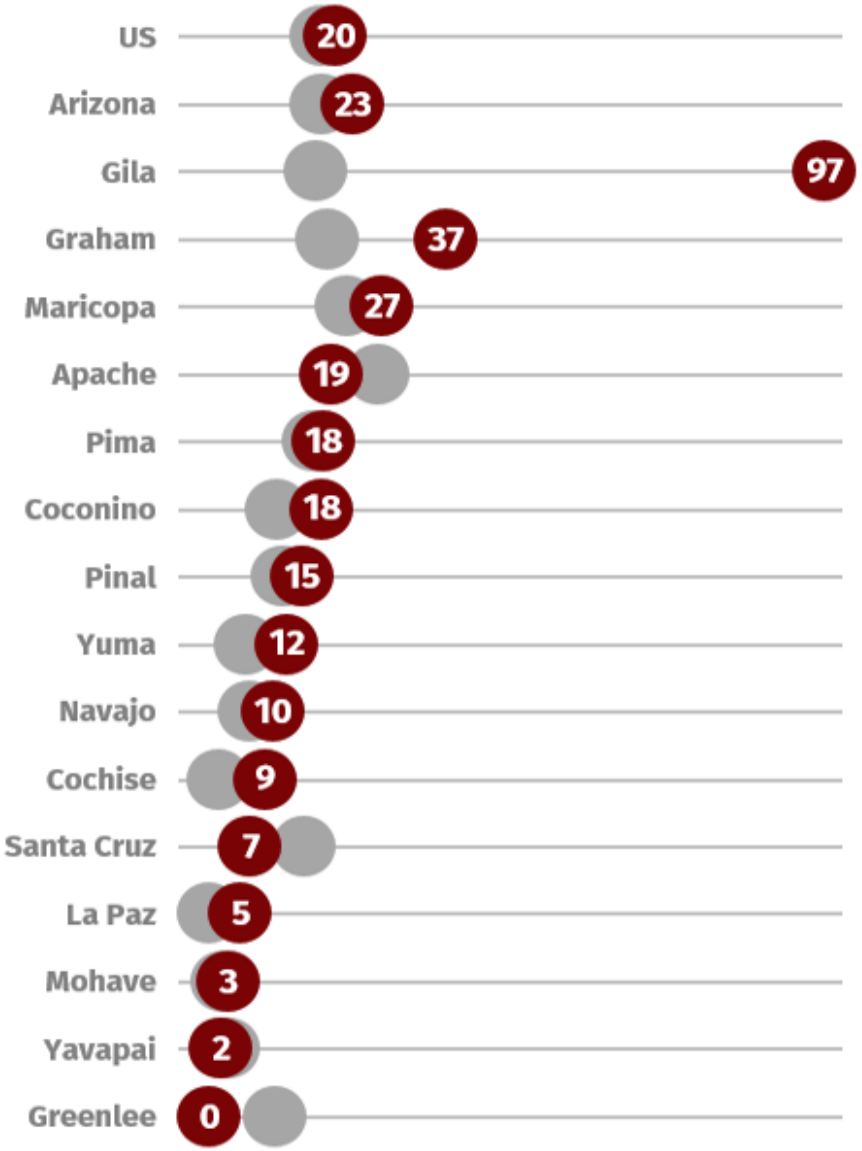
Rates* of gonorrhea are increasing overall. The Black population continues to have the highest rate.



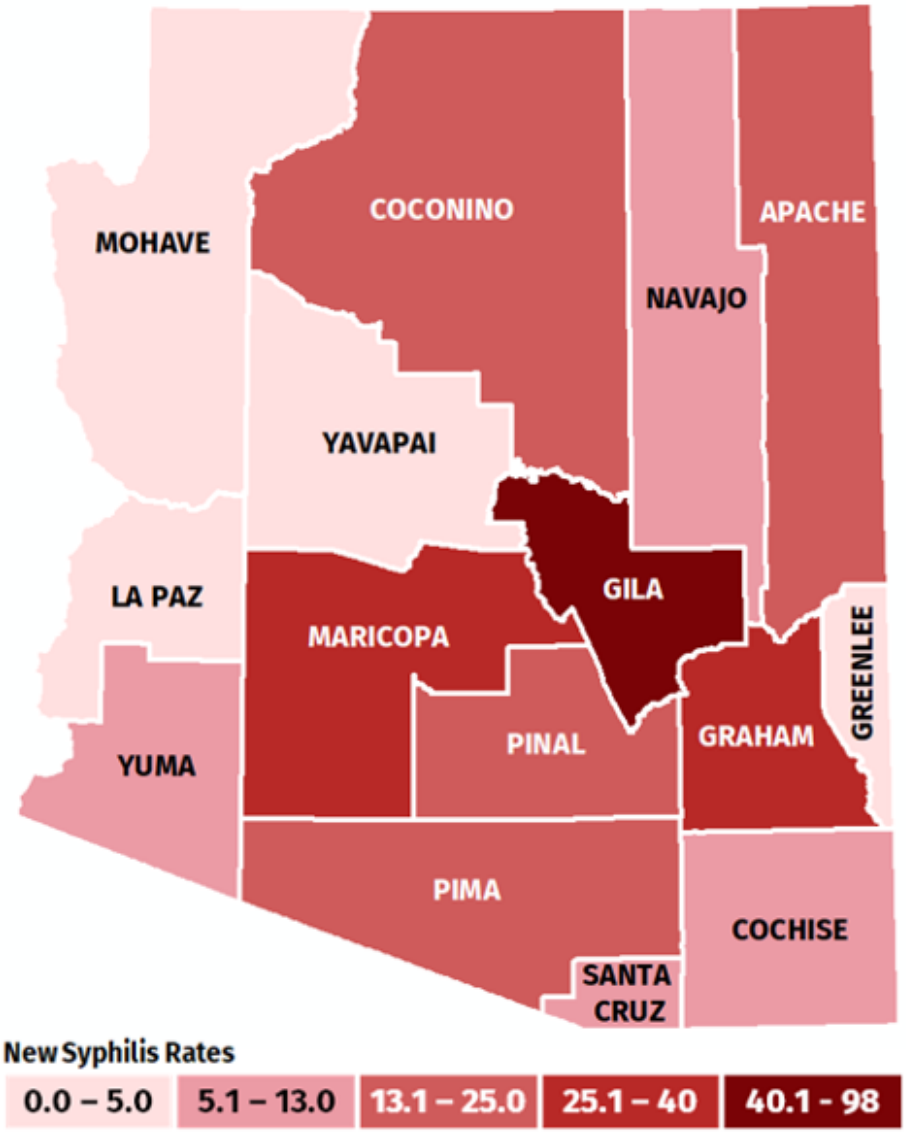
*Rates calculated per 100,000

**Race is frequently not reported for gonorrhea. In 2017, 22% of cases were missing race information. Comparatively, 2013 had 14% of cases missing race.

The majority of Arizona counties had higher rates* of new syphilis in 2017 than in 2016.

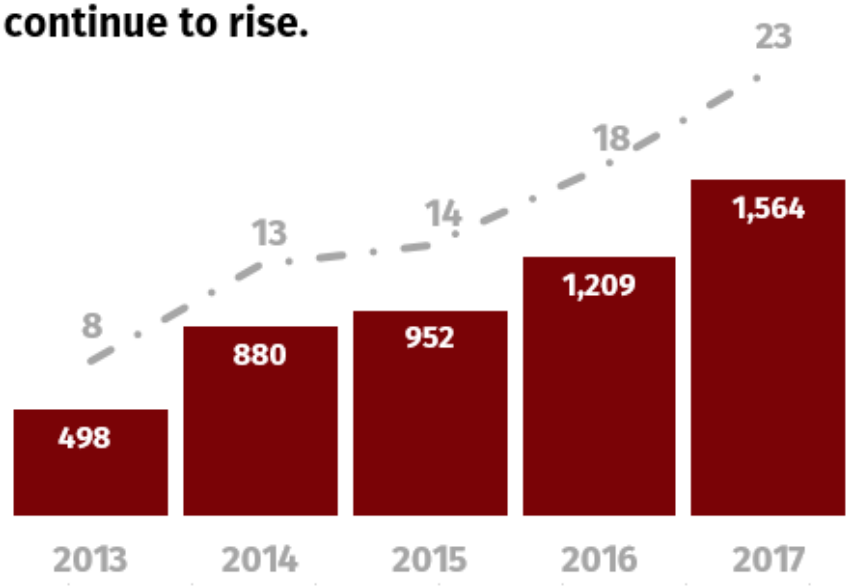


Gila County has the highest rate* of new syphilis, followed by Maricopa County and Graham County.

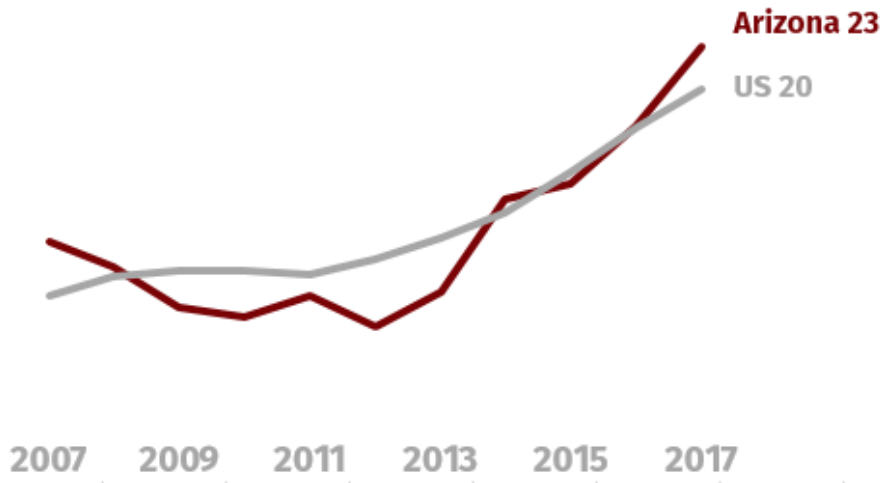


*Rates calculated per 100,000
**Numbers included in this dashboard reflect primary, secondary, and early syphilis only.

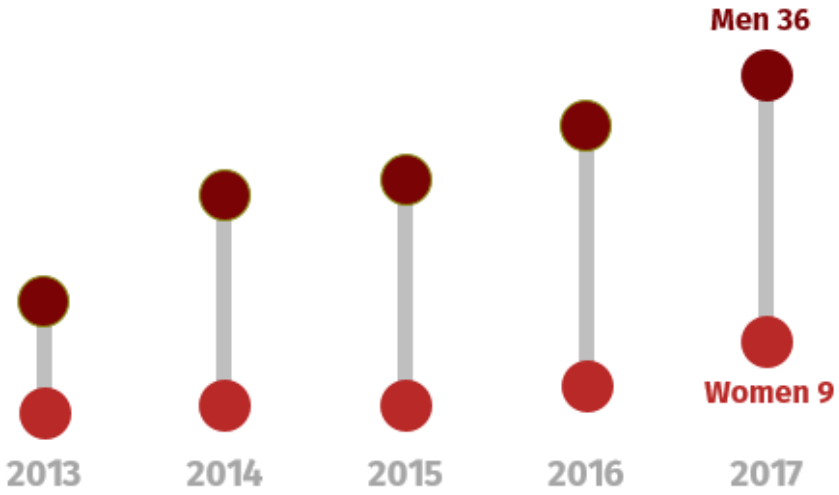
In Arizona, new syphilis cases and rates* continue to rise.



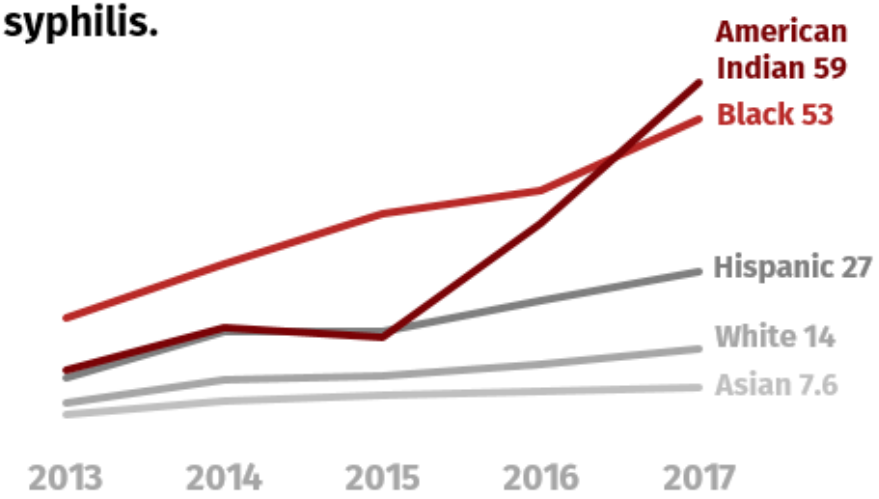
Arizona has a higher rate* of new syphilis than the United States.



Syphilis rates* are higher in men than in women.

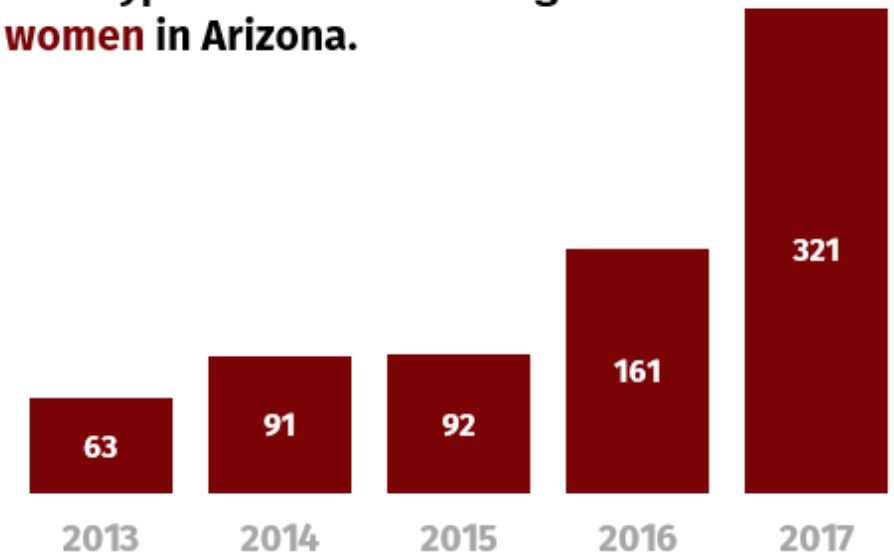


The American Indian population surpassed the Black population for the highest rate* of syphilis.

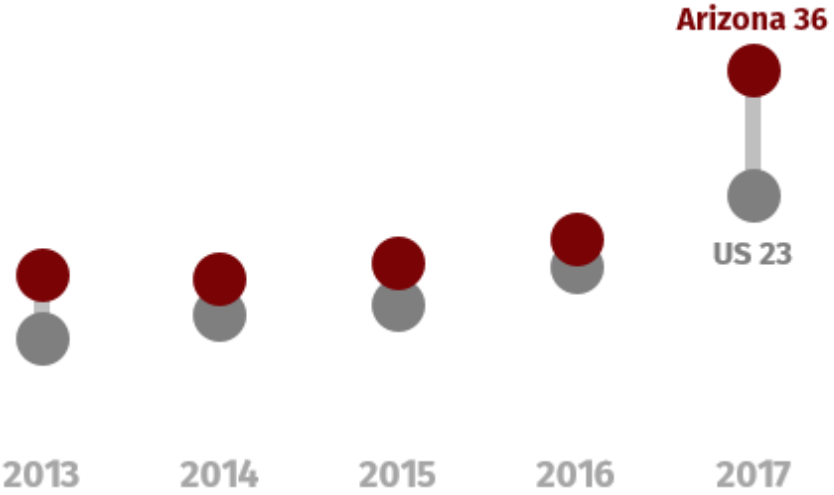


*Rates calculated per 100,000
**Numbers included in this dashboard reflect primary, secondary, and early syphilis only.

New syphilis cases are rising in women in Arizona.

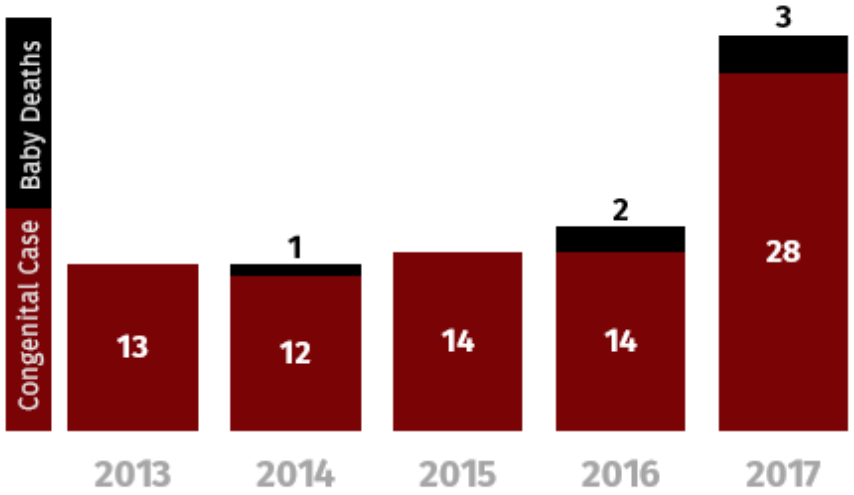


Arizona has a higher rate* of congenital syphilis than the United States.



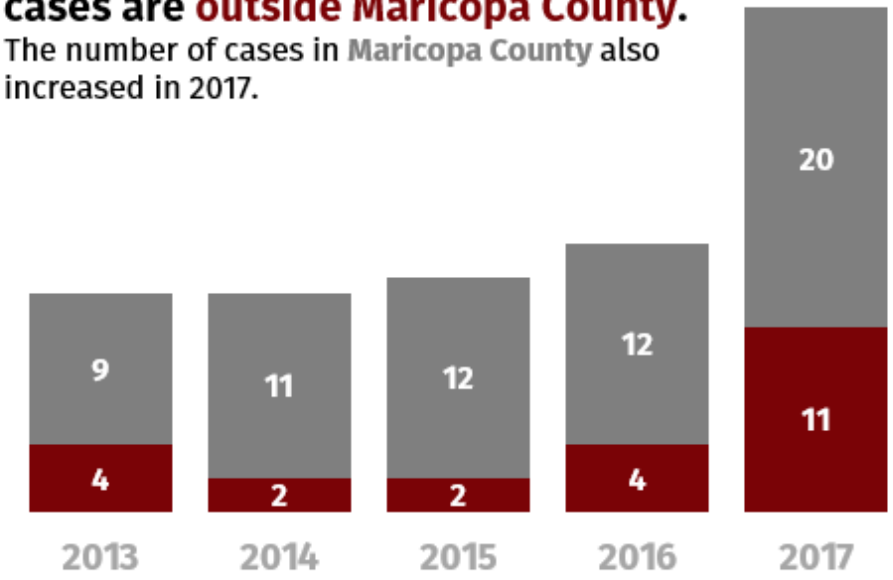
The number of Arizona congenital syphilis cases doubled in 2017.

Syphilitic **baby deaths** have also increased.



An increasing proportion of congenital cases are outside Maricopa County.

The number of cases in Maricopa County also increased in 2017.



*Rates for congenital syphilis calculated per 100,000 live births

Appendix 2: Tables

Table 1

Sexually Transmitted Diseases: Cases and Rates per 100,000 by County, Arizona, 2017*

County	Chlamydia		Gonorrhea		New Syphilis**		Congenital Syphilis***	
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Apache	639	874.0	167	228.4	14	19.1	0	0.0
Cochise	455	361.8	97	77.1	11	8.7	*	*
Coconino	1,059	751.6	212	150.5	25	17.7	*	*
Gila	216	403.3	74	138.2	52	97.1	*	*
Graham	188	500.0	48	127.7	14	37.2	0	0.0
Greenlee	25	260.1	*	*	0	0.0	0	0.0
La Paz	76	374.1	33	162.4	*	*	*	0.0
Maricopa	25,351	597.5	8,914	210.1	1,154	27.2	20	37.0
Mohave	536	261.1	159	77.5	6	2.9	*	*
Navajo	884	803.4	336	305.4	11	10.0	0	0.0
Pima	6,632	652.6	1,573	154.8	183	18.0	*	*
Pinal	1,607	384.0	527	125.9	61	14.6	*	*
Santa Cruz	253	550.2	47	102.2	*	*	0	0.0
Yavapai	486	215.5	86	38.1	*	*	0	0.0
Yuma	1,228	597.2	240	116.7	25	12.2	*	*
Arizona	39,635	571.8	12,514	180.5	1,564	22.6	31	35.5

*Case counts under 6 are excluded. Associated rates may also be excluded.
**New syphilis includes Primary, Secondary, and Early Syphilis.
***Congenital syphilis rates are calculated using 2016 live births as denominator.

Table 2

Chlamydia Cases and Case Rate per 100,000 by Age Group, Arizona 2015-2017

	2015		2016		2017	
Age Group*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
10-14	149	33	193	42	188	41
15-19	7,645	1,682	8,356	1,813	9,302	1,994
20-24	12,612	2,579	13,046	2,677	14,508	2,993
25-29	6,152	1,361	6,683	1,433	7,736	1,597
30-34	2,882	647	3,116	697	3,610	805
35-39	1,427	344	1,611	381	2,069	477
40-44	755	179	867	207	976	237
45-49	448	110	495	120	577	137
50-54	239	55	310	72	342	80
55-59	114	28	136	32	193	45
60-64	54	14	56	14	78	20
65+	34	3.2	45	4.0	48	4.1
Total	32,511	483	34,923	511	39,633	572
	N	**%**	**N**	**%**	**N**	**%**
Under 25	20,406	63%	21,595	62%	23,998	61%
Under 30	26,558	82%	28,278	81%	31,734	80%

*Ages 0-9 not shown. Arizona rate reflects all ages. Rates are calculated per 100,000.

Table 3

Chlamydia Cases by Age Group and County, Arizona 2017

Age Group	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
Apache	*	97	187	143	95	62	21	15	7	6	*	*	639
Cochise	*	148	146	84	40	15	8	*	*	*	*	*	455
Coconino	*	275	432	180	70	57	20	10	7	*	*	0	1,059
Gila	*	44	68	52	22	16	0	*	*	0	*	0	216
Graham	*	57	62	34	17	*	8	*	0	0	0	0	188
Greenlee	0	9	6	7	*	0	*	0	0	0	0	0	25
La Paz	0	13	30	13	10	6	*	*	0	*	*	0	76
Maricopa	118	5,714	9,141	5,095	2,371	1,372	652	414	253	129	57	28	25,344
Mohave	*	142	204	97	45	18	13	8	*	*	0	*	536
Navajo	10	240	248	172	106	59	24	10	10	*	*	*	884
Pima	38	1,693	2,638	1,169	499	277	152	72	39	32	12	10	6,631
Pinal	*	448	568	291	134	92	35	16	10	8	0	*	1,607
Santa Cruz	*	69	104	52	14	6	*	*	0	*	0	0	253
Yavapai	*	138	178	88	44	16	9	*	*	*	*	*	486
Yuma	*	215	496	259	142	68	25	14	6	*	0	0	1,228
Arizona	188	9,302	14,508	7,736	3,610	2,069	976	577	342	193	78	48	39,627

*Denotes count <6

Table 4

Gonorrhea Cases and Case Rate per 100,000 Population by Age Group, Arizona 2015-2017

	2015		2016		2017	
Age Group*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
10-14	36	7.9	48	10	54	12
15-19	1,261	277	1,515	329	1,853	397
20-24	2,515	514	3,022	620	3,225	665
25-29	1,801	398	2,228	478	2,801	578
30-34	1,091	245	1,378	308	1,773	395
35-39	617	149	763	180	1,128	260
40-44	375	89	541	129	633	154
45-49	251	62	376	91	462	110
50-54	165	38	260	60	297	70
55-59	81	20	112	26	164	38
60-64	40	11	49	13	68	17
65+	25	2.3	32	2.9	49	4.2
Total	8,259	123	10,330	151	12,513	181
	N	**%**	**N**	**%**	**N**	**%**
Under 25	3,812	46%	4,585	44%	5,132	41%
Under 30	5,613	68%	6,813	66%	7,933	63%

*Ages 0-9 not shown. Arizona rate reflects all ages. Rates are calculated per 100,000.

Table 5

Gonorrhea Cases and Cases per 100,000 by Age Group and County, Arizona 2017

Age Group	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
Apache	*	14	34	48	26	15	12	*	*	*	*	0	164
Cochise	0	18	25	25	11	10	*	*	*	*	*	0	97
Coconino	*	25	44	59	35	27	11	*	*	*	*	*	211
Gila	0	7	19	21	15	6	*	*	0	*	0	0	74
Graham	0	*	16	13	9	*	*	0	0	*	0	0	48
Greenlee	0	0	0	0	0	0	*	0	0	0	0	0	*
La Paz	0	6	12	*	*	*	*	*	0	*	0	0	33
Maricopa	37	1,391	2,292	1,942	1,249	799	442	345	220	116	43	35	8,911
Mohave	*	19	45	35	28	13	10	*	*	*	0	0	159
Navajo	*	63	89	78	56	25	9	9	*	0	0	*	336
Pima	10	196	395	360	227	144	95	58	42	24	13	9	1,573
Pinal	*	64	151	115	69	52	31	21	14	6	*	*	527
Santa Cruz	0	12	12	11	*	*	*	*	*	*	0	0	47
Yavapai	0	13	20	23	9	6	*	*	*	0	*	*	86
Yuma	0	21	71	66	34	20	10	10	6	*	0	0	240
Arizona	54	1,853	3,225	2,801	1,773	1,128	633	462	297	164	68	49	12,507

*Denotes count <6

Table 6

New Syphilis Cases and Case Rate per 100,000 Population by Age Group, Arizona 2015-2017

	2015		2016		2017	
Age Group*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
10-14	0	0.0	0	0.0	*	0.2
15-19	44	9.7	62	13	85	18
20-24	178	36	204	42	244	50
25-29	174	38	227	49	318	66
30-34	140	31	172	38	265	59
35-39	122	29	136	32	197	45
40-44	77	18	109	26	123	30
45-49	86	21	121	29	109	26
50-54	69	16	102	24	114	27
55-59	33	8.0	37	8.7	59	14
60-64	14	3.7	28	7.2	25	6.3
65+	8	0.7	12	1.1	23	2.0
Total	945	14	1,210	18	1,564	23
	N	**%**	**N**	**%**	**N**	**%**
Under 25	222	23%	266	22%	330	21%
Under 30	396	42%	493	41%	648	41%

*Ages 0-9 not shown. Arizona rate reflects all ages. Rates are calculated per 100,000.

Table 7

Early Syphilis Cases and Cases per 100,000 by Age Group and County, Arizona 2017

Age Group	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
Apache	0	0	0	6	0	*	*	0	0	0	*	0	14
Cochise	0	*	*	*	*	*	*	*	0	0	0	0	11
Coconino	0	*	6	*	*	6	*	0	*	*	0	0	25
Gila	0	6	14	13	10	*	*	0	0	*	0	*	52
Graham	0	*	0	9	*	*	0	0	0	0	0	0	14
Greenlee	0	0	0	0	0	0	0	0	0	0	0	0	0
La Paz	0	0	0	0	*	0	0	0	0	0	0	0	*
Maricopa	*	61	170	234	193	147	91	88	89	47	17	15	1,153
Mohave	0	0	*	*	0	0	0	0	0	0	0	*	6
Navajo	0	0	*	0	*	*	*	*	0	0	0	*	11
Pima	0	8	27	30	37	23	12	13	17	7	7	*	183
Pinal	0	*	10	10	11	7	9	*	*	*	0	*	61
Santa Cruz	0	*	0	*	0	0	0	0	0	0	0	0	*
Yavapai	0	*	*	*	0	0	0	0	0	0	0	0	*
Yuma	0	0	7	*	*	*	0	*	*	*	0	*	25
Arizona	*	85	244	318	265	197	123	109	114	59	25	23	1,563

*Denotes count <6

Table 8
Syphilis Cases by Stage, Arizona 2015-2017

	2015		2016		2017	
Stage*	**N**	**%**	**N**	**%**	**N**	**%**
Primary	197	14%	252	14%	340	14%
Secondary	391	26%	470	25%	603	25%
Early Latent	357	24%	488	26%	621	26%
Late Latent	530	36%	679	36%	830	34%
Congenital	14	0.9%	15	0.8%	31	1.2%
Total	1,489		1,904		2,425	

*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 disease to others). Early latent cases were infected sometime within the past year and were symptomatic and infectious sometime within the last year. Late latent cases were infected over a year ago and can no longer spread the disease to others.