

CHAPTER 3

REPORTABLE DISEASES, ARIZONA, 2012-2022

3A. NON-SEXUALLY TRANSMITTED DISEASES

3B. SEXUALLY TRANSMITTED DISEASES

**3C. HUMAN IMMUNODEFICIENCY VIRUS (HIV)
DISEASE AND ACQUIRED IMMUNODEFICIENCY
SYNDROME (AIDS)**



3A.

NON-SEXUALLY TRANSMITTED DISEASES

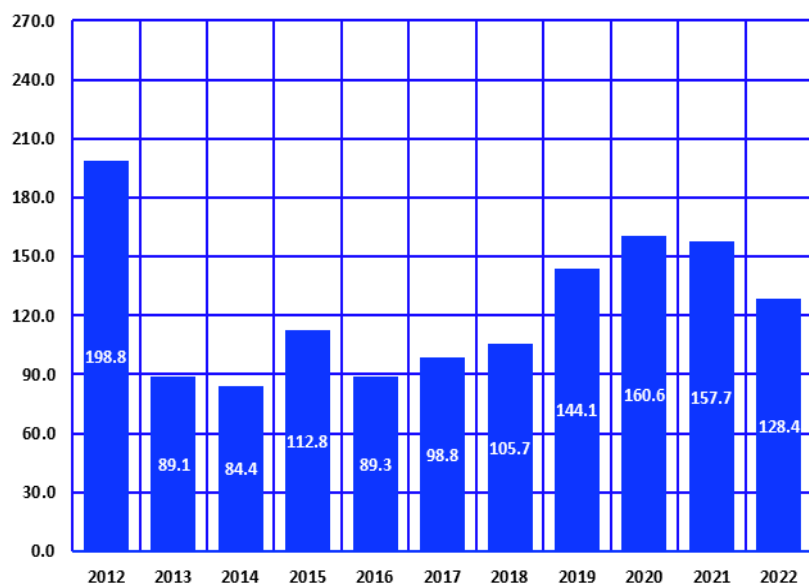
The infectious diseases designated as notifiable vary slightly by state. A notifiable disease is one for which regular, frequent, and timely information regarding individual cases is considered necessary for the prevention and control of the disease. All states generally report the internationally quarantinable diseases (i.e., cholera or plague) in compliance with the World Health Organization's International Health Regulations.

Data on morbidity, levels of disease, and disability in the Arizona population are obtained for certain infectious diseases that must be reported by law. The Bureau of Infectious Disease and Services conducts surveillance and monitoring of these reportable diseases and it provided data for the respective sections of this chapter and sections 5F, 6A, and 6B.

This section provides some illustrative findings from the tabulated data. It is not intended to be an exhaustive analysis of the incidence of infectious diseases in the State. There is more information available online on the website for Infectious Disease Services at: <http://azdhs.gov/phs/oids/index.htm>.

3A. NON-SEXUALLY TRANSMITTED DISEASES

Figure 3A-1
Trends in the Incidence Rates^a of Valley Fever (Coccidioidomycosis) by Year, Arizona, 2012-2022

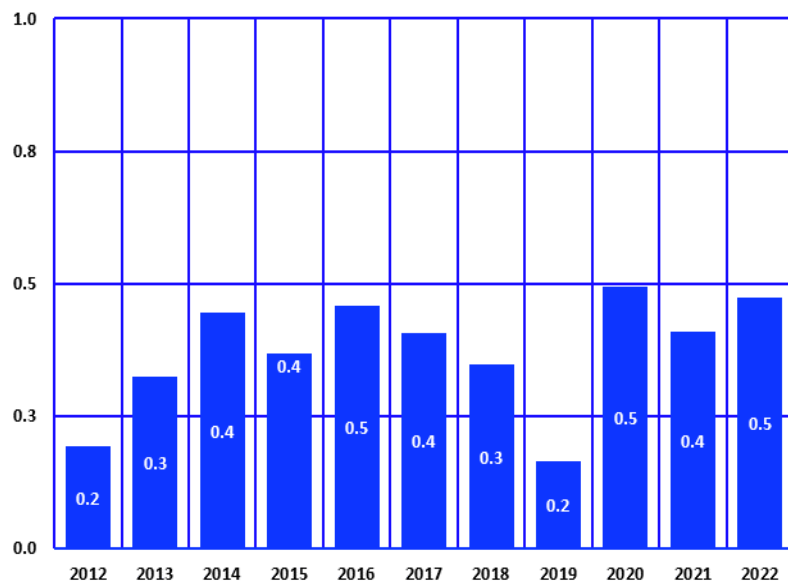


Note: ^a Number of cases per 100,000 population.

Coccidioidomycosis or *Valley Fever* is a fungal infection caused by inhalation of airborne spores that are present in the soil of southwestern United States, California, and parts of Central and South America. Most infections are asymptomatic or self-limited in patients with healthy immune systems. In rare instances, severe lung disease or disseminated infection can develop in patients.

Valley Fever imposed the greatest burden on morbidity among all non-sexually transmitted, notifiable diseases in Arizona in 2022. The reported incidence of Valley Fever decreased 17.2 percent from 2021 (n=11,489) to (n=9,515) in 2022. The 2022 incidence rate of 128.4/100,000 (**Figure 3A-1, Table 5F-2**) was 18.6 percent lower than the incidence rate of 157.7/100,000 in 2021, but was 35.4 percent lower than the unprecedented incidence rate of 198.8/100,000 in 2012.

Figure 3A-2
Trends in Case Fatality Rates^a for Valley Fever (Coccidioidomycosis) by Year, Arizona, 2012-2022



Note: ^a Number of deaths per 100 reported cases.

Forty-five of the 9,515 Arizonans who had *Valley Fever* in 2022 died from it (**Table 3A-2**) for a case fatality rate of 0.5 deaths per 100 cases (**Figure 3A-2**). The 2022 case fatality rate for *Coccidioidomycosis* was 144.4 percent higher than in 2012.

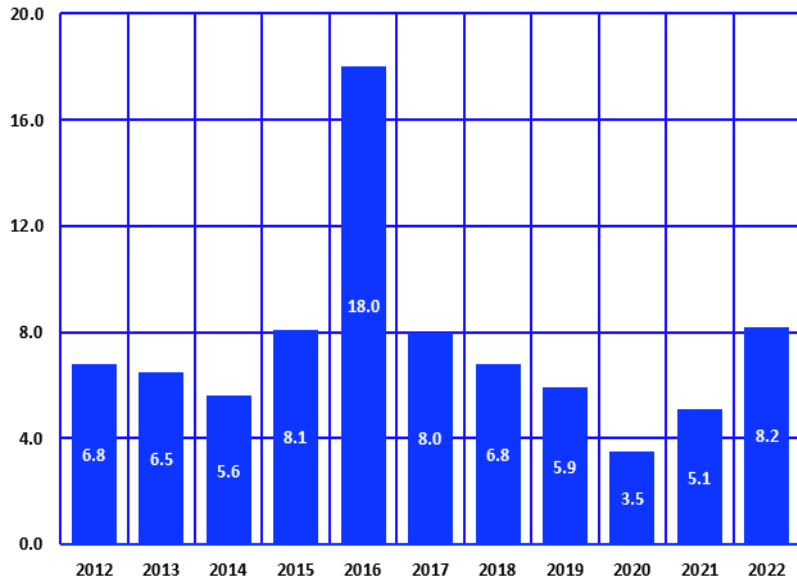
3A. NON-SEXUALLY TRANSMITTED DISEASES

Figure 3A-3
Trends in the Incidence Rates^a of Shigellosis by Year, Arizona, 2012-2022

Shigellosis is an infectious disease caused by a group of bacteria called *Shigella* that can cause diarrhea in humans. To spread from one person to another, *Shigellae* can be transmitted through contaminated foods, sexual contact, and water used for drinking or recreational purposes.

From 2012–2022, *shigellosis* was the third most common enteric disease to afflict Arizonans after *campylobacteriosis* and *salmonellosis* (Table 3A-1).

The number of reported cases of *shigellosis* has increased by 229 cases from 375 in 2021 to 604 in 2022. Compared to 2021, the incidence rate of *shigellosis* was 60.8 percent higher at approximately 8 reported cases/100,000 population in 2022 (Figure 3A-3).

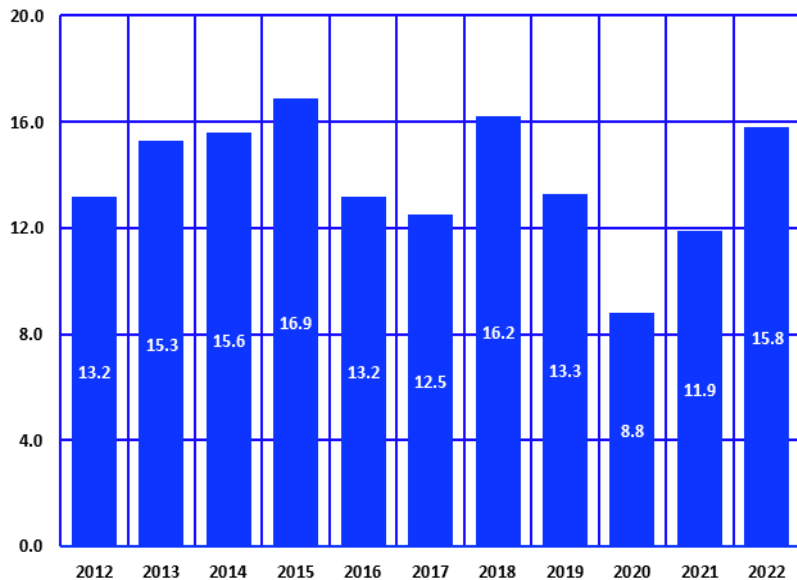


Note: ^a Number of reported cases per 100,000 population.

Figure 3A-4
Trends in the Incidence Rates^a of Salmonellosis^b by Year, Arizona, 2012-2022

Salmonellosis is a bacterial infection. Most of those who are infected with *Salmonella* develop diarrhea, fever, and abdominal cramps.

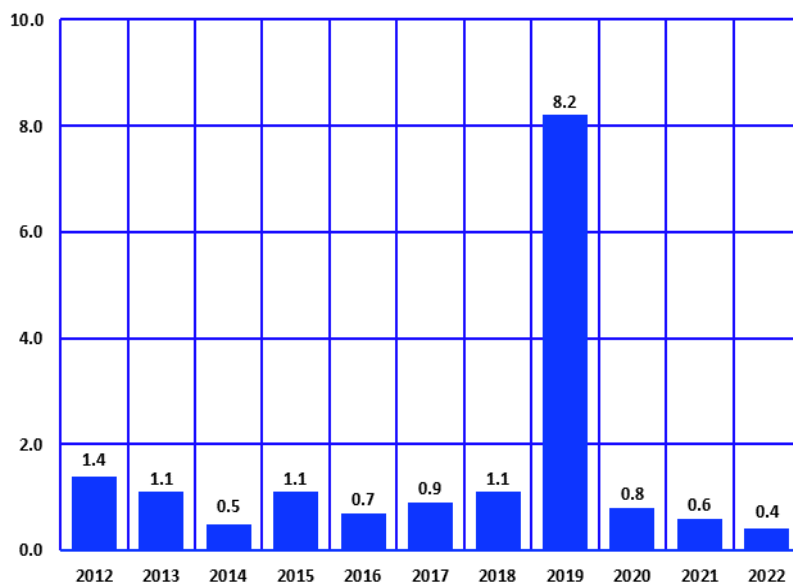
The incidence rate of *salmonellosis* increased 32.8 percent from 11.9/100,000 in 2021 to 15.8/100,000 in 2022 (Figure 3A-4). The risk of *salmonellosis* was substantially higher in Apache (49.4/100,000), Navajo (44.2/100,000), Graham (38.5/100,000), Gila (37.1/100,000), and Greenlee (31.1/100,000) than the remaining counties (Table 5F-2).



Notes: ^a Number of reported cases per 100,000 population; ^b Excluding *S. Typhi* and *S. Paratyphi*.

3A. NON-SEXUALLY TRANSMITTED DISEASES

Figure 3A-5
Trends in the Incidence Rates^a of Hepatitis A by Year, Arizona, 2012-2022

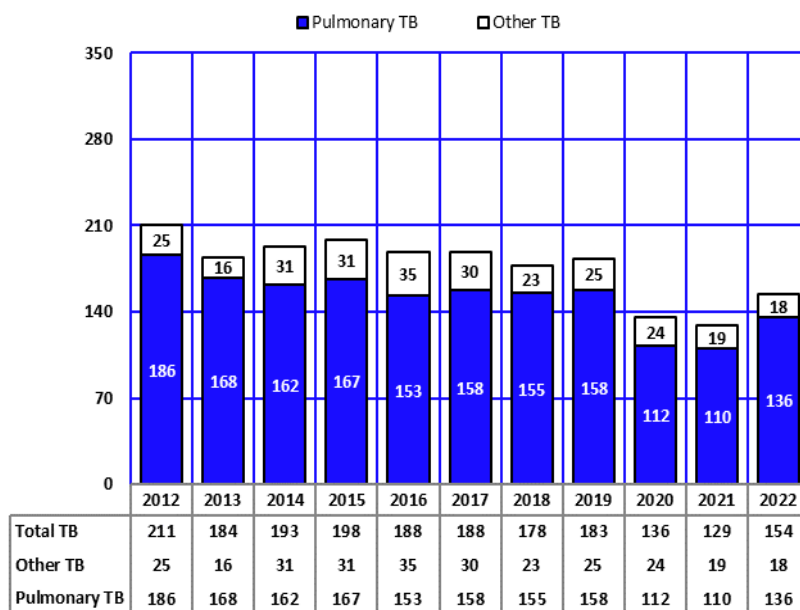


Note: ^a Number of reported cases per 100,000 population.

Hepatitis A is a liver disease caused by the *hepatitis A* virus. During 1995-1996, highly effective *hepatitis A* vaccines became available in the United States. Routine childhood vaccination for *hepatitis A* was recommended in 1999. The expansion of recommendations for routine *hepatitis A* vaccination to include all children in the United States aged 12-23 months is likely to reduce hepatitis rates further.

In Arizona, the incidence rate of *hepatitis A* was 0.4/100,000 in 2022. The highest rate recorded during the 2012-2022 period was 8.2 in 2019. The 2022 incidence rate was approximately 20 times lower than the 2019 rate (8.2/100,000; **Figure 3A-5**).

Figure 3A-6
Trends in the Incidence of Pulmonary Tuberculosis and Total Tuberculosis^a by Year, Arizona, 2012-2022



Note: ^a Number of reported cases by year.

Tuberculosis (TB) is an infectious disease that usually attacks the lungs, but can attack almost any part of the body. Tuberculosis is spread from person to person through the air.

The number of reported cases of *pulmonary tuberculosis* increased from 110 cases in 2021 to 136 reported cases in 2022. The number of reported cases of tuberculosis other than pulmonary decreased from 19 in 2021 to 18 in 2022 cases (**Figure 3A-6, Table 3A-1**). The incidence rate of *total* tuberculosis increased from 2021 1.8/100,000 to 2.1/100,000 in 2022 (**Table 5F-2**).

Pulmonary tuberculosis accounted for 88.3 percent of all tuberculosis infections in 2022 (**Table 3A-1**). Ten Arizonans who had *tuberculosis* died from it in 2022, a decrease from 16 in 2021 (**Table 3A-2**).

**TABLE 3A-1
NUMBER OF REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY CATEGORY, ARIZONA, 2012-2022**

Disease	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Vaccine Preventable											
Measles	*	*	*	7	31	0	0	*	0	0	*
Mumps	*	*	12	*	7	34	15	103	10	*	*
Pertussis	1,130	1,440	517	580	287	420	239	379	331	188	106
Pertussis confirmed cases	(575)	(1,068)	(287)	(341)	(154)	(262)	(135)	(207)	(189)	(82)	(17)
Rubella	0	0	0	0	0	*	0	0	*	0	0
Congenital Rubella Syndrome	0	0	0	0	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> type b (invasive, age < 5 years)	*	*	0	*	*	*	*	*	*	0	*
Tetanus	0	0	0	0	*	*	0	*	0	*	0
Varicella (chickenpox)	535	354	300	270	279	189	245	307	72	98	122
Central Nervous System											
Aseptic Meningitis	453	343	288	189	146	81	N/A	N/A	N/A	N/A	N/A
Meningococcal Disease	6	12	9	*	*	*	*	*	*	*	7
Viral Encephalitis	*	*	*	*	*	*	*	16	*	34	36
Enteritides											
Amebiasis	17	21	24	*	6	16	21	20	12	19	11
Campylobacteriosis	940	846	939	1,379	1,241	1,372	1,269	1,615	1,050	1,634	1,508
Cholera	0	0	0	0	0	0	*	0	0	0	0
Cryptosporidiosis	47	42	46	62	549	112	203	143	80	110	127
<i>E. coli</i> O157:H7	141	246	98	128	148	166	296	297	186	280	303
Giardiasis	113	115	119	143	125	145	149	143	84	91	113
Salmonellosis (excl. <i>S. Typhi</i> & <i>S. Paratyphi</i>)	857	1,007	1,040	1,143	899	874	1,149	954	631	868	1,173
<i>Salmonella</i> Paratyphi A	0	*	*	*	*	*	*	*	*	0	0
<i>Salmonella</i> Paratyphi B	*	*	*	16	0	0	0	0	0	0	0
<i>Salmonella</i> Paratyphi C	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	444	428	376	549	1,231	555	478	426	253	375	604
Typhoid Fever	7	12	*	*	9	*	9	7	*	7	*
Mycosis											
Coccidioidomycosis (Valley Fever)	12,920	5,861	5,624	7,622	6,101	6,885	7,478	10,358	11,523	11,489	9,515
Hepatitides											
Hepatitis A	93	73	35	72	46	61	80	590	59	45	29
Hepatitis B (acute)	104	50	38	43	16	41	30	49	33	25	38
Hepatitis D	0	0	*	0	0	0	*	0	0	*	0
Hepatitis E	0	0	*	0	0	*	0	*	*	*	*
Tuberculosis											
Pulmonary TB	186	168	162	167	153	158	155	158	112	110	136
Total TB	211	184	193	198	188	188	178	183	136	129	154

**TABLE 3A-1 (continued)
NUMBER OF REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY CATEGORY, ARIZONA, 2012-2022**

Disease	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Zoonoses/Vector-borne											
Brucellosis	*	*	6	*	*	8	*	*	6	*	*
Colorado Tick Fever	0	0	*	*	0	0	0	0	0	0	*
Dengue	10	*	91	24	14	*	10	18	*	8	18
Ehrlichiosis	*	*	*	*	*	*	*	*	0	*	8
Hantavirus Pulmonary Syndrome	*	*	*	*	*	*	0	0	*	0	*
Human Rabies	0	0	0	0	0	0	0	0	0	0	0
Lyme Disease	13	32	21	12	13	28	7	10	*	*	9
Malaria	19	33	25	14	38	26	24	30	12	26	26
Plague	0	0	0	*	0	*	0	0	*	0	0
Relapsing Fever, Tick-borne	*	*	12	*	*	*	*	*	0	0	*
Rocky Mountain Spotted Fever	50	63	16	17	23	27	38	48	35	16	38
St. Louis Encephalitis	0	0	*	23	0	6	0	9	6	12	17
Tularemia	0	0	0	*	*	*	0	*	*	0	*
West Nile Virus	135	62	108	103	78	110	27	174	11	1,710	60
Other											
Botulism	12	*	*	*	*	*	12	*	7	*	*
Legionellosis	44	69	59	93	76	74	83	93	90	112	123
Listeriosis	14	*	14	*	6	8	6	13	7	9	8
Methicillin Resistant <i>S. aureus</i> (invasive)	1,089	1,066	1,178	1,155	1,265	1,355	1,529	1,467	1,681	1,498	1,462
Streptococcal-Group A (invasive)	199	231	250	351	555	614	758	790	805	966	1,231
Streptococcal-Group B (invasive, age <90 d)	57	35	41	61	60	63	40	44	37	28	34
<i>Streptococcus pneumoniae</i> (invasive)	661	786	724	678	716	707	862	740	668	798	1,228
Toxic Shock Syndrome	*	*	6	*	*	0	*	0	*	0	*
<i>Vibrio</i> spp. (except toxogenic <i>V.cholerae</i>)	29	19	36	33	19	25	54	52	34	51	78
Yersiniosis (except <i>Y. pestis</i>)	10	9	*	12	14	20	11	58	53	72	106

Notes: * Cell suppressed due to non-zero count less than 6; Non-resident cases have been excluded. Only incident cases are reported. Cases are counted by date reported to public health. Case counts include both probable and confirmed cases unless otherwise indicated. *E. coli* has included both *E. coli* O157:H7 and Shiga-toxin positive *E. coli* since October 2004. *Haemophilus influenzae* type B includes all invasive *H. influenzae* B, not just meningitis, as of 1995. Meningococcal disease includes all invasive disease caused by *Neisseria meningitidis*, not just meningitis. Animal rabies cases are not included. Reported cocciidomycosis cases were elevated from June 2009 through December 2012 and then declined in 2013 due to changes in reporting practices and laboratory testing from a major commercial laboratory. A change in the criteria for counting Lyme disease in 2013 may account for the increase in cases in that year. Aseptic meningitis and Reyes syndrome ceased being reportable in January 2018. For additional statistics on these diseases, please see: <https://azdhs.gov/preparedness/epidemiology-disease-control/index.php#data-stats>

Source: Arizona Department of Health Services, Bureau of Infectious Disease and Services.

**TABLE 3A-2
NUMBER OF DEATHS FROM SELECTED NOTIFIABLE DISEASES BY CATEGORY AND YEAR,
ARIZONA, 2012-2022**

ICD-9/ICD-10 codes	Disease	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
VACCINE PREVENTABLE												
055/B05	Measles	0	0	0	0	0	0	0	0	0	0	0
072/B26	Mumps	0	0	0	*	0	0	0	0	0	0	0
033/A37	Whooping cough (pertussis)	0	0	0	0	*	*	0	0	0	0	0
056/B06	Rubella	0	0	0	0	0	0	0	0	0	0	0
052/B01	Chickenpox	*	0	*	0	0	0	*	*	0	0	0
CENTRAL NERVOUS SYSTEM												
047.9/G03.0	Aseptic meningitis	*	0	0	*	0	*	*	0	*	*	*
036/A39	Meningococcal infections	*	*	*	0	0	0	0	*	0	0	*
049.9/A86	Viral encephalitis	*	*	*	*	*	*	*	*	*	6	*
ENTERITIDES (FOODBORNE)												
006/A06	Amebiasis	0	0	*	0	0	0	0	0	0	0	0
007.1/A07.1	Giardiasis	0	0	0	0	0	0	0	0	0	0	0
003/A02	Salmonellosis (except typhoid)	0	0	*	*	*	*	*	*	*	*	*
004/A03	Shigellosis	0	*	*	*	0	0	0	0	0	0	0
002/A01	Typhoid	0	0	0	0	0	0	0	0	0	0	0
MYCOSIS												
114/B38	Coccidioidomycosis (Valley Fever)	25	19	25	28	28	28	26	17	57	47	45
HEPATITIDES												
070.0-070.1/B15	Hepatitis A	*	*	*	0	0	0	0	6	0	*	0
070.2-070.3/B16	Hepatitis B	12	9	8	8	10	*	6	6	*	*	*
070.4-070.5/B17-B18	Other viral hepatitis	274	265	248	257	207	191	133	96	90	73	74
070.6-070.9/B19	Unspecified	0	*	*	*	0	*	*	*	*	*	*
TUBERCULOSIS												
010-011/A15-A16	Respiratory TB	*	11	6	9	6	7	*	*	11	8	7
010-018/A15-A19	Total TB	*	15	8	10	7	10	10	10	15	16	10
ZOONOSES/VECTOR-BORNE												
023.9/A23	Brucellosis	0	0	0	*	0	0	0	0	0	0	0
061/A90	Dengue	0	0	0	0	0	0	0	0	0	0	0
071/A82	Human Rabies	0	0	0	0	0	0	0	0	0	0	0
084/B50-B54	Malaria	0	*	0	0	0	0	0	0	0	0	0
020/A20	Plague	*	0	0	0	0	0	0	0	0	0	0
082/A77.0	Rocky Mountain Spotted Fever	0	*	0	0	*	*	0	0	0	*	0
021/A21	Tularemia	0	0	*	0	0	0	0	0	0	0	0
OTHER												
482.8/A48.1	Legionellosis	*	*	*	*	*	0	6	*	*	*	*
027.0/A32	Listeriosis	*	0	*	0	0	0	0	*	0	0	0
331.8/G93.7	Reyes Syndrome	0	0	0	0	0	0	0	0	0	0	0
995.0/A48.3	Toxic Shock Syndrome	0	0	0	0	*	0	0	*	0	*	*

Note: * Cell suppressed due to non-zero count less than 6.



3B.

SEXUALLY TRANSMITTED DISEASES

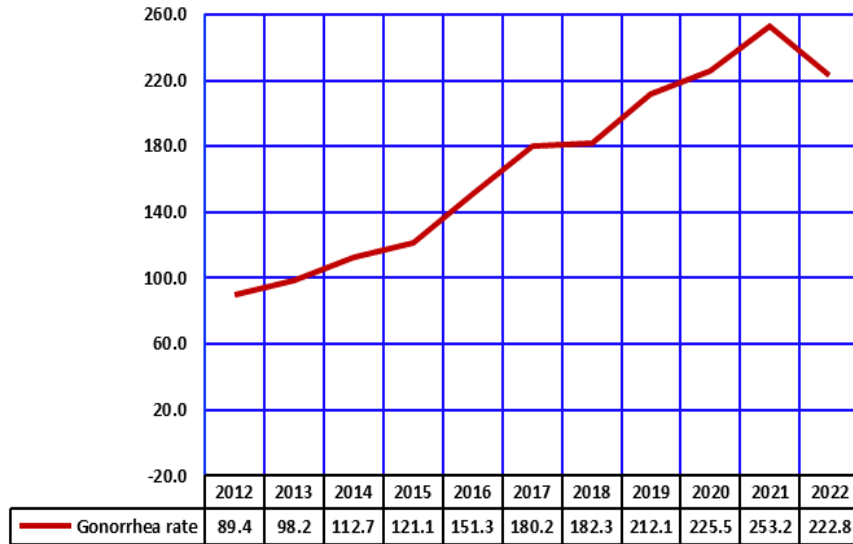
All states require that certain sexually transmitted diseases (STDs) be reported by physicians and other health care providers when they suspect that a case has occurred or they have laboratory confirmation.

It is important to note that disease reporting is likely incomplete and completeness may vary depending on the disease. Moreover, changes in methods for public health surveillance, or implementation of new diagnostic tests can cause changes in disease reporting that are independent of the true incidence of disease.* In this section, STD rates were calculated using denominators from the CDC for years prior to 2018. In the current report, the Arizona Department of Health Services denominators were used to compute the STD rates.

*Centers for Disease Control and Prevention. Summary of notifiable diseases – United States, 2008. Published June 25, 2010, for 2008; Vol. 57 (No. 54). Available online at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5754a1.htm>

3B. SEXUALLY TRANSMITTED DISEASES

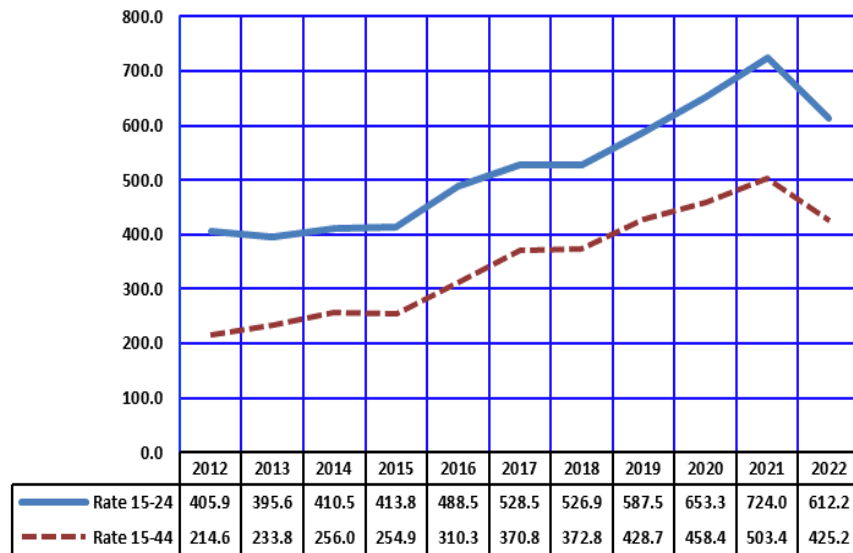
Figure 3B-1
Trends in the Incidence Rates^a of Gonorrhea by Year, Arizona, 2012-2022



Neisseria gonorrhoeae infection is the second most commonly reported notifiable disease in the United States. (Figure 3B-1). Although there was a slight rate decrease in 2022, the consistent steady increase in the incidence rate of gonorrhea since 2012 likely resulted from a combination of factors, such as changes in surveillance, increases in the number of tests performed, and actual increases in disease occurrence (Figure 3B-1).

Note: ^a Number of reported cases per 100,000 population.

Figure 3B-2
Trends in the Incidence Rates^a of Gonorrhea among Females aged 15-24 and 15-44 Years, Arizona, 2012-2022



The 2022 incidence rate for gonorrhea was 425.2 per 100,000 for Arizona females aged 15-44 years. Additionally, in 2022 the gonorrhea incidence rate in Arizona females 15-44 years of age was less than incidence rate of females 15-24 years old, which was 612.2 per 100,000.

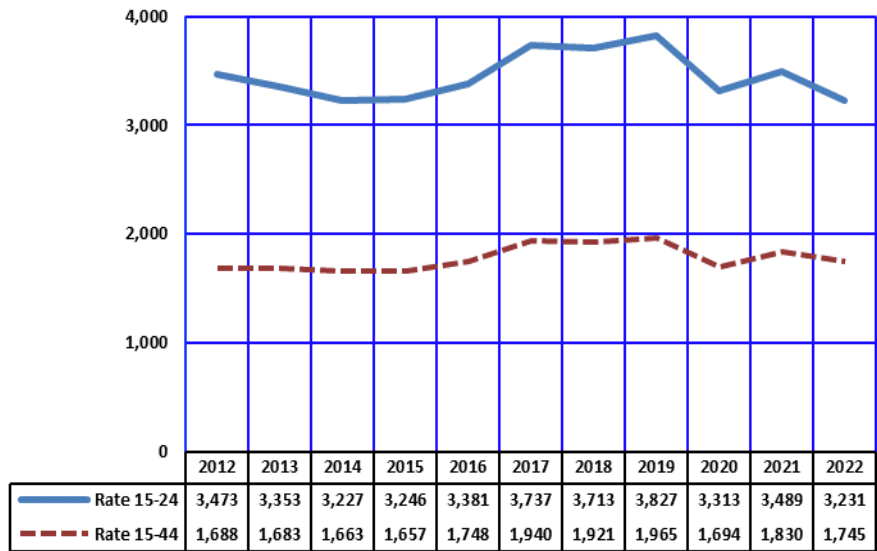
Notes: ^a Number of reported cases per 100,000 females

3B. SEXUALLY TRANSMITTED DISEASES

Figure 3B-3
Trends in the Incidence Rates^a of Chlamydia among Females 15-24 and 15-44 Years, Arizona, 2012-2022

Chlamydia trachomatis is the most prevalent bacterial sexually transmitted disease in the United States (1,649,716 cases in 2022*) with the highest rates reported among adolescents and young adults (**Table 3B-4**). Recent availability of sensitive tests for *chlamydia* using DNA amplification technology undoubtedly contributed to the increase in the number of reported cases in Arizona over the last decade (**Figure 3B-3**, **Table 3B-1**).

The incidence rate of chlamydia among females 15-44 has decreased from 1,830 per 100,000 females to 1,745 per 100,000 females within the age group.



*Most recent publication <https://www.cdc.gov/std/statistics/2022/overview.htm#Chlamydia>

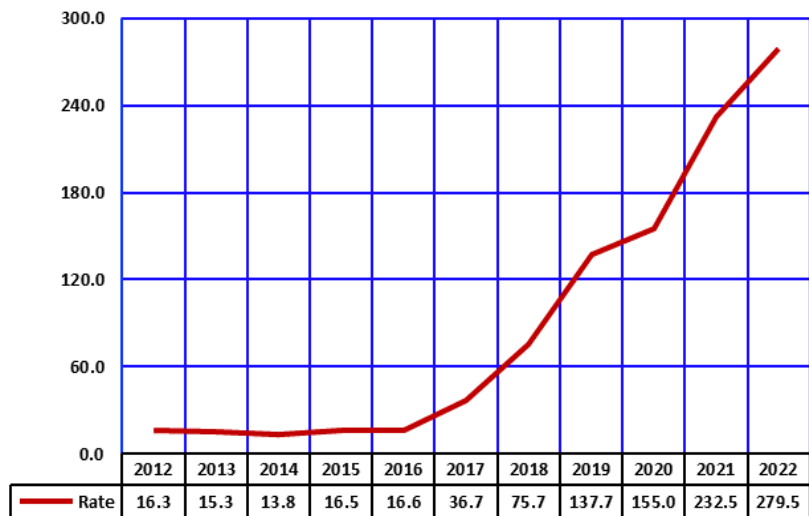
Notes: ^a Number of reported cases per 100,000 females

Congenital syphilis is an infection caused by the spirochete *Treponema pallidum*, which can be passed from the mother to child during fetal development or birth. Not all infants born to infected women will be infected.

In 1988, CDC implemented a new Congenital syphilis case definition. It no longer relies on documentation of infection in the infant; rather, it presumes that an infant is infected if it cannot be proven that an infected mother was adequately treated for syphilis before or during pregnancy.

The Arizona incidence rates of congenital syphilis were for the most part below 20 cases per 100,000 infants from 2012-2016. In 2017, a sharp increase in the incidence was recorded (36.7/100,000), in 2018, the rate more than doubled at 75.7/100,000 and in 2022, the rate was the highest recorded during the 11-year period at 279.5/100,000. (**Figure 3B-4**, **Table 6A-2**).

Figure 3B-4
Trends in the Incidence Rates^a of Congenital Syphilis by Year, Arizona, 2012-2022



Notes: ^a Number of reported cases per 100,000 births.

**TABLE 3B-1
NUMBER OF REPORTED CASES OF SEXUALLY TRANSMITTED DISEASES BY CATEGORY AND YEAR, ARIZONA, 2012-2022**

Disease	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gonorrhea	5,856	6,505	7,585	8,270	10,330	12,514	12,903	15,249	16,180	18,446	16,508
Gonococcal PID^a	0	0	0	0	0	*	17	18	27	14	13
Resistant Gonorrhea^b	0	0	*	0	0	0	0	0	0	0	0
Syphilis (P & S)^c	204	290	572	590	721	943	1,052	1,297	1,442	1,981	2,153
Syphilis-Total^d	795	966	1,434	1,482	1,903	2,424	3,258	4,044	4,428	6,329	7,503
Chlamydia	30,571	30,923	31,750	32,511	34,923	39,635	40,866	43,219	36,977	41,517	40,816

Notes: * Cell suppressed due to non-zero count less than 6; ^a PID is pelvic inflammatory disease; ^b Includes PPNG, penicillinase-producing Neisseria gonorrhoeae, a form of gonorrhea which is resistant to penicillin; ^c Primary and secondary syphilis only; ^d Early, late, congenital and other; since 2005, the table includes all positive laboratory results for chlamydia and gonorrhea with or without communicable disease report.

Source: Arizona Department of Health Services, Bureau of Epidemiology and Disease Control, Office of STI Control.

**TABLE 3B-2
NUMBER OF DEATHS ASSOCIATED WITH SPECIFIED SEXUALLY TRANSMITTED DISEASES BY CATEGORY AND YEAR,
ARIZONA, 2012-2022**

Disease	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gonococcal infections	0	0	0	0	0	0	0	0	0	*	0
Syphilis-Total	*	*	*	0	*	*	*	0	0	*	0

Notes: * Cell suppressed due to non-zero count less than 6; Number of deaths associated with Syphilis are still birth (congenital syphilis); Number of deaths from death records attributed to Gonorrhea or Syphilis based on ICD code. Note this method differs from Nationally Notifiable Disease Surveillance System criteria, and information from these two systems is not comparable.

**TABLE 3B-3
FREQUENCY OF REPORTED CASES OF GONORRHEA, CHLAMYDIA, AND EARLY SYPHILIS
BY AGE AND GENDER, ARIZONA, 2022**

Age group	GONORRHEA				CHLAMYDIA				EARLY SYPHILIS			
	Males	Females	Unknown or Transgender	Total	Males	Females	Unknown or Transgender	Total	Males	Females	Unknown or Transgender	Total
0-4	*	7	0	10†	6	6	0	12	0	0	0	0
5-9	0	0	0	0	*	0	0	0†	0	0	0	0
10-14	6	33	0	39	27	138	0	165	0	*	0	0†
15-19	854	1,114	7	1,975	2,054	5,802	21	7,877	66	60	0	126
20-24	2,128	1,823	6	3,957	4,420	9,699	35	14,154	302	172	0	474
25-29	2,009	1,194	*	3,207	3,244	4,879	13	8,136	447	222	0	669
30-34	1,788	993	*	2,782	2,244	2,573	7	4,824	517	203	0	720
35-39	1,176	544	*	1,723	1,194	1,223	*	2,422	374	169	0	543
40-44	778	390	*	1,170	716	691	*	1,411	301	131	0	432
45-49	450	208	0	658	429	339	*	769	177	61	0	238
50-54	333	118	0	451	311	185	*	497	166	40	0	206
55-59	234	57	*	293	208	95	0	303	166	21	0	187
60-64	125	34	0	159	116	38	0	154	78	7	0	85
65-over	67	18	0	85	65	26	0	91	48	*	0	50†
Total	9,950†	6,533	30†	16,508	15,040†	25,694	90†	40,820†	2,642	1,090†	0	3,730†

Notes: * Cell suppressed due to non-zero count less than 6; † Sum rounded to nearest tens unit due to non-zero addend less than 6; since 2005, the table includes all positive laboratory results for chlamydia and gonorrhea with or without communicable disease report.

Source: Arizona Department of Health Services, Bureau of Infectious Disease and Services, Office of STI Control.

**TABLE 3B-4
RATES^a OF REPORTED CASES OF GONORRHEA, CHLAMYDIA, AND EARLY SYPHILIS
BY AGE AND GENDER, ARIZONA, 2022**

Age group	GONORRHEA			CHLAMYDIA			EARLY SYPHILIS		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
0-4	**	3.4	2.1	2.8	2.9	2.8	0.0	0.0	0.0
5-9	0.0	0.0	0.0	**	0.0	**	0.0	0.0	0.0
10-14	2.5	14.1	8.2	11.1	59.0	34.6	0.0	**	**
15-19	347.0	473.5	410.3	834.6	2465.9	1636.3	26.8	25.5	26.2
20-24	818.5	745.8	784.5	1700.2	3967.8	2806.0	116.2	70.4	94.0
25-29	730.1	470.2	606.1	1178.9	1921.2	1537.7	162.4	87.4	126.4
30-34	690.9	411.5	556.3	867.1	1066.2	964.6	199.8	84.1	144.0
35-39	488.6	235.5	365.3	496.1	529.4	513.5	155.4	73.2	115.1
40-44	350.7	178.3	265.6	322.8	315.9	320.3	135.7	59.9	98.1
45-49	209.4	95.6	152.2	199.7	155.8	177.8	82.4	28.0	55.0
50-54	158.3	54.7	105.9	147.8	85.8	116.6	78.9	18.5	48.3
55-59	107.7	24.7	65.3	95.8	41.1	67.6	76.4	9.1	41.7
60-64	59.4	14.5	35.7	55.1	16.2	34.6	37.1	3.0	19.1
65-over	10.6	2.4	6.2	10.3	3.5	6.6	7.6	**	3.9
Total	270.5	175.1	222.8	408.7	688.8	550.9	71.8	29.3	50.4

Notes: ** Cell suppressed due to rate/ratio/percent based on non-zero count less than 6; ^a Number of cases per 100,000 population; table includes all positive laboratory results for chlamydia and gonorrhea with or without communicable disease report in 2022; denominators for unknown or transgender category are not available; rates per 100,000 population.

Source: Arizona Department of Health Services, Bureau of Infectious Disease and Services, Office of STI Control.

**TABLE 3B-5
FREQUENCY OF REPORTED CASES, PERCENT DISTRIBUTION AND RATES OF EARLY AND LATE SYPHILIS,
GONORRHEA, AND CHLAMYDIA BY RACE/ETHNICITY, ARIZONA, 2022**

Race/ethnicity	SYPHILIS						GONORRHEA						CHLAMYDIA		
	Early			Late			Resistant			Total			Cases	%	Rate
	Cases	%	Rate	Cases	%	Rate	Cases	%	Rate	Cases	%	Rate			
White Non-Hispanic	917	24.6	22.5	705	19.9	17.3	0	0.0	0.0	3,220	19.5	79.1	6,573	16.1	161.4
Black or African American	470	12.6	122.8	391	11.0	102.2	0	0.0	0.0	2,446	14.8	639.2	3,706	9.1	968.5
Hispanic or Latino	1,477	39.6	62.5	1,440	40.6	61.0	0	0.0	0.0	4,844	29.3	205.1	11,683	28.6	494.6
Asian or Pacific Islander	49	1.3	16.5	35	1.0	11.8	0	0.0	0.0	168	1.0	56.5	411	1.0	138.3
American Indian or Alaska Native	624	16.7	212.1	624	17.6	212.1	0	0.0	0.0	1,131	6.9	384.5	2,341	5.7	795.8
Multi-racial	98	2.6	N/A	86	2.4	N/A	0	0.0	0.0	365	2.2	N/A	564	1.4	N/A
Not Specified	99	2.7	N/A	264	7.4	N/A	0	0.0	N/A	4,334	26.3	N/A	15,538	38.1	N/A
Total	3,734	100.0	50.4	3,545	100.0	47.8	0	N/A	N/A	16,508	100.0	222.8	40,816	100.0	550.9

Notes: ^a Number of cases per 100,000 population; table includes all positive laboratory results for chlamydia and gonorrhea with or without communicable disease report in 2022; rates per 100,000 population.

Source: Arizona Department of Health Services, Bureau of Infectious Disease and Services, Office of STI Control.



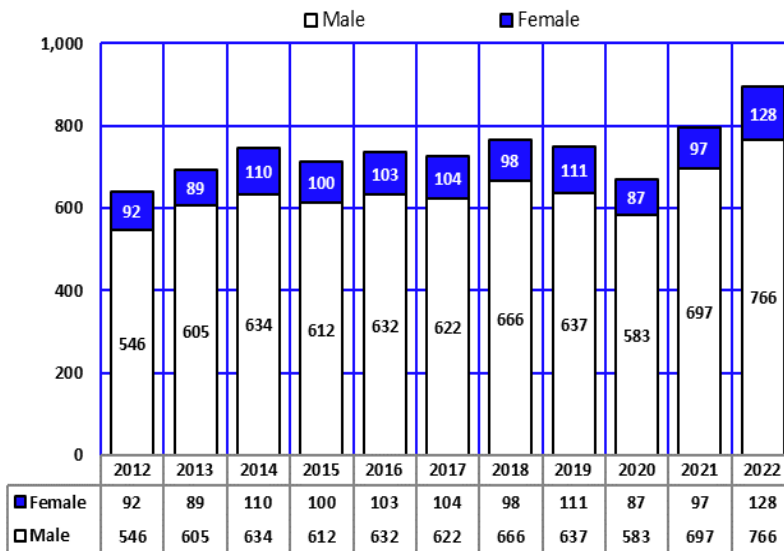
3C.

HUMAN IMMUNODEFICIENCY VIRUS (HIV) DISEASE AND ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

Statistics about the estimated incidence of Human Immunodeficiency Virus (HIV) disease and Acquired Immunodeficiency Syndrome (AIDS) for 1981-2021, as provided by the Office of HIV, STD, and Hepatitis Services, are available in Tables 3C-1, 3C-2, 3C-3, 3C-4, and 5F-3 of this report. In the past, the cases of persons previously reported as HIV positive and subsequently diagnosed with AIDS were not properly counted since these were not new cases, only a new diagnosis reflecting a progression of the disease. The data presented in this report are based on a revised approach adopted by the Office of HIV/AIDS Services. The estimated incidence of HIV/AIDS includes the sum of new HIV cases and new AIDS cases, which were not diagnosed as HIV positive in any prior calendar year. The cases of persons who were diagnosed with both HIV and AIDS in the same calendar year are counted only as AIDS to avoid double counting.

3C. HIV DISEASE AND AIDS

Figure 3C-1
Reported Cases of HIV/AIDS by Gender and Year of Diagnosis,
Arizona, 2012-2022

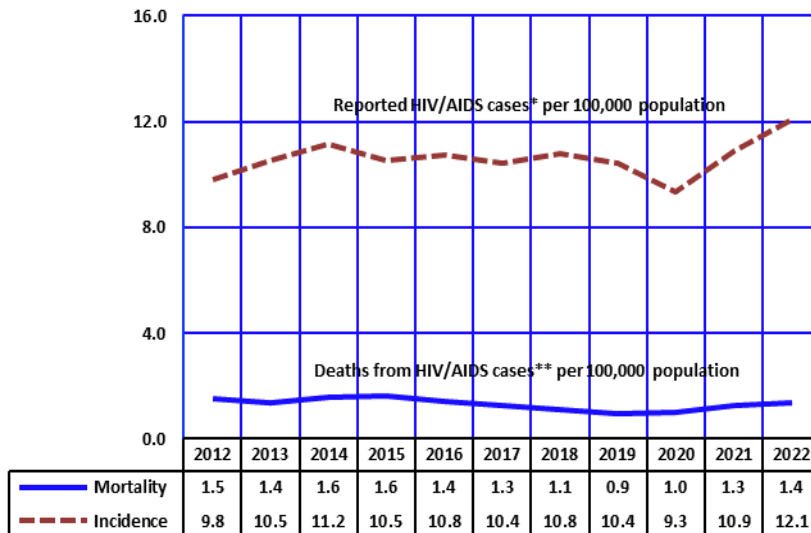


Since the first case of AIDS diagnosed in an Arizona resident in 1981, a total of 25,925 cases of HIV/AIDS had been diagnosed in the State by the end of 2022 and reported by February 29, 2024 (**Table 3C-1**).

In 2022, males accounted for 85.7 percent of all *HIV/AIDS* diagnoses. The male-to-female ratio of *HIV/AIDS* diagnoses in Arizona in 2022 was 6.0:1 (766/128; **Figure 3C-1, Table 3C-2**).

The proportion of risk behaviors attributed to emerging cases of *HIV/AIDS* in 2022 remained similar to previous years. Of the 894 *HIV/AIDS* cases diagnosed in 2022, 505 were among men who reported sexual contact with other men (**Table 3C-4**). Another 36 reported heterosexual contact. An additional 35 reported only injecting drugs. Adults without an indicated risk accounted for 261 of *HIV/AIDS* cases diagnosed in 2022.

Figure 3C-2
Trends in the Incidence Rates of HIV/AIDS and Mortality Rates for HIV Disease
by Year, Arizona, 2012-2022



The incidence rate measures the relative risk for *HIV/AIDS* in a population. The incidence rate of *HIV/AIDS* has increased in Arizona by 23.5 percent from 9.8 cases per 100,000 population in 2012 to 12.1/100,000 in 2022 (**Figure 3C-2**; the incidence rates for 2012 – 2022 have been re-computed based on the latest volume of the *HIV/AIDS* data as of 2/29/2024).

The rate of deaths from *HIV disease* remained unchanged from 2014 to 2015, then decreased slightly at 1.4 deaths per 100,000 population in 2016 to 0.9 in 2019, then increased to 1.0 in 2020, 1.3 in 2021, and 1.4 in 2022 (**Figure 3C-2**).

Of the 894 *HIV/AIDS* cases diagnosed in 2022, 265 were White non-Hispanic, 391 were Hispanic, 156 were Black, 44 were American Indian, and 27 were Asian or Pacific Islander (**Table 3C-3**).

Notes: *By year of diagnosis; **By year of death.

**TABLE 3C-1
FREQUENCY DISTRIBUTION OF HIV/AIDS BY AGE AT DIAGNOSIS,
ARIZONA, 1981-2022**

Age Group (years)	HIV/AIDS cases
Under 5	125
5-12	47
13-19	693
20-29	8,189
30-39	9,559
40-49	4,442
50 or above	2,870
Missing	0
Total	25,925

**TABLE 3C-2
HIV/AIDS CASES AND DEATHS BY YEAR OF DIAGNOSIS AND GENDER,
ARIZONA, 1981-2011 and 2012-2022**

	1981-2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
# Males	15,567	546	605	634	612	632	622	666	637	583	697	766
# Females	2,242	92	89	110	100	103	104	98	111	87	97	128
# Total	17,809	638	694	744	712	735	726	764	748	670	794	894
# Presumed Living	9,983	538	608	661	626	657	661	719	715	626	753	839
# Known dead	7,824	100	86	83	86	78	65	45	33	44	41	55
% Mortality	43.9	15.7	12.4	11.2	12.1	10.6	9.0	5.9	4.4	6.6	5.2	6.2

Note: Due to reporting delays, all numbers are provisional (2022 volume as of 02/29/2024).

Source: Arizona Department of Health Services, Bureau of Infectious Disease and Services, Office of HIV Care and Surveillance.

**TABLE 3C-3
DISTRIBUTION OF REPORTED HIV/AIDS CASES BY YEAR OF DIAGNOSIS AND RACE/ETHNICITY,
ARIZONA, 1981-2011 AND 2012-2022**

Race/ethnicity	1981-2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
White non-Hispanic	10,385	249	274	264	244	244	247	245	239	235	244	265
Black or African American non-Hispanic	1,778	102	113	128	127	137	112	126	125	98	125	156
Hispanic or Latino all races	4,498	216	241	269	255	281	294	321	321	272	357	391
Asian or Pacific Islander non-Hispanic	157	16	9	17	23	15	22	20	15	18	11	27
American Indian or Alaska Native non-Hispanic	631	43	46	55	51	53	45	41	39	36	42	44
Two or more races/ other or unknown race	360	12	11	11	12	*	6	11	9	11	15	11
Total	17,809	638	694	744	712	740†	726	764	748	670	794	894

Note: * Cell suppressed due to non-zero count less than 6; † Sum rounded to nearest tens unit due to non-zero addend less than 6; Due to reporting delays, all numbers are provisional (2022 volume as of 02/29/2024).

**TABLE 3C-4
DISTRIBUTION OF REPORTED HIV/AIDS CASES BY YEAR OF DIAGNOSIS AND TRANSMISSION CATEGORY,
ARIZONA, 1981-2011 AND 2012-2022**

Transmission	1981-2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
MSM	10,461	374	426	470	420	450	447	486	445	386	455	505
IV Drug User (IDU)	2,254	52	52	53	52	54	36	47	49	41	26	35
MSM/IDU	1,912	39	37	44	52	35	40	36	44	48	47	51
Hemophilic (Adult)	71	0	0	0	0	0	0	0	0	0	0	0
Heterosexual Contact	1,652	98	71	74	79	64	63	52	65	41	63	36
Transfusion/transplant (Adult)	93	0	0	0	0	0	0	0	0	0	0	0
No indicated risk (Adult)	1,216	67	101	99	104	130	135	136	142	153	194	261
Pediatric Hemophilic	17	0	0	0	0	0	0	0	0	0	0	0
Pediatric transfusion/transplant	*	0	0	0	0	0	0	0	0	0	0	0
Mother HIV+	121	8	6	*	*	*	*	7	*	*	9	6
Pediatric (no indicated risk)	10	0	*	*	*	0	*	0	0	0	0	0
Total	17,810†	638	690†	740†	710†	740†	730†	764	750†	670†	794	894

Note: * Cell suppressed due to non-zero count less than 6; † Sum rounded to nearest tens unit due to non-zero addend less than 6; Due to reporting delays, all numbers are provisional (2022 volume as of 02/29/2024).

Source: Arizona Department of Health Services, Bureau of Infectious Disease and Services, Office of HIV Care and Surveillance.