

CHAPTER 3

REPORTABLE DISEASES, ARIZONA, 2003-2013

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

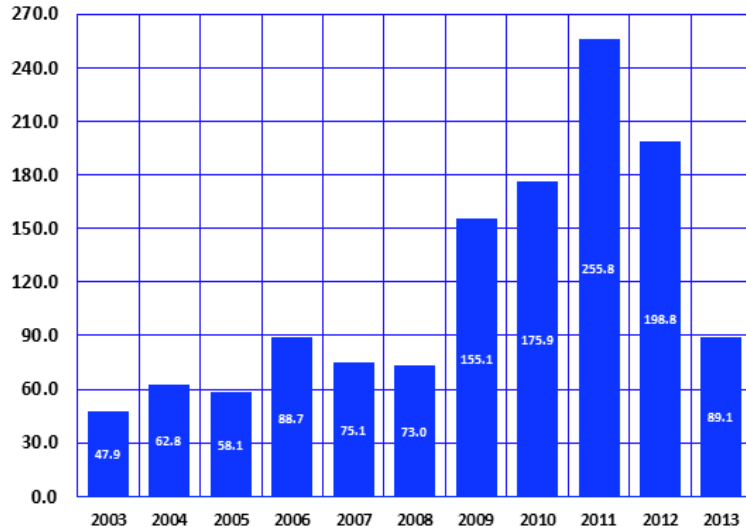
The infectious diseases designated as notifiable vary slightly by state. A notifiable disease is one for which regular, frequent, and timely information regarding individual cases is considered necessary for the prevention and control of the disease. All states generally report the internationally quarantinable 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 Epidemiology and Disease Control 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 of the Office of Infectious Disease Services at http://www.azdhs.gov/phs/oids/data_reports.htm

3A. NON-SEXUALLY TRANSMITTED DISEASES

Figure 3A-1
Trends in the Incidence Rates^a of Valley Fever (Coccidioidomycosis) by Year, Arizona, 2003-2013

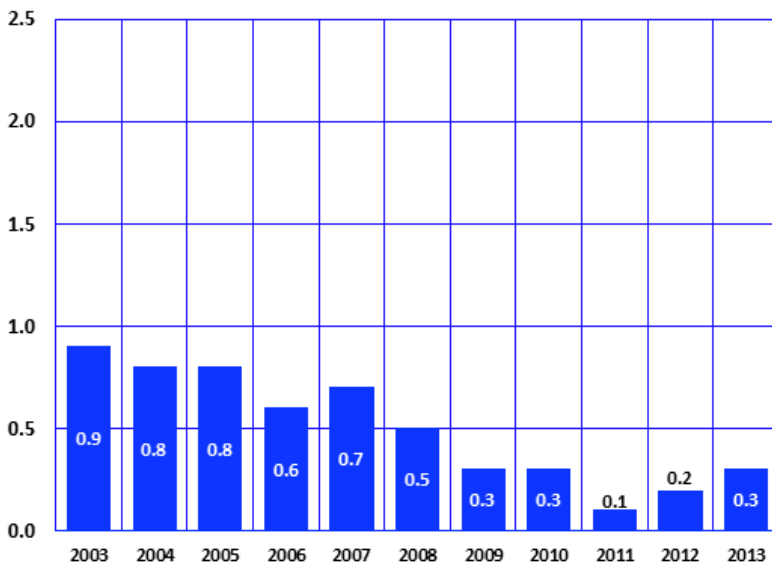


Note: ^a Number of cases per 100,000 population.

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 2013. The reported incidence of Valley Fever decreased 54.6 percent from 2012 (n = 12,920) to 2013 (n = 5,861). The 2013 incidence rate of 89.1/100,000 (**Figure 3A-1, Table 5F-2**) was 86.0 percent greater than the incidence rate of 47.9/100,000 in 2003, but was 65.2 percent lower than the incidence rate of 255.8/100,000 in 2011.

Figure 3A-2
Trends in Case Fatality Rates^a for Valley Fever (Coccidioidomycosis) by Year, Arizona, 2003-2013



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

Nineteen of the 5,861 Arizonans who had *Valley Fever* in 2013 died from it (**Table 3A-2**) for a case fatality rate of 0.3 deaths per 100 cases (**Figure 3A-2**). The 2013 case mortality rate for *Coccidioidomycosis* was 66.6 percent lower in 2013 than in 2003.

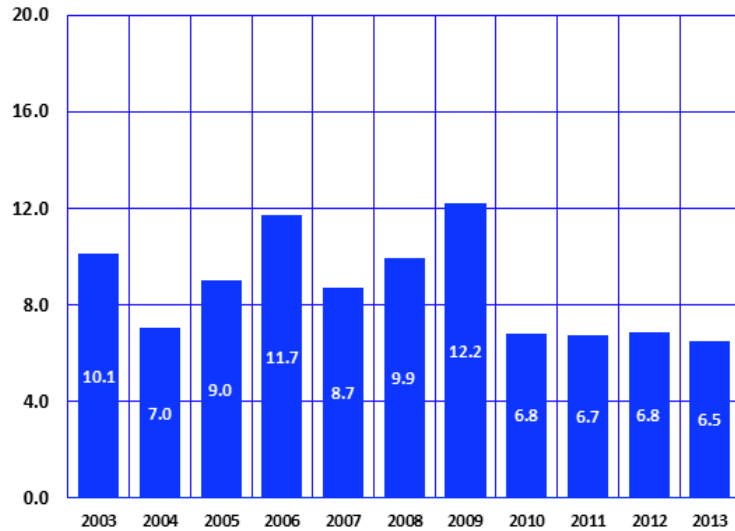
3A. NON-SEXUALLY TRANSMITTED DISEASES

Figure 3A-3
Trends in the Incidence Rates^a of Shigellosis by Year, Arizona, 2003-2013

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 2003 – 2013, *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* in 2013 was 428, similar to the number of cases observed in 2012 (n = 444). The incidence rate of *shigellosis* in 2013, 6.5 cases per 100,000, was fairly consistent with rates observed over the past three years (Figure 3A-3).



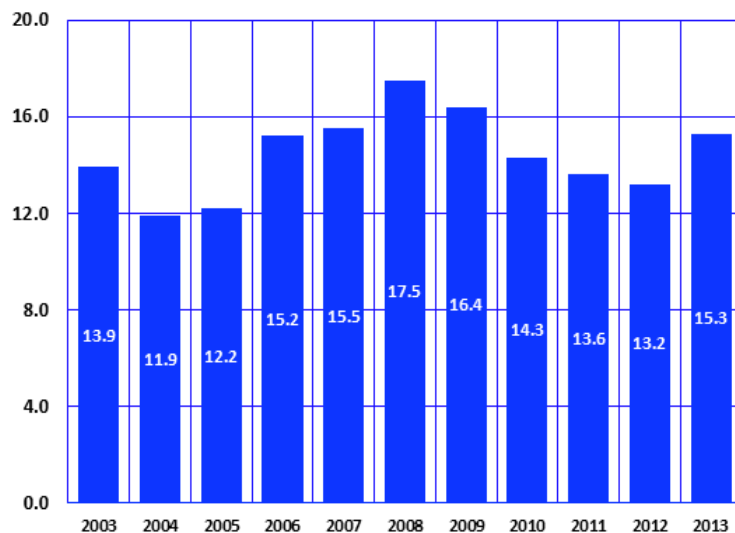
Note: ^a Number of reported cases per 100,000 population.

Figure 3A-4
Trends in the Incidence Rates^a of Salmonellosis^b by Year, Arizona, 2003-2013

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 15.9 percent from 13.2/100,000 in 2012 to 15.3/100,000 in 2013 (Figure 3A-4). The risk of *salmonellosis* was substantially higher in Graham (42.2/100,000), Greenlee (36.7/100,000), and Apache (34.6/100,000) counties (Table 5F-2).

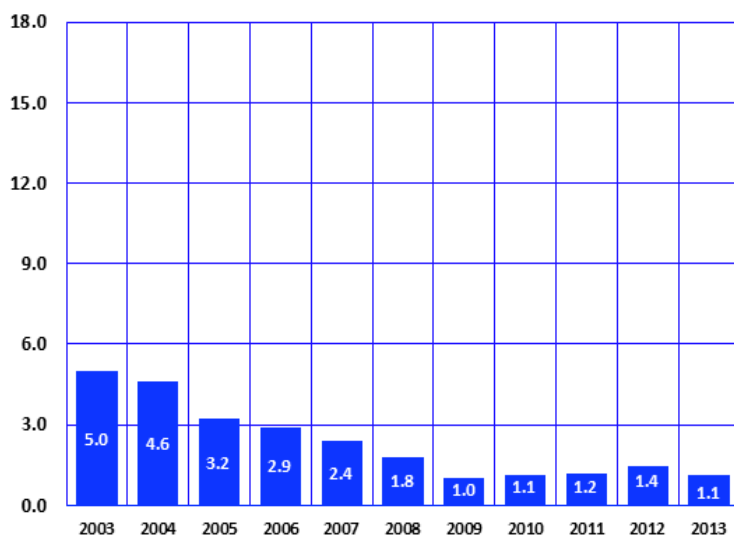
There were no Arizona residents who died from *salmonellosis* in 2013 (Table 3A-2).



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, 2003-2013

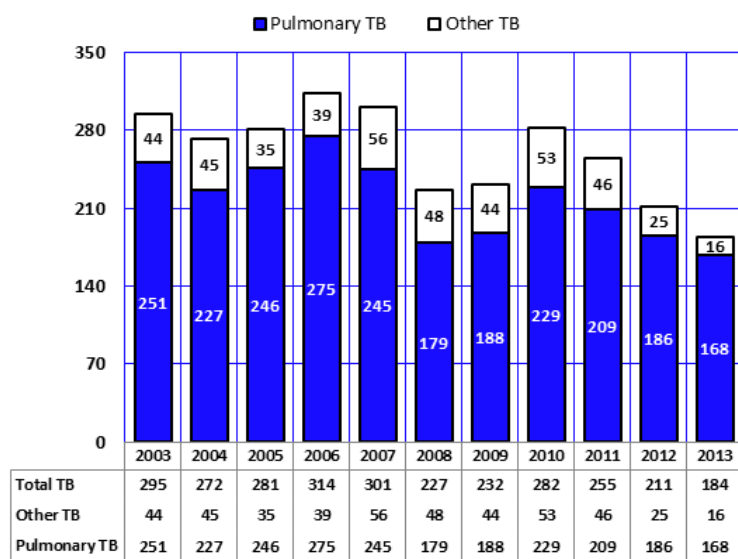


Hepatitis A is a liver disease caused by the *hepatitis A* virus. During 1995-1996, highly effective *hepatitis A* vaccines became available in the United States. Routine childhood vaccination for *hepatitis A* was recommended in 1999. The expansion of recommendations for routine *hepatitis A* vaccination 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* decreased by 78.0 percent from 5.0/100,000 in 2003 to 1.1/100,000 in 2013 (**Figure 3A-5**).

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

Figure 3A-6
Trends in the Incidence of Pulmonary Tuberculosis and Total Tuberculosis^a by Year,
Arizona, 2003-2013



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* decreased from 186 reported cases in 2012 to 168 cases in 2013. The number of reported cases of tuberculosis other than pulmonary decreased from 25 in 2012 to 16 in 2013 (**Figure 3A-6, Table 3A-1**). The incidence rate of *total* tuberculosis decreased 3.2/100,000 in 2012 to 2.8/100,000 in 2013 (**Table 5F-2**).

Pulmonary tuberculosis accounted for 85.1 percent of all tuberculosis infections in 2013 (**Table 3A-1**). Fifteen Arizonans who had *tuberculosis* died from it in 2013 (**Table 3A-2**).

Note: ^a Number of reported cases by year.

**TABLE 3A-1
NUMBER OF REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY CATEGORY, ARIZONA, 2003-2013**

Disease	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Vaccine Preventable											
Measles	*	0	*	0	*	18	0	*	*	*	*
Mumps	*	*	*	40	10	*	10	*	0	*	*
Pertussis	211	278	1,108	508	210	218	277	546	867	1,130	1,440
Pertussis confirmed cases	(128)	(149)	(486)	(36)	(15)	(23)	-79	(95)	-160	-575	1,068
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)	8	*	*	*	*	*	*	*	*	*	*
Chickenpox	1,620	920	1,537	974	930	778	534	512	660	535	354
Central Nervous System											
Aseptic Meningitis	1,516	734	832	720	632	688	516	733	400	453	343
Meningococcal Disease	34	15	36	16	13	9	15	14	16	6	12
Viral Encephalitis	28	32	26	18	14	8	*	6	6	*	*
Enteritides											
Amebiasis	43	14	20	16	13	11	7	13	21	17	21
Campylobacteriosis	850	795	867	803	962	1,006	877	956	939	940	846
Cholera	*	0	0	0	*	0	0	0	0	0	0
Cryptosporidiosis	6	17	11	29	53	89	34	40	46	47	42
<i>E. coli</i> O157:H7	41	28	35	105	106	69	68	100	126	141	246
Giardiasis	256	176	183	163	192	142	198	167	133	113	115
Salmonellosis (exl. <i>S. Typhi</i> & <i>S. Paratyphi</i>)	782	694	739	949	997	1,143	1,079	984	877	857	1,007
<i>Salmonella</i> Paratyphi A	*	*	*	*	*	*	*	7	*	0	*
<i>Salmonella</i> Paratyphi B	*	*	6	7	*	10	6	*	7	*	*
<i>Salmonella</i> Paratyphi C	0	0	0	0	*	0	0	0	0	0	0
Shigellosis	566	409	547	729	557	650	806	465	434	444	428
Typhoid Fever	*	*	*	7	7	*	*	6	*	7	12
Mycosis											
Coccidioidomycosis (Valley Fever)	2,695	3,665	3,515	5,535	4,832	4,768	10,233	11,888	16,472	12,920	5,861
Hepatitides											
Hepatitis A	280	267	195	179	152	118	68	62	77	93	73
Hepatitis B (acute)	283	289	375	373	180	163	193	150	185	104	50
Hepatitis C (acute)	7	*	0	0	0	0	0	0	NA	NA	N/A
Hepatitis D	0	0	*	*	*	0	0	*	0	0	0
Hepatitis E	0	0	0	*	*	0	0	*	0	0	0
Hepatitis non-A non-B	0	0	NA	NA	NA	NA	NA	NA	NA	NA	N/A
Tuberculosis											
Pulmonary TB	251	227	246	275	245	179	188	229	209	211	168
Total TB	295	272	281	314	301	227	232	282	255	186	184

**TABLE 3A-1 (continued)
NUMBER OF REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY CATEGORY, ARIZONA, 2003-2013**

Disease	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Zoonoses/Vector-borne											
Brucellosis	*	*	*	*	*	*	*	*	9	*	*
Colorado Tick Fever	0	0	0	0	0	0	0	0	*	0	0
Dengue	0	0	0	9	8	6	*	10	*	10	*
Erichiosis	0	0	*	0	0	*	*	0	*	*	*
Hantavirus Pulmonary Syndrome	0	*	*	13	6	*	*	0	*	*	*
Human Rabies	0	0	0	0	0	0	0	0	0	0	0
Lyme Disease	*	13	10	12	*	8	7	*	15	13	32
Malaria	17	16	21	23	12	17	10	28	21	19	33
Plague	0	0	0	0	*	*	*	0	0	0	0
Relapsing Fever, Tick-borne	0	0	0	0	0	0	*	0	*	*	*
Rocky Mountain Spotted Fever	0	*	25	11	10	17	23	17	77	50	63
St. Louis Encephalitis	*	*	*	*	*	0	0	0	0	0	0
Tularemia	*	0	*	*	*	0	0	0	*	0	0
West Nile Virus	12	391	111	148	98	114	21	166	69	135	62
Other											
Botulism	0	*	*	*	*	*	*	*	0	*	12
Legionellosis	21	23	26	38	40	26	49	65	46	44	69
Listeriosis	12	10	13	7	12	8	8	10	8	14	*
Methicillin Resistant <i>S. aureus</i> (invasive)	NA	NA	1,432	1,336	1,305	1,417	1,171	1,166	1,196	1,089	1,066
Streptococcal-Group A (invasive)	260	247	303	351	208	204	161	190	206	199	231
Streptococcal-Group B (invasive, age <90 d)	42	47	44	54	59	57	52	45	39	57	35
<i>Streptococcus pneumoniae</i> (invasive)	718	670	726	971	923	1,077	907	823	767	661	786
Reyes Syndrome	0	0	0	0	0	0	0	0	0	0	0
Toxic Shock Syndrome	9	*	*	*	*	*	*	*	*	*	*
<i>Vibrio</i> spp. (except toxogenic <i>V. cholerae</i>)	19	8	16	25	11	14	19	18	26	29	19
Vancomycin resist. <i>Enterococcus</i> spp.(VRE)	1,013	1,404	1,956	2,683	2,494	NA	NA	NA	NA	NA	N/A
Yersiniosis (except <i>Y. pestis</i>)	7	6	*	11	8	*	7	*	6	10	9

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. Streptococcus pneumoniae was only reportable by laboratories until 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. Hepatitis D has been reported separately from Hepatitis non-A non-B since 1997. Hepatitis E has been reported separately from Hepatitis non-A non-B beginning in 1998. VRE ceased being reportable beginning in April 2008. In mid-2009, a large laboratory changed its reporting practices for coccidioidomycosis; reported coccidioidomycosis has been elevated since then.

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

**TABLE 3A-2
NUMBER OF DEATHS FROM SELECTED NOTIFIABLE DISEASES BY CATEGORY AND YEAR,
ARIZONA, 2003-2013**

ICD-9/ICD-10 codes	Disease	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
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	0
033/A37	Whooping cough (pertussis)	*	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
CENTRAL NERVOUS SYSTEM												
047.9/G03.0	Aseptic meningitis	0	0	*	0	0	*	*	0	*	*	0
036/A39	Meningococcal infections	*	0	*	*	0	0	0	*	*	*	*
049.9/A86	Viral encephalitis	0	*	*	*	*	*	*	*	6	*	*
ENTERITIDES (FOODBORNE)												
006/A06	Amebiasis	0	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	*	*	0	0
004/A03	Shigellosis	0	0	*	0	0	0	*	*	0	0	*
002/A01	Typhoid	0	0	0	0	0	*	0	0	0	0	0
MYCOSIS												
114/B38	Coccidioidomycosis (Valley Fever)	24	28	28	33	36	24	35	39	22	25	19
HEPATITIDES												
070.0-070.1/B15	Hepatitis A	*	*	0	*	*	*	*	*	0	*	*
070.2-070.3/B16	Hepatitis B	12	10	12	21	13	6	*	10	9	12	9
070.4-070.5/B17-B18	Other viral hepatitis	137	125	151	189	131	176	233	207	209	274	265
070.6-070.9/B19	Unspecified	*	*	*	*	*	*	*	*	0	0	*
TUBERCULOSIS												
010-011/A15-A16	Respiratory TB	9	8	13	13	10	10	8	12	10	*	11
010-018/A15-A19	Total TB	12	11	17	20	12	13	8	15	12	*	15
ZOONOSES/VECTOR-BORNE												
023.9/A23	Brucellosis	0	0	0	0	0	0	0	0	0	0	0
061/A90	Dengue	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	*
020/A20	Plague	0	0	0	0	*	0	0	0	0	*	0
082/A77.0	Rocky Mountain Spotted Fever	*	0	*	0	0	*	*	*	*	0	*
021/A21	Tularemia	0	0	0	0	0	0	0	0	0	0	0
OTHER												
482.8/A48.1	Legionellosis	*	0	0	*	*	0	*	0	*	*	*
027.0/A32	Listeriosis	0	0	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

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



3B.

SEXUALLY TRANSMITTED DISEASES

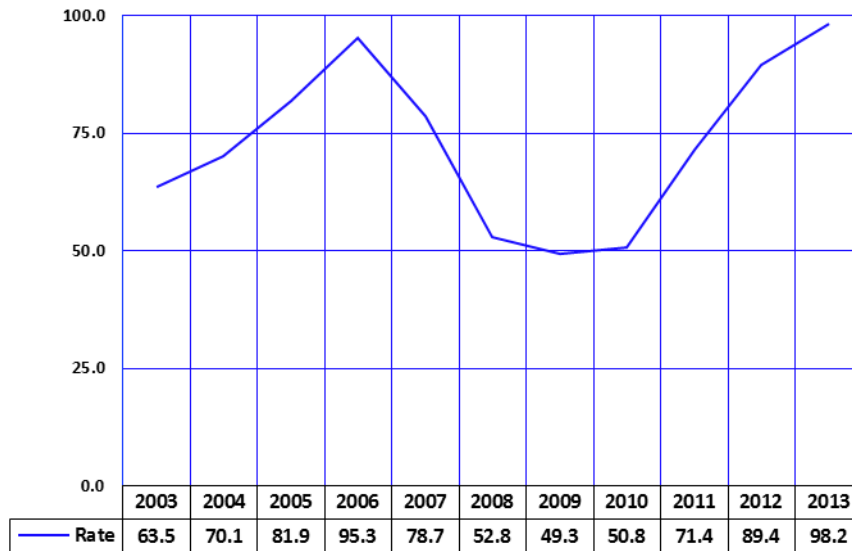
All states require that certain sexually transmitted diseases (STDs) be reported by physicians and other health care providers when they suspect that a case has occurred or they have laboratory confirmation.

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, rates for STDs were calculated using denominators based on 2013 estimates taken from the CDC.

*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, 2003-2013

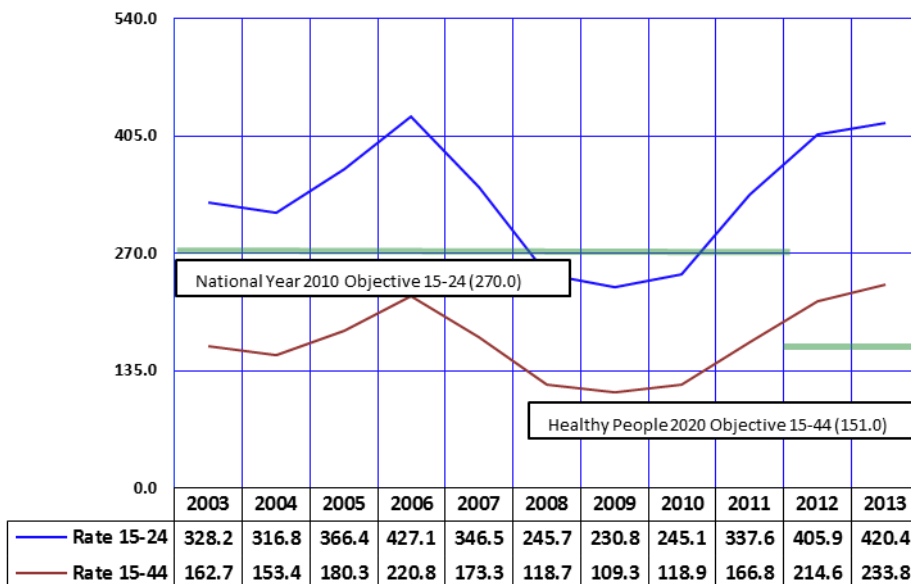


Neisseria gonorrhoeae infection is the second most commonly reported notifiable disease in the United States. (Figure 3B-1). The 99.2 percent increase in the incidence rate of gonorrhea from 49.3 cases per 100,000 population in 2009 to 98.2/100,000 in 2013 likely resulted from a combination of factors, such as changes in surveillance, increases in the number of tests performed, and actual increases in disease occurrence (Figure 3B-1).

The *Healthy People 2010* objective 25-2 defines the target rate for gonorrhea as equal to or lower than 19.1 cases per 100,000 population and was specific to ages 15-24. However, the *Healthy People 2020* target is for ages 15-44 and is set at 151.0/100,000.

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

Figure 3B-2
Trends in the Incidence Rates^a of Gonorrhea among Females 15-24 and 15-44 Years, Arizona, 2003-2013



The 2013 incidence rate for gonorrhea was 233.8 per 100,000 for Arizona females age 15-44 years, meaning Arizona's incidence rate was higher than the *Healthy People 2020* objective, and increased 8.4 percent from 2012. Generally, the trend in gonorrhea incidence rates are similar for women age 15-24 and age 15-44, although the overall incidence rate is consistently higher for women age 15-24.

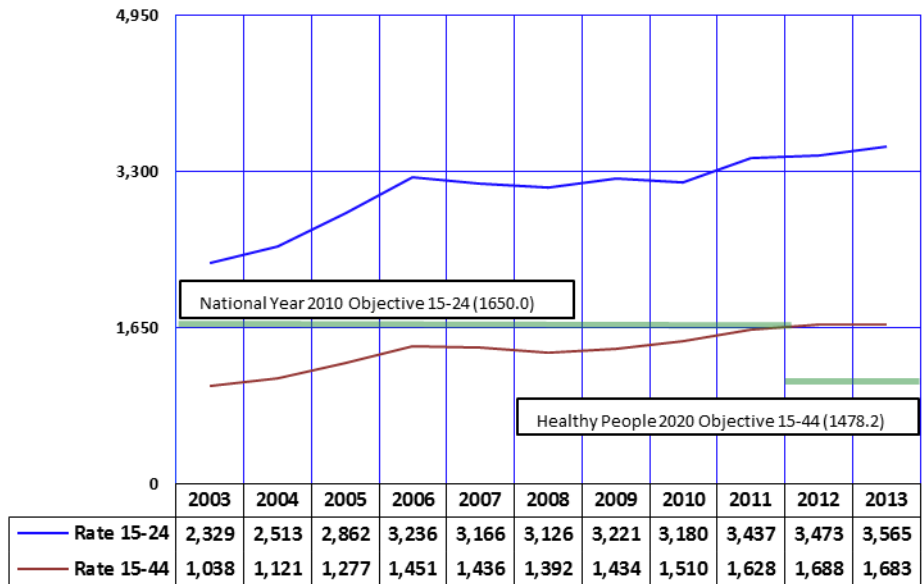
Notes: ^a Number of reported cases per 100,000 females; There was a change in target rate and age range For *Healthy People 2020* objective. In *National Year 2010* objective was for females ages 15-24. In *Healthy People 2020* objective is for females ages 15-44.

3B. SEXUALLY TRANSMITTED DISEASES

Figure 3B-3
Trends in the Incidence Rates^a of Chlamydia among Females 15-24 and 15-44 Years, Arizona, 2003-2013

Chlamydia trachomatis is the most prevalent bacterial sexually transmitted disease in the United States (1,422,976 cases in 2012), 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 incident rate of chlamydia was previously reported for females 15-24 years, however based on changes in *Healthy People 2020*, it would be reported for females 15-44 years. The *Healthy People 2020* goal for chlamydia is set at 1,478.2 per 100,000 females. The incidence rate for Arizona in 2013 was 1,683 per 100,000 for females age 15-44 years (**Table 6A-2**).



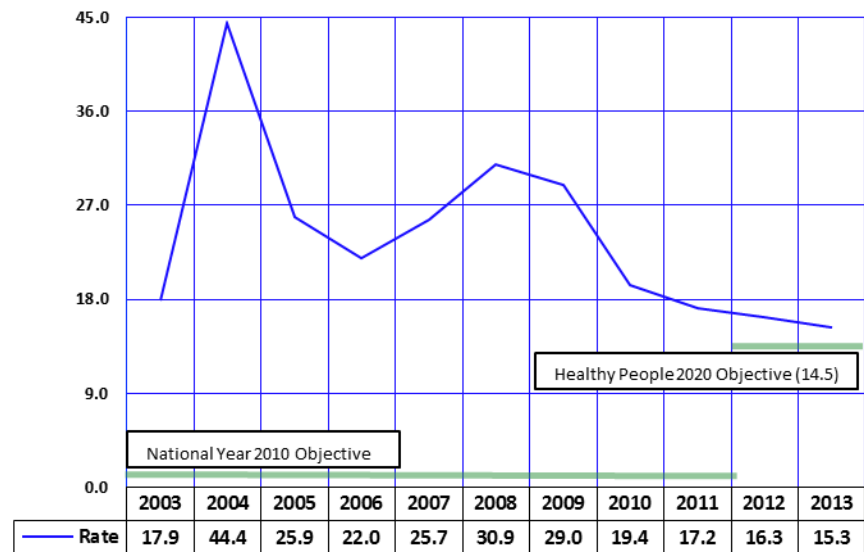
Notes: ^a Number of reported cases per 100,000 females; There was a change in target rate and age range for Healthy People 2020 objective. In National Year 2010 objective was for females ages 15-24. In Healthy People 2020 objective is for females ages 15-44.

Figure 3B-4
Trends in the Incidence Rates^a of Congenital Syphilis by Year, Arizona, 2003-2013

Congenital syphilis (CS) 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 CS 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 *Healthy People 2020* goal for congenital syphilis is 14.5/100,000. In Arizona, the incidence rate of CS decreased for a fifth consecutive year from 30.9/100,000 in 2008 to 15.3/100,000 in 2013 (**Figure 3B-4**, **Table 6A-2**).



Note: ^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, 2003-2013**

Disease	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Gonorrhea	3,576	4,088	4,951	5,949	5,062	3,449	3,250	3,249	4,564	5,856	6,505
Gonococcal PID^a	0	15	8	*	*	0	0	0	0	0	0
Resistant Gonorrhea^b	*	*	*	0	0	0	0	0	0	0	0
Syphilis (P & S)^c	186	160	175	203	296	317	231	230	274	204	290
Syphilis-Total^d	1,094	998	789	931	1,242	1,396	1,085	904	907	795	966
Chlamydia	12,785	16,869	21,264	24,090	24,866	24,769	26,002	26,861	29,251	30,571	30,923

Notes: * Cell suppressed due to non-zero count less than 6; ^a PID is pelvic inflammatory disease; ^b Includes PPNG, penicillase producing Neisseria gonorrhoea, a form of gonorrhoea 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 gonorrhoea with or without communicable disease report.

Source: Arizona Department of Health Services, Bureau of Epidemiology and Disease Control, Office of HIV / STD.

**TABLE 3B-2
NUMBER OF DEATHS ASSOCIATED WITH SPECIFIED SEXUALLY TRANSMITTED DISEASES BY CATEGORY AND YEAR, ARIZONA, 2003-2013**

Disease	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Gonococcal infections	0	0	0	0	0	0	0	0	0	0	0
Syphilis-Total	*	*	0	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).

**TABLE 3B-3
FREQUENCY OF REPORTED CASES OF GONORRHEA, CHLAMYDIA, AND EARLY SYPHILIS BY AGE AND GENDER,
ARIZONA, 2013**

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	0	*	0	0†	*	*	0	0†	0	0	0	0
5-9	0	*	0	0†	0	0	0	0	0	0	0	0
10-14	9	21	0	30	27	135	0	162	0	0	0	0
15-19	414	702	0	1,116	1,524	6,213	0	7,737	15	6	0	21
20-24	1,059	1,088	0	2,147	3,269	8,960	*	12,231	89	13	0	102
25-29	632	608	0	1,240	1,777	3,677	*	5,456	78	22	0	100
30-34	400	347	0	747	990	1,723	0	2,713	70	8	0	78
35-39	264	183	0	447	444	745	0	1,189	30	*	0	30†
40-44	207	90	0	297	287	403	0	690	46	*	0	50†
45-49	152	57	0	209	194	191	0	385	47	*	0	50†
50-54	122	23	0	145	100	105	0	205	32	*	0	30†
55-59	51	15	0	66	46	42	0	88	18	*	0	20†
60-64	34	*	0	40†	22	12	0	34	7	0	0	7
65-over	14	*	0	20†	17	13	0	30	*	0	0	0†
Total	3,358	3,150†	0	6,510†	8,700†	22,220†	0†	30,920†	440†	60†	0	500†

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 Epidemiology and Disease Control Services, Office of HIV / STD.

**TABLE 3B-4
RATES^a OF REPORTED CASES OF GONORRHEA, CHLAMYDIA, AND EARLY SYPHILIS BY AGE AND GENDER,
ARIZONA, 2013**

Age group	GONORRHEA			CHLAMYDIA			EARLY SYPHILIS		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
0-4	0.0	**	**	**	**	**	0.0	0.0	0.0
5-9	0.0	**	**	0.0	0.0	0.0	0.0	0.0	0.0
10-14	3.9	9.4	6.6	11.6	60.4	35.5	0.0	0.0	0.0
15-19	178.4	321.0	247.5	656.6	2840.6	1716.2	6.5	2.7	4.7
20-24	422.1	465.4	443.0	1302.9	3832.5	2523.4	35.5	5.6	21.0
25-29	275.3	287.0	281.0	774.2	1735.9	1236.2	34.0	10.4	22.7
30-34	177.5	161.3	169.6	439.4	800.7	615.9	31.1	3.7	17.7
35-39	127.8	90.6	109.4	214.9	368.8	291.0	14.5	**	8.3
40-44	97.6	43.0	70.5	135.3	192.7	163.8	21.7	**	11.9
45-49	74.7	28.0	51.3	95.3	93.8	94.6	23.1	**	12.3
50-54	57.8	10.5	33.8	47.4	48.1	47.8	15.2	**	7.7
55-59	26.3	7.1	16.3	23.7	19.8	21.7	9.3	**	4.9
60-64	19.4	**	10.0	12.6	6.1	9.2	4.0	0.0	1.9
65-over	3.0	**	1.6	3.6	2.4	2.9	**	0.0	**
Total	101.9	94.5	98.2	264.0	667.0	466.6	13.2	1.9	7.5

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 2013; denominators for unknown or transgender category are not available; rates per 100,000 population.

Source: Arizona Department of Health Services, Bureau of Epidemiology and Disease Control Services, Office of HIV / STD.

**TABLE 3B-5
 FREQUENCY OF REPORTED CASES, PERCENT DISTRIBUTION AND RATES OF EARLY AND LATE SYPHILIS,
 GONORRHEA, AND CHLAMYDIA BY RACE/ETHNICITY, ARIZONA, 2013**

Race/ethnicity	SYPHILIS						GONORRHEA						CHLAMYDIA		
	Early			Late			Resistant			Total			Cases	%	Rate
	Cases	%	Rate	Cases	%	Rate	Cases	%	Rate	Cases	%	Rate			
White Non-Hispanic	202	40.6	5.3	100	22.0	2.6	0	0.0	0.0	1,430	22.0	37.4	5,703	18.4	149.3
Black or African American	59	11.8	19.9	59	13.0	19.9	0	0.0	0.0	1,040	16.0	351.0	2,515	8.1	848.9
Hispanic or Latino	186	37.3	9.3	177	38.9	8.8	0	0.0	0.0	1,859	28.6	92.7	10,386	33.6	518.0
Asian or Pacific Islander	6	1.2	2.7	12	2.6	5.3	0	0.0	0.0	52	0.8	23.2	290	0.9	129.3
American Indian or Alaska Native	27	5.4	9.6	22	4.8	7.9	0	0.0	0.0	629	9.7	224.6	3,244	10.5	1158.2
Not Specified	18	3.6	N/A	85	18.7	N/A	0	0.0	N/A	1,495	23.0	N/A	8,785	28.4	N/A
Total	498	100.0	7.5	455	100.0	6.9	0	0.0	0.0	6,505	100.0	98.2	30,923	100.0	466.6

Notes: Table includes all positive laboratory results for chlamydia and gonorrhea with or without communicable disease report in 2013; rates per 100,000 population.

Source: Arizona Department of Health Services, Bureau of Epidemiology and Disease Control Services, Office of HIV / STD.



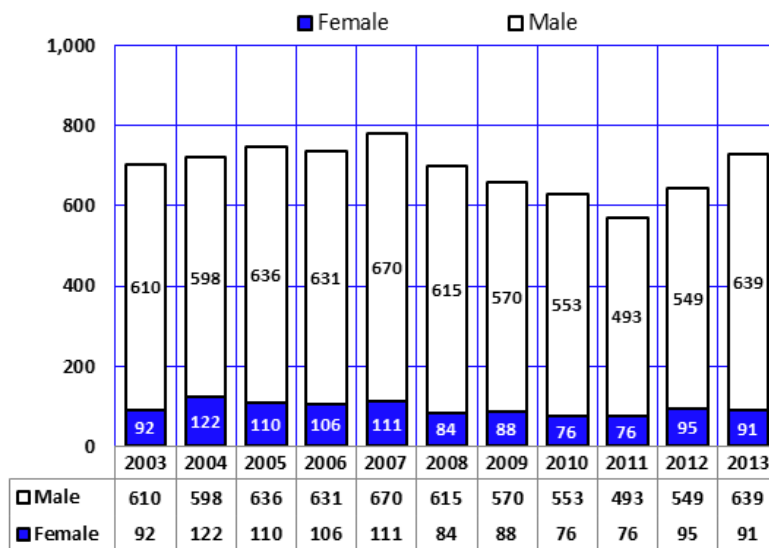
3C.

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 1981-2013, as provided by the Office of HIV, STD, and Hepatitis Services, are available in Tables 3C-1, 3C-2, 3C-3, 3C-4, 3C-5 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, 2003-2013

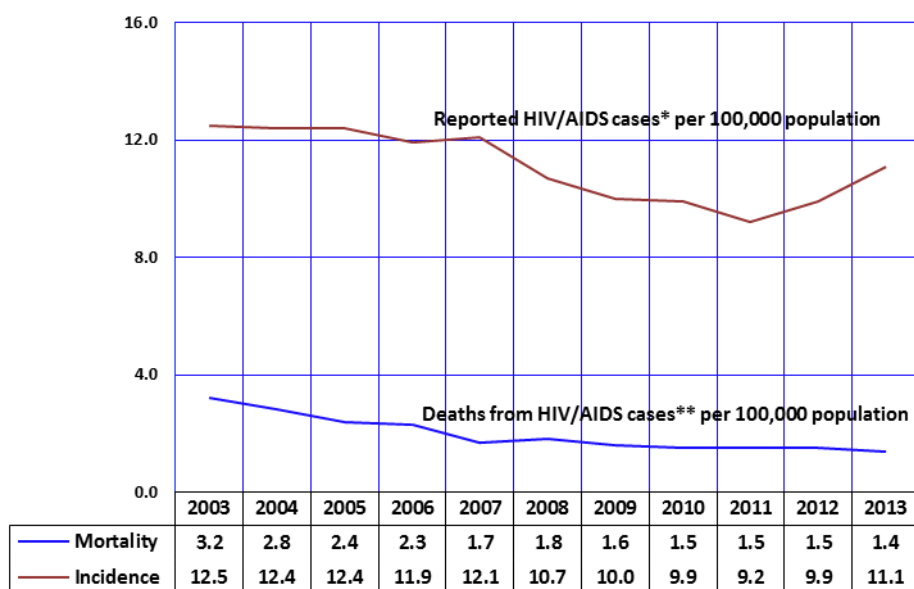


Since the first case of AIDS diagnosed in an Arizona resident in 1981, a total of 20,879 cases of HIV/AIDS had been diagnosed in the State by the end of 2013 and reported by July 1, 2014 (**Table 3C-1**).

In 2013, males accounted for 87.5 percent of all *HIV/AIDS* diagnoses. The male-to-female ratio of *HIV/AIDS* diagnoses in Arizona in 2013 was 7.0:1 (639/91, **Figure 3C-1**, **Table 3C-2**).

The proportion of risk behaviors attributed to emerging cases of *HIV/AIDS* in 2013 remained similar to previous years. Of the around 730 *HIV/AIDS* cases diagnosed in 2013, 440 were among men who reported sexual contact with other men (**Table 3C-4**). Another 69 reported heterosexual contact. An additional 55 reported only injecting drugs. Adults without an indicated risk accounted for 127 of *HIV/AIDS* cases diagnosed in 2013.

Figure 3C-2
Trends in the Incidence Rates of HIV/AIDS and Mortality Rates for HIV Disease by Year, Arizona, 2003-2013



The incidence rate measures the relative risk for *HIV/AIDS* in a population. The incidence rate of *HIV/AIDS* has fallen in Arizona by 11.2 percent from 12.5 cases per 100,000 population in 2003 to 11.1/100,000 in 2013 (**Figure 3C-2**; the incidence rates for 2003 - 2013 have been re-computed based on the latest volume of the *HIV/AIDS* data as of 7/01/2014).

The rate of deaths from *HIV disease* remained relatively stable at 1.5 deaths per 100,000 population from 2010 - 2012 and 1.4/100,000 in 2013 (**Figure 3C-2**).

Of the around 730 *HIV/AIDS* cases diagnosed in 2013, 298 were White non-Hispanic, 249 were Hispanic, 121 were Black, 50 were American Indian, and 9 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, 1981-2013**

Age Group (years)	HIV/AIDS cases
Under 5	114
5-12	55
13-19	421
20-29	6,066
30-39	7,705
40-49	4,435
50 or above	2,063
Missing	20
Total	20,879

**TABLE 3C-2
HIV/AIDS CASES AND DEATHS BY YEAR OF DIAGNOSIS AND GENDER,
ARIZONA, 1981-2002 and 2003-2013**

	1981-2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
# Males	11,737	611	596	636	630	670	613	572	553	492	543	639
# Females	1,540	91	122	109	106	111	84	88	77	76	92	91
# Total	13,277	702	718	745	736	781	697	660	630	568	635	730
# Presumed Living	6,591	583	591	620	638	698	631	593	589	534	598	710
# Known dead	6,686	119	127	125	98	83	66	67	41	34	37	20
% Mortality	50.4	17.0	17.7	16.8	13.3	10.6	9.5	10.2	6.5	6.0	5.8	2.7

Note: Due to reporting delays, all numbers are provisional (2013 volume as of 6/25/2014).

Source: Arizona Department of Health Services, Bureau of Epidemiology and Disease Control, Office of HIV/AIDS Services.

**TABLE 3C-3
DISTRIBUTION OF REPORTED HIV/AIDS CASES BY YEAR OF DIAGNOSIS AND RACE/ETHNICITY,
ARIZONA, 1981-2002 AND 2003-2013**

Race/ethnicity	1981-2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
White non-Hispanic	8,680	359	339	365	324	364	343	284	314	226	249	298
Black or African American non-Hispanic	1,214	83	90	82	107	81	71	71	57	76	105	121
Hispanic or Latino all races	2,707	217	247	243	258	284	229	244	203	203	212	249
Asian or Pacific Islander non-Hispanic	70	*	9	8	10	15	14	12	12	16	16	9
American Indian or Alaska Native non-Hispanic	381	31	30	41	29	28	30	39	37	43	45	50
Two or more races/ other or unknown race	225	8	*	6	8	9	10	10	7	*	8	*
Total	13,277	700†	720†	745	736	781	697	660	630	570†	635	730†

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 (2013 volume as of 6/25/2014).

**TABLE 3C-4
DISTRIBUTION OF REPORTED HIV/AIDS CASES BY YEAR OF DIAGNOSIS AND TRANSMISSION CATEGORY,
ARIZONA, 1981-2002 AND 2003-2013**

Transmission	1981-2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
MSM	7,744	436	436	483	472	436	404	353	394	331	372	440
IV Drug User (IDU)	1,835	93	95	93	88	51	66	55	41	54	53	55
MSM/IDU	1,490	72	43	46	43	41	37	34	45	34	27	33
Hemophiliac (Adult)	81	0	*	*	0	0	0	0	0	0	0	0
Heterosexual Contact	1,066	86	109	66	72	75	54	61	66	80	91	69
Transfusion/transplant (Adult)	125	0	0	*	*	0	0	0	0	0	0	0
No indicated risk (Adult)	819	11	29	43	55	172	133	154	82	68	84	127
Pediatric Hemophiliac	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+	88	*	*	11	*	*	*	*	*	*	*	*
Pediatric (no indicated risk)	9	0	*	0	0	0	0	0	0	0	0	*
Total	13,280†	700†	720†	750†	740†	775†	700†	660†	630†	570†	640†	730†

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 (2013 volume as of 6/25/2014).

Source: Arizona Department of Health Services, Bureau of Epidemiology and Disease Control, Office of HIV/AIDS Services.