

## 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: <u>http://azdhs.gov/phs/oids/index.htm</u>.



*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 selflimited 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 nonsexually transmitted, notifiable diseases in Arizona in 2020. The reported incidence of Valley Fever increased 11.2 percent from 2019 (n=10,358) to 2020 (n=11,523). The 2020 incidence rate of 160.6/100,000 (Figure 3A-1, Table 5F-2) was 11.5 percent greater than the incidence rate of 144.1/100,000 in 2019, but was 37.2 percent lower than the unprecedented incidence rate of 255.8/100,000 in 2011.

Note: \* Number of cases per 100,000 population.

Figure 3A-2 Trends in Case Fatality Rates<sup>a</sup> for Valley Fever (Coccidioidomycosis) by Year, Arizona, 2010-2020



Fifty-seven of the 11,523 Arizonans who had *Valley Fever* in 2020 died from it (**Table 3A-2**) for a case fatality rate of 0.5 deaths per 100 cases (**Figure 3A-2**). The 2020 case fatality rate for Coccidioidomycosis was 66.7 percent higher than in 2010.

Note: \* Number of deaths per 100 reported cases.

*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 2010–2020, *shigellosis* was the most common enteric disease to afflict Arizonans after *campylobacteriosis* and *salmonellosis* (**Table 3A-1**).

The number of reported cases of *shigellosis* has decreased by 173 cases from 426 in 2019 to 253 in 2020. Compared to 2019, the incidence rate of *shigellosis* was 40.7 percent lower at approximately 4 reported cases/100,000 population in 2020 (**Figure 3A-3**).





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



Figure 3A-4 Trends in the Incidence Rates<sup>a</sup> of Salmonellosis<sup>b</sup> by Year, Arizona, 2010-2020

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

The incidence rate of salmonellosis decreased 33.8 percent from 13.3/100,000 in 2019 to 8.8/100,000 in 2020 (Figure 3A-4). The risk of salmonellosis was substantially higher in Navajo (26.2/100,000), Santa Cruz (20.9/100,000), Graham (15.5/100,000), (15.1/100,000), Apache Yavapai (14.8/100,000),and Pima (14.6/100,000),than the remaining counties (Table 5F-2).

Notes: <sup>a</sup> Number of reported cases per 100,000 population; <sup>b</sup> Excluding S. Typhi and S. Paratyphi.



Figure 3A-5

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. expansion The 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 0.8/100,000 in 2020, the highest rate recorded during the 2010-2020 period was 8.2 in 2019. The 2020 incidence rate was approximately 9 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<sup>a</sup> by Year, Arizona, 2010-2020

Note: <sup>a</sup> 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* decreased from 158 cases in 2019 to 112 reported cases in 2020. The number of reported cases of tuberculosis other than pulmonary increased from 18 in 2019 to 24 in 2020 cases (**Figure 3A-6, Table 3A-1**). The incidence rate of *total* tuberculosis changed in 2019 2.5/100,000 to 1.9/100,000 in 2020 (**Table 5F-2**).

Pulmonary tuberculosis accounted for 82.4 percent of all tuberculosis infections in 2020 (**Table 3A-1**). Fifteen Arizonans who had tuberculosis died from it in 2020, an increase from 9 in 2019 (**Table 3A-2**).

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