



3A.

NON-SEXUALLY TRANSMITTED DISEASES

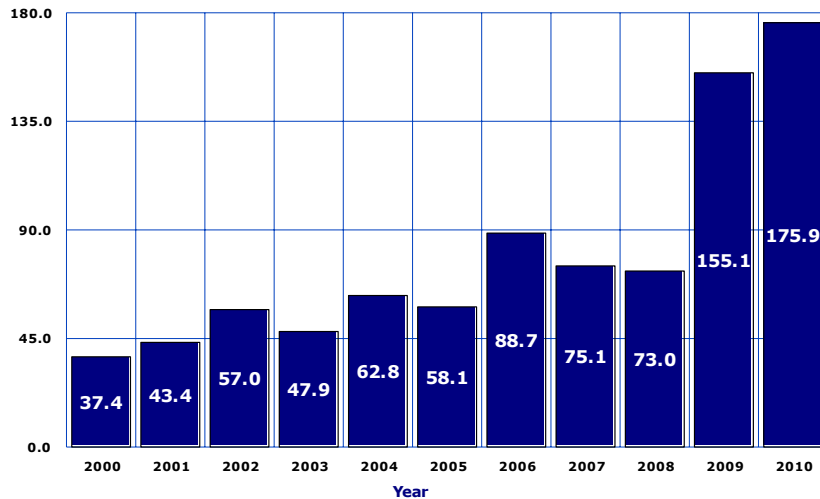
The infectious diseases designated as notifiable vary slightly by state. A notifiable disease is one for which regular, frequent, and timely information regarding individual cases is considered necessary for the prevention and control of the disease. All states generally report the internationally quarantinable 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 of Valley Fever (Coccidioidomycosis) by Year, Arizona, 2000-2010

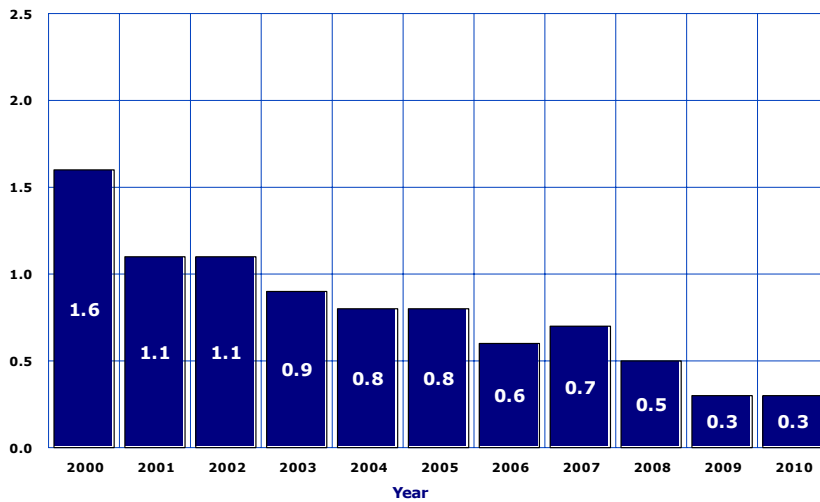


Number of cases per 100,000 population.

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. In 2009 (the latest available year), 87 percent of *coccidioidomycosis* in the United States occurred in Arizona.

Valley Fever imposed the greatest burden on morbidity among all non-sexually transmitted, notifiable diseases in Arizona in 2010. The reported incidence of Valley Fever increased sharply from 4,768 cases in 2008 to 10,233 cases in 2009 and 11,246 cases in 2010, primarily because certain laboratories in the State adopted a less stringent case definition. The 2010 incidence rate of 175.9/100,000 (**Figure 3A-1, Table 5F-2**) was 4.7 times greater than the incidence rate of 37.4/100,000 in 2000.

Figure 3A-2
Trends in Case Fatality Rates for Valley Fever (Coccidioidomycosis) by Year, Arizona, 2000-2010



Number of deaths per 100 reported cases.

Despite the increase in the incidence rates, the annual mortality rates steadily declined. Thirty-nine from among 11,246 Arizonans who had *Valley Fever* in 2010, died from it (**Table 3A-2**) for a case fatality rate of 0.3 deaths per 100 cases, same case fatality rate as in 2009 (**Figure 3A-2**).

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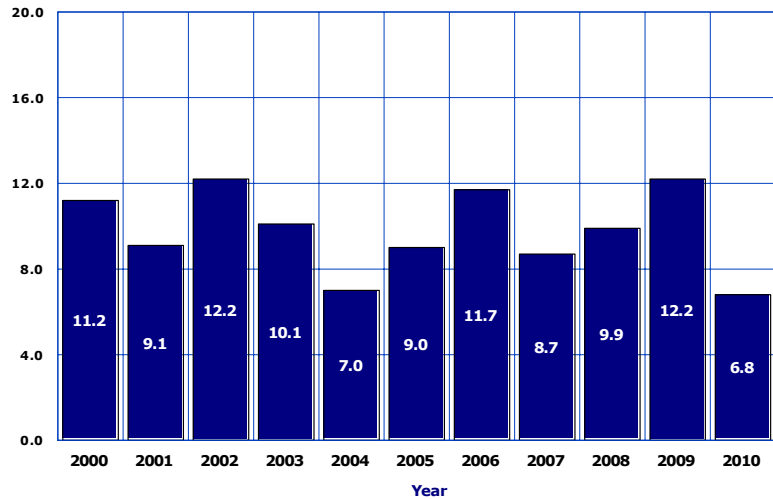
Figure 3A-3
Trends in the Incidence Rates of Shigellosis by Year,
Arizona, 2000-2010

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

In 2000 - 2010, *shigellosis* was the third most common enteric disease to afflict Arizonans after *salmonellosis* and *campylobacteriosis* (Table 3A-1).

The number of reported cases of *shigellosis* decreased from 806 in 2009 to 435 in 2010. The incidence rate of *shigellosis* declined to 6.8 cases per 100,000 in 2010 (Figure 3A-3). The risk of this disease was much higher in Apache County (35.0/100,000; Table 5F-2).

One Arizona resident who had *shigellosis* in 2010, died from it (Table 3A-2).



Number of reported cases per 100,000 population.

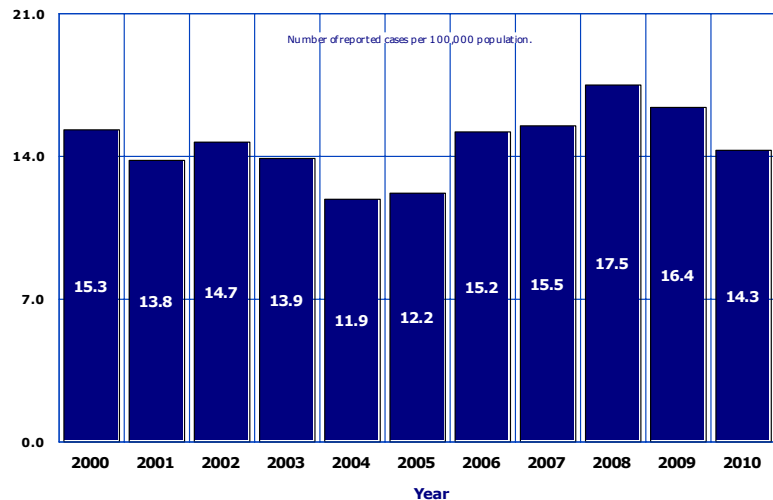
Figure 3A-4
Trends in the Incidence Rates of Salmonellosis* by Year,
Arizona, 2000-2010

Salmonellosis is a bacterial infection. Most of those who are infected with *Salmonella* develop diarrhea, fever, and abdominal cramps. In 2010, more than 49,000 cases of *Salmonellosis* were reported in the United States.

From 2000 to 2002, *salmonellosis* (excluding *S. Typhi* and *S. Paratyphi*) was the most common enteric disease in Arizona. In 2003 - 2005, *campylobacteriosis* was the most common, followed by *salmonellosis* (Table 3A-1). In 2006-2009, *salmonellosis* was again the most common enteric disease in the State.

The incidence rate of *salmonellosis* decreased from 17.5 cases per 100,000 population in 2008, to 16.4/100,000 in 2009, and 14.3/100,000 in 2010 (Figure 3A-4). The risk of *salmonellosis* was substantially higher in Navajo (31.6/100,000), and Graham (29.6/100,000) counties (Table 5F-2).

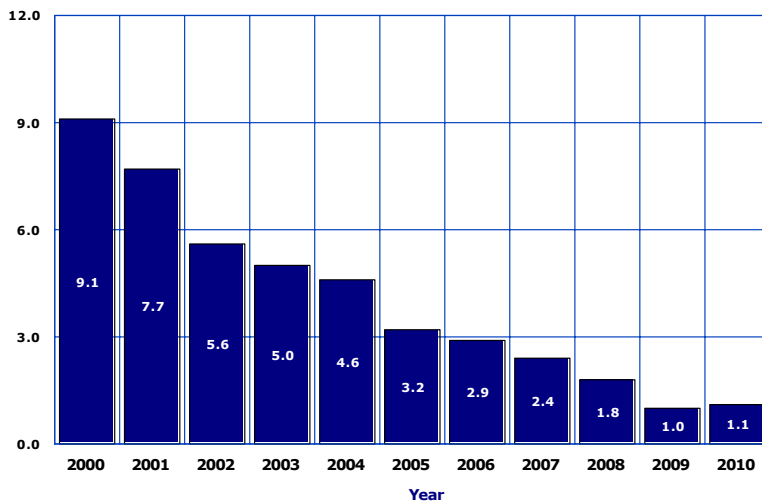
One Arizona resident who had *salmonellosis* died from it in 2010 (Table 3A-2).



*Excluding *S. Typhi* and *S. Paratyphi*.

3A. NON-SEXUALLY TRANSMITTED DISEASES

Figure 3A-5
Trends in the Incidence Rates of Hepatitis A by Year,
Arizona, 2000-2010



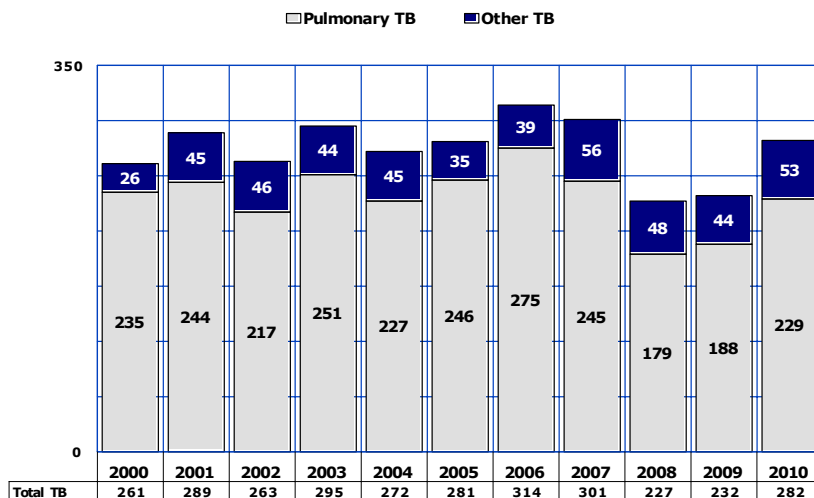
ber of reported cases per 100,000 population.

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* decreased by 87.9 percent from a recent high of 9.1/100,000 in 2000 to 1.1/100,000 in 2010 (**Figure 3A-5**).

In 2010, the incidence rate of 2.3 cases of hepatitis A per 100,000 residents of Cochise County substantially exceeded the state rate (**Table 5F-2**).

Figure 3A-6
Trends in the Incidence of Pulmonary Tuberculosis and Total Tuberculosis by Year,
Arizona, 2000-2010



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 for the second consecutive year from 179 in 2008 to 188 in 2009 and 229 in 2010. The number of reported cases of tuberculosis other than pulmonary increased from 44 reported in 2009 to 53 in 2010 (**Figure 3A-6**, **Table 3A-1**). The incidence rate of *total* tuberculosis increased from 3.5 cases per 100,000 population both in 2008 and 2009 to 4.4/100,000 in 2010 (**Table 5F-2**). The risk of the disease was 3.8 times higher in Apache County (15.4 cases per 100,000 population).

Pulmonary tuberculosis accounted for 81.2 percent of all tuberculosis infections in 2010 (**Table 3A-1**). Fifteen Arizonans who had *tuberculosis* died from it in 2010 (**Table 3A-2**).