Vaccine-preventable diseases are any infectious diseases where an **effective preventative** vaccine exists.

**Influenza & Hepatitis B** were the most common vaccine-preventable diseases reported in 2016.

- Influenza*: 23,657
- Hepatitis B: 1,144
- S. pneumoniae, invasive: 716
- Pertussis: 287
- Varicella: 279
- H. influenzae, invasive: 116
- Hepatitis A: 46
- Measles: 31
- Mumps: 7
- Meningococcal Disease, invasive: 3
- Tetanus: 2

*Influenza is reported by season (2015–2016 season) not by calendar year.
Every influenza season is unique with variation in the number of cases reported, timing of the season, and circulating strains.

The 2015–2016 influenza season had the **highest** number of reports since influenza became lab-reportable in 2004.

Influenza A and Influenza B circulated simultaneously, at different levels, throughout the 2015–2016 season.

Because of the high number of influenza cases, there are not enough resources for individual investigations like some of the other VPDs. For more information, please see the [2015–2016 influenza season summary](#).
Pertussis cases typically peak every 3 to 5 years. In 2016, Arizona only had **287** cases reported to public health.

Even in years with lower numbers of cases, pertussis disproportionally affects infants less than one year of age.

**14%** of pertussis cases were hospitalized due to their infection in 2016.

**18%** of pertussis cases 6 months to 17 years were not vaccinated.

Of the 85 pertussis cases that were partially vaccinated, 24 (28%) were up-to-date but too young to be fully vaccinated.

11 children were less than 6 months and were excluded from the figure.
There are usually one to two measles cases reported each year in Arizona, but in 2016 there was a large measles outbreak in a detention center in Pinal County. This was the largest measles outbreak in the United States in 2016.

The outbreak was first reported on 5/25 from a local hospital where a detainee was taken with symptoms compatible with measles. At the end of the outbreak, there were a total of 31 cases. **23 detainees & 8 employees**

During the outbreak there were vaccine clinics that were conducted in the detention center as well as vaccines given to community members at the public health clinics in Pinal County. A total of **2,636 MMR vaccines** were given during the outbreak in Pinal County.

During the outbreak, there were **13 health care facilities** that had measles exposures with **645 individuals** exposed at those facilities.

No community cases were ever identified during this outbreak.
*Haemophilus influenzae* type b (Hib) infections are very rare since the introduction of the vaccine in the late 1980s. In Arizona, there are usually one or two cases reported each year. In 2016, there was an increase in cases with four counties reporting five cases.

All five of the cases had to be hospitalized due to their infection. There were no deaths.

1 out of 5 Hib cases was not vaccinated in 2016.

Of the 3 partially vaccinated children, 1 was up-to-date but not old enough to be fully vaccinated.
The number of reported varicella cases have stayed fairly consistent over the last several years with approximately 275 cases reported each year.

A large majority (81%) of varicella cases occur in children less than 17 years of age.

Individuals with no varicella vaccine doses have more severe disease (more spots or blisters) than those with two doses of varicella vaccine.