

# Pertussis Cases in Clark County

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## General Pertussis Information

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### Background

Pertussis, or whooping cough, is a highly contagious respiratory infection caused by the bacteria *Bordetella pertussis*. Most of the reported cases occur in children under 5 years of age. Adolescents and adults may have milder disease. ~7% of cough illnesses per year in adults could be due to pertussis. Humans are the only reservoir for this bacteria.

### Transmission & Risk

Pertussis is spread by direct contact with nose and throat discharge of infected individuals. Older siblings or adults in a household could harbor the bacteria in their nose and throat, and infect an infant in the household. Pertussis can be transmitted from the onset of symptoms to three weeks after the onset of coughing episodes. Previous infection usually provides immunity comparable to that provided by the vaccine.

### Symptoms & Complications

Initially symptoms resemble those of a common cold (sneezing, runny nose, low-grade fever, mild cough). After two weeks, the cough becomes more severe and is characterized by episodes of numerous rapid coughs followed by a high-pitched whoop. These episodes may occur for one to two months, and are more frequent at night. Symptoms can appear after an incubation period of 7 to 10 days; however, the range is 4 to 21 days.

Young children are at the greatest risk of complications that include pneumonia, seizures, encephalopathy, and death. Less serious complications are ear infections, loss of appetite, and dehydration.

### Testing, Diagnosis, Treatment

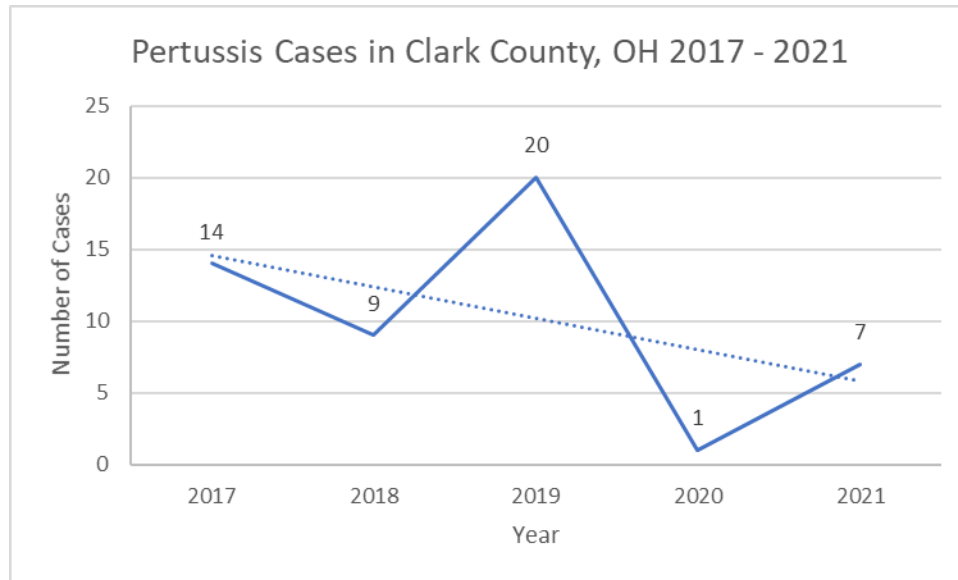
Younger children should receive the DTaP vaccine (diphtheria toxoid in combination with tetanus toxoid and acellular pertussis) at 2, 4, 6, and 15-18 months of age and between 4 and 6 years of age. Older children and adults should receive Td (tetanus/diphtheria) boosters every 10 years, if they have completed the primary series. Tdap (tetanus/diphtheria/acellular pertussis) is recommended as one of the boosters for adolescents (11-18 years of age) and adults <65 years of age.

It is vital to maintain the highest possible level of immunization in the community to prevent the spread of pertussis. Antibiotics for cases and close contacts of cases is important. Those who may have pertussis, or a persistent cough, should stay away from young children and infants until evaluated by a physician.

More information can be found here: <https://odh.ohio.gov/know-our-programs/infectious-disease-control-manual/section3/section-3-pertussis>

*Clark County Related Discussion*

Figure 1 shows the pertussis cases in Clark County between 2017 and 2021. The highest reported cases was in 2019 (20 cases), and the lowest was in 2020 (1 case). The sharp decline from 2019 and 2020 could partially be due to COVID-19 restricting contact with others not in one’s household and the temporary closure of childcare centers and schools to limit the spread of COVID-19. As social distancing restrictions began lifting in 2021, there is an increase in pertussis cases.



*Figure 1 Pertussis Cases in Clark County*

Table 1 shows the breakdown of pertussis cases by age group. The 0-5 age group makes up 43.1% of total cases between 2017-2021. This is the age range where the primary series of vaccinations is given as well as the range where the most cases occur within the United States.

Age Group	Suspected Total	Probable Total	Confirmed Total	Grand Total
0-5	12	2	8	22
6-10	3	1	3	7
11-18	4	0	2	6
19-29	0	0	2	2
30-39	0	0	0	0
40-49	2	0	0	2
50-59	3	3	0	6
60-69	0	3	1	4
70+	1	1	0	2

*Table 1 Pertussis Cases by Age Group*