

Streptococcus pneumoniae Cases in Clark County

General Streptococcus pneumoniae Information

Background

Pneumococcal disease is an infection caused by the bacteria *Streptococcus pneumoniae*. Most common types of infections include ear, sinus, lung, blood stream infections and meningitis. Some of these infections are considered to be “invasive” and can invade parts of the body that are normally free from organisms. The bacteria can invade the bloodstream and/or tissues and fluids surrounding the brain and spinal cord causing meningitis.

Over 50% of all cases of bacterial meningitis are caused by pneumococci and *S. pneumoniae* is the leading cause of bacterial meningitis in children younger than 5 years of age. Pneumococcal pneumonia is the most common form of pneumococcal disease in adults, and ~900,000 Americans get pneumococcal pneumonia annually.

Transmission & Risk

Pneumococcal disease is spread through the respiratory droplets from the nose or mouth of an infected person. It is common for children to carry the bacteria without being ill from it. Young children under the age of 2, within group childcare, and/or who have certain illnesses are at a higher risk to get pneumococcal disease. Adults >65 are also at a higher risk of pneumococcal disease.

Symptoms & Complications

Most infections are mild; however, some can result in long-term problems (brain damage, hearing loss) or death. Meningitis is the most severe type of pneumococcal disease, with a case-fatality rate of 8% among children and 22% among adults.

Pneumococcal pneumonia is the most common clinical presentation of pneumococcal disease among adults. Symptoms generally include an abrupt onset of fever and chills or rigors. Pneumococcal bacteremia symptoms generally include fever, chills, and low alertness. Pneumococcal meningitis symptoms include stiff neck, fever, headache, photophobia, and confusion.

Complications include infection of space between membranes that surround the lungs and chest cavity (empyema), inflammation of the sac surrounding the heart (pericarditis), and endobronchial obstruction, with atelectasis and lung abscess formation.

Testing, Diagnosis, Treatment

This bacterium is treated with antibiotics. Pneumococcal conjugate vaccine (PCV) helps prevent infection and is recommended for children under 5 years of age.

A diagnosis relies on isolation of the organism from blood or other normally sterile body sites.

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

Clark County Related Discussion

The highest reported cases in Clark County was in 2019 (26 cases) and the lowest was in 2020 (4 cases). There is an 84.6% decrease in cases between 2019 and 2020, with an overall decrease of 42.9% between 2017 and 2021.

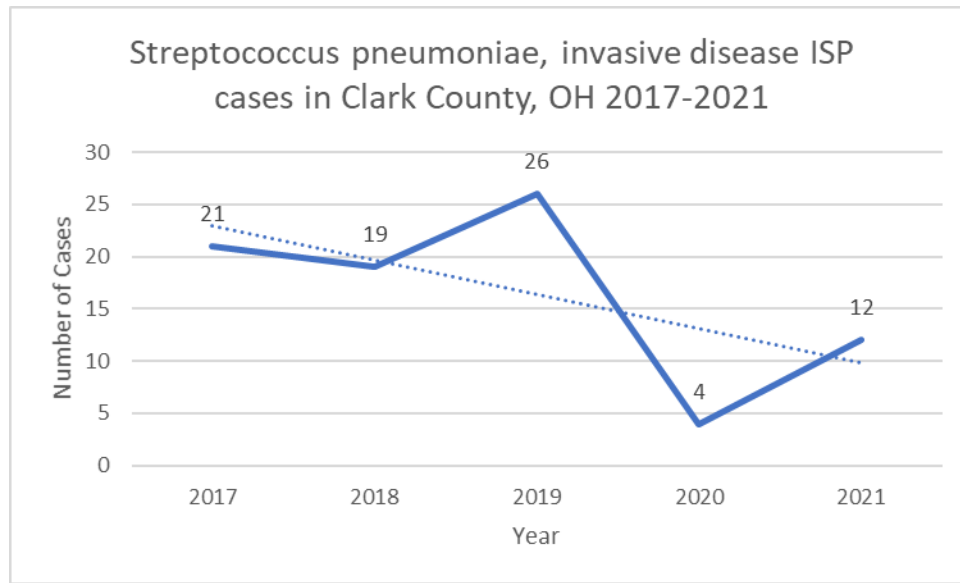


Figure 1 Streptococcus pneumoniae cases 2017-2021

The 60-69 age group accounts for 25.6% of cases between 2017 and 2021, while the 50-59, 60-69, and 70-79 age groups account for 65.9% of cases.

Age Group	Total	Age Group	Total
0-5	4	40-49	8
6-10	2	50-59	15
11-19	0	60-69	21
20-29	3	70-79	18
30-39	5	80+	6

Table 1 Streptococcus pneumoniae by age group

*Includes Suspected, Probable and Confirmed Cases.