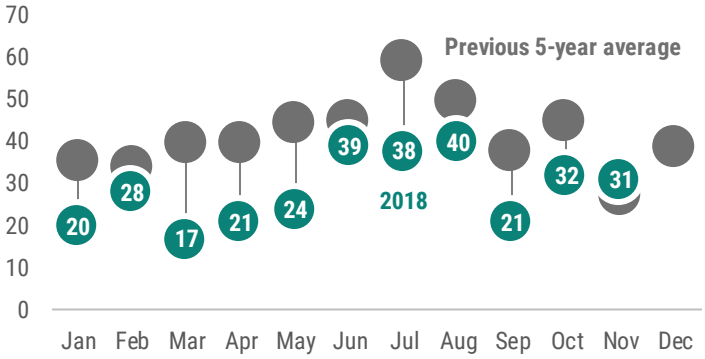
Pertussis Surveillance
November 2018

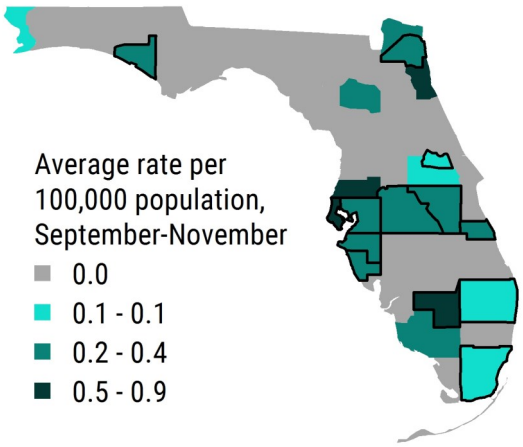
Key Points

- 31 cases
- 0 outbreaks
- Average of 3 contacts per case
- <1 year olds had highest incidence
- 71% cases not up-to-date or unknown immunizations

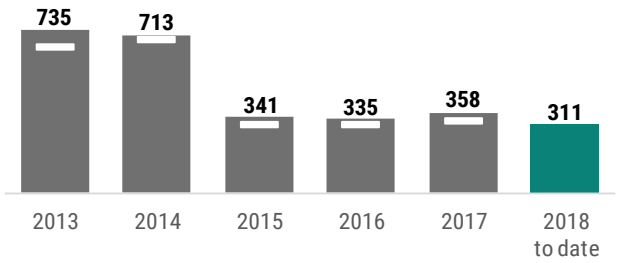
The number of pertussis cases reported in November was similar to the previous month and was slightly above the previous 5-year average. In general, more pertussis cases are reported during the summer months.



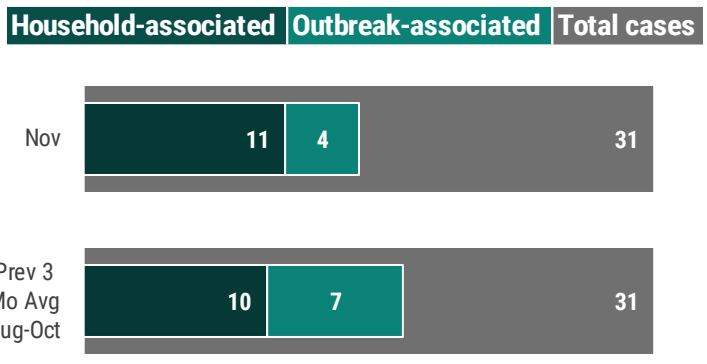
The 31 pertussis cases in November were reported among the **13 counties outlined in black**. During the previous 3 months (September through November), the average county rate has varied throughout the state.



From January 1, 2018 through November 30, 2018, 311 pertussis cases were reported in 35 counties.
The number of cases as of November 30 in previous years are marked by the white bars for 2013-2017. Since 2014, the number of pertussis cases reported annually decreased. Pertussis is cyclic in nature with peaks in disease every 3-5 years. Pertussis cases last peaked between 2013 and 2014. Thus far in 2018, it appears case counts will remain consistent with those seen during non-peak years.



In November, 11 (35%) of 31 total pertussis cases were associated with transmission within households and 4 (13%) cases were outbreak-associated. For most pertussis cases, exposure to other known cases is never identified, and they are not able to be linked to outbreaks.



No new pertussis outbreaks were reported in November. This month, 4 additional cases were added to an outbreak in a school in Pinellas County which, to date, consists of 10 reported cases.

Eight pertussis outbreaks have been reported in 2018. Outbreak settings include schools (4 outbreaks), daycares (2 outbreaks), workplace (1 outbreak), and extended family (1 outbreak).

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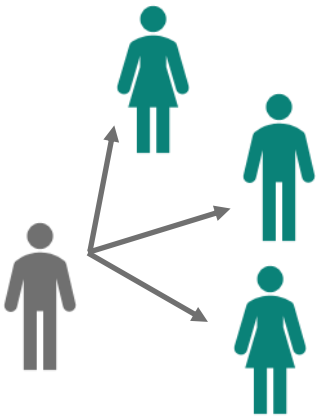
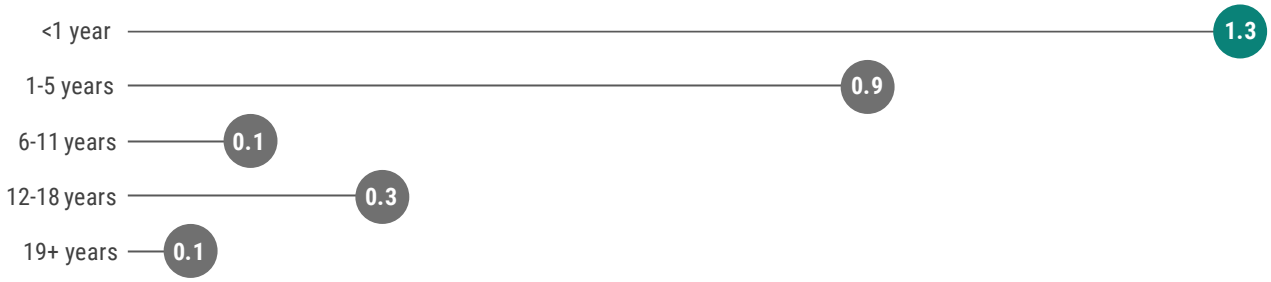
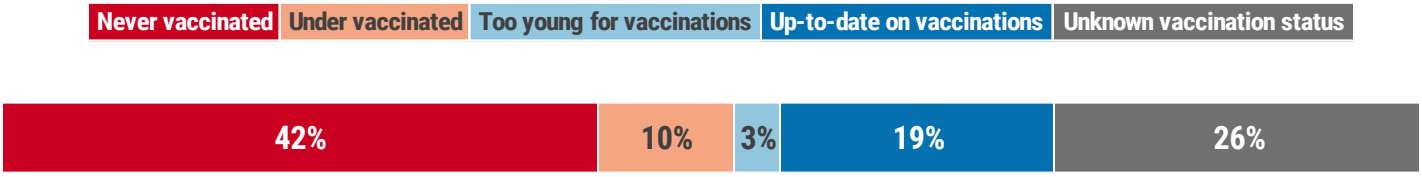
For each pertussis case reported in November, there was an average of 3 contacts for whom antibiotics were recommended to prevent illness. For those diagnosed with pertussis, antibiotics can shorten the amount of time they are contagious to others. Antibiotics can also be used to prevent illness in those who have been exposed to someone with pertussis while they are contagious.



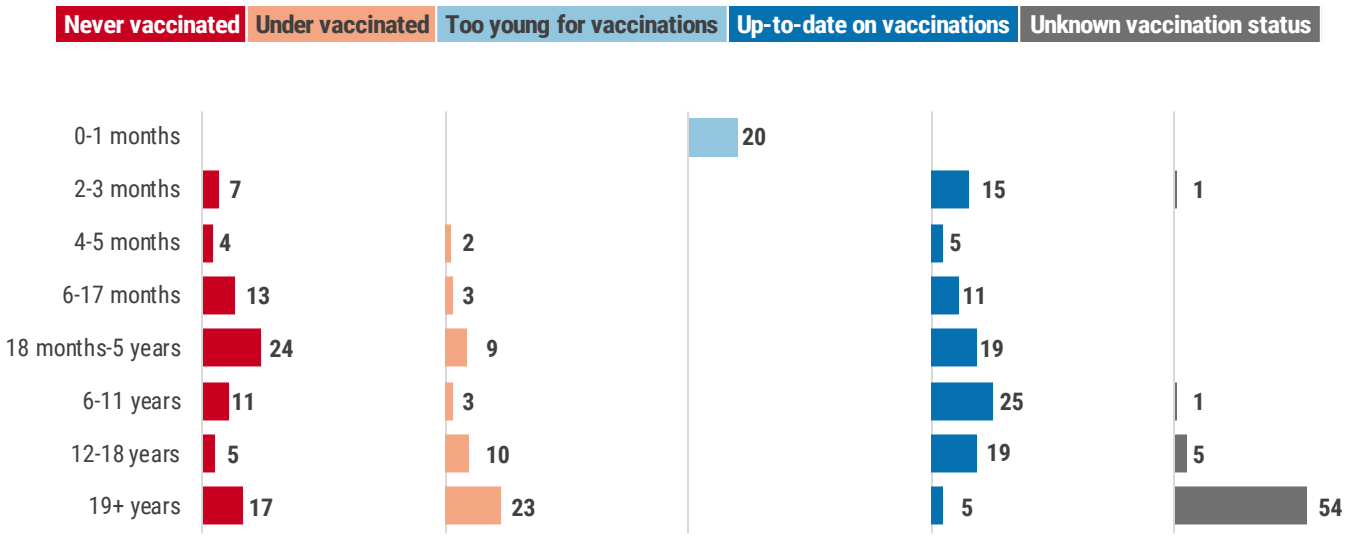
In November, the rate of pertussis was highest among infants <1 year old at 1.3 cases per 100,000 population, which is consistent with previous months. Infants experience the greatest burden of pertussis infections, not only in number of cases but also in severity. Infants <2 months old are too young to receive vaccinations against pertussis, which is why vaccination of parents, siblings, grandparents, and other age groups is so important to help prevent infection in infants.



Vaccination is the best way to prevent pertussis infections. In November, more than half of individuals reported with pertussis had not received the recommended number of pertussis vaccinations for their age or had unknown vaccination status. Vaccination against pertussis is important for everyone including infants, children, teenagers, and adults. Pregnant women should get vaccinated during the third trimester of each pregnancy to protect their babies. See the last page of this report for links to vaccination schedules recommended by the Centers for Disease Control and Prevention.



Thus far in 2018, over half of infants and children aged 6 months to 5 years with pertussis were not up-to-date on their pertussis vaccinations. **In general, those who have received at least 1 pertussis vaccination have less severe outcomes than those who have never been vaccinated.**



National activity

The number of pertussis cases gradually increased since the 1980s, peaking in 2012 at levels not seen since the 1950s. Since 2012, the number of pertussis cases started gradually decreasing. Pertussis incidence has remained highest among infants <1 year old and lowest among adults ≥20 years old since the 1990s.

Pertussis surveillance goals

- Identify cases to limit transmission in settings with infants or others who may transmit pertussis to infants
- Identify and prevent outbreaks
- Identify contacts of cases and recommend appropriate prevention measures, including exclusion, antibiotic prophylaxis, and immunization
- Monitor the effectiveness of immunization programs and vaccines

To learn more about pertussis, please visit FloridaHealth.gov/Pertussis. For more information on the data sources used in Florida for pertussis surveillance, see the last page of this report.

Vaccine-Preventable Diseases Surveillance System Summary

Case Data

- Current case data are preliminary and will change as new information is gathered. The most recent data available are displayed in this report.
- Pertussis, varicella, and hepatitis A are reportable diseases in Florida. Case information is documented by county health department (CHD) epidemiologists in Merlin, Florida's reportable disease surveillance system.
- Only Florida residents are included in case counts, but contact investigations are conducted for all exposed individuals.
  - Pertussis, varicella, and hepatitis A case counts include both confirmed and probable cases.
- Map counts and rates are determined by the individual's county of residence; these data do not take into account location of exposure.
- CHD epidemiologists also report outbreaks of pertussis, varicella, and hepatitis A into Merlin.
  - Household-associated cases are defined as ≥2 cases exposed within the same household.
  - Pertussis and mumps outbreaks are defined as ≥2 cases associated with a specific setting outside of a household.
  - Varicella outbreaks are defined as ≥5 cases associated with a specific setting outside of a household.
  - Measles outbreaks are defined as any person acquiring measles while in Florida.
- For more information about reportable diseases, please visit FloridaHealth.gov/DiseaseReporting.
- For more information about Florida's guides to surveillance and investigation, including disease-specific surveillance case definitions, please visit FloridaHealth.gov/GSI.

Population Data

- Population data used to calculate incidence rates are from FLHealthCHARTS (Community Health Assessment Resource Tool Set).
- For more information about FLHealthCHARTS, please visit FLHealthCharts.com.

Vaccination Data

- Vaccination data for identified cases are from Merlin, as documented by CHD staff.
- Vaccination status is determined using the Advisory Committee on Immunization Practices Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger, 2018.
- For more information about immunization schedules, please visit www.CDC.gov/Vaccines/Schedules/index.html.
- Individuals are considered up-to-date on vaccinations if they have received the recommended number of doses of vaccine for a particular disease for their age at the time of their illness onset. Individuals are considered under-vaccinated if they have received at least one but not all doses of vaccine recommended for a particular disease for their age at the time of their illness onset.
- For a full text version of a new study on pertussis vaccination, please visit www.CIDID.org/Publications-1/2018/3/29/The-Impact-of-Past-Vaccination-Coverage-and-Immunity-on-Pertussis-Resurgence.