Varicella Surveillance
December 2018

December Key Points

- 149 cases
- 3 outbreaks
- <1 year olds had highest incidence
- 70% cases not up-to-date or unknown vaccination status

The number of varicella cases reported in December increased from last month and was above the previous 5-year average. In general, more varicella cases are reported during the late winter and summer months.

From January 1, 2018 through December 31, 2018, 905 varicella cases were reported in 52 counties.

The annual number of reported varicella cases decreased from 2015 to 2017. Thus far in 2018, case counts are notably above the total number of cases in previous years.

In December, 16 (11%) of 149 total cases were associated with transmission within households and 18 (12%) cases were outbreak-associated. For most varicella cases, exposure to other known cases is never identified, and they are not able to be linked to outbreaks.

<table>
<thead>
<tr>
<th>Household-associated</th>
<th>Outbreak-associated</th>
<th>Total cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>149</td>
</tr>
</tbody>
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Three varicella outbreaks were reported in December. Two were reported in schools in Pinellas County (8 cases to date) and Columbia County (5 cases to date). One was reported in a daycare in Hillsborough County (11 cases to date). Individuals were identified in November and December for all three outbreaks reported this month.

11 total varicella outbreaks were reported in 2018, of which 6 occurred in schools, 1 in a daycare, and 4 in correctional facilities. The majority of outbreaks in schools have occurred in populations with high religious exemption rates.
In December, the varicella rate was highest among infants <1 year old at 3.9 cases per 100,000 population, which is consistent with previous months. Infants <1 year old are too young to receive varicella vaccination, which is why vaccination of siblings, parents, grandparents, and other age groups is so important to help prevent infection in infants.

Vaccination is the best way to prevent varicella infections. In December, over half of individuals reported with varicella had not received the recommended number of varicella vaccinations for their age or had unknown vaccination status. Vaccination against varicella is important for infants, children, teenagers, and adults. See the last page of this report for links to the Center for Disease Control and Prevention (CDC) recommended vaccination schedules.

In 2018, 42% of children aged 15 months to 5 years with varicella were not up-to-date on their varicella vaccinations. Although individuals who have been vaccinated can still get varicella, complete and timely vaccination remains the best way to prevent varicella and severe complications.

National activity

Varicella incidence decreased significantly following the vaccine becoming available in 1995 and has continued to decrease since 2006 when recommendations changed from 1 to 2 doses of varicella vaccine. From 2006 to 2015, all age groups had a substantial decrease in incidence with the largest decline in children aged 5 to 14 years. Although varicella is not reported to the CDC by all states, based on available data, the number of varicella cases nationally has steadily decreased each year from 2012 to 2015.

Varicella surveillance goals

- Identify and control outbreaks and monitor trends and severe outcomes
- Monitor effectiveness of immunization programs and vaccines

To learn more about varicella, please visit FloridaHealth.gov/Varicella. For more information on the data sources used in Florida for varicella surveillance, see the last page of this report.
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, hepatitis A, and measles 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, hepatitis A, and measles 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.