Map 3 shows the previous three-month average of varicella incidence rates per 100,000 population, April through June 2018 (green shading). Counties with one or more cases reported in July 2018 are highlighted in pink.

**September Key Points**

- **82 cases**
- **0 new outbreaks**
- **<1 year olds had highest incidence**
- **56% cases not up-to-date or unknown vaccination status**

The number of varicella cases reported in September was stable from last month and remained above the previous 5-year average. Due to robust vaccination programs, there is no longer discernable seasonality for varicella cases in the United States.

The 82 varicella cases in September were reported among the 27 counties outlined in black. From July through September 2019 the average county rate varied throughout the state.

From January 1, 2019 through September 30, 2019, **753 varicella cases** were reported in 54 counties.

The annual number of reported varicella cases decreased from 2015 to 2017. Year-to-date cases counts as of September 2019 are higher than those seen at this time in previous years, as noted by the white bar in the figure.

In September, **8 (10%) of 82 total cases were associated with transmission within households and no 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.

No varicella outbreaks were reported in September.

So far in 2019, a total of one varicella outbreak has been reported in a detention facility.

**Household-associated Outbreak-associated Total cases**

<table>
<thead>
<tr>
<th></th>
<th>Sep 2019</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Household-</td>
<td>8</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Outbreak-</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</tbody>
</table>
In September, 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 September, over half of individuals reported with varicella had not received the recommended number of varicella vaccinations for their age or had unknown vaccination status. Self-reported vaccination status that could not be verified is shown with a diagonal pattern. 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 2019, the majority of adults aged 19 years and older with varicella were not up-to-date on their varicella vaccinations or had unknown vaccination status. Although individuals who have been vaccinated can still get varicella, complete and timely vaccination remains the best way to prevent varicella and severe complications. Self-reported vaccination status that could not be verified is shown with a diagonal pattern.

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, 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 from 2019 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.