

July 2018

Summary

State activity:

Seventy-five varicella cases were reported among 25 counties.

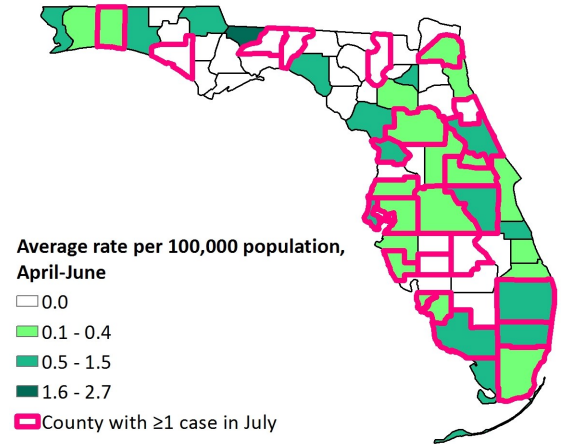
- Varicella activity decreased from last month but remained above the five-year average for the fifth month in a row.
- From January 1, 2018 through July 31, 2018, 484 cases of varicella were reported among 42 of Florida's 67 counties.
- A decreasing trend in the number of cases of varicella reported annually in Florida was observed from 2008-2014. From 2015-2017 there has been an increase in number of cases reported, and overall the number of cases reported thus far in 2018 is similar to that seen in 2017 at this time.
- **No varicella outbreaks were reported in July.**
 - So far in 2018, outbreaks have been reported in a school, correctional facility, and a rehabilitation center.
- **In July, infants less than one year old had the highest incidence of varicella.** This is consistent with trends seen during previous months in 2018.
- **Vaccination is the best way to prevent varicella infection.** In July, 60% of cases were not up-to-date on their varicella vaccinations or had unknown vaccination status. In general, those who have received at least one varicella vaccination have less severe outcomes than those who have never been vaccinated. In July, those too young for vaccination were the most likely to visit the emergency department.
- To learn more about varicella, please visit www.floridahealth.gov/varicella.

National activity:

- Varicella incidence decreased significantly following the vaccine becoming available in 1995 and has continued to decrease since 2006 when recommendations changed from one to two doses of varicella vaccine.
 - From 2006 to 2015, all age groups had a substantial decrease in incidence with the largest decline in children aged 5-9 years and aged 10-14 years.
- Although varicella is not reportable in all states and therefore not all states report varicella cases to the Centers for Disease Control and Prevention (CDC), based on available data, the number of varicella cases nationally has steadily decreased each year from 2012-2015.

Map 3

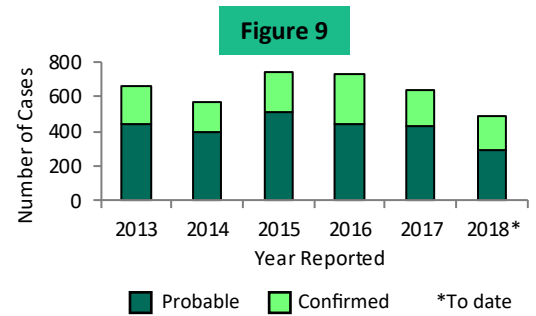
Map 3 shows the previous three-month average of varicella incidence rates per 100,000 population, April through June 2018 (green shading). Counties with one or more cases reported in July 2018 are highlighted in pink.



Average rate per 100,000 population, April-June

- 0.0
- 0.1 - 0.4
- 0.5 - 1.5
- 1.6 - 2.7
- County with ≥1 case in July

Figure 9 shows the number of confirmed and probable cases of varicella reported into Merlin, 2013 through July 2018.



Surveillance goals:

- Varicella surveillance is conducted to identify and control outbreaks and monitor trends and severe outcomes.
- Surveillance is also conducted to monitor effectiveness of immunization programs and vaccines. For more information on the data sources used in Florida for varicella surveillance, see page 10 ►

Varicella Cases by Month Reported

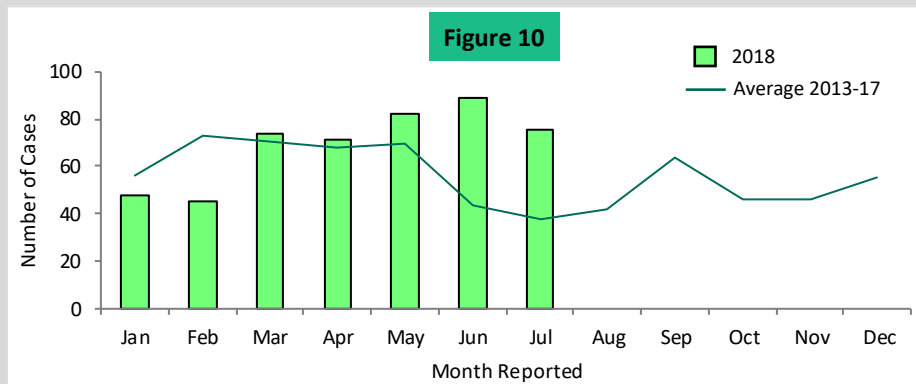


Figure 10 shows the number of confirmed and probable cases of varicella reported into Merlin, January through July 2018 and the previous five-year average.

In July, the number of reported varicella cases decreased from June but remained above the previous five-year average for the fifth month in a row. In general, varicella activity is highest during the late winter and spring.

Varicella Outbreaks

Figure 11 shows the number of confirmed and probable cases that were associated with at least one other case and the total number of confirmed and probable cases as reported into Merlin, July 2018 and the previous three-month average. Cases associated with at least one other case are shown by type of association.

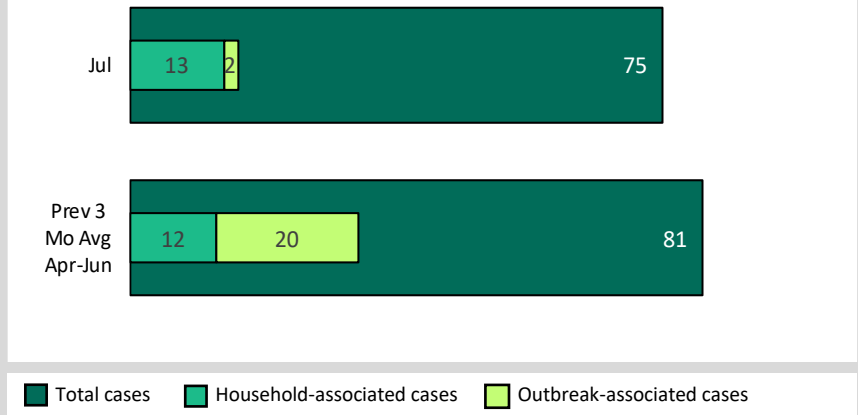
In July, 13 (17%) cases were associated with transmission within households and two (3%) cases were outbreak-associated with an outbreak first reported in June.

Outbreak Summary:

In July 2018, no varicella outbreaks were reported. So far in 2018, outbreaks have been reported in a school, correctional facility, and a rehabilitation center.

See [page 10](#) for outbreak definitions.

Figure 11



Varicella Age-Specific Incidence Rates

Figure 12

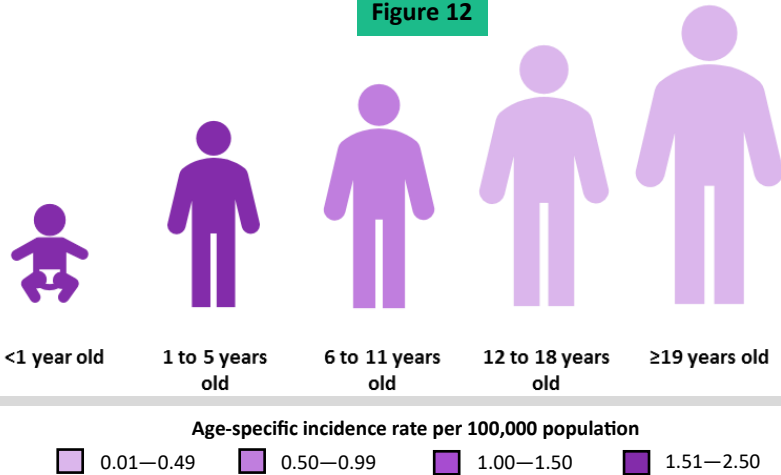


Figure 12 shows the age-specific incidence rates of confirmed and probable cases of varicella, as reported into Merlin, July 2018.

In July, the varicella incidence rate was highest among infants less than one year old at 2.2 cases per 100,000 population, which is consistent with previous months. Infants less than one year old are too young to receive varicella vaccination, which is why vaccination of grandparents, parents, siblings, and other age groups is so important to help prevent infection in infants.

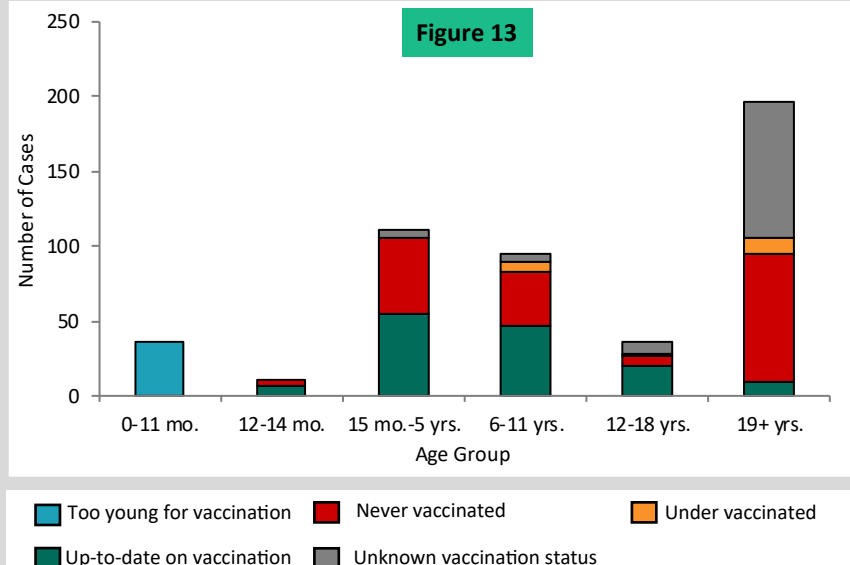
Vaccination History for Varicella Cases

Figure 13 shows the vaccination status of varicella cases by age group for confirmed and probable cases of varicella, as reported into Merlin, January through July 2018 (n=484).

So far in 2018, 50 (45%) individuals aged 15 months to five years old and 36 (38%) individuals aged six to 11 years old have not been vaccinated for varicella. Of the 196 cases in adults aged 19 and older, 86 (44%) were not up-to-date on their varicella vaccinations.

See [page 10](#) for links to CDC recommended vaccination schedules.

Figure 13

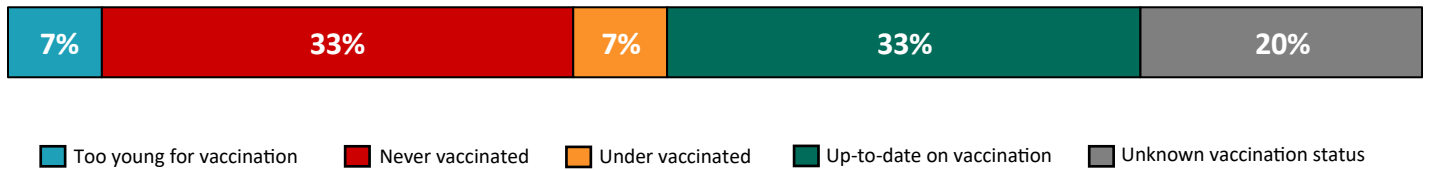


Varicella Cases by Vaccination Status

Figure 14 shows the percent of confirmed and probable varicella cases for each vaccination status, as reported into Merlin, July 2018.

Although individuals who have been vaccinated can still get varicella, complete and timely vaccination remains the best way to prevent varicella and severe complications. In July, 33% of cases were never vaccinated for varicella.

Figure 14



Varicella Outcomes

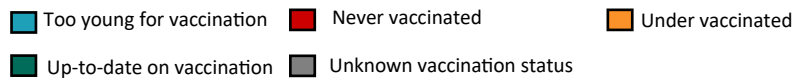
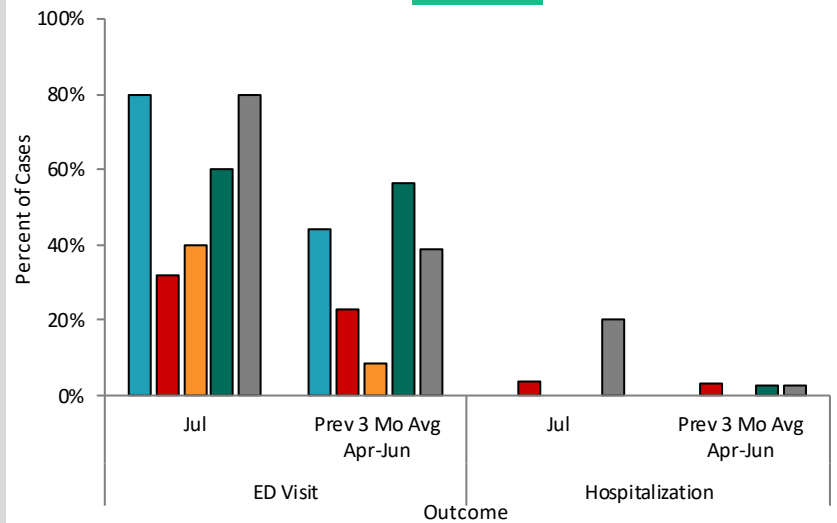
ED = emergency department

Figure 15 shows the percent of confirmed and probable cases of varicella with select outcomes by vaccination status, as reported into Merlin, July 2018 and the previous three-month average.

In July, those who were too young to receive a varicella vaccination were more likely to visit the emergency department. Those who had unknown vaccination status were more likely to visit the emergency department and require hospitalization.

In general, those who received at least one dose of varicella vaccination, even if they later develop disease, have less severe outcomes than those who have never been vaccinated.

Figure 15



Case Data

- Current case information is preliminary and will change as new data are gathered. The most recent data available are displayed in this report.
- Pertussis, varicella, and mumps are reportable diseases in Florida. Case information is documented by county health department (CHD) epidemiologists in Merlin, Florida's reportable disease surveillance system.
- CHD epidemiologists also report outbreaks of pertussis, varicella, and mumps into Merlin.
 - Household-associated cases are defined as two or more cases exposed within the same household.
 - Pertussis and mumps outbreaks are defined as two or more cases associated with a specific setting outside of a household.
 - Varicella outbreaks are defined as five or more cases associated with a specific setting outside of a household.
- For more information about reportable diseases, please visit www.Floridahealth.gov/diseasereporting.
- For more information about Florida's guides to surveillance and investigation, including disease-specific surveillance case definitions, please visit www.Floridahealth.gov/gsi.
- For the full article on a Minnesota outbreak of measles, please visit www.cdc.gov/mmwr/volumes/66/wr/mm6627a1.htm.

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 www.flhealthcharts.com.

Vaccination Data

- Vaccination data for identified cases are from Merlin, as documented by CHD epidemiologists.
- 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