

Summary

May 2018

State activity:

- **Eighty-two varicella cases were reported among 24 counties in May.**
 - Varicella activity increased from last month and remained above the five-year average for the third month in a row.
 - From January 1, 2018 through May 31, 2018, 320 cases of varicella were reported among 44 of Florida's 67 counties.
- A decreasing trend in the number of cases of varicella reported annually in Florida was observed from 2008-2014. Although the number of cases was higher than the previous five years, overall the number of cases reported thus far in 2018 is similar to that seen in 2017 at this time.
- **In May, no varicella outbreaks were reported.**
- **In May, children age six to 11 years old had the highest incidence of varicella.** Previously in 2018, children less than one year old had the highest incidence.
- **Vaccination is the best way to prevent varicella infection.** In April, 62% of cases were not up to date on their varicella vaccinations or had unknown vaccination status. In general, those who receive at least one dose of varicella vaccination, even if they later develop disease, have less severe outcomes than those who have never been vaccinated. Although cases who were up to date on their vaccinations were most likely to visit the emergency department in May, those who have never been vaccinated were more likely to require hospitalization.
- To learn more about varicella, please visit <http://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 –2015 all age groups saw a significant decrease in incidence with the largest decline in children age 5-9 years and age 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 (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, February through April 2018 (green shading). Counties with one or more cases reported in May 2018 are highlighted in pink.

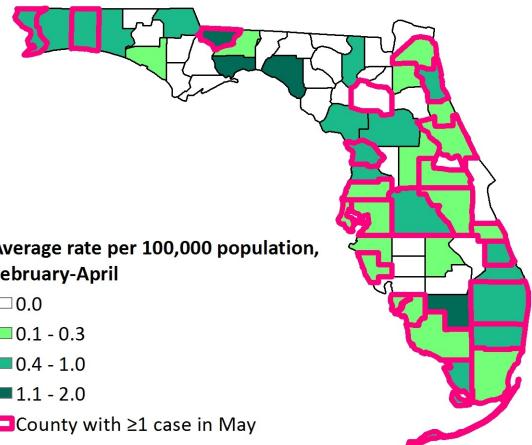
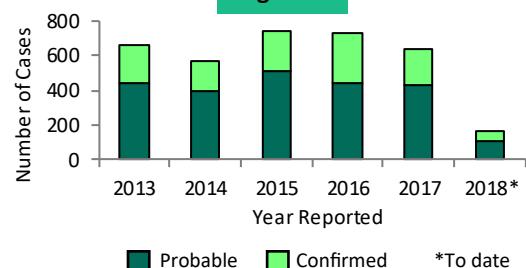


Figure 9 shows the number of confirmed and probable cases of varicella reported into Merlin, 2013 through May 2018.

Figure 9



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 13 ►

Varicella Cases by Month Reported

Figure 10

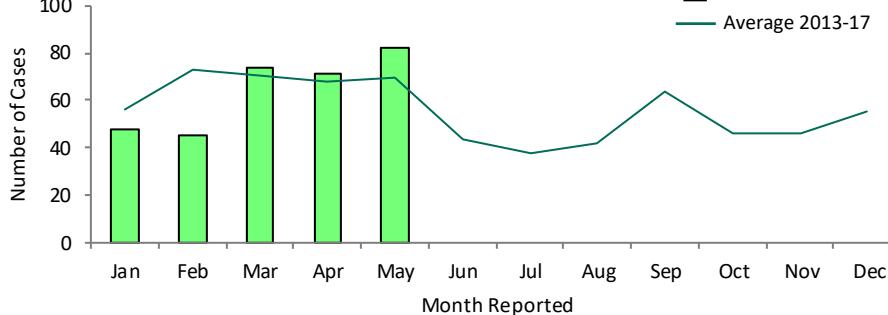


Figure 10 shows the number of confirmed and probable cases of varicella reported into Merlin, January through May 2018 and the previous five-year average.

In May, the number of reported varicella cases increased from that reported in April and remained above the previous five-year average for the third month in a row. In general, varicella activity is highest during the late winter and spring.

Varicella Outbreaks

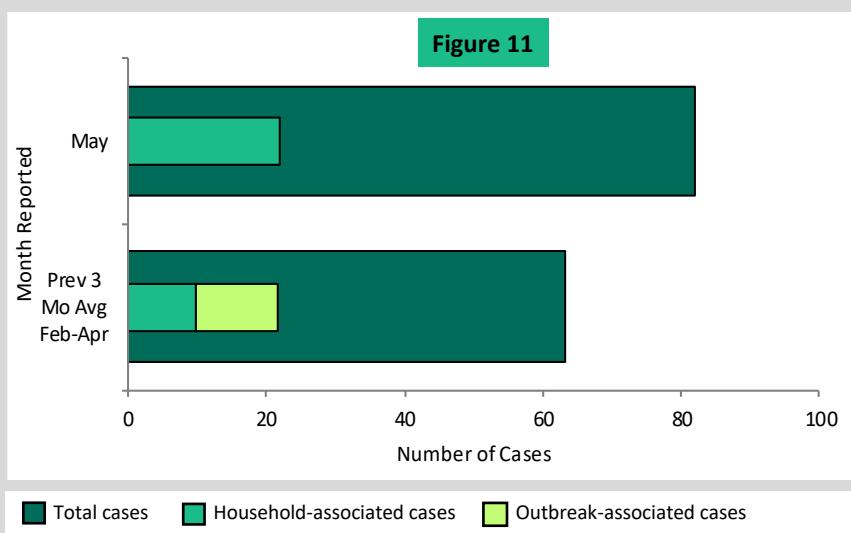
Figure 11 shows the number of confirmed and probable cases that were associated with at least one other case and the total number of confirmed and probable cases as reported into Merlin, May 2018 and the previous three-month average. Cases associated with at least one other case are shown by type of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

In May, 22 (27%) cases were associated with transmission within households.

Outbreak Summary:

No new outbreaks were reported in May 2018. Thus far in 2018, two varicella outbreaks have been reported, one in a correctional facility and one in a school.

See [page 13](#) for outbreak definitions.



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, May 2018.

In May, the varicella incidence rate was highest among children six to 11 years old at 1.7 cases per 100,000 population. Previously in 2018, the incidence has been highest among infants less than one year old. 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.

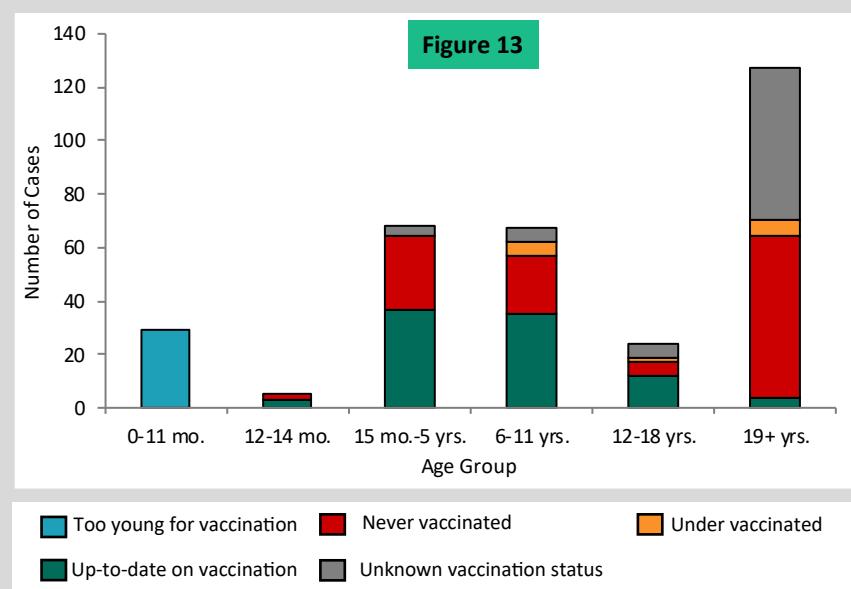
Vaccination History for Varicella Cases

UTD = up-to-date

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 May 2018 (n=320).

Varicella vaccinations are recommended at 12-15 months of age and four to six years of age. Of the 127 cases in adults aged 19 and older, 66 (52%) were not up-to-date on their varicella vaccinations.

See [page 13](#) for links to CDC recommended vaccination schedules.



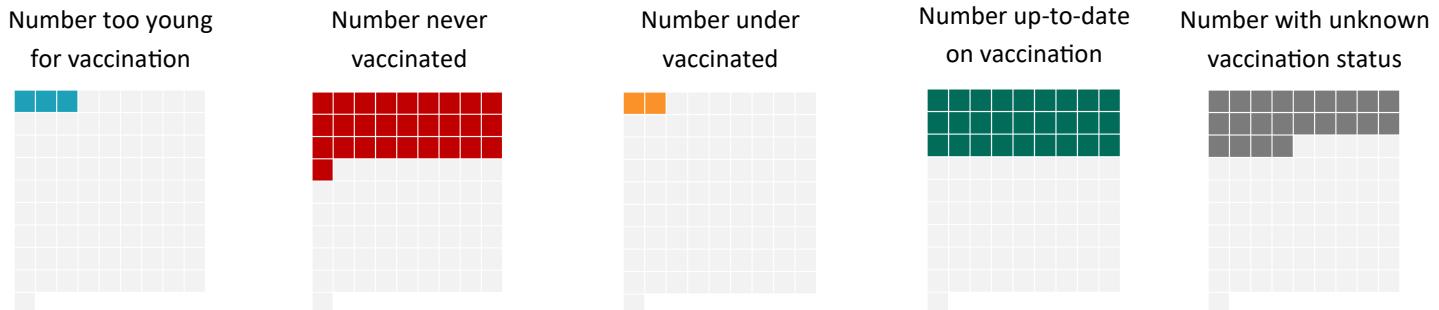
Varicella Cases by Vaccination Status

UTD = up-to-date

Figure 14 shows the number of confirmed and probable varicella cases for each vaccination status, as reported into Merlin, May 2018. Each square represents one case, with the colored squares representing a case with a given 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.

Figure 14



Varicella Outcomes

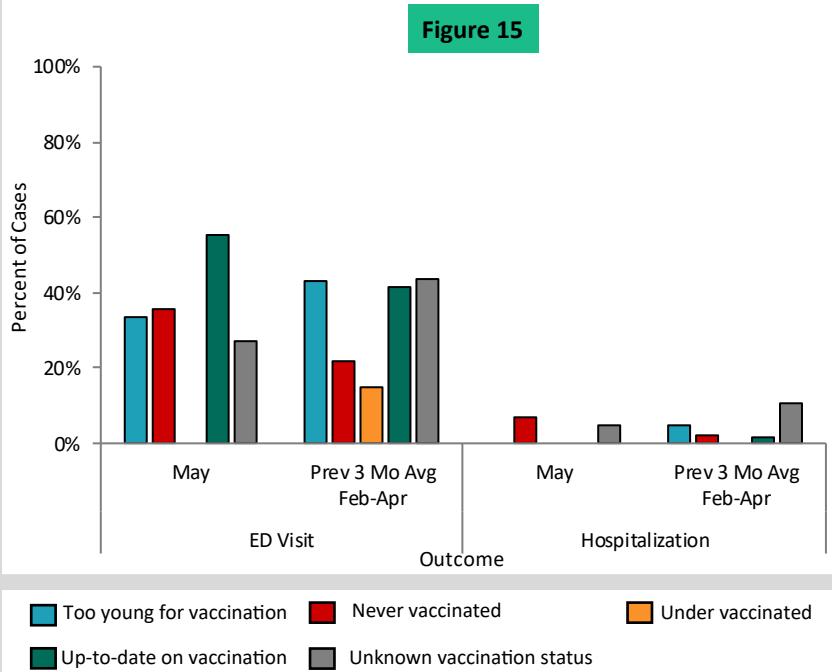
UTD = up-to-date, ED = emergency department

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

In general, cases who were UTD on their vaccinations were less likely to experience fever and vesicle lesions. Cases too young to be vaccinated or not yet vaccinated were more likely to experience papule lesions.

In May, those who have never received a varicella vaccination were more likely to require inpatient 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 probable and confirmed case definitions, please visit www.Floridahealth.gov/gsi.
- For the full article on a Minnesota outbreak of measles, please visit <https://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 from cases are from Merlin, as identified 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.
- Cases are considered up-to-date 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. Cases 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 more information about immunization schedules, please visit <https://www.cdc.gov/vaccines/schedules/index.html>.
- For a full text version of a new study on pertussis vaccination, please visit <http://www.cidid.org/publications-1/2018/3/29/the-impact-of-past-vaccination-coverage-and-immunity-on-pertussis-resurgence>