

Summary

March 2018

State varicella activity:

- **Seventy-three confirmed and probable varicella cases were reported among 26 counties in March.**
 - The number of reported varicella cases increased from February and is slightly above the March five-year average.
 - From January 1, 2018 through March 31, 2018, 164 cases of varicella were reported among 39 of Florida's 67 counties.
- A decreasing trend in the number of confirmed and probable 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 fewer cases have been reported in 2018 than 2017. Increased varicella activity is expected for the next two months.
- **In March, an outbreak of varicella was reported in a school; to date 17 cases have been identified.**
- **In March, children age less than one year old had the highest incidence of varicella.** This is consistent with what has been observed thus far in 2018.
- **Vaccination is the best way to prevent varicella infection.** In March, 60% 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. In March, cases who were not up to date on their vaccinations or had unknown vaccination status were most likely to require inpatient hospitalization.
- Though rare, deaths from varicella do occur. **In March, a varicella case previously reported in February was confirmed to have died; the deceased had multiple underlying conditions and varicella vaccination status was unknown.**
- To learn more about varicella, please visit <http://www.floridahealth.gov/varicella>.

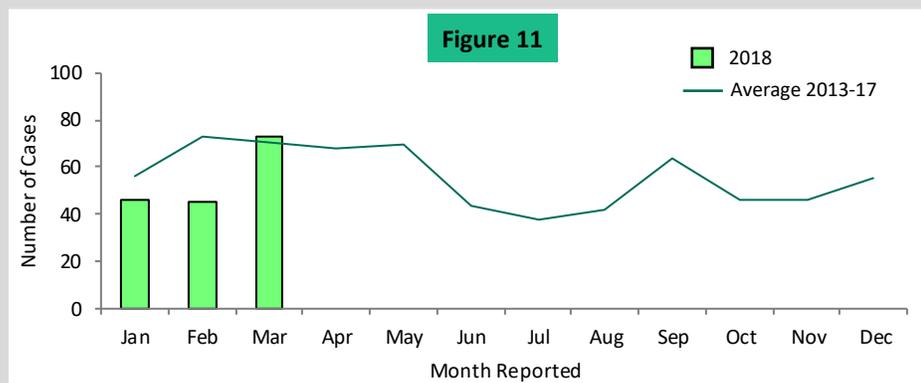
National varicella activity:

- 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 CDC, based on available data the number of varicella cases nationally has steadily decreased each year from 2012-2015.

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 11 ►

Varicella Cases by Month Reported



Map 3

Map 3 shows the previous three-month average of varicella incidence rates per 100,000 population, December 2017 through February 2018 (green shading). Counties that have had a recent case in March 2018 are highlighted in pink.

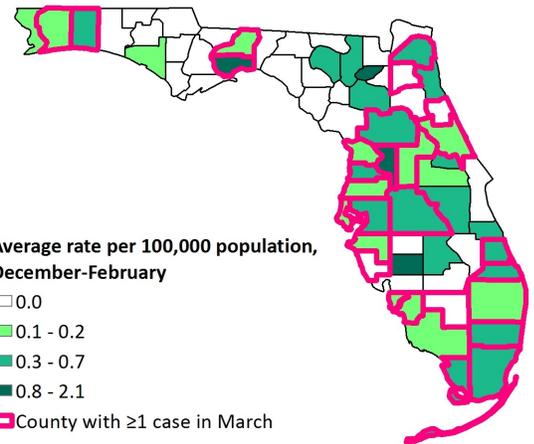


Figure 10 shows the number of confirmed and probable cases of varicella reported into Merlin, 2013 through March 2018.

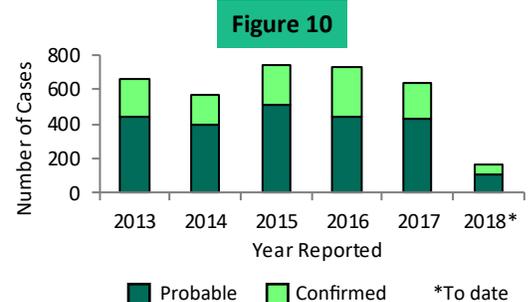


Figure 11 shows the number of confirmed and probable cases of varicella reported into Merlin, January through March 2018 and the previous five-year average.

In March, the number of reported varicella cases increased from February and was slightly above the previous five-year average. In general, varicella activity is highest during the late winter and spring.

Varicella Outbreaks

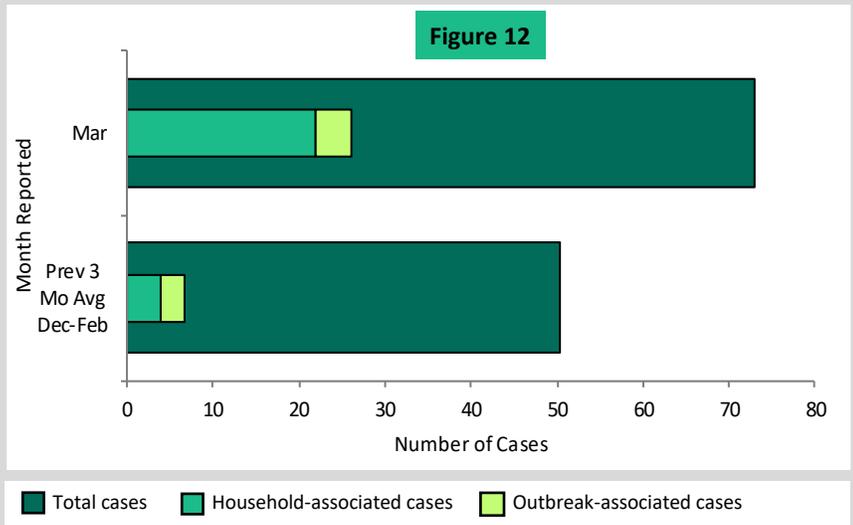
Figure 12 shows the number of confirmed and probable cases that were associated with at least one other case and the total number of confirmed and probable cases as reported into Merlin, March 2018 and the previous three-month average. Cases associated with at least one other case are shown by type of association.

In March, 22 (30%) cases were associated with transmission within households and four (5%) cases were part of a school outbreak.

Outbreak Summary:

In March, an outbreak of varicella was reported in a Palm Beach County school. While four cases were reported in March, a total of 17 cases have been identified to date; the investigation is ongoing. Earlier in 2018, two varicella outbreaks were reported in correctional facilities.

See [page 11](#) for outbreak definitions.



Varicella Age-Specific Incidence Rates

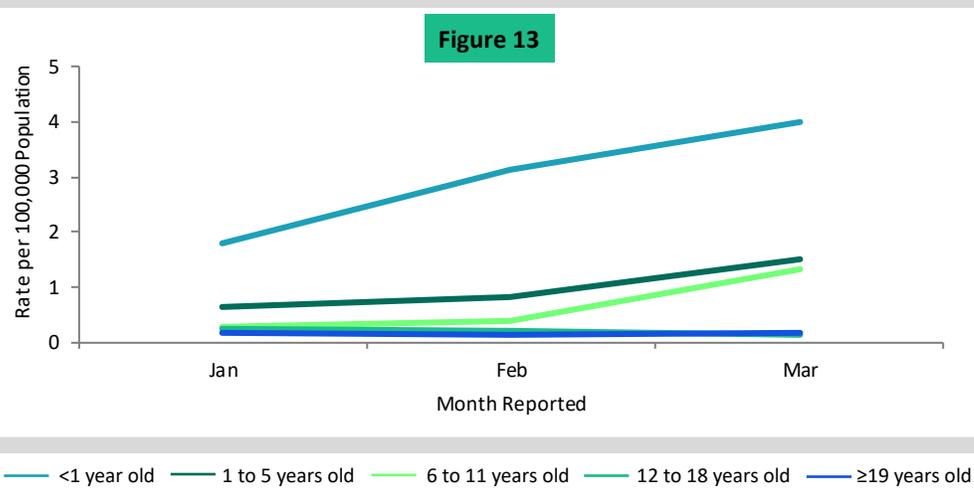


Figure 13 shows the age-specific incidence rates of confirmed and probable cases of varicella, as reported into Merlin, January through March 2018.

In March, the varicella incidence rate was highest among infants less than one year old. This is consistent with trends seen earlier in 2018. 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.

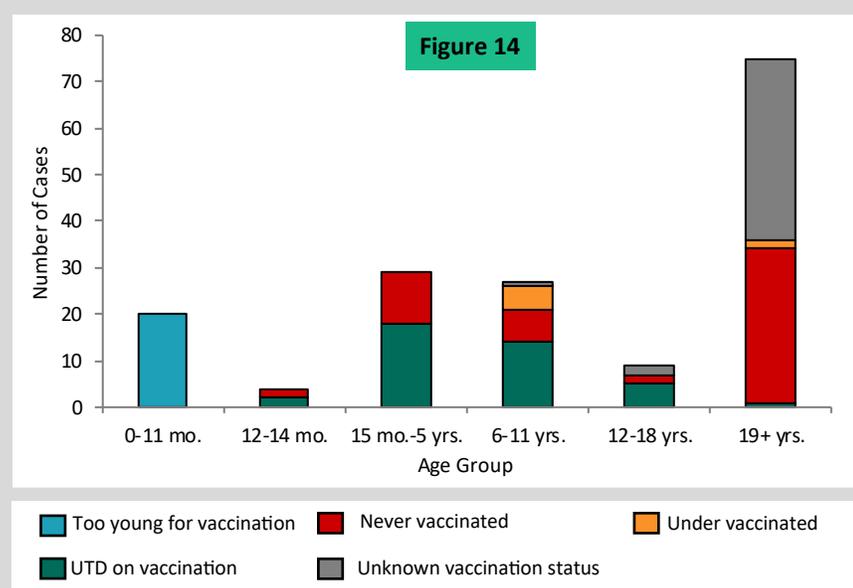
Vaccination History for Varicella Cases

UTD = up-to-date

Figure 14 shows the vaccination status of varicella cases by age group for confirmed and probable cases of varicella, as reported into Merlin, January through March 2018 (n=164).

Varicella vaccinations are recommended at 12-15 months of age and 4-6 years of age. Thirty-five (47%) individuals age 19 and older were not up-to-date on their varicella vaccinations, while the majority of those age 1-11 years were up-to-date on their vaccinations.

See [page 11](#) for links to CDC recommended vaccination schedules.

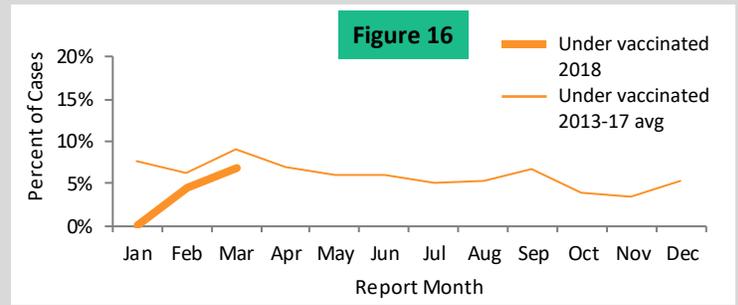
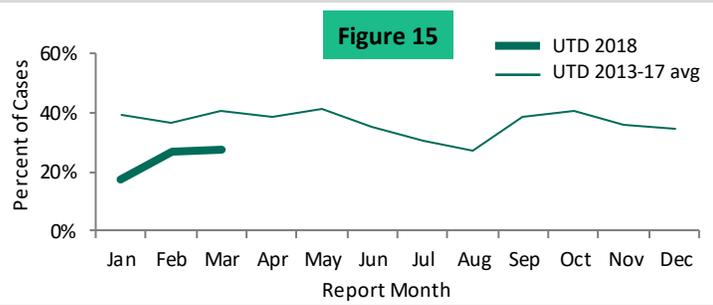


Varicella Cases in Vaccinated Individuals

UTD = up-to-date

Figure 15 shows the percent of confirmed and probable varicella cases who were up to date on their varicella vaccinations, as reported into Merlin, January through March 2018 and the previous five-year average. **Figure 16** shows the percent of these cases who were under vaccinated during the same time periods.

Although individuals who have been vaccinated can still get varicella, vaccination remains the best way to prevent varicella and severe complications.



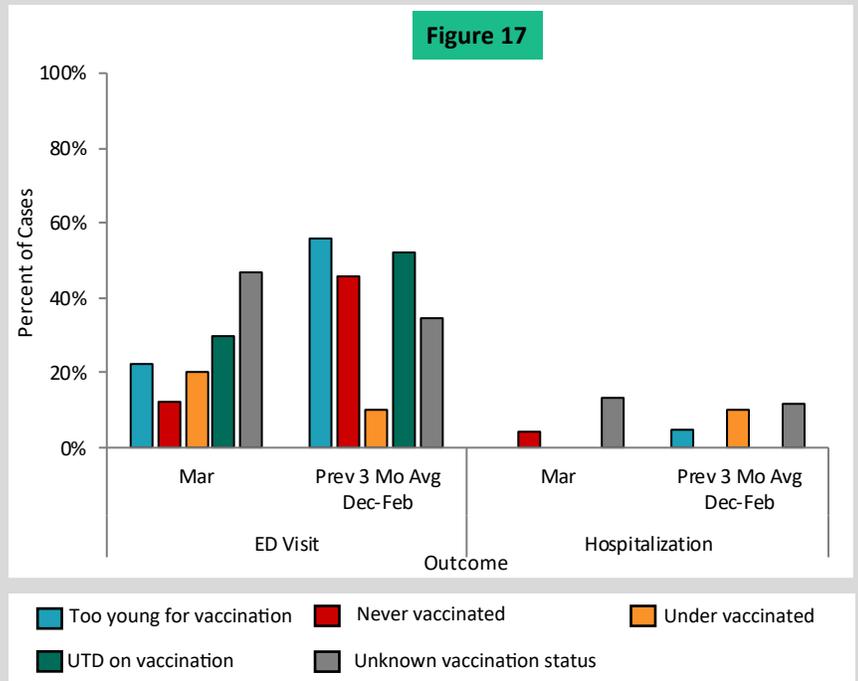
Varicella Outcomes

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

Figure 17 shows the percent of confirmed and probable cases of varicella with select outcomes by vaccination status, as reported into Merlin, March 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 March, individuals with unknown vaccination status were most likely to visit the emergency department. Few varicella cases 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.



Case Data

- 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.
- Current case information is preliminary and may change as more data are received. The most recent data available are displayed in this report.
- 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.

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>.