

Summary

September 2017

State varicella activity:

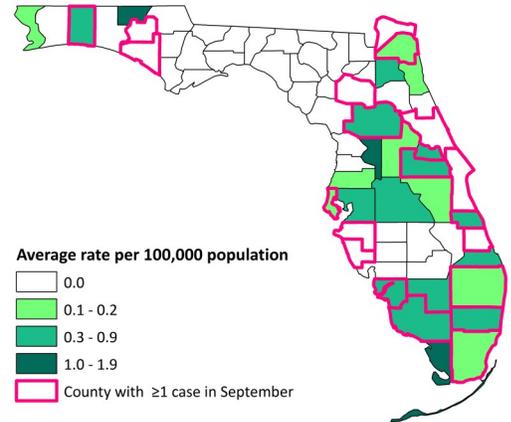
- **Forty-seven confirmed and probable varicella cases were reported among 20 counties in September.**
 - Reported varicella cases have remained steady throughout the summer after an increase in the spring. This is consistent with seasonal trends in past years.
 - Since January 1, 2017, 494 cases of varicella were reported among 50 of Florida's 67 counties.
- In Florida, the number of varicella cases increased in 2015 after steadily decreasing since 2008. Thus far in 2017, the number of varicella cases is slightly lower than seen in 2016.
- **There have been no recent outbreaks of varicella.** In September ten cases were associated with other cases through living in the same household.
 - For most varicella cases, exposure to other known cases is never identified, and they are not able to be linked to outbreaks.
- **In September children age one to five years old had the highest incidence of varicella.** This is a change from previous months when infants less than one year old had the highest incidence.
- Vaccination is the best way to prevent varicella infections. **In September, 32% of cases were not up to date on their varicella vaccinations.** In general, those who have received at least one varicella vaccination even if they later develop disease have less severe outcomes than those who have never been vaccinated.
- In recent months, infants too young for vaccination and those not up to date on their vaccinations were most likely to visit the emergency department. Few varicella cases require inpatient hospitalization.
- To learn more about varicella, please visit <http://www.floridahealth.gov/varicella>.

National varicella activity:

- Varicella incidence has decreased significantly since a vaccine became 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 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.

Map 7

Average Varicella Incidence Rates per 100,000 Population, June through August 2017.



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 7 ►

Varicella Cases by Month Reported

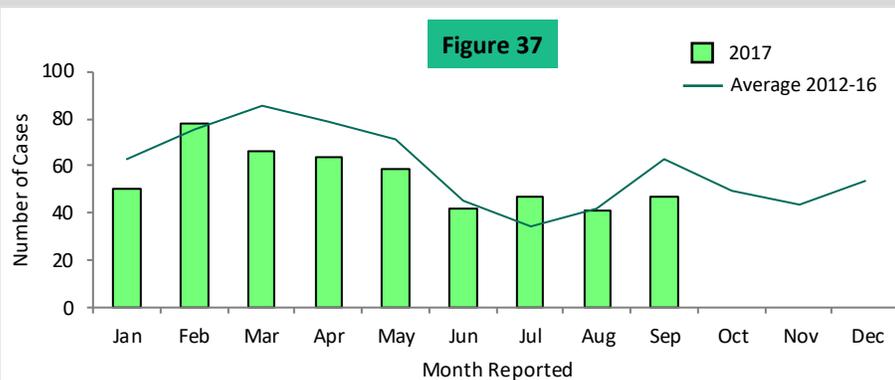


Figure 36 shows the number of confirmed and probable cases of varicella reported into Merlin, January 2017 through September 2017 and the previous five-year average.

Thus far in 2017, the number of reported varicella cases has been below average except for peaks in February and July, which was around the same time as three outbreaks. In general, varicella cases peak in the spring and fall.

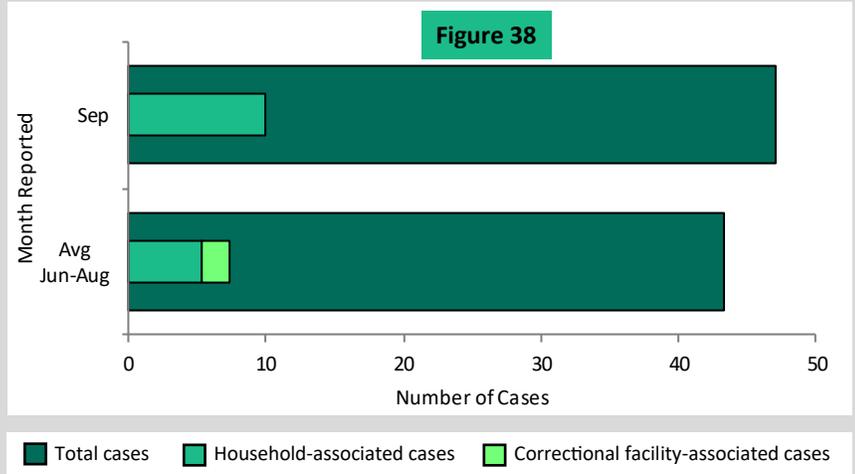
Varicella Outbreaks

Figure 37 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, September 2017 and the previous three-month average. Cases associated with at least one other case are shown by type of association.

Most varicella cases were not associated with other cases. In September, there were 10 cases associated through living in the same household.

Outbreak Summary:

No varicella outbreaks were reported into Merlin during September, however, three outbreaks in correctional facilities (2 outbreaks in Sumter County, 1 outbreak in Liberty County) and one outbreak in a daycare (Duval County) were reported earlier in 2017.



Varicella Age-Specific Incidence Rates

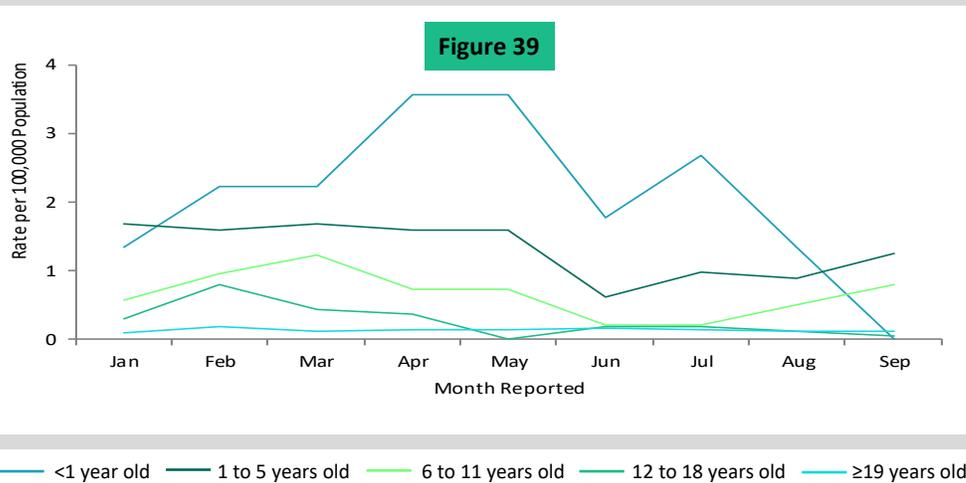


Figure 38 shows the age-specific incidence rates of confirmed and probable cases of varicella, as reported into Merlin, January 2017 through September 2017.

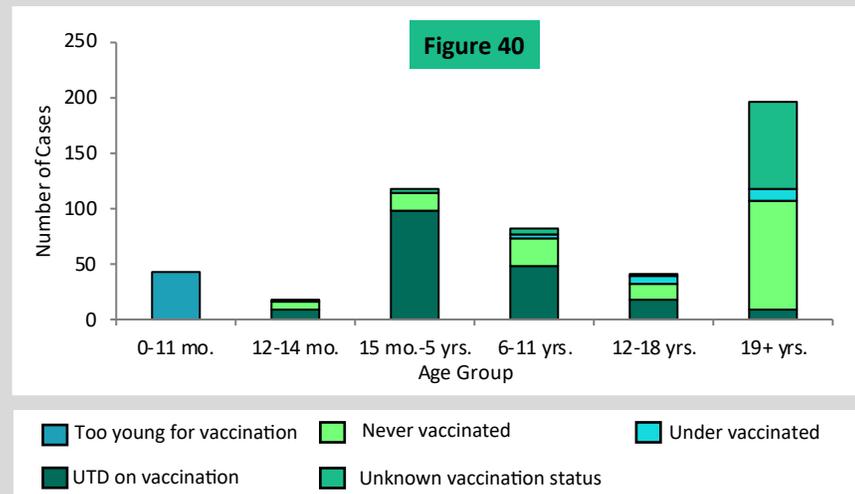
In September, the incidence rate was highest among children age 1-5 years old. However, from February to August the incidence rate was highest among infants less than one year old. Infants less than one year old are too young to receive vaccinations against varicella, which is why vaccination of other age groups is so important to help prevent infection in infants.

Vaccination History for Varicella Cases

UTD = up-to-date

Figure 39 shows the vaccination status of varicella cases by age group for confirmed and probable cases of varicella, as reported into Merlin, January 2017 through September 2017 (n=494).

Varicella vaccinations are recommended at 12-15 months of age and 4-6 years of age. The majority, 98 (84%) of cases age 15 months—5 years old were up to date (UTD) on their varicella vaccinations, while half 160 (50%) of cases age six years and older were not up to date.

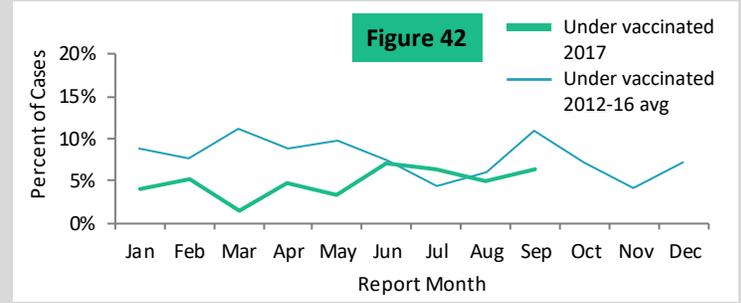
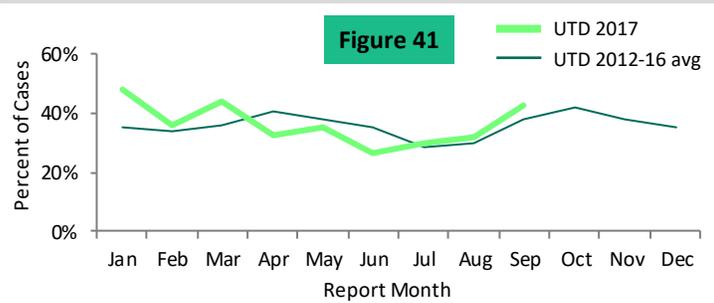


Varicella Cases in Vaccinated Individuals

UTD = up-to-date

Figure 40 shows the percent of confirmed and probable varicella cases who were UTD on their varicella vaccinations, as reported into Merlin, January 1, 2017 through September 30, 2017 and the previous five-year average. **Figure 41** 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.



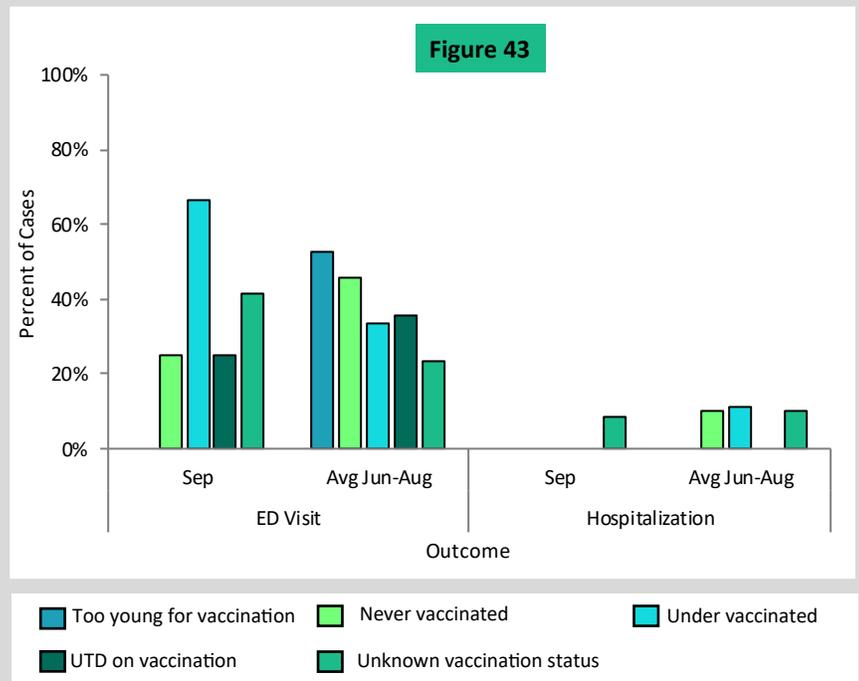
Varicella Outcomes

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

Figure 42 shows the percent of confirmed and probable cases of varicella with select outcomes by vaccination status, as reported into Merlin, September 2017 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.

Infants too young for vaccination and those not UTD on their vaccinations were most likely to visit the ED. Few varicella cases require inpatient hospitalization; recent cases requiring hospitalization were either not up to date on varicella vaccinations or of unknown vaccination status.



Case Data

- Pertussis and varicella 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 and varicella into Merlin. Outbreaks are defined as two or more cases associated with a specific setting outside of the home. Two or more cases among members of the same household are considered household-associated cases.
- 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.

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 are from Merlin, as reported 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, 2017.
- 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>.