February 2018

Summary

State mumps activity:

- **Two confirmed and two probable mumps cases were reported among three counties in February.**
  - Mumps cases have remained elevated since April 2017 with a peak of 20 cases reported in August 2017.
  - From January 1, 2018 through February 28, 2018, nine confirmed and five probable cases of mumps were reported among five of Florida's 67 counties.
- In Florida, the number of reported mumps cases has remained relatively low over the past five years but has steadily increased since 2015 (10 cases), with a large spike in 2017 (70 cases). The last time the number of reported cases reached 2017 levels was in the 1990s.
- **No outbreaks of mumps were reported in February.**
  - In 2017, the majority of mumps cases were associated with outbreaks or household clusters.
  - While mumps outbreaks can occur in highly-vaccinated communities, high vaccination coverage limits the size, duration, and spread of outbreaks.
- **In February, the highest incidence of mumps was in children age 6-11 years old.**
- **Vaccination is the best way to prevent mumps infections.** In February, 75% of cases were not up-to-date on their mumps vaccinations or had an unknown vaccination status.
- In February, one (25%) unvaccinated individual was hospitalized for their illness. In general, those who have received at least one mumps vaccination even if they later develop disease have less severe outcomes than those who have never been vaccinated.
- To learn more about mumps, please visit http://www.floridahealth.gov/mumps.

National mumps activity:

- Since 1989 when the two dose vaccination program was introduced, the number of mumps cases has fluctuated from a few hundred to a few thousand per year. Some years had higher numbers of cases than others mainly because of several large outbreaks in close-contact settings.
- In 2016, there were over 6,000 cases of mumps reported, and in 2017 there were over 5,600 cases reported. Since 2013, the 18-22 year age group has had the highest incidence of mumps, largely driven by outbreaks. About half of the outbreaks reported since 2016 have been associated with colleges and universities, primarily affecting young adults.

Map 4 Cumulative Mumps Incidence Rates per 100,000 Population, February 2018

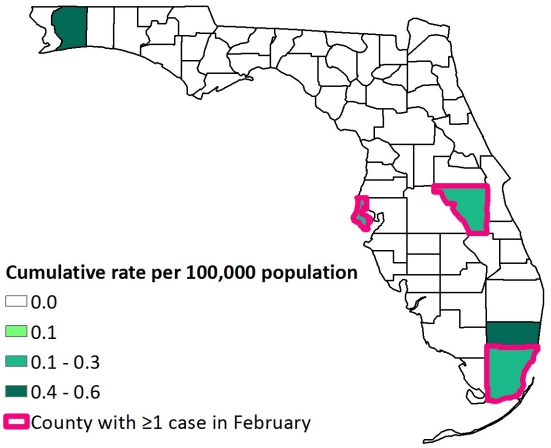
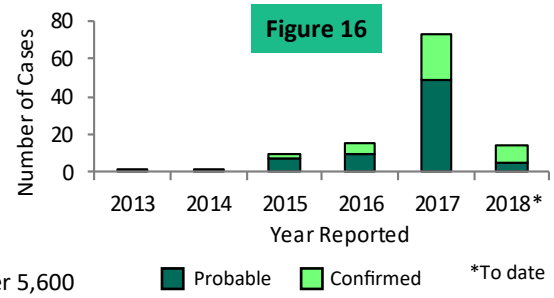


Figure 16 shows the number of confirmed and probable cases of mumps reported into Merlin, 2013 through February 2018.

Figure 16



Surveillance goals:

- Mumps 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 mumps surveillance, see page 11 ▶

Mumps Cases by Month Reported

Figure 17

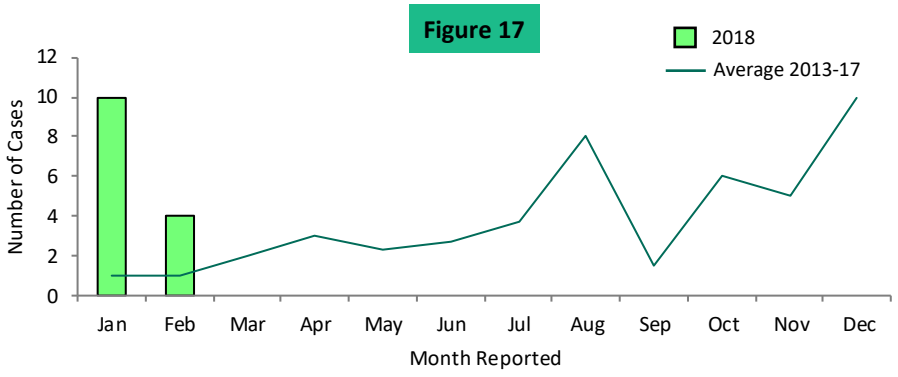


Figure 17 shows the number of confirmed and probable cases of mumps reported into Merlin, January 2018 through February 2018 and the previous five-year average.

In February, the number of reported mumps cases decreased from that in January, but remained above the previous five-year average. Cases have been elevated since the summer months of 2017, peaking in August and December when several cases associated with outbreaks and household clusters were reported.

Mumps Outbreaks

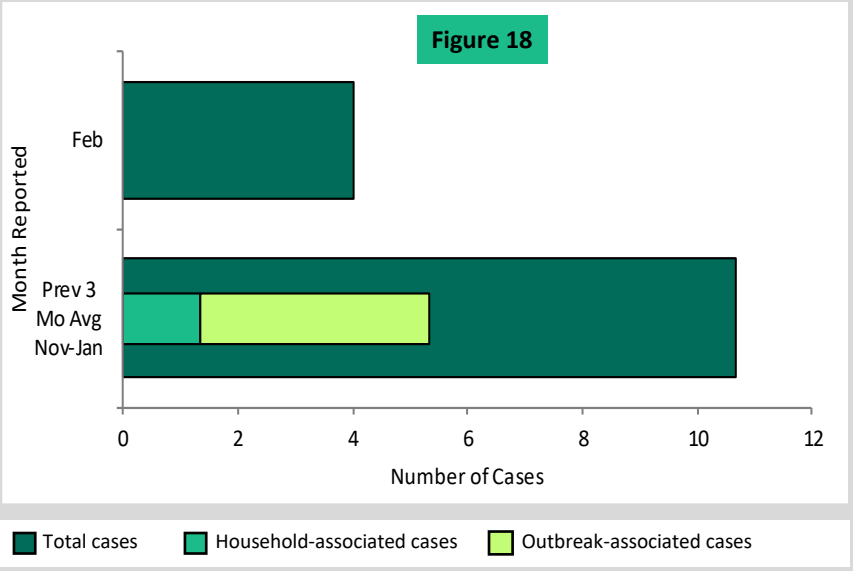
Figure 18 shows the number of confirmed and probable cases that were associated with at least one other case and the total number of confirmed and probable cases as reported into Merlin, February 2018 and the previous three-month average. Cases associated with at least one other case are shown by type of association.

In February, all reported mumps cases were sporadic and not associated with any other reported cases.

Outbreak Summary:

No mumps outbreaks were reported in February. There have been no mumps outbreaks reported thus far in 2018.

Figure 18



Mumps Age-Specific Incidence Rates

Figure 19

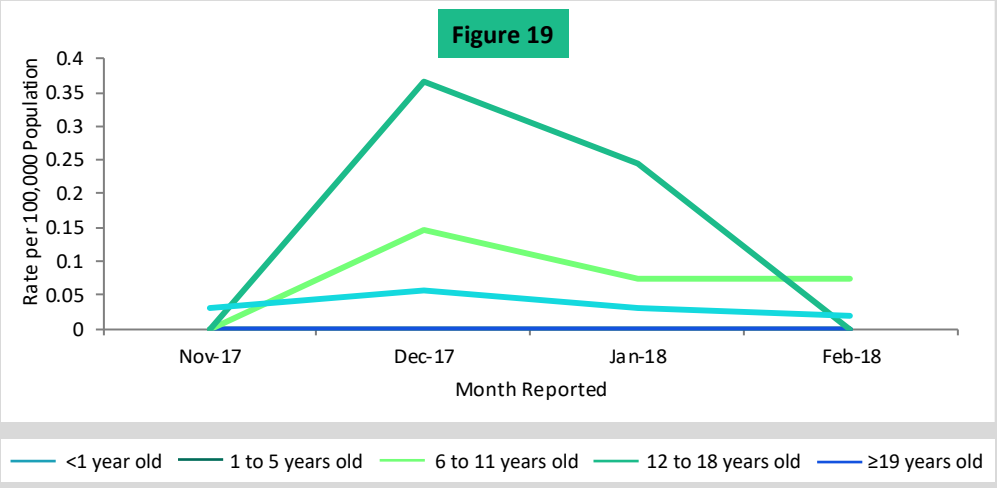


Figure 19 shows the age-specific incidence rates of confirmed and probable cases of mumps, as reported into Merlin, November 2017 through February 2018.

In February, the incidence rate was highest among children age 6-11 years old. In recent months, the majority of cases have been in children age 12-18 years and adults age 19 years and older.

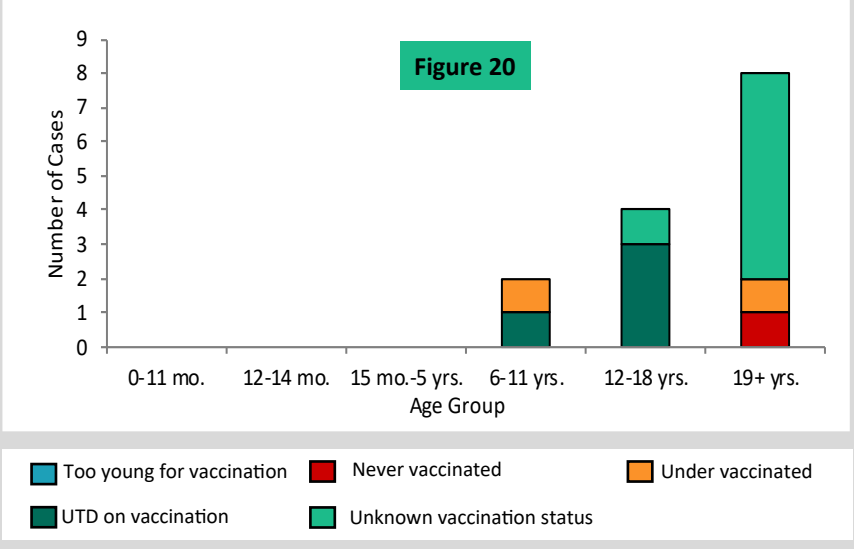
Vaccination History for Mumps Cases

UTD = up-to-date

Figure 20 shows the vaccination status of mumps cases by age group for confirmed and probable cases of mumps, as reported into Merlin, January 2018 through February 2018 (n=14).

Mumps vaccinations are recommended at 12-15 months of age and 4-6 years of age. Two (25%) individuals age 19 years and older were not up-to-date on their mumps vaccinations, while the majority of individuals age 6-18 years old were up-to-date on their vaccinations.

Figure 20

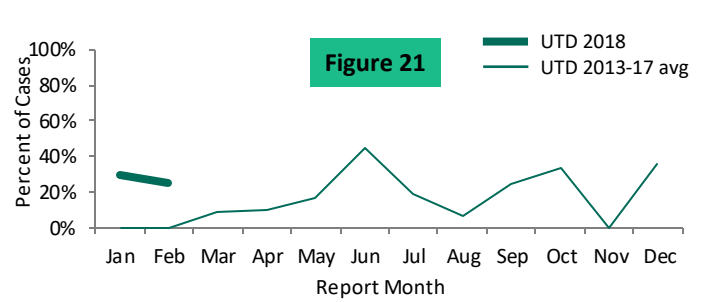


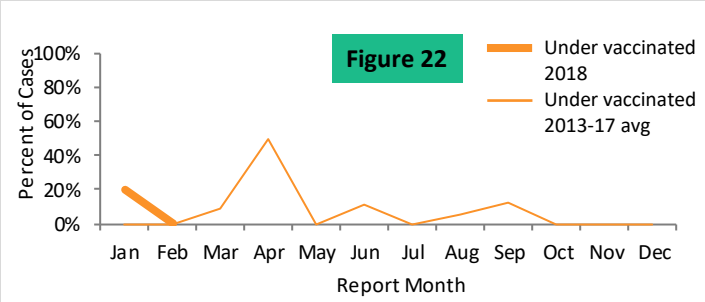
Mumps Cases in Vaccinated Individuals

UTD = up-to-date

Figure 21 shows the percent of confirmed and probable mumps cases who were up to date on their mumps vaccinations, as reported into Merlin, January 2018 through February 2018 and the previous five-year average. **Figure 22** shows the percent of these cases who were under vaccinated during the same time periods.

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





Mumps Outcomes

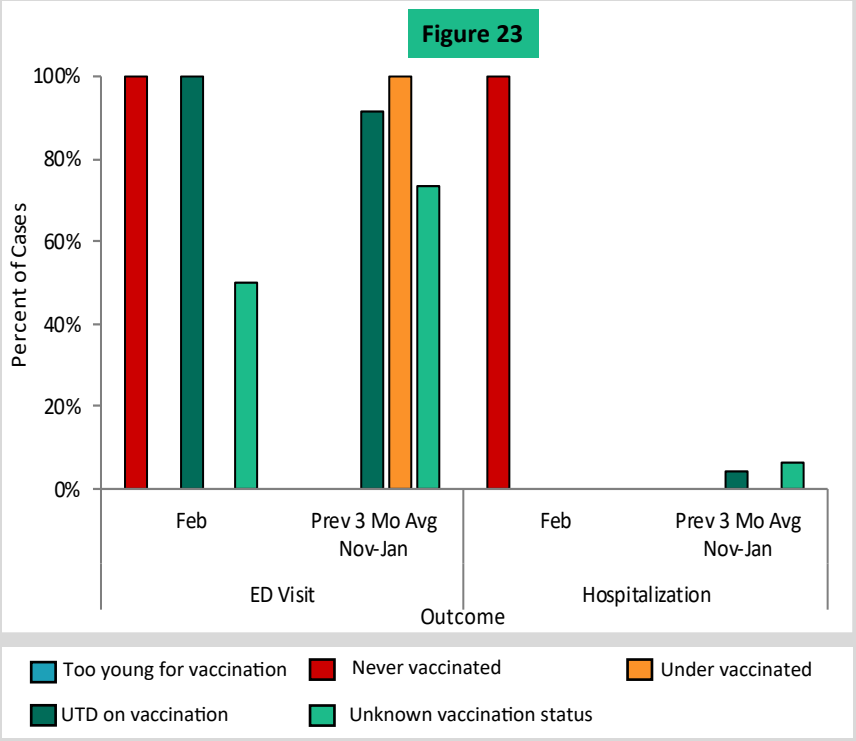
UTD = up-to-date, ED = emergency department

Figure 23 shows the percent of confirmed and probable cases of mumps with select outcomes by vaccination status, as reported into Merlin, February 2018 and the previous three-month average.

In February, two (50%) cases visited the emergency department, and one (25%) unvaccinated individual was hospitalized.

Orchitis (testicular inflammation) is the most common complication from mumps in males. From January 2018 through February 2018, two (18%) cases reported orchitis; one was never vaccinated and one had an unknown vaccination status.

In general, those who received at least one dose of mumps 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. 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 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.