

# Vaccine-Preventable Disease Surveillance Report

September 2020



The COVID-19 pandemic is affecting health care seeking behavior, which may be impacting the diagnosis and reporting of hepatitis A, pertussis, mumps, and varicella cases that are shown in this report. For more information on the COVID-19 pandemic in Florida, please visit [FloridaHealthCOVID-19.gov](https://www.floridahealth.gov/covid-19).

## Hepatitis A



- **Hepatitis A activity increased from last month** and was similar to the previous 5-year average.
- 72 cases were reported in September.

## Pertussis



- **Pertussis activity remains low** and was below the previous 5-year average.
- 3 cases and no outbreaks were reported.

## Mumps



- **Mumps activity has increased from last month** and was similar to the previous 5-year average.
- 3 cases and no outbreaks were reported.

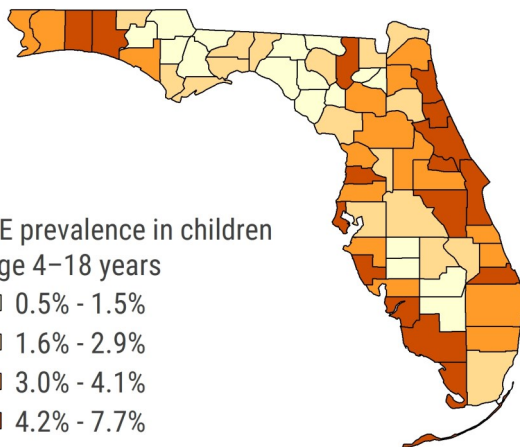
## Varicella



- **Varicella activity remains low** and was below the previous 5-year average.
- 20 cases and no outbreaks were reported.



For all vaccine-preventable diseases, timely and complete vaccination is the best way to prevent infection. Although vaccinated individuals can still become infected with diseases like pertussis or varicella, in general, those who have received at least 1 dose of vaccine have less severe outcomes than those who have never been vaccinated for the disease.



**Unvaccinated children are at increased risk of vaccine-preventable diseases like mumps, pertussis, and varicella. Communities with a higher proportion of religious exemptions (REs) to vaccination are at increased risk of vaccine-preventable disease transmission.**

**The proportion of children age 4-18 years with new REs is increasing each month.** Statewide, the estimated prevalence of REs among children age 4-18 years old is 3.6% with **individual counties ranging from 0.5-7.7%**. In September 2019, the statewide prevalence was 3.3%, and the prevalence has gradually increased each month since.


To learn more about REs at the local level, please visit [FloridaHealth.gov/REmap](https://www.floridahealth.gov/REmap)


All REs are required to be entered into Florida SHOTS (State Health Online Tracking System), Florida's statewide immunization registry. The map above includes REs registered in Florida SHOTS through September 30, 2020.


# Hepatitis A Surveillance

## 2018-To-Date Key Points

 4,787 cases

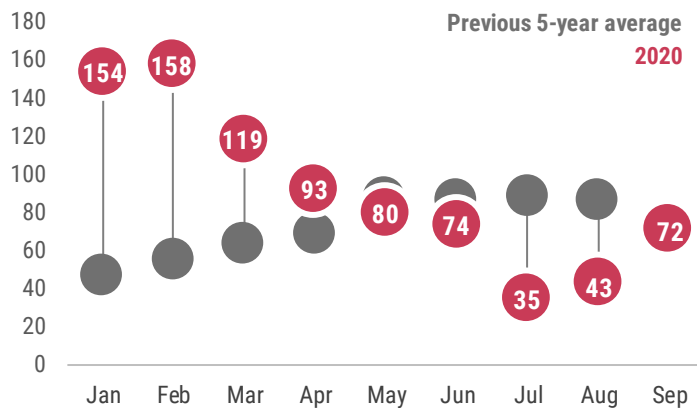
 23% cases linked to other cases

 30-39 year olds had highest incidence

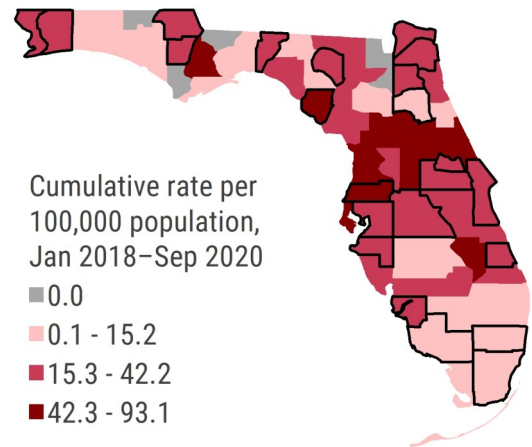
 24% co-infected with hepatitis B or C



The number of reported hepatitis A cases in September increased from the previous month and was similar to the previous 5-year-average. The number of cases has been increasing in recent months. ▼

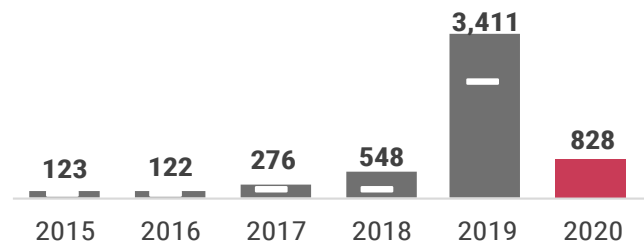


The 72 hepatitis A cases in July were reported in the **23 counties outlined in black**. The central Florida region had the highest hepatitis A activity levels. Since January 1, 2018, 98% of cases have likely been acquired locally in Florida. ▼



From January 1, 2020 through September 30, 2020, **828 hepatitis A cases** were reported. ►

The number of reported hepatitis A cases dramatically increased since January 2018, after remaining relatively stable in previous years. In recent months, case counts have decreased from case counts seen in 2019.



\*The white bars in the graph indicates total numbers in September for each year



**93%**  
never vaccinated

The best way to prevent hepatitis A infection is through vaccination. Since January 1, 2018, 93% of people with hepatitis A had never received a documented dose of hepatitis A vaccine. In September 2020, 96% of infected people had not received the vaccine. Since 2006, hepatitis A vaccine has been recommended for all children at age 1 year. Hepatitis A vaccine is also recommended for certain high-risk groups of adults including injection and non-injection drug use, persons experiencing homelessness, and men who have sex with men. To learn more about the hepatitis A vaccine, talk to your doctor or visit: [www.CDC.gov/Vaccines/HCP/VIS/VIS-Statements/Hep-A.html](http://www.CDC.gov/Vaccines/HCP/VIS/VIS-Statements/Hep-A.html).

The COVID-19 pandemic is affecting health care seeking behavior, which may be impacting the diagnosis and reporting of hepatitis A cases that are shown in this report. For more information on the COVID-19 pandemic in Florida, please visit [FloridaHealthCOVID-19.gov](http://FloridaHealthCOVID-19.gov).



# Hepatitis A Surveillance



From January 2018 to September 2020, **1,111 (23%)** of **4,787 total cases** of hepatitis A were **epidemiologically (epi) linked to other cases**. In September 2020, 3% of cases were linked to other cases.

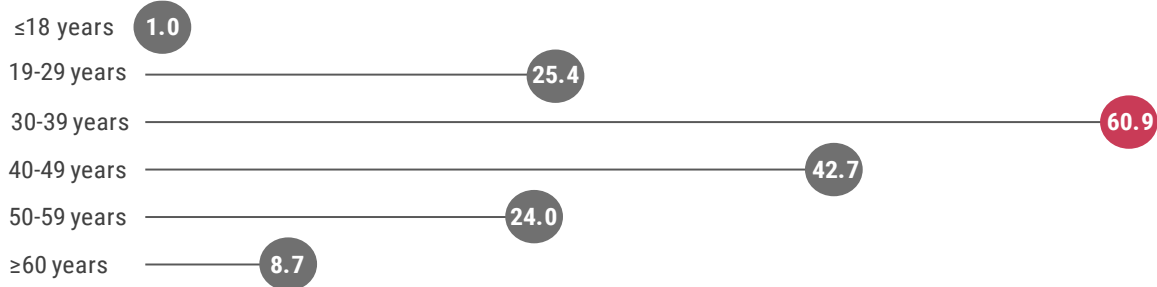
In September 2020, 63% of epi links were household contact, 13% were sexual contacts, and 25% were personal contacts.

**Epi linked cases** | **Total cases**

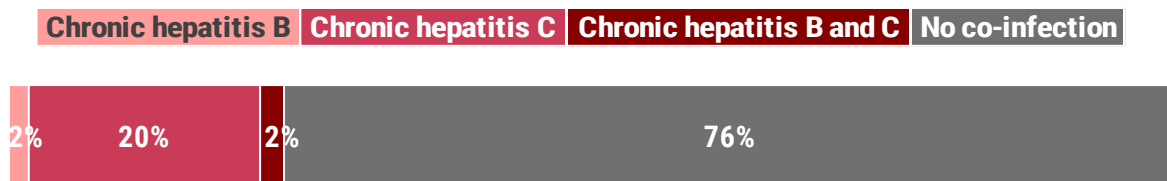
Period	Epi linked cases	Total cases
2018-20	1,111	4,787
Sep 2020	8	72



Since January 1, 2018, the incidence rate was highest among **adults aged 30–39 years old at 60.9 cases per 100,000 population**. In September 2020, the incidence rate was highest among adults aged 30–39 years old at 1 case per 100,000 population. Since January 1, 2018, cases were reported primarily among **men (64%)** and persons who identify as **non-Hispanic white (93%)**.



Since January 1, 2018, **84 (2%) cases were co-infected with chronic hepatitis B**, **949 (20%) cases were co-infected with chronic hepatitis C**, and **99 (2%) cases were co-infected with both chronic hepatitis B and C**. In September 2020, 19 (26%) cases were co-infected with chronic hepatitis B or C. Co-infection with more than 1 type of viral hepatitis can lead to more severe liver disease and increase the risk of developing liver cancer.



## National activity

Hepatitis A rates have decreased by more than 95% since the first vaccine became available in 1995. However, since May of 2017, the Centers for Disease Control and Prevention has been monitoring outbreaks in 33 states among persons who use drugs and persons who are experiencing homelessness. More information about these outbreaks can be found here: [www.cdc.gov/hepatitis/outbreaks/2017April-HepatitisA.htm](http://www.cdc.gov/hepatitis/outbreaks/2017April-HepatitisA.htm)

## Hepatitis A surveillance goals

- Identify and control outbreaks and monitor trends
- Identify and mitigate common sources
- Monitor effectiveness of immunization programs and vaccines


To learn more about hepatitis A, please visit [FloridaHealth.gov/HepA](http://FloridaHealth.gov/HepA). For more information on the data sources used in Florida for hepatitis A surveillance, see the last page of this report.

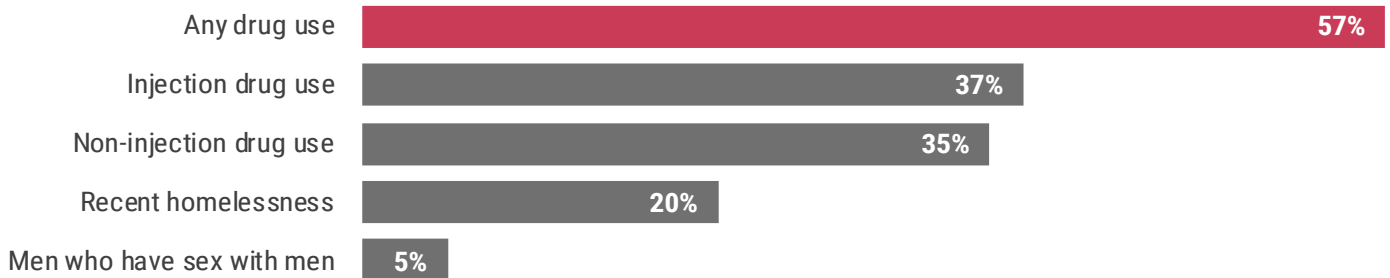
# Hepatitis A Surveillance


## Statewide Response to the Increase in Hepatitis A Cases

Several Florida counties have experienced ongoing local transmission of hepatitis A since 2017. Since January 1, 2018, 98% of Florida's cases (n=4,787) have likely been acquired in Florida. Cases likely acquired in Florida share several common risk factors including drug use (both injection or non-injection drugs), identifying as men who have sex with men, or recently experiencing homelessness. **Individuals with any of these risk factors should receive the hepatitis A vaccine, and health care providers are encouraged to actively offer the hepatitis A vaccine to individuals at risk. Vaccination is the best way to prevent hepatitis A infection.**


For additional information, please see the declaration of public health emergency issued by the State Surgeon General in August 2019, available at: [FloridaHealth.gov/\\_documents/newsroom/press-releases/2019/08/phe-hav-filed-08-01-2019.pdf](https://www.floridahealth.gov/_documents/newsroom/press-releases/2019/08/phe-hav-filed-08-01-2019.pdf).

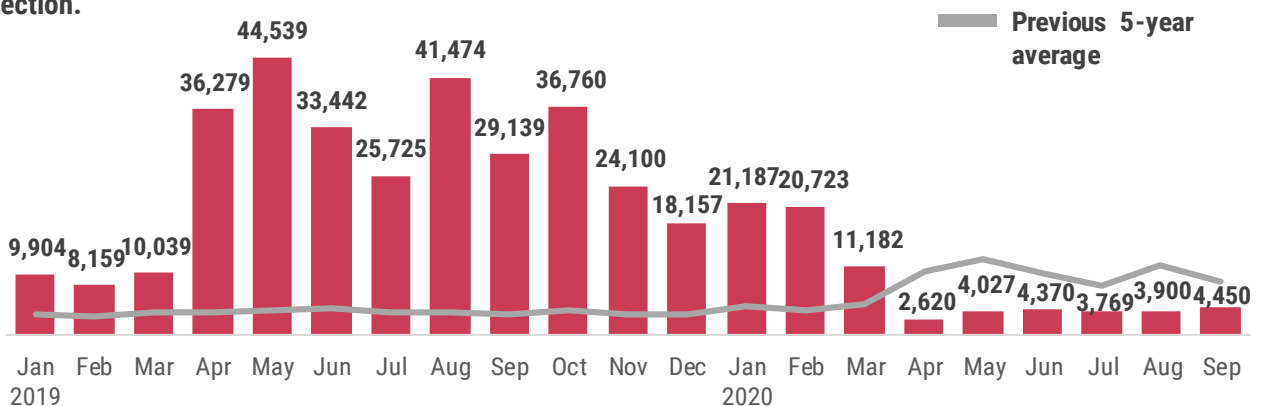
 Over half (62%) of the 4,787 cases likely acquired in Florida since January 1, 2018 reported at least one of the risk factors below, while 38% reported no or unknown risk factors. The most commonly identified risk factor was **drug use**, reported by 2,679 (57%) cases. Non-injection (35%) and injection (37%) were both common forms of drug use. Recent homelessness, reported by 20% of cases, was an additional risk factor.



 Hepatitis A infections can be severe, leading to inpatient hospitalization and sometimes death. Since January 1, 2018, 3,267 (69%) cases likely acquired in Florida have been hospitalized because of their hepatitis A infection, and there were 70 hepatitis A associated deaths identified.




**69%** hospitalized  
**70** deaths


 The Florida Department of Health is actively working to vaccinate those most at risk for hepatitis A infection. In September, **the number of first doses of hepatitis A vaccine administered by both private providers and county health departments to adults age 18 years and older, as recorded in Florida SHOTS**, increased slightly and was below the **previous 5-year-average** in September 2020. This may be due to changes in vaccine administration during the COVID-19 pandemic. In September 2020, a total of 3,747 doses were administered. **Vaccination is the best way to prevent hepatitis A infection.**

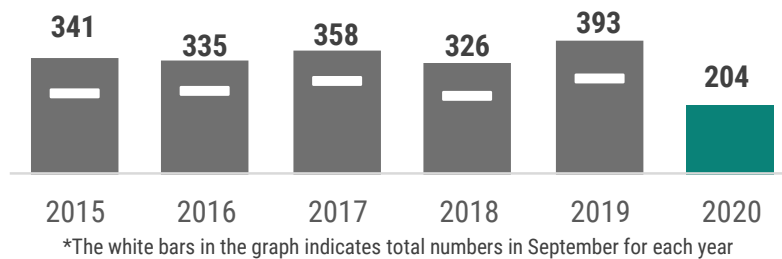


# Pertussis Surveillance

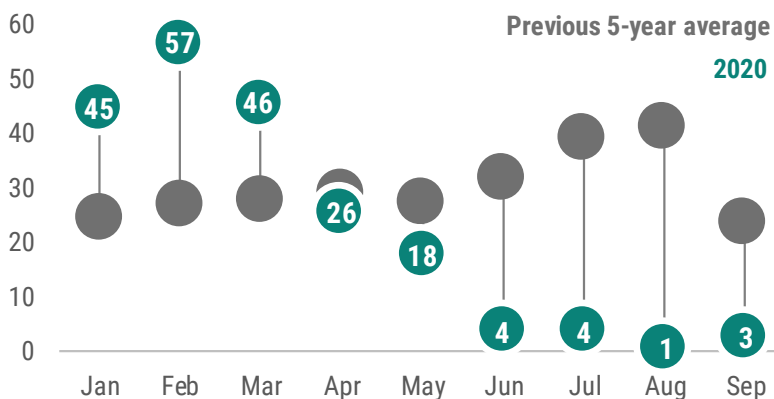
## Key Points


-  In September 2020, there were 3 cases
-  56 new cases between April and September 2020
-  No outbreaks have occurred in 2020
-  <1 year olds had the highest 6 month average incidence rate for April 2020 to September 2020

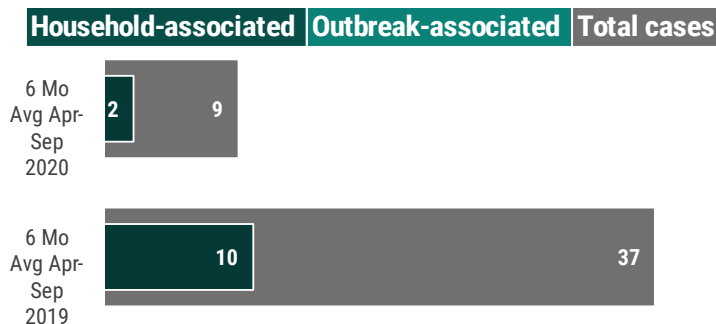
 From January 1, 2020 through September 30, 2020, **204 pertussis cases** were reported in **38 counties**. Fifty-six pertussis cases were reported between April and September 2020, which is a **75% decrease** compared to April to September 2019 (224 cases).



**The number of pertussis cases reported in September increased from the previous month and was below the previous 5-year average.** Elevated case counts in early 2020 may be due to a change in the case definition for pertussis; please see the last page for more information.



 The average number of household-associated cases between April and September 2020 was five times lower than the average number of household-associated cases between April and September in 2019. No outbreak-associated cases have been identified in 2020. For most pertussis cases, exposure to other known cases is never identified, and they are not able to be linked to outbreaks.



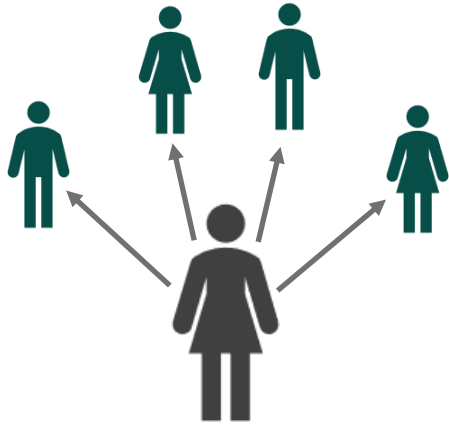
The COVID-19 pandemic is affecting health care seeking behavior, which may be impacting the diagnosis and reporting of pertussis cases that are shown in this report. For more information on the COVID-19 pandemic in Florida, please visit [FloridaHealthCOVID-19.gov](https://www.floridahealth.gov/covid-19).

# Pertussis Surveillance

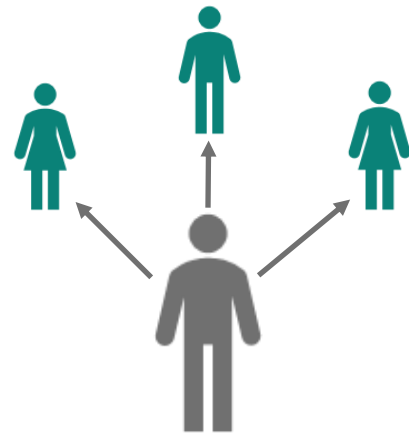


There was an average of **3 contacts** per case between April and September 2020. Between April and September 2019, there was an average of **4 contacts** per case. Contacts are classified as people whom antibiotics were recommended to in order to prevent illness. For those diagnosed with pertussis, antibiotics can shorten the amount of time they are contagious to others. Antibiotics can also be used to prevent illness in those who have been exposed to someone with pertussis while they are contagious.

## April to September 2019



## April to September 2020



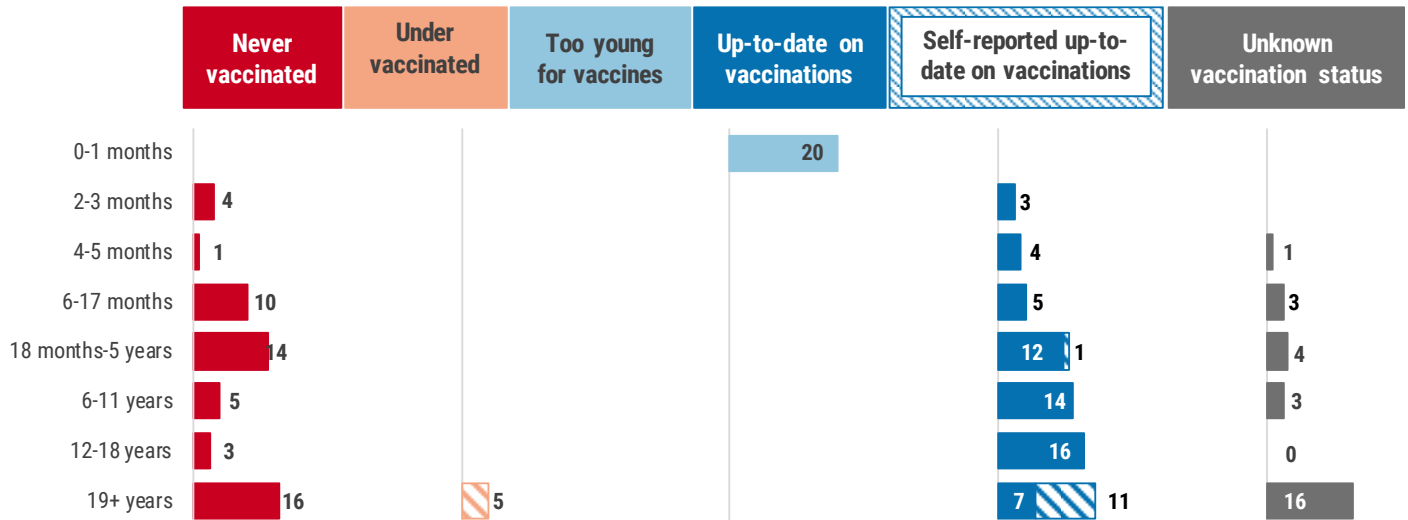
The average incidence rate was highest among **<1 year olds** at **0.8 cases per 100,000 population** between April and September 2020, which is roughly **four times lower** than the average incidence rate for <1 year olds between April and September 2019. Infants experience the greatest burden of pertussis infections, not only in number of cases but also in severity. Infants <2 months old are too young to receive vaccinations against pertussis, which is why vaccination of parents, siblings, grandparents, and other age groups is so important to help prevent infection in infants.



## Pertussis Surveillance



In 2020, the majority of adults aged 19 years and older with pertussis were not up-to-date on their pertussis vaccinations or had unknown vaccination status. **In general, those who have received at least one pertussis vaccination have less severe outcomes than those who have never been vaccinated.** Self-reported vaccination status that could not be verified is shown with a diagonal pattern.



### National activity

The number of pertussis cases gradually increased since the 1980s, peaking in 2012 at levels not seen since the 1950s. Since 2012, the number of pertussis cases started gradually decreasing. Pertussis incidence has remained highest among infants <1 year old and lowest among adults ≥20 years old since the 1990s.




### Pertussis surveillance goals

- Identify cases to limit transmission in settings with infants or others who may transmit pertussis to infants
- Identify and prevent outbreaks
- Identify contacts of cases and recommend appropriate prevention measures, including exclusion, antibiotic prophylaxis, and immunization
- Monitor the effectiveness of immunization programs and vaccines

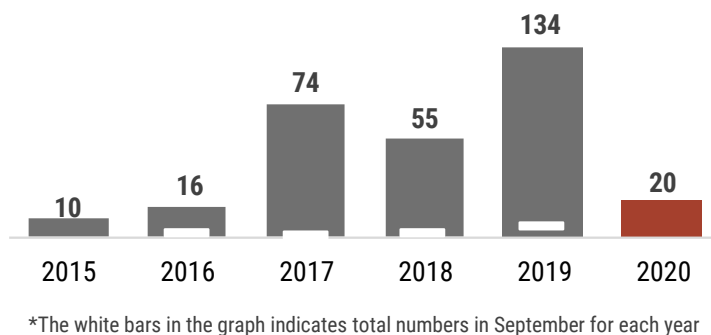
To learn more about pertussis, please visit [FloridaHealth.gov/Pertussis](https://www.floridahealth.gov/Pertussis). For more information on the data sources used in Florida for pertussis surveillance, see the last page of this report.

# Mumps Surveillance

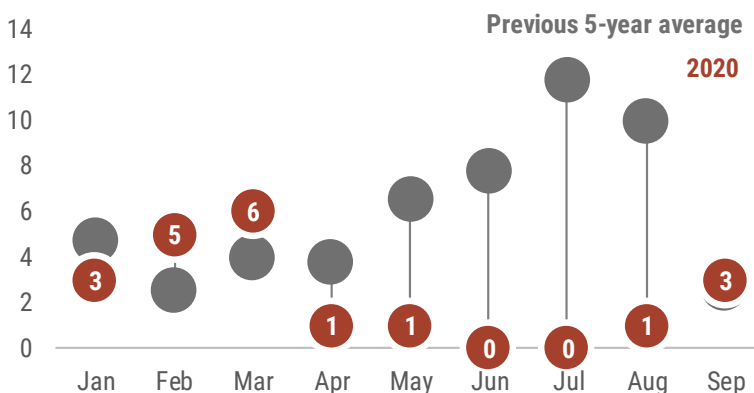
## Key Points


-  In September 2020, there were 3 cases
-  6 new cases between April and September 2020
-  No outbreaks have occurred in 2020
-  19+ year olds had the highest 6 month average incidence rate for April 2020 to September 2020

 From January 1, 2020 through September 30, 2020, **20 mumps cases** have been reported. Six mumps cases were reported between April and September 2020, which is a **94.5% decrease** compared to April to September 2019 (110 cases).



**The number of mumps cases reported in September increased from last month and was similar to the previous 5-year average.** Case counts in the summer months of 2019 were higher than those seen previous summer months.



 The average number of **household-associated** and **outbreak-associated** cases between April and September 2020 was zero cases, which is a decrease from the average numbers **household-associated** and **outbreak-associated** cases between April and September in 2019. For most mumps cases, exposure to other known cases is never identified, and they are not able to be linked to outbreaks.

	Household-associated	Outbreak-associated	Total cases
6 Mo Avg Apr-Sep 2020	0	0	1
6 Mo Avg Apr-Sep 2019	1	12	18



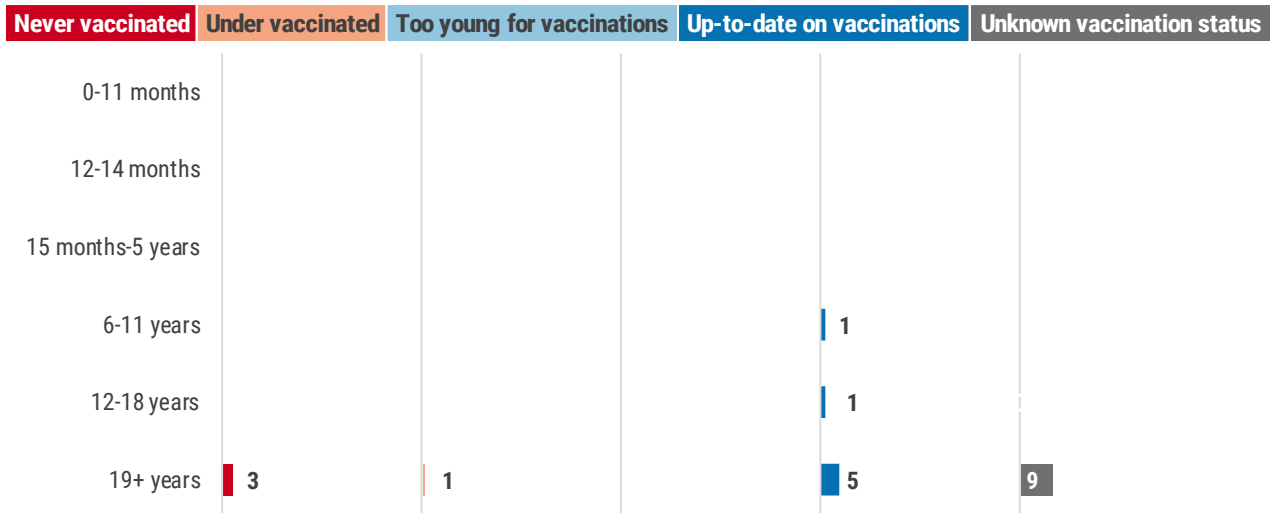
## Mumps Surveillance



The average incidence rate was highest among **19+ year olds at 0.01 cases per 100,000 population between April and September 2020**, which is **eleven times lower** than the average incidence rate for 19+ year olds between April and September 2019. The large difference in rates for this age group is from two outbreaks reported in settings serving adults that began in May 2019.



**Vaccination is the best way to prevent mumps infections.** Vaccination against mumps is important for infants, children, teenagers, and adults. See the last page of this report for links to the Center for Disease Control and Prevention (CDC) recommended vaccination schedules. Although individuals who have been vaccinated can still get mumps, **complete and timely vaccination remains the best way to prevent mumps and severe complications.**



### National activity

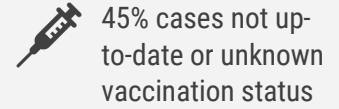
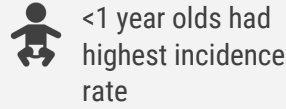
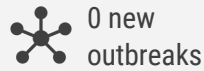
Since 1989 when the two dose vaccination program was introduced, the number of mumps cases has fluctuated from a few hundred to a few thousand per year. About half of the outbreaks reported since 2016 have been associated with colleges and universities, primarily affecting young adults. The Advisory Committee on Immunization Practices recommends a third mumps virus-containing vaccine for certain populations identified by public health authorities as being at increased risk of mumps because of an outbreak. To learn more, please visit [www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm](http://www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm).

### Mumps surveillance goals

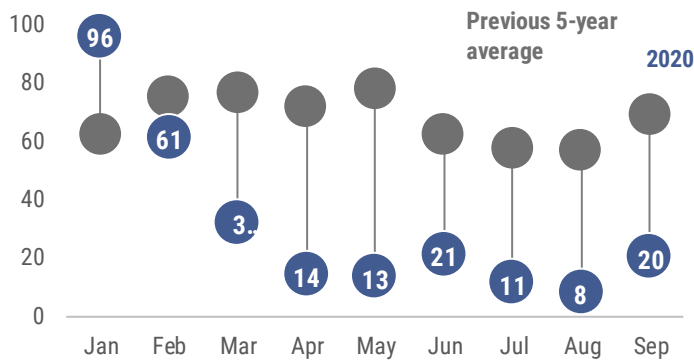
- Prevent transmission and severe disease
- Initiate control measures
- Monitor effectiveness of immunization programs and vaccines

# Varicella Surveillance

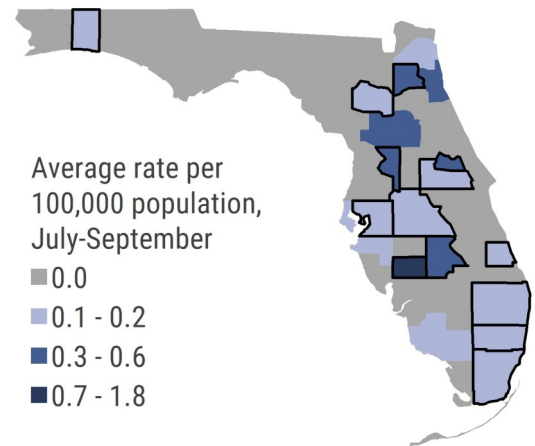
## September Key Points



The number of varicella cases reported in September increased from the previous month and remained below the previous 5-year average. Due to robust vaccination programs, there is no longer discernable seasonality for varicella cases in the United States. ▼

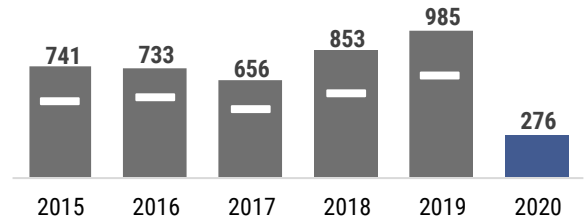


The 20 varicella cases in September were reported among the 14 counties outlined in black. From July 2020 through September 2020 the average county rate varied throughout the state. ▼



From January 1, 2020 through September 30, 2020, 276 varicella cases were reported in 48 counties. ►

The annual number of reported varicella cases decreased from 2015 to 2017. In 2020, case counts are lower than those seen in previous years at this time.

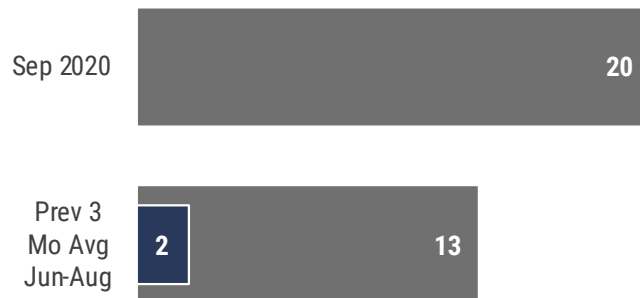


\*The white bars in the graph indicates total numbers in September for each year



In September, no varicella cases were transmitted within households or outbreak-associated. For most varicella cases, exposure to other known cases is never identified, and they are not able to be linked to outbreaks.

### Household-associated | Outbreak-associated | Total cases



The COVID-19 pandemic is affecting health care seeking behavior, which may be impacting the diagnosis and reporting of varicella cases that are shown in this report. For more information on the COVID-19 pandemic in Florida, please visit [FloridaHealthCOVID-19.gov](https://www.floridahealth.gov/covid-19).



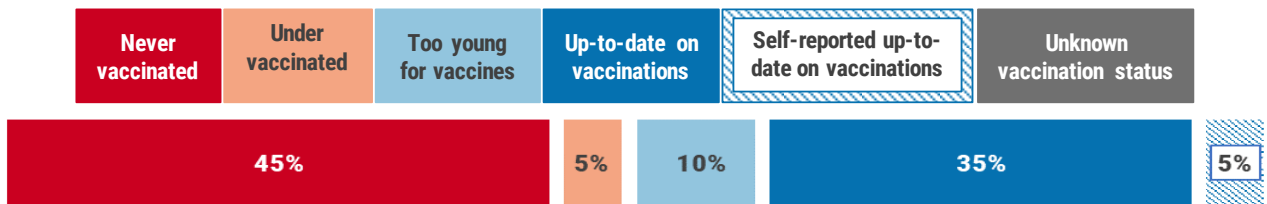
# Varicella Surveillance



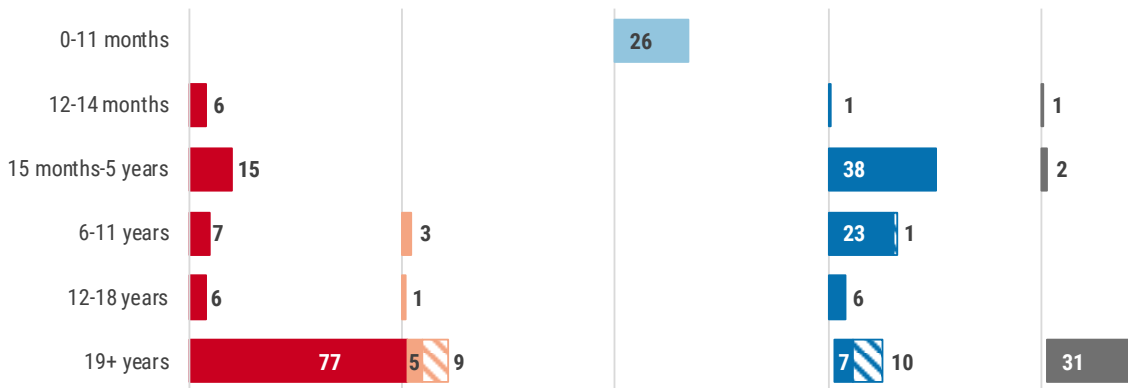
**In September, the varicella rate was highest among infants <1 year old at 0.9 cases** per 100,000 population, which is consistent with previous months. Infants <1 year old are too young to receive varicella vaccination, which is why vaccination of siblings, parents, grandparents, and other age groups is so important to help prevent infection in infants.



**Vaccination is the best way to prevent varicella infections.** In September, almost half of individuals reported with varicella had not received the recommended number of varicella vaccinations for their age or had unknown vaccination status. Self-reported vaccination status that could not be verified is shown with a diagonal pattern. Vaccination against varicella is important for infants, children, teenagers, and adults. See the last page of this report for links to the Center for Disease Control and Prevention (CDC) recommended vaccination schedules.



In 2020, the majority of adults aged 19 years and older with varicella were not up-to-date on their varicella vaccinations or had unknown 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.** Self-reported vaccination status that could not be verified is shown with a diagonal pattern.



## National activity

Varicella incidence decreased significantly following the vaccine becoming available in 1995 and has continued to decrease since 2006 when recommendations changed from 1 to 2 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 to 14 years. Although varicella is not reported to the CDC by all states, based on available data, the number of varicella cases nationally has steadily decreased each year from 2012 to 2015.

## Varicella surveillance goals

- Identify and control outbreaks and monitor trends and severe outcomes
- Monitor effectiveness of immunization programs and vaccines

To learn more about varicella, please visit [FloridaHealth.gov/Varicella](https://www.floridahealth.gov/Varicella). For more information on the data sources used in Florida for varicella surveillance, see the last page of this report.

# Vaccine-Preventable Diseases Surveillance System Summary

## Case Data

- Current case data are preliminary and will change as new information is gathered. The most recent data available are displayed in this report.
- Pertussis, varicella, and hepatitis A are reportable diseases in Florida. Case information is documented by county health department (CHD) epidemiologists in Merlin, Florida's reportable disease surveillance system.
- Only Florida residents are included in case counts, but contact investigations are conducted for all exposed individuals.
  - Pertussis, varicella, and hepatitis A case counts include both confirmed and probable cases.
- Map counts and rates are determined by the individual's county of residence; these data do not take into account location of exposure.
- CHD epidemiologists also report outbreaks of pertussis, varicella, and hepatitis A into Merlin.
  - Household-associated cases are defined as  $\geq 2$  cases exposed within the same household.
  - Pertussis outbreaks are defined as  $\geq 2$  cases associated with a specific setting outside of a household.
  - Varicella outbreaks are defined as  $\geq 5$  cases associated with a specific setting outside of a household.
- For more information about reportable diseases, please visit [FloridaHealth.gov/DiseaseReporting](https://www.floridahealth.gov/disease-reporting).
- For more information about Florida's guides to surveillance and investigation, including disease-specific surveillance case definitions, please visit [FloridaHealth.gov/GSI](https://www.floridahealth.gov/gsi).

## Population Data

- Population data from 2020 used to calculate incidence rates are from FLHealthCHARTS (Community Health Assessment Resource Tool Set).
- For more information about FLHealthCHARTS, please visit [FLHealthCharts.com](https://www.flhealthcharts.com).

## Vaccination Data

- Vaccination data for identified cases are from Merlin, as documented by CHD staff.
- 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](https://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.