

Vaccine-Preventable Disease Surveillance Report

December 2020



The COVID-19 pandemic is affecting health care seeking behavior, which may be impacting the diagnosis and reporting of hepatitis A, pertussis, 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 decreased from last month** and was similar to the previous 5-year average.
- 48 cases were reported in December.
- Since January 2018, 93% of cases were not up-to-date on hepatitis A vaccinations.
- North Florida had the highest average incidence rates from October 2020 to December 2020.

Pertussis



- **Pertussis activity increased from last month** and was below the previous 5-year average.
- There was a 92% decrease in reported cases when comparing cases from July 2019–December 2019 to July 2020–December 2020.
- The average incidence rate for <1 year old from July 2020 to December 2020 was roughly 15 times lower than from July 2019 to December 2019.

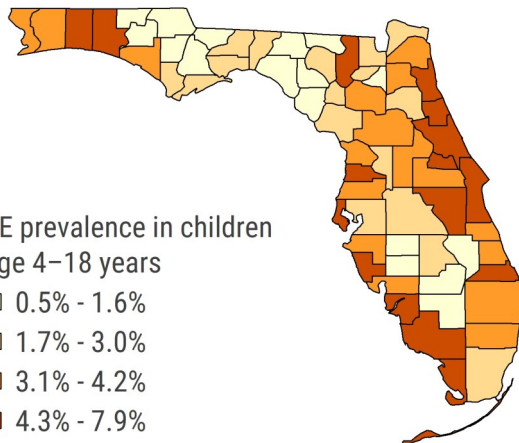
Varicella



- **Varicella activity decreased from last month** and was below the previous 5-year average.
- 19 cases, including 2 household associated cases, were reported in December 2020.
- Incidence remained highest among infants <1 year old.
- 47% of cases were not up-to-date on varicella vaccinations or had unknown vaccination status.



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 are increasing each month. Statewide, the estimated prevalence of REs among children age 4–18 years old is 3.7% with **individual counties ranging from 0.5–7.9%**. In December 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 December 31, 2020.


Hepatitis A Surveillance

2018-To-Date Key Points

 4,962 cases

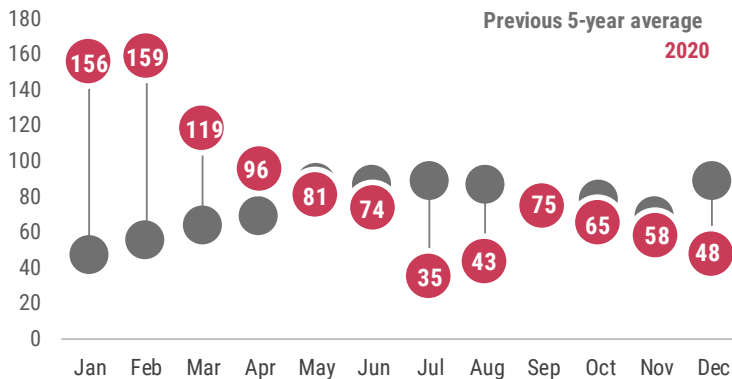
 23% cases linked to other cases

 30-39 year olds had highest incidence

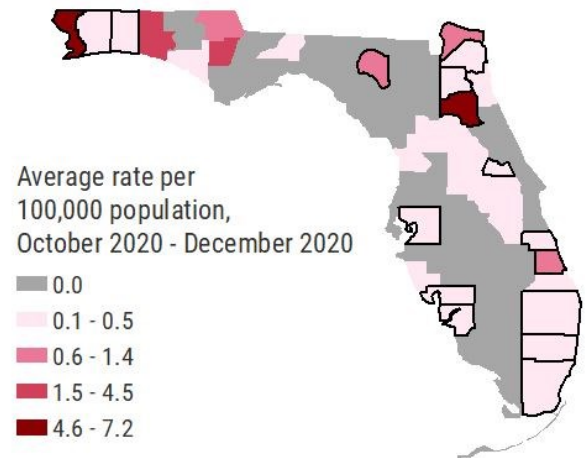
 24% co-infected with hepatitis B or C



The number of reported hepatitis A cases in December decreased from the previous month and was similar to the previous 5-year average. Since January 1, 2018, 98% of cases have likely been acquired locally in Florida.

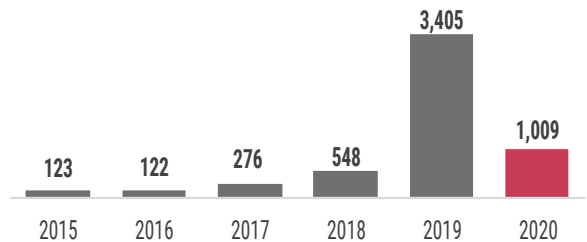


In December 2020, 48 hepatitis A cases were reported in **17 counties**, which are outlined in black in the map below. In the past three months, North Florida had the highest average incidence rates.



From January 1, 2020 through December 31, 2020, 1,009 hepatitis A cases were reported.

Due to the national hepatitis A outbreak, cases increased dramatically during 2018 and 2019 in Florida. Since January 2020, there has been a 70% decrease in overall cases when compared to cases in 2019.



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 December 2020, 94% 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.

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.



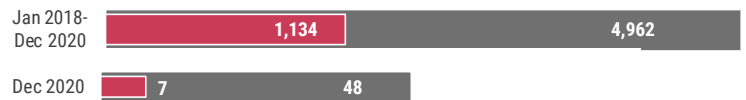
Hepatitis A Surveillance



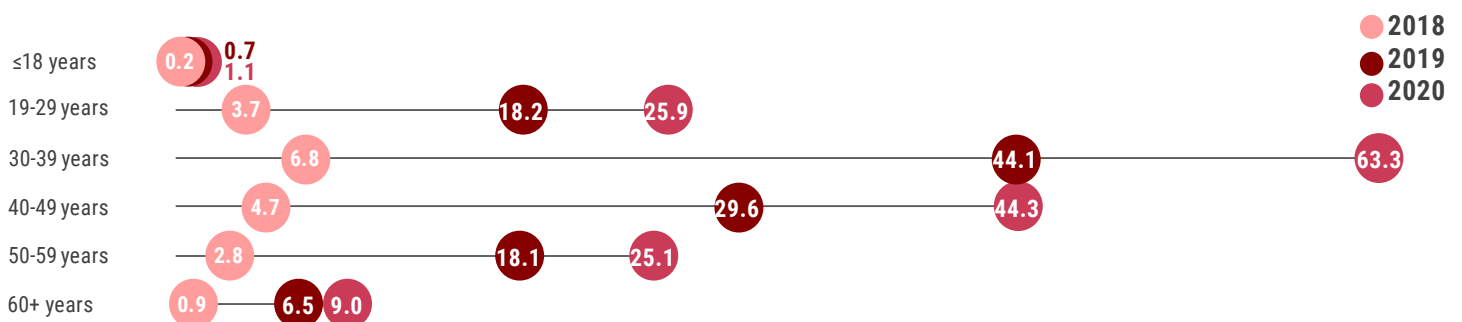
From January 2018 to December 2020, **1,134 (23%)** of **4,913 total cases** of hepatitis A were **epidemiologically (epi) linked to other cases**. In December 2020, 15% of cases were epi-linked to other cases.

In December 2020, 43% of epi-links were household contacts, 29% were sexual contacts, and 14% were personal contacts.

Epi linked cases | **Total cases**



Since January 1, 2018, incidence rates have increased among all age groups. As of December 2020, **the 30-39 years age group had the highest incidence rate of 63.3 cases per 100,000 population among any age group and year**. Since January 1, 2018, cases were reported primarily among **men (64%)** and persons who identify as **non-Hispanic white (81%)**.



Since January 1, 2018, **90 cases (2%)** were co-infected with chronic hepatitis B, **986 cases (20%)** were co-infected with chronic hepatitis C, and **103 cases (2%)** were co-infected with both chronic hepatitis B and C. In December 2020, 8 cases (17%) 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.

Chronic hepatitis B | **Chronic hepatitis C** | **Chronic hepatitis B and C** | **No co-infection**



National activity

Hepatitis A rates have decreased by more than 95% since the first vaccine became available in 1995. However, since March of 2017, the Centers for Disease Control and Prevention has been monitoring outbreaks in 35 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

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. For more information on the data sources used in Florida for hepatitis A surveillance, see the last page of this report.

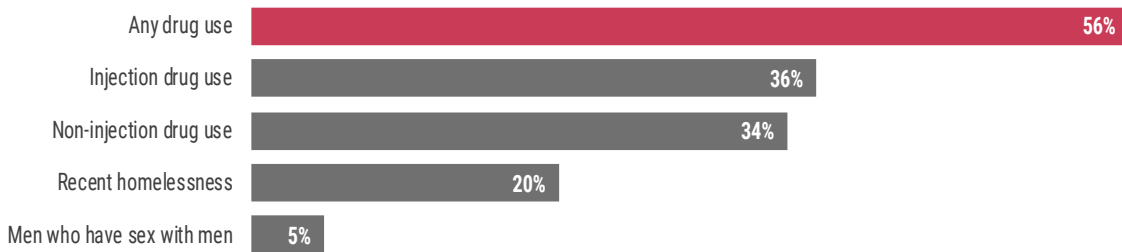
Hepatitis A Surveillance

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=4,962) 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).

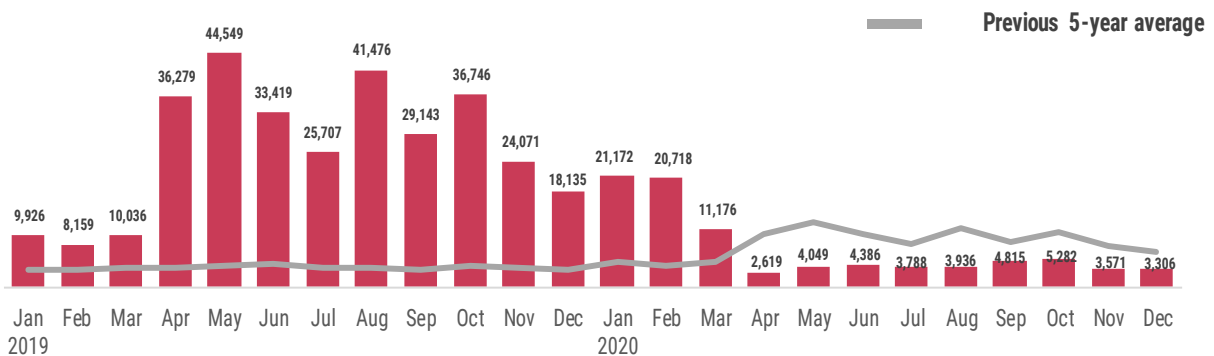
Over half (62%) of the 4,962 cases likely acquired in Florida since January 1, 2018 reported at least one of the risk factors below, while 38% reported no or unknown risk factors. The most commonly identified risk factor was **drug use**, reported by 2,739 cases (56%). Non-injection (34%) and injection (36%) 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, 3,383 (69%) cases likely acquired in Florida have been hospitalized because of their hepatitis A infection, and there were 76 hepatitis A associated deaths identified.





69% hospitalized
76 deaths

The Florida Department of Health is actively working to vaccinate those most at risk for hepatitis A infection. In December 2020, **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**, decreased and was below the **previous 5-year-average**. This may be due to changes in vaccine administration during the COVID-19 pandemic. In December 2020, a total of 3,306 doses were administered. **Vaccination is the best way to prevent hepatitis A infection.**

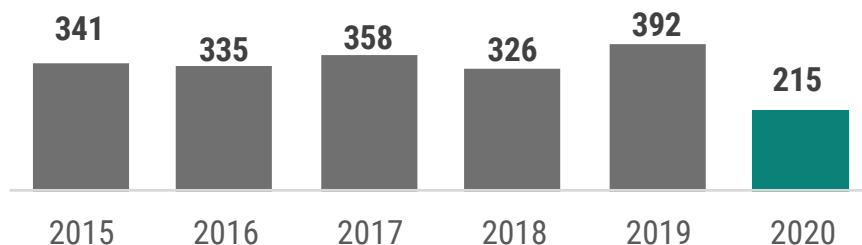


Pertussis Surveillance

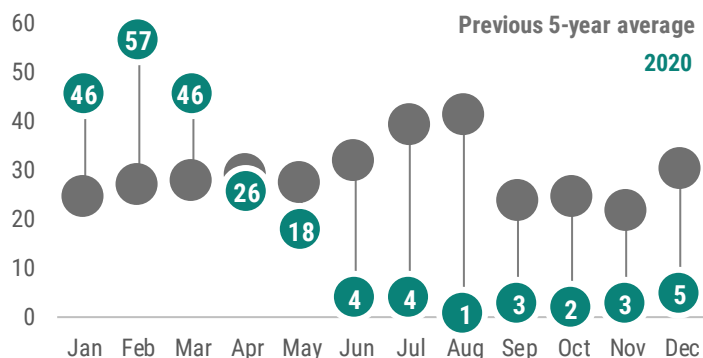
Key Points

-  In December 2020, there were 5 cases
-  18 new cases between July 2020 and December 2020
-  No outbreaks have occurred in 2020
-  <1 year olds had the highest 6 month average incidence rate for July 2020 to December 2020

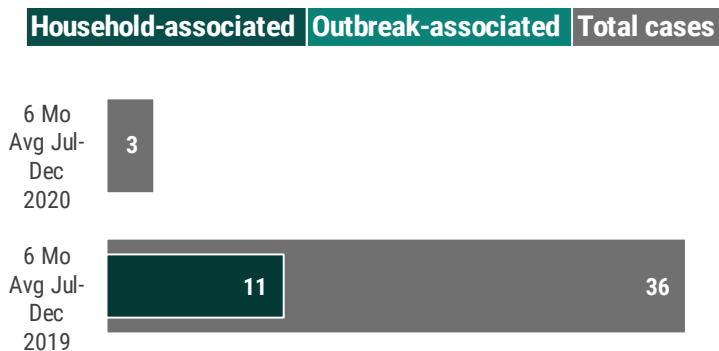
 From January 1, 2020 through December 30, 2020, **215 pertussis cases** were reported in **38 counties**. Eighteen pertussis cases were reported between July 2020 and December 2020, which is a **92% decrease** compared to July 2019 to December 2019 (n=212 cases).



The number of pertussis cases reported in December increased from the previous month, but 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.



 No **outbreak-associated** cases have been identified in 2020. For most pertussis cases, exposure to other known cases is not identified and 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.

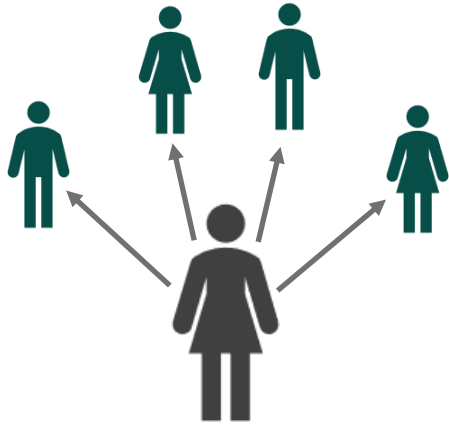


Pertussis Surveillance

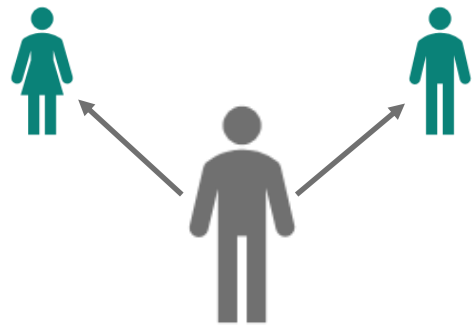


There were an average of **2 contacts** per case between July 2020 and December 2020. Between July 2019 and December 2019, there were an average of **4 contacts** per case. Contacts are classified as people whom antibiotics were recommended to in order to prevent illness. For those diagnosed with pertussis, 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.

July 2019 to December 2019



July 2020 to December 2020



The average incidence rate was highest among **<1 year olds** at **0.2 cases per 100,000 population** between July 2020 and December 2020, which is roughly **15 times lower** than the average incidence rate for <1 year olds between July 2019 and December 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.

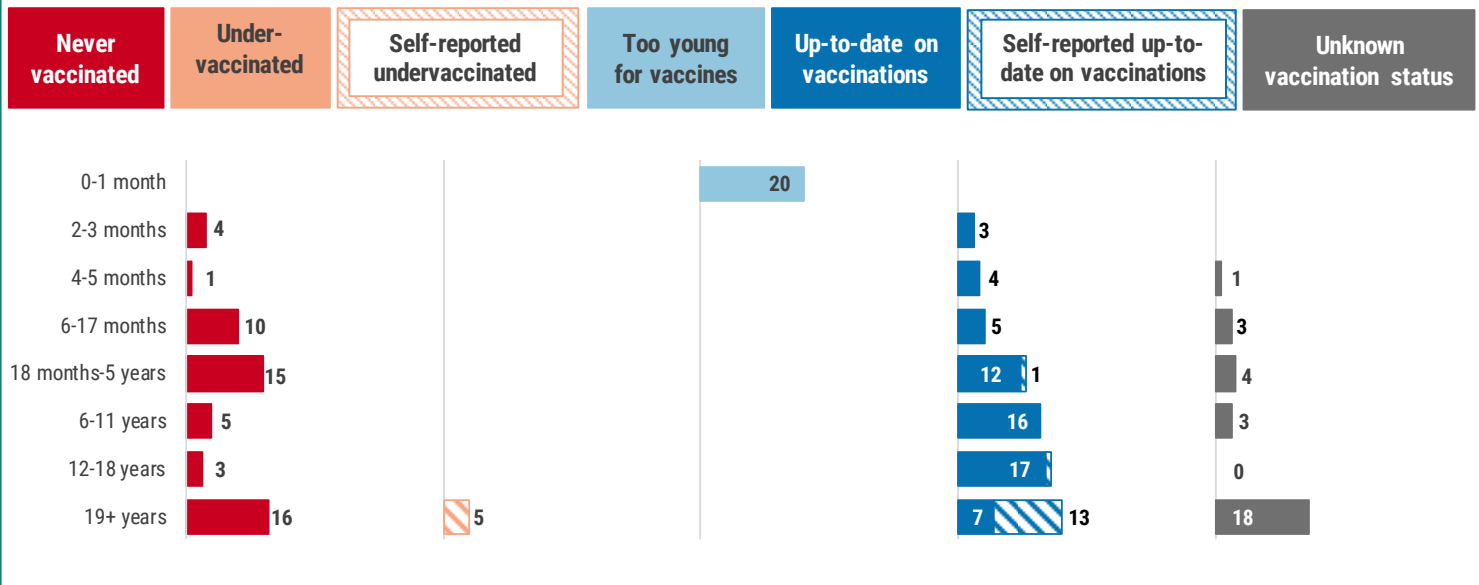
● July 2019 to December 2019
● July 2020 to December 2020



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.

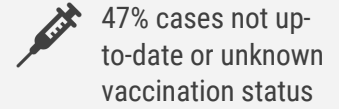
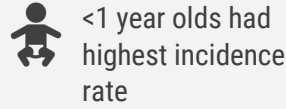
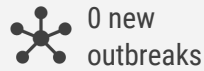
Pertussis surveillance goals

- 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

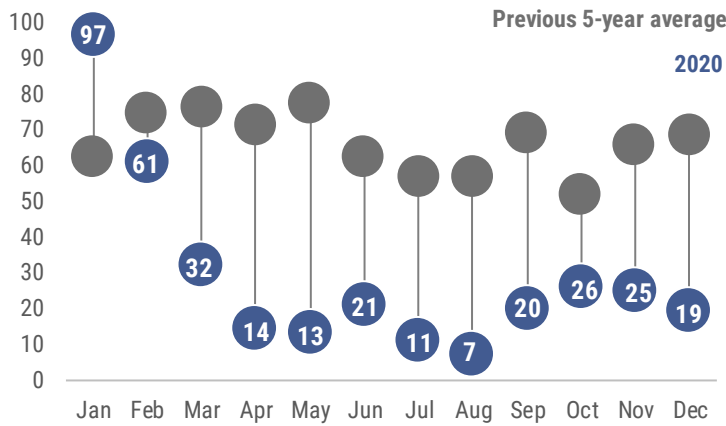
To learn more about pertussis, please visit [FloridaHealth.gov/Pertussis](https://www.floridahealth.gov/Pertussis). For more information on the data sources used in Florida for pertussis surveillance, see the last page of this report.

Varicella Surveillance

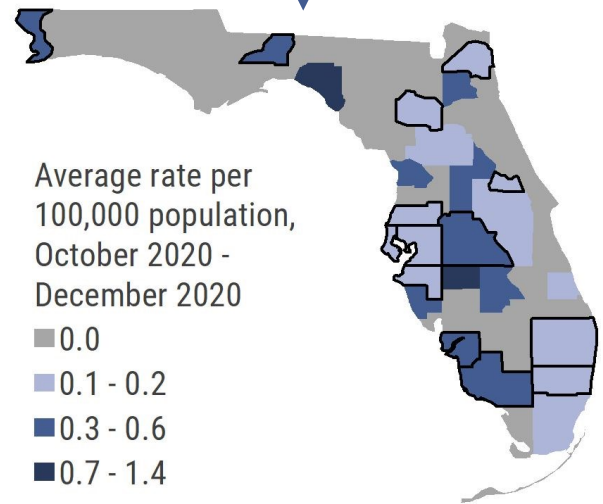
December Key Points



The number of varicella cases reported in December 2020 decreased 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.

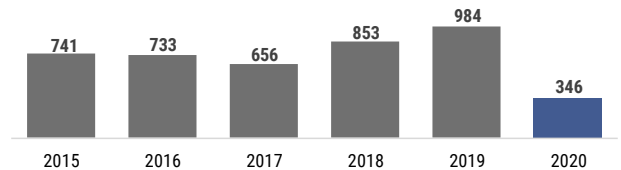


In December 2020, 19 varicella cases were reported in 14 counties, which are outlined in black in the map below. From October 2020 through December 2020 the average county rate varied throughout the state.

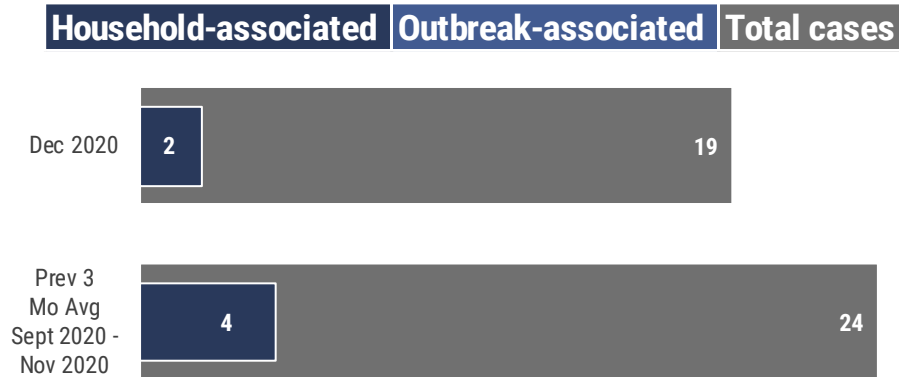


From January 1, 2020 through December 30, 2020, 346 varicella cases were reported in 45 counties.

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.



In December, 2 varicella cases were transmitted within households, while no outbreak-associated were reported. For most varicella cases, exposure to other known cases is not identified and are not able to be linked to outbreaks.



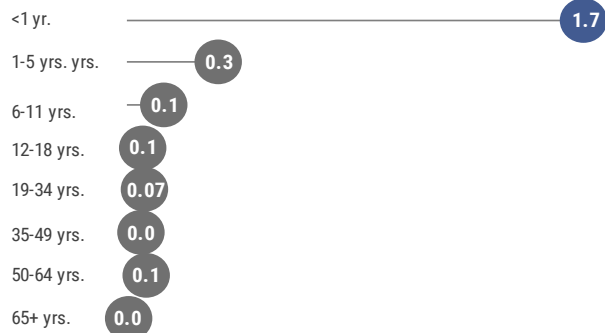
The COVID-19 pandemic is affecting health care seeking behavior, which may be impacting the diagnosis and reporting of varicella cases that are shown in this report. For more information on the COVID-19 pandemic in Florida, please visit [FloridaHealthCOVID-19.gov](https://www.floridahealth.gov/covid-19).



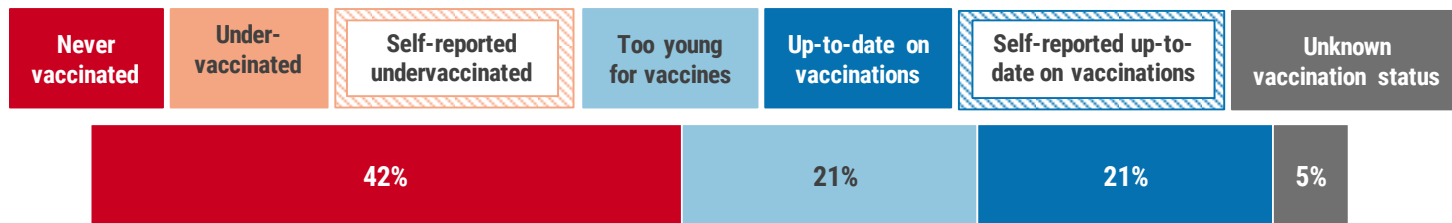
Varicella Surveillance



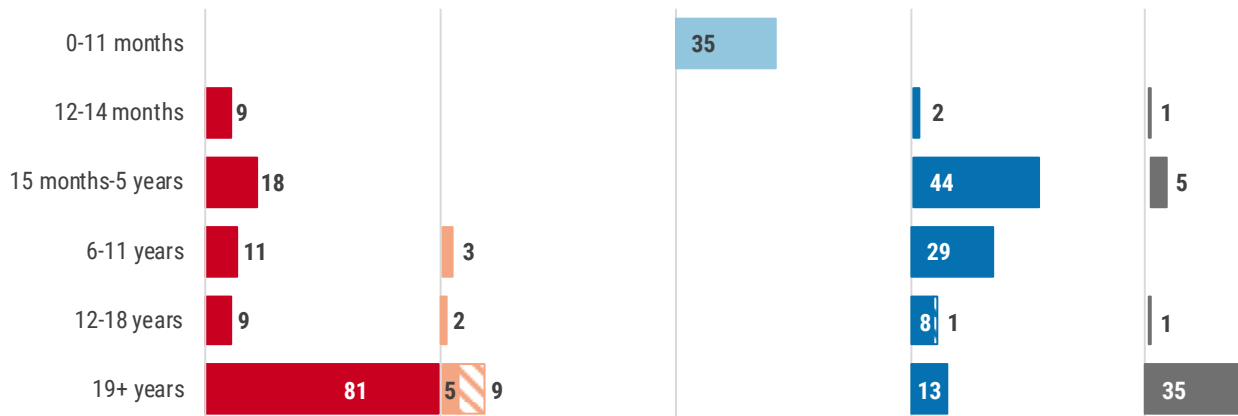
In December, the varicella rate was highest among infants <1 year old at 1.7 cases per 100,000 population, which is consistent with previous months. Infants <1 year old are too young to receive varicella vaccination, which is why vaccination of siblings, parents, grandparents, and other age groups is so important to help prevent infection in infants.



Vaccination is the best way to prevent varicella infections. In December 2020, 47% of individuals reported with varicella had not received the recommended number of varicella vaccinations for their age or had unknown vaccination status. 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, monitor trends, and identify severe outcomes
- Monitor effectiveness of immunization programs and vaccines

To learn more about varicella, please visit 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 ≥ 2 cases exposed within the same household.
 - Pertussis outbreaks are defined as ≥ 2 cases associated with a specific setting outside of a household.
 - Varicella outbreaks are defined as ≥ 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 undervaccinated 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.