Vaccine-Preventable Disease Surveillance Report

March 2021

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.

Hepatitis A

- **Hepatitis A activity is similar to last month** and was below the previous 5-year average.
- 26 cases were reported in March.
- Since 2018, 98% of cases were not up-to-date on hepatitis A vaccinations.
- Northwest Florida had the highest average incidence rates from January 2021 to March 2021.

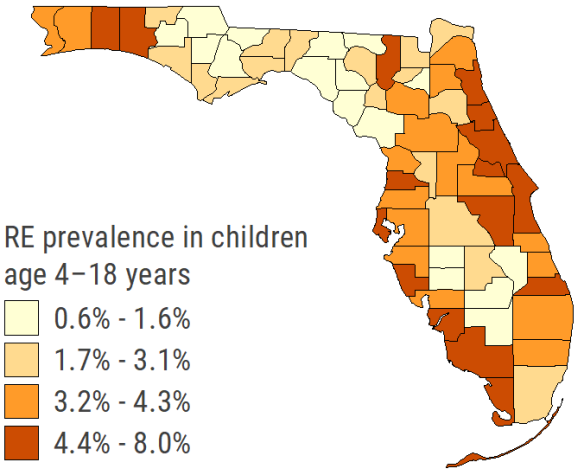
Pertussis

- **Pertussis activity is similar to last month** and was below the previous 5-year average.
- 4 cases were reported in March.
- Compared to October 2018 - March 2019, there was an 87% decrease in reported cases in the past 6 months.
- In the past 6 months, the average incidence rate for <1 year old was 12.5 times lower compared to October 2018 - March 2019.

Varicella

- **Varicella activity increased from last month** and was below the previous 5-year average.
- 26 cases were reported in March.
- Incidence remained highest among infants <1 year old.
- 58% 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 3.8% with **individual counties ranging from 0.6–8.0%**. In March 2020, the statewide prevalence was 3.4%, and the prevalence has gradually increased each month since.

To learn more about REs at the local level, please visit 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 March 31, 2021.

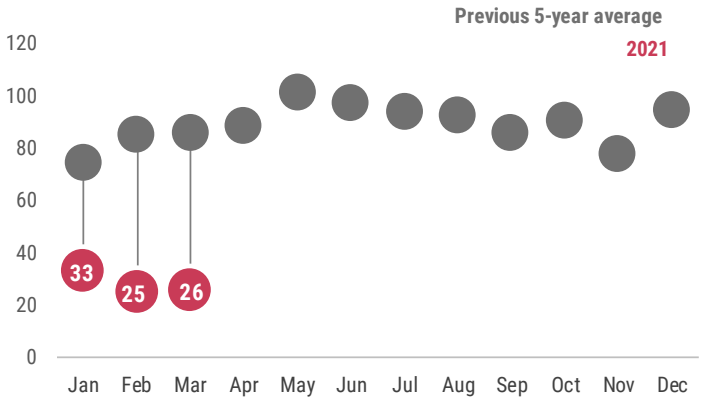
Posted April 5, 2021 on the Bureau of Epidemiology (BOE) website: FloridaHealth.gov/VPD
Produced by the BOE, Florida Department of Health

Hepatitis A Surveillance

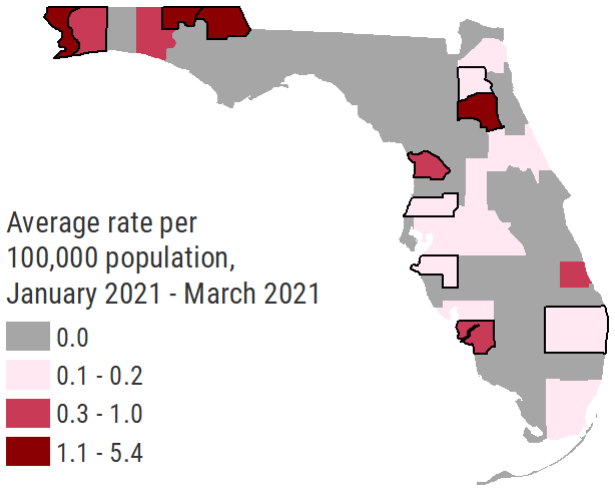
2018-To-Date Key Points

- 5,046 cases
- 23% cases linked to other cases
- Since 2018, 30-39 year olds had highest incidence rate
- 24% co-infected with hepatitis B or C

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

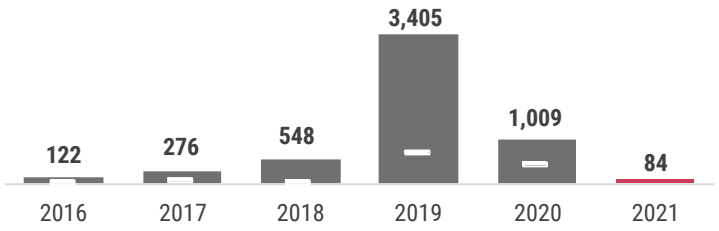


In March, 26 hepatitis A cases were reported in **11 counties**, outlined in black in the map below. In the past three months, Northwest Florida had the highest average incidence rates.



Since January 1, 2021, 84 hepatitis A cases were reported.

Consistent with the national hepatitis A outbreak, cases increased dramatically during 2018 and 2019 in Florida. In March 2021, there was a 88% decrease in overall cases when compared to cases as of March 2019.



*The white bars indicate the total number of cases as of March for each year

98%

never vaccinated

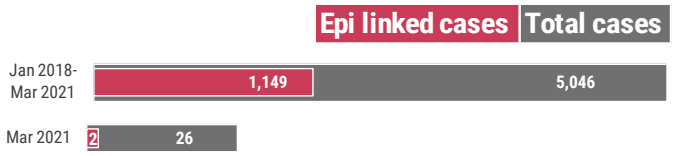
The best way to prevent hepatitis A infection is through vaccination. Since January 1, 2018, 98% of people with hepatitis A had never received a documented dose of hepatitis A vaccine. In March 2021, 88% of infected people had not received the vaccine. Since 2006, hepatitis A vaccine has been recommended for all children at age 1 year. Hepatitis A vaccine is also recommended for certain adult high-risk groups, including persons using injection and non-injection drugs, 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.

Florida HEALTH

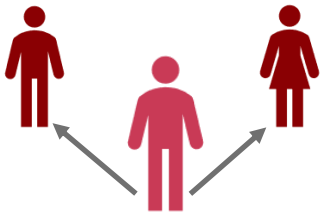
Hepatitis A Surveillance

Since 2018, **1,149 (23%)** of **5,046 hepatitis A cases** were **epidemiologically (epi) linked to other cases**. In March 2021, 8% of cases were epi-linked to other cases.

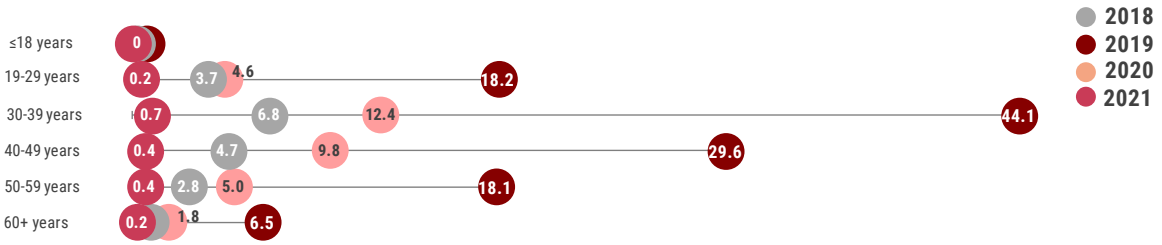


In March 2021, all epi-links were **personal contacts**.

There were an **average of 2 contacts per case.** Contacts are those who were exposed to the virus and recommended prophylaxis for illness prevention.



Since 2018, incidence rates have increased among all age groups with cases reported primarily among **men** (64%) and persons who identify as **non-Hispanic white** (82%). As of March 2021, **30-39 year olds had the highest incidence rate at 0.7 cases per 100,000 population.**



Since 2018, 92 cases (2%) were co-infected with chronic hepatitis B, 1007 cases (20%) were co-infected with chronic hepatitis C, and 106 cases (2%) were co-infected with both chronic hepatitis B and C. In March 2021, 4 cases (15%) were co-infected with chronically infected with hepatitis B or C. Co-infection with more than one 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 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.

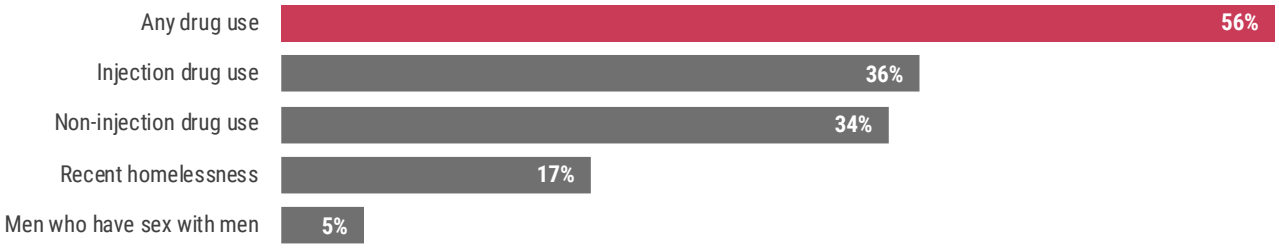
Hepatitis A Surveillance

Statewide Response to the Increase in Hepatitis A Cases

Several Florida counties have experienced ongoing local transmission of hepatitis A since 2017. Since 2018, 98% of Florida's cases (n=5,046) have likely been acquired in Florida. These cases 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.

Since 2018, over half (61%) of the 5,046 cases acquired in Florida reported at least one of the risk factors below, while 39% reported no or unknown risk factors. The most commonly identified risk factor was **drug use**, reported by 2,777 cases (56%). Non-injection (34%) and injection (36%) were both common forms of drug use reported, followed by homelessness (17%).

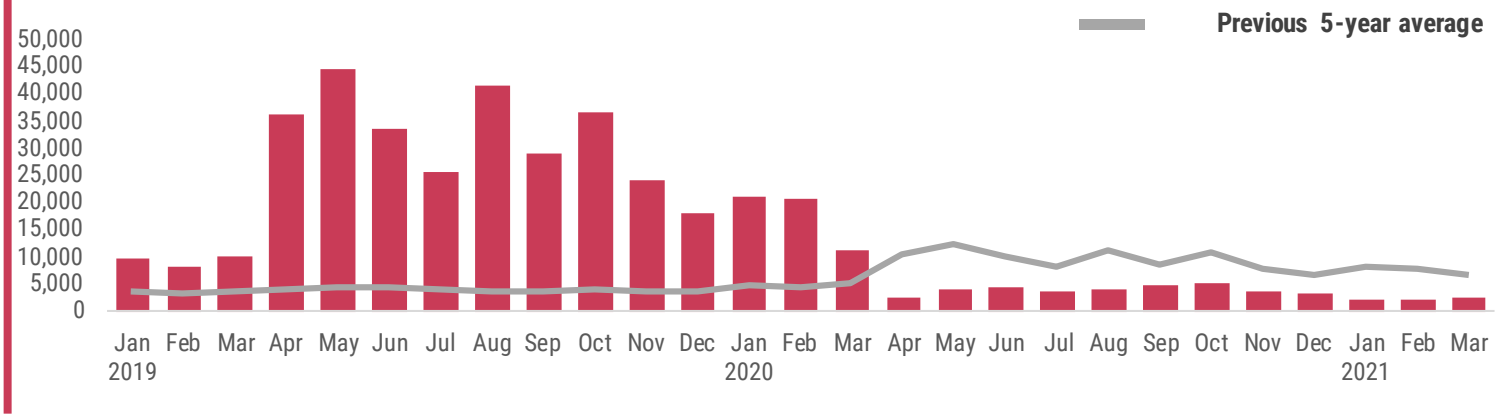


Hepatitis A infections can be severe, leading to inpatient hospitalization and sometimes death. Since January 1, 2018, 3,434 (69%) cases acquired in Florida have been hospitalized due to hepatitis A infection with 77 deaths identified as hepatitis A associated.

69% **hospitalized**

77 **deaths**

The Florida Department of Health is actively working to vaccinate those most at risk for hepatitis A infection. In March 2021, 2,613 doses were administered. **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. **Vaccination is the best way to prevent hepatitis A infection.**

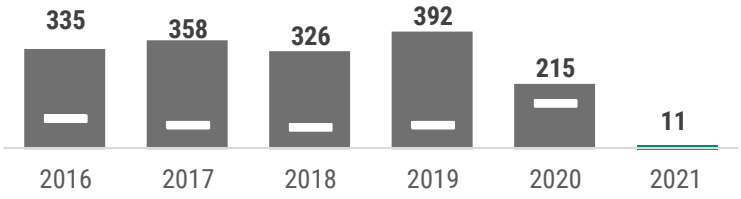


Pertussis Surveillance

Key Points

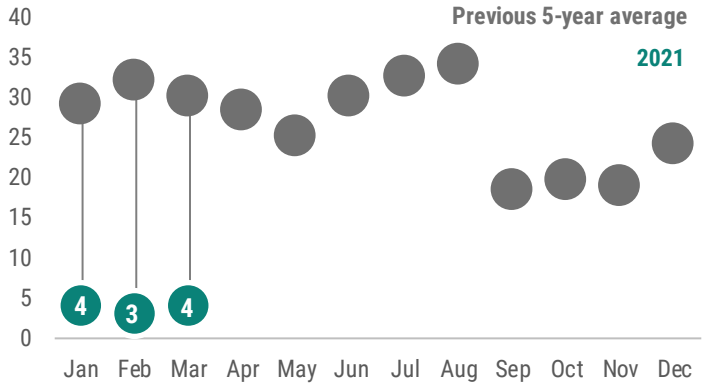
- 4 cases in March 2021
- 21 cases in the past 6 months
- No outbreaks have been reported in 2021
- <1 year olds had the highest 6 month average incidence rate

In 2021, 11 pertussis cases were reported in 7 counties. Between October 2020 and March 2021, 21 cases were reported, an **87% decrease** compared to October 2018 to March 2019 (n=157 cases).

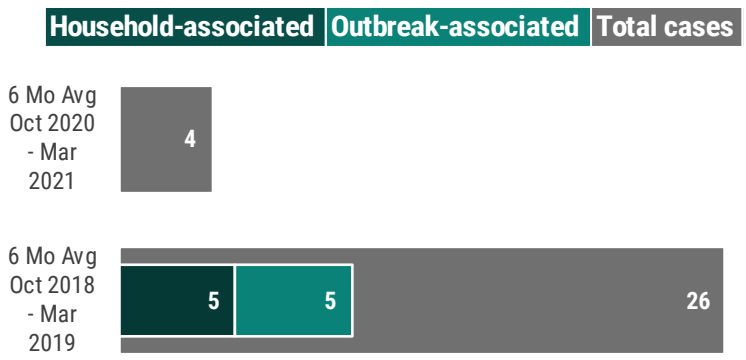


*The white bars indicate the total number of cases as of March for each year

The number of pertussis cases reported in March is similar to 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.



No **outbreak-associated** or **household-associated** cases have been identified in 2021. For most pertussis cases, exposure to other known cases is not identified and are not able to be linked to outbreaks.

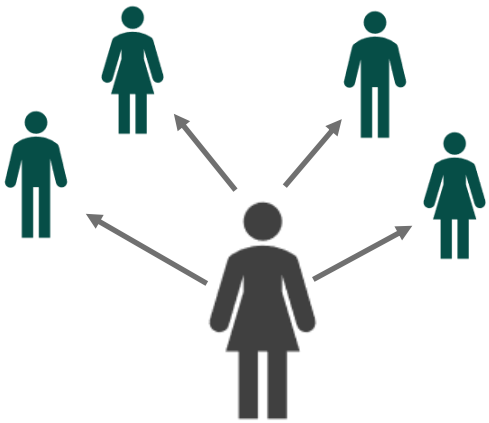


The COVID-19 pandemic is affecting health care seeking behavior, which may be impacting the diagnosis and reporting of pertussis cases that are shown in this report. For more information on the COVID-19 pandemic in Florida, please visit FloridaHealthCOVID-19.gov.

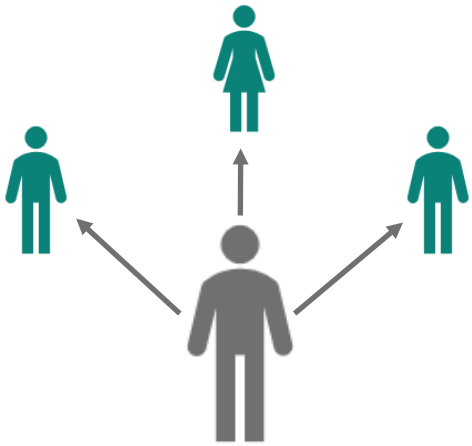
Pertussis Surveillance

An average of 3 contacts per case between October 2020 and March 2021 were reported compared to an average of 4 contacts per case between October 2018 and March 2019. Contacts are classified as people whom antibiotics were recommended to prevent illness. Antibiotics can shorten the amount of time cases are contagious and can also be used to prevent illness in those exposed. Understanding pertussis transmission is a key factor in decreasing pertussis infections. In Florida, transmission setting is not routinely identified for non-outbreak cases, resulting in 75% of cases reporting unknown setting in the past six months.

October 2018 to March 2019



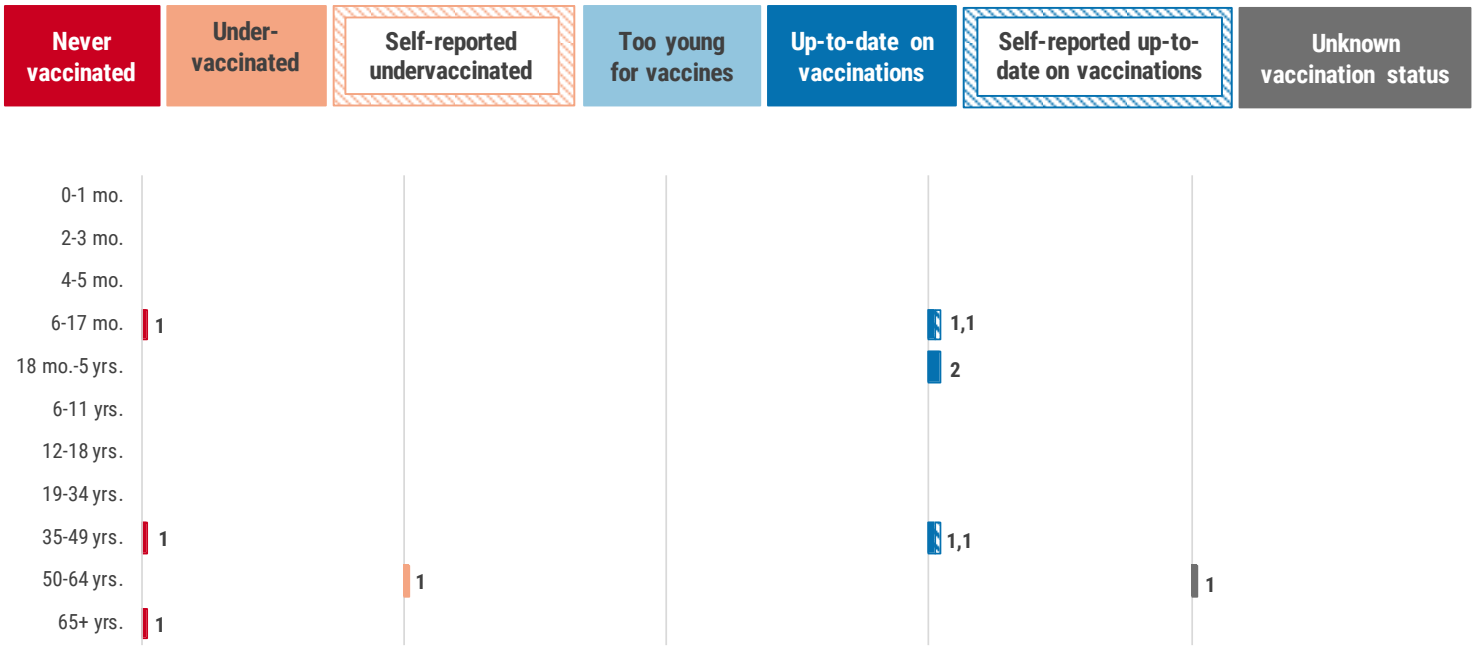
October 2020 to March 2021



The average incidence rate was highest among <1 year olds at 0.2 cases per 100,000 population between October 2020 and March 2021, which is **12.5 times lower** than the average incidence rate for <1 year olds between October 2018 and March 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 important in infection prevention among infants.

Pertussis Surveillance

In 2021, over half of cases were up-to-date on their pertussis vaccinations. **In general, those who have received at least one pertussis vaccination have less severe outcomes than those who have never been vaccinated.** If a person was born before November 1st, 1982, the current pertussis immunization recommendation would not have been implemented when they were receiving their childhood immunizations. Based on the case's age, **6 cases** would not have been vaccinated under the current childhood immunization recommendations.



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 transmission settings in non-outbreak cases to prevent the spread of sporadic cases
- Identify contacts of cases and recommend appropriate prevention measures, including exclusion, antibiotic prophylaxis, and immunization
- Monitor the effectiveness of immunization programs and vaccines

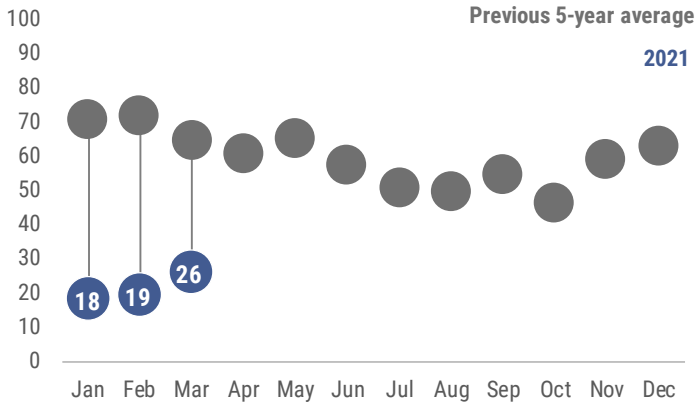
To learn more about pertussis, please visit FloridaHealth.gov/Pertussis. For more information on the data sources used in Florida

Varicella Surveillance

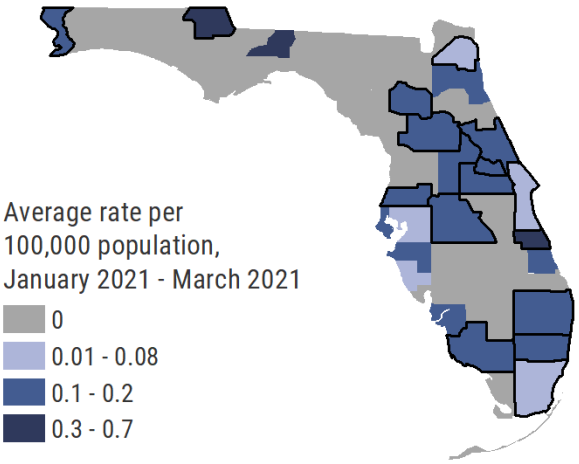
March Key Points

- 26 cases
- No new outbreaks
- <1 year olds had highest incidence rate
- 58% cases not up-to-date or unknown vaccination status

The number of varicella cases reported in March 2021 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.

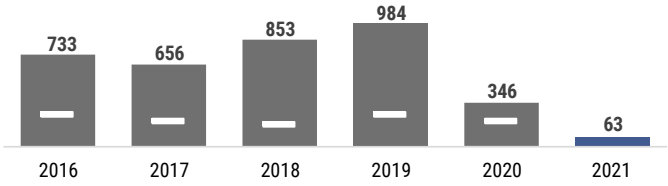


In March 2021, 26 varicella cases were reported in **16 counties,** outlined in black in the map below. From January 2020 through March 2021 the average county rate was highest in Northwest Florida.



In 2021, 63 varicella cases were reported in 26 counties.

The annual number of reported varicella cases decreased from 2016 to 2017. In 2020 and 2021, case counts are lower than those seen in previous years at this time.



*The white bars indicate the total number of cases as of March for each year

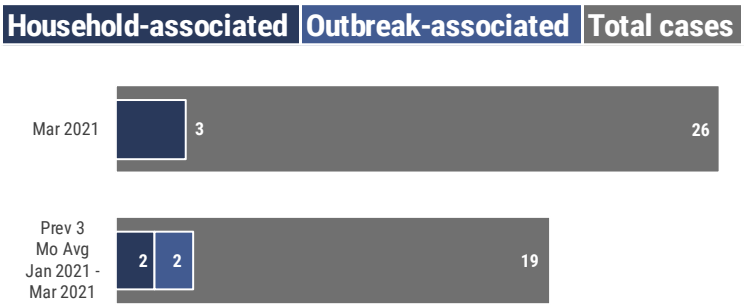
In March, the varicella rate was highest among infants <1 year old at 1.3 cases per 100,000 population, which is consistent with previous months. Infants <1 year old are too young to receive varicella vaccination, which is why vaccination of siblings, parents, grandparents, and other age groups is important in infection prevention among infants.

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.

Varicella Surveillance

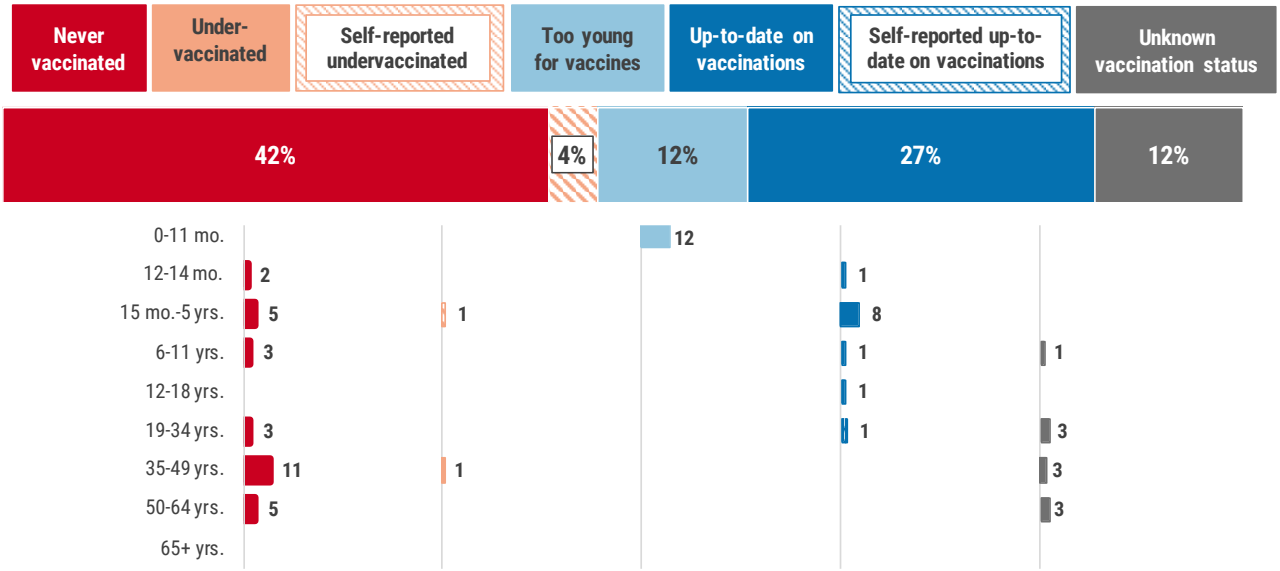
In March, **3 cases were transmitted within households** and **no cases were associated with an outbreak,**. For most varicella cases, exposure to other known cases is not identified. In Florida, transmission setting is not routinely identified for non-outbreak cases, resulting in 58% of cases reporting unknown setting in March.

People with shingles infection can transmit the virus that causes varicella to people without immunity. In March, **7 cases** reported having contact with someone diagnosed with shingles during their exposure period.



In March 2021, **58% 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. If a person was born before July 1, 1994, the current varicella immunization recommendation would not have been implemented when they were receiving their childhood immunizations. Based on the case's age, **25 cases** in 2021 would not have been vaccinated under the current childhood immunization recommendations.

In 2021, 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 develop varicella, **complete and timely vaccination remains the best way to prevent varicella and severe complications**.



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
- Identify transmission settings in non-outbreak cases to prevent the spread of sporadic cases
- 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.
- For more information about Florida's guides to surveillance and investigation, including disease-specific surveillance case definitions, please visit 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.

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.
- 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.