Vaccine-Preventable Disease Surveillance Report

October 2022

Hepatitis A

- **Hepatitis A activity decreased from last month** and was below the previous 5-year average.
- **19 cases** were reported in October.

Pertussis

- **Pertussis activity decreased from last month** and was below the previous 5-year average.
- **4 cases** were reported in October.

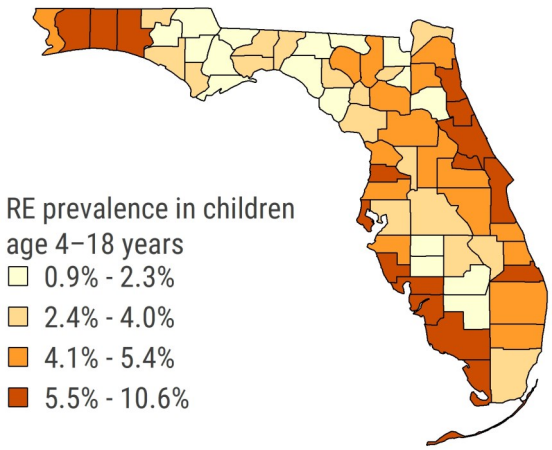
Meningococcal Disease

- **Meningococcal disease activity remained stable from last month** and was above the previous 5-year average.
- **4 cases** were reported in October.

Varicella

- **Varicella activity increased from last month** and was below the previous 5-year average.
- **30 cases** were reported in October.

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 4.75% with **individual counties ranging from 0.9–10.6%**. In October 2021, the statewide prevalence was 4.2% and the prevalence has gradually increased each month since.

To learn more about REs at the local level, please visit FloridaHealth.gov/REmap

The rate of religious exemptions is likely higher than the rate presented in this report. This is due to eligible persons with religious exemptions who have opted out of Florida SHOTS and persons who have had their religious exemptions processed outside of the Florida SHOTS system. The map above includes REs registered in Florida SHOTS through October 31, 2022.

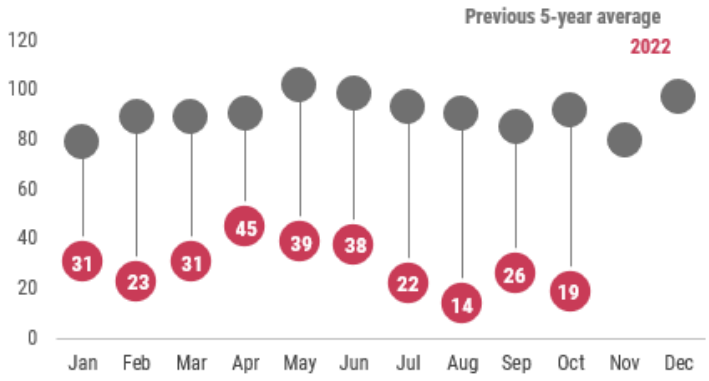
Posted November 3, 2022 on the Bureau of Epidemiology (BOE) website: FloridaHealth.gov/VPD
Produced by the BOE, Florida Department of Health

Hepatitis A Surveillance

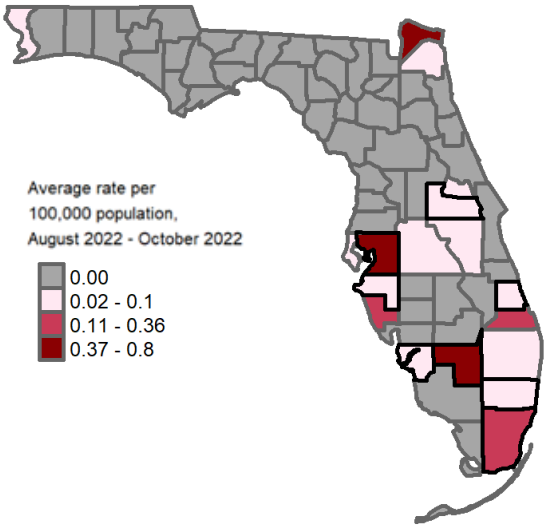
October Key Points

- 19 cases
- 4% of cases linked to other cases
- 30-39 year olds had the highest incidence
- 53% of cases were not up-to-date and 42% of cases had unknown vaccination status.

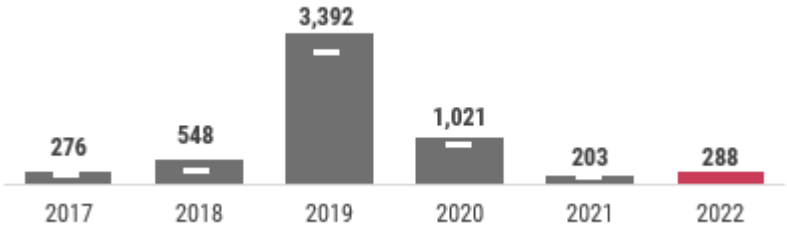
The number of reported hepatitis A cases in October decreased from the previous month and was below the previous 5-year average.



In October 2022, **19 hepatitis A cases** were reported in **8 counties,** outlined in black in the map below. From August 2022 through October 2022, the average county rates were lowest throughout northwest Florida.



In 2022, 288 hepatitis A cases* were reported.



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

95%

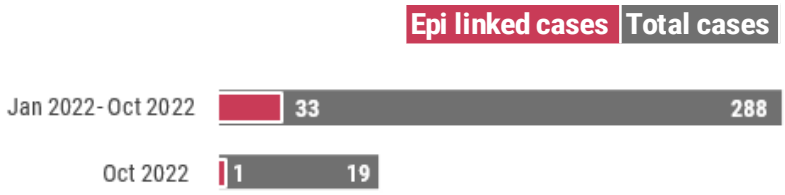
not vaccinated

The best way to prevent hepatitis A infection is through vaccination. In October 2022, 95% of reported cases had not received the vaccine or had unknown vaccination status. Of the 95%, 53% of cases were not-up to date on hepatitis A vaccinations and 42% of cases had unknown hepatitis A vaccination status. 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.

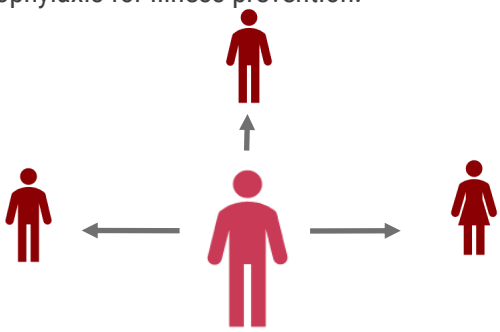
* Of the reported cases in 2022, 7 cases had illness prior to 2021, but were not reported prior to 2022.

Hepatitis A Surveillance

In October 2022, **one case** was **epidemiologically (epi) linked to another case.** From January 2022—October 2022, **33 cases** were epi-linked to other cases.

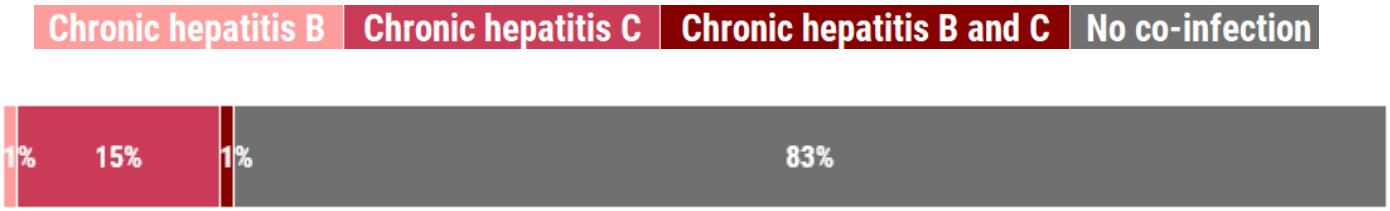


In October 2022, there was an average of **3 contacts to reported cases.** Contacts are those who were exposed to the virus and recommended prophylaxis for illness prevention.



In 2022, **30-39 year olds have the highest incidence rate at 3.27 cases per 100,000 population.**

In October 2022, no cases were co-infected with chronic hepatitis C and one case was co-infected with chronic hepatitis B. In 2021, the **most common coinfection was with chronic hepatitis C with 15%** of reported cases being coinfected. **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 outbreaks were first identified in 2016, the Centers for Disease Control and Prevention has been monitoring outbreaks in 37 states. More information about these outbreaks can be found here: www.cdc.gov/hepatitis/outbreaks/2017March-HepatitisA.htm

Hepatitis A surveillance goals

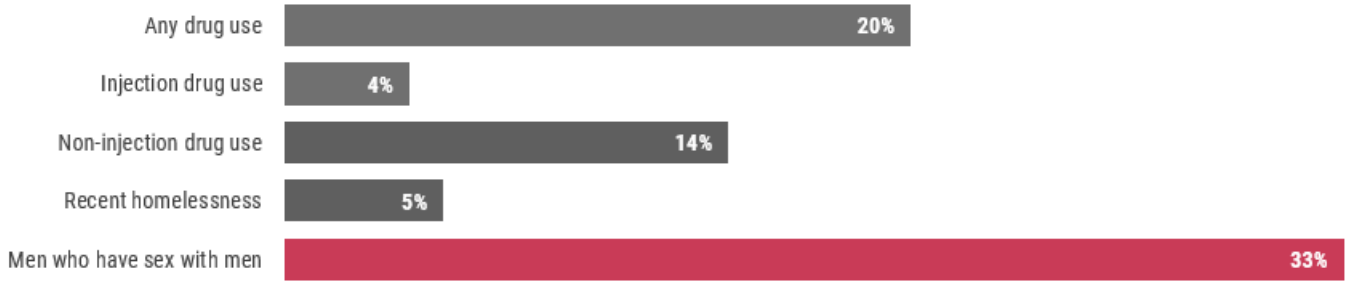
- Identify cases to limit transmission
- Identify and prevent outbreaks
- Monitor effectiveness of immunization programs and vaccines

To learn more about hepatitis A, please visit FloridaHealth.gov/diseases-and-conditions/vaccine-preventable-disease/hepatitis-a. For more information on the data sources used in Florida for hepatitis A surveillance, see the last page of this report.

Hepatitis A Surveillance

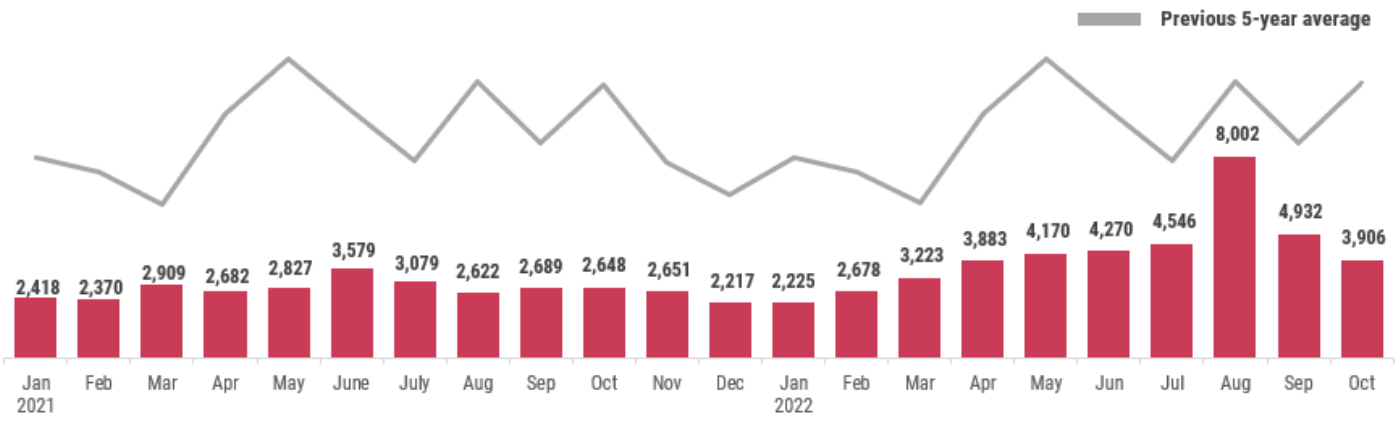
Vaccination is the best way to prevent hepatitis A infection. Health care providers are encouraged to actively offer the hepatitis A vaccine to individuals at risk including men who have sex with men.
For more information about hepatitis A vaccination in Florida visit: https://www.floridahealth.gov/diseases-and-conditions/hepatitis/hepatitis-vaccination-testing-program.html

In 2022, 44% of the 281 cases* in Florida reported at least one of the risk factors below, while 56% reported no or unknown risk factors. The most commonly identified risk factor was **men who have sex with men**, reported by **93 cases** (**33%**). The next most common risk factor was **any drug use (20%)** reported in 55 cases. The most common form of drug use was **non-injection drug (14%**) reported in 39 cases. **Injection drug use (4%)** was reported in 11 cases. **Recent homelessness** was reported in **5%** of reported cases. In 2022, there has been an **increase** in reported cases among men who have sex with men when compared to 2021.



Hepatitis A infections can be severe, leading to inpatient hospitalization and sometimes death. **In 2022, 178 cases (63%) reported in Florida* have been hospitalized due to hepatitis A infection.** One death has been identified as hepatitis A associated in 2022.

The Florida Department of Health is actively working to vaccinate those most at risk for hepatitis A infection. In October 2022, 3,906 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**. **Vaccination is the best way to prevent hepatitis A infection.**



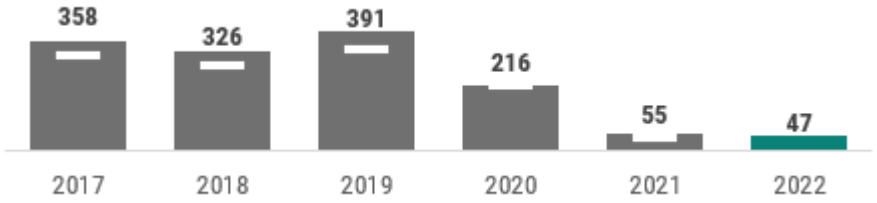
* The 7 cases with illness prior to 2021 are excluded from this analysis.

Pertussis Surveillance

October Key Points

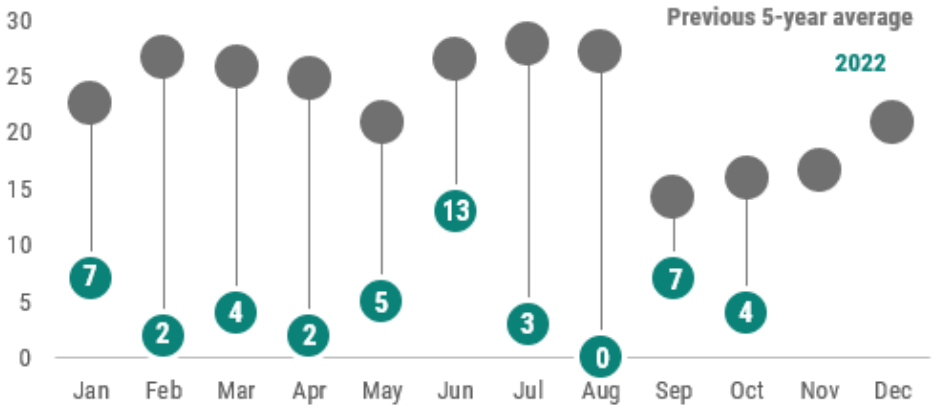
- 4 cases
- 32 cases in the past 6 months
- No new outbreaks
- <1 year olds had the highest 6 month average incidence rate

In 2022, 47 pertussis cases were reported in 18 counties. There was an **45% increase** in the number of pertussis cases reported between May 2022—October 2022 compared to May 2021—October 2021 (n=22 cases).

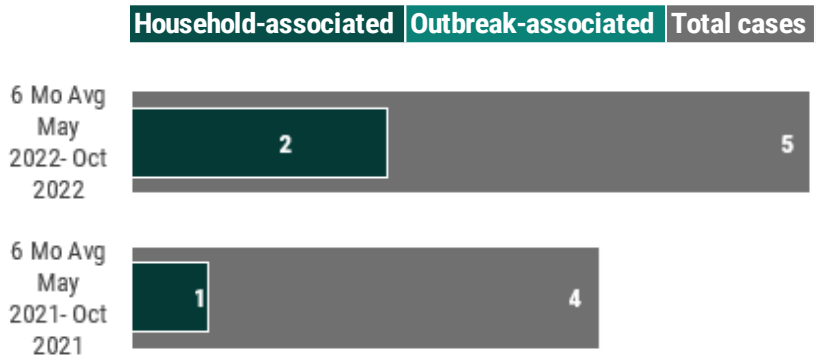


*The white bars indicate the total number of cases as of October for each year

The number of pertussis cases reported in October decreased from the previous month and was below the previous 5-year average.



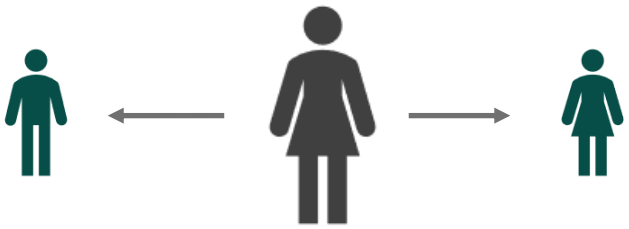
In October 2022, 2 pertussis cases were household-associated. In the past 6 months, there was an average of **2 household-associated cases** and an average of **5 total cases**. From May 2021— October 2021, there was an average of **1 household-associated case** and an average of **4 total cases**. For most pertussis cases, exposure to other known cases is not identified and are not able to be linked to outbreaks.



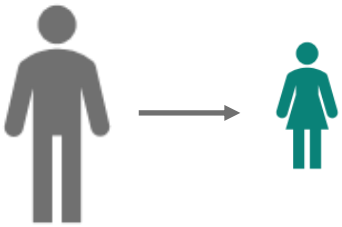
Pertussis Surveillance

An average of 2 contacts per case between May 2021 and October 2021 were reported compared to an average of 1 contact per case between May 2022 and October 2022. 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 **70%** of cases reporting unknown setting in the past six months.

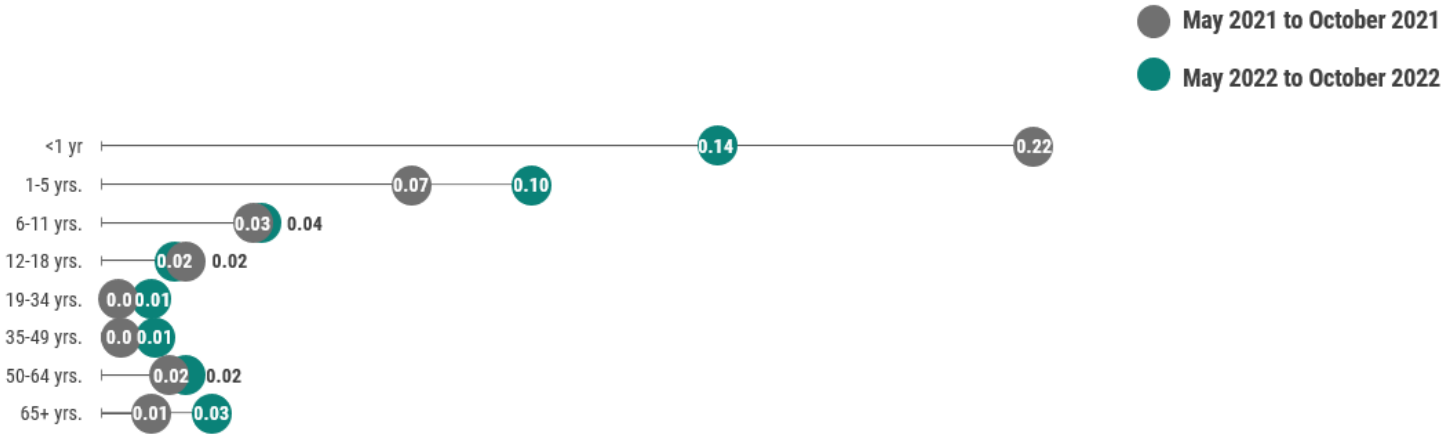
May 2021 to October 2021



May 2022 to October 2022

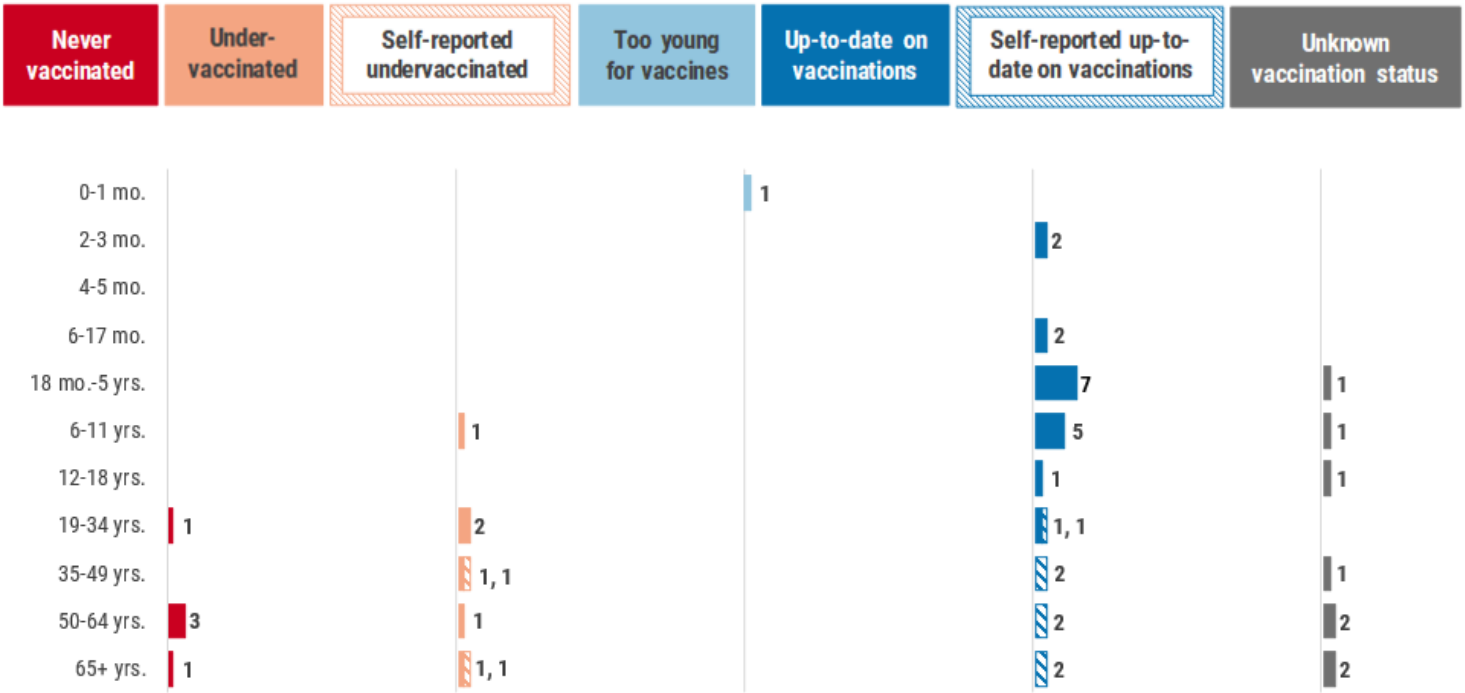


The average incidence rate was highest among <1 year olds at 0.14 cases per 100,000 population between May 2022 and October 2022. Infants experience the greatest burden of pertussis infections, not only in number of cases but also in severity. Infants <2 months old are too young to receive vaccinations against pertussis, which is why vaccination of parents, siblings, grandparents, and other age groups is important in infection prevention among infants.



Pertussis Surveillance

In 2022, over half of cases reported 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 December 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, **20 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

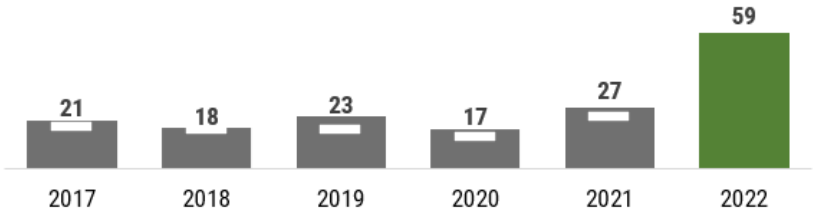
Meningococcal Disease Surveillance

October Key Points

- 4 cases
- 33 cases in the past 6 months
- 0% of cases linked to other cases
- 75% of cases not vaccinated or had unknown vaccination status

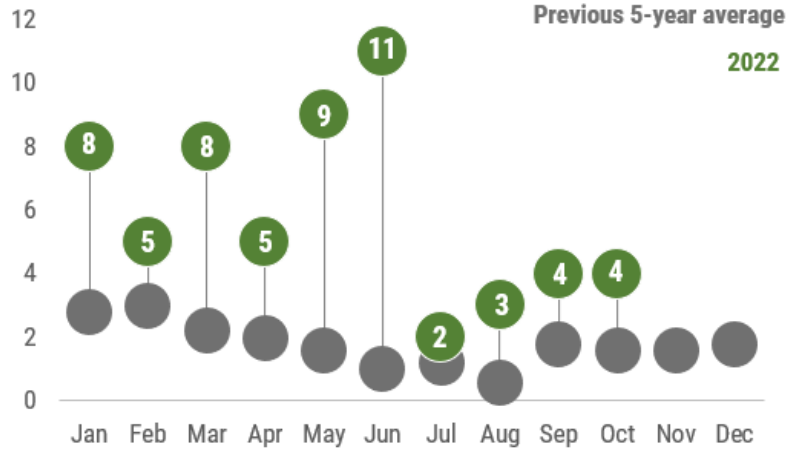
Meningococcal disease rates have been declining in Florida with more than 150 cases reported annually 25 years ago to 27 cases reported in 2021, as vaccination rates have increased. Rates of disease have been stable over the last 5 years with an average of about 21 cases occurring annually.

In 2022, 59 meningococcal disease cases were reported in 17 counties. The number of reported meningococcal cases is higher in 2022 than previous years. The number of cases reported in October 2022 is higher than the number of cases observed at this time in previous years.



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

The number of meningococcal disease cases reported in October 2022 remained stable from the previous month and was above the previous 5 year average.



75%

not vaccinated

Vaccines can help prevent meningococcal disease. In October 2022, 75% of reported cases were not vaccinated or had unknown vaccination status. In 2022, 81% of reported cases were unvaccinated or had unknown vaccination status.

There are currently two types of meningococcal vaccines available in the United States: Meningococcal conjugate or MenACWY vaccines and Serogroup B meningococcal or MenB vaccines. Centers for Disease Control and Protection (CDC) recommends meningococcal disease vaccination for all preteens and teens as well as other children and adults who are at increased risk of meningococcal disease.

To learn more about the meningococcal vaccine, talk to your doctor or visit:
https://www.cdc.gov/vaccines/vpd/mening/public/index.html

Florida HEALTH

Meningococcal Disease Surveillance

In 2022, the meningococcal disease rate was highest among age 19-34 years at 0.75 cases per 100,000 population.

In 2022, among reported cases, 98% of reported cases were seen in the emergency department and 93% of reported cases were hospitalized. Additionally, 15 deaths were identified as being associated to meningococcal disease. The best protection against meningococcal disease is keeping up-to-date with recommended vaccines.

Meningococcal disease can often be severe leading to inpatient hospitalization and sometimes death. According to the CDC, about 10 to 15 in 100 people with meningococcal disease will die. Up to 1 in 5 survivors will have long-term disabilities which may include: loss of limb/s, deafness, nervous system problems, brain damage. More information can be found at https://www.cdc.gov/meningococcal/clinical-info.html

National and International activity

Meningococcal disease rates are at a historic low in the United States. Rates have been declining since the 1990s and currently remain low. In 2019, there were about 375 cases reported (incidence rate of 0.11 cases per 100,000 persons). Meningococcal outbreaks are rare in the United States and only about 1 in 20 cases is related to outbreaks.

Meningococcal disease occurs worldwide. The highest incidence of disease is found in the 'meningitis belt' located in sub-Saharan Africa. This region experiences large-scale epidemics every 5 to 12 years. Epidemics during the dry season (December-June) reach up to 1,000 cases per 100,000 population. More information can be found at https://www.cdc.gov/meningococcal/global.html

Meningococcal disease surveillance goals

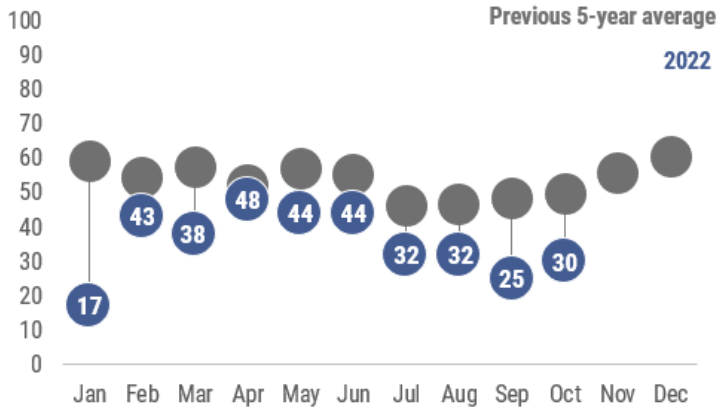
- Identify cases to limit transmission and prevent outbreaks by implementing control measures
- Collect data on key variables for monitoring meningococcal disease
- Monitor effectiveness of immunization programs and vaccines

Varicella Surveillance

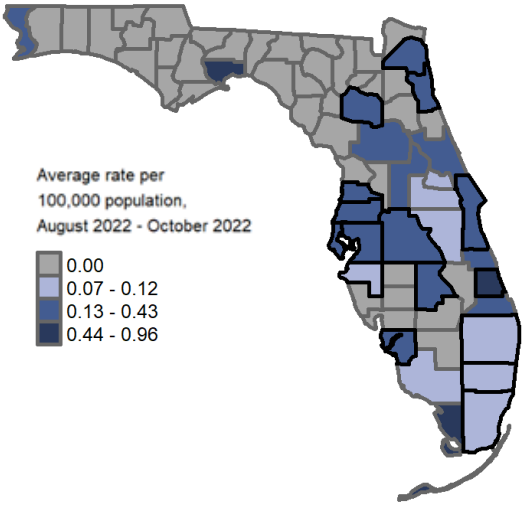
October Key Points

- 30 cases
- No new outbreaks
- 1-5 year olds had the highest incidence
- 73% cases not up-to-date or unknown vaccination status

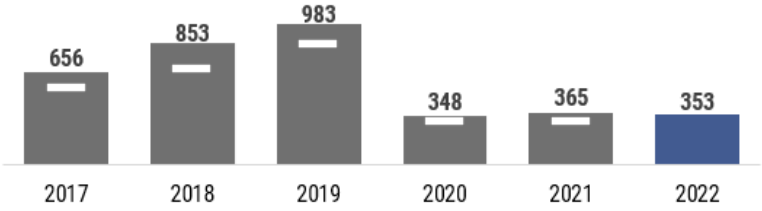
The number of varicella cases reported in October 2022 increased from the previous month and was below the previous 5-year average. Due to robust vaccination programs, there is no longer discernable seasonality for varicella cases in the United States.



In October 2022, **30 varicella cases** were reported in **16 counties,** outlined in black in the map below. From August 2022 through October 2022 the average county rates varied throughout the state.

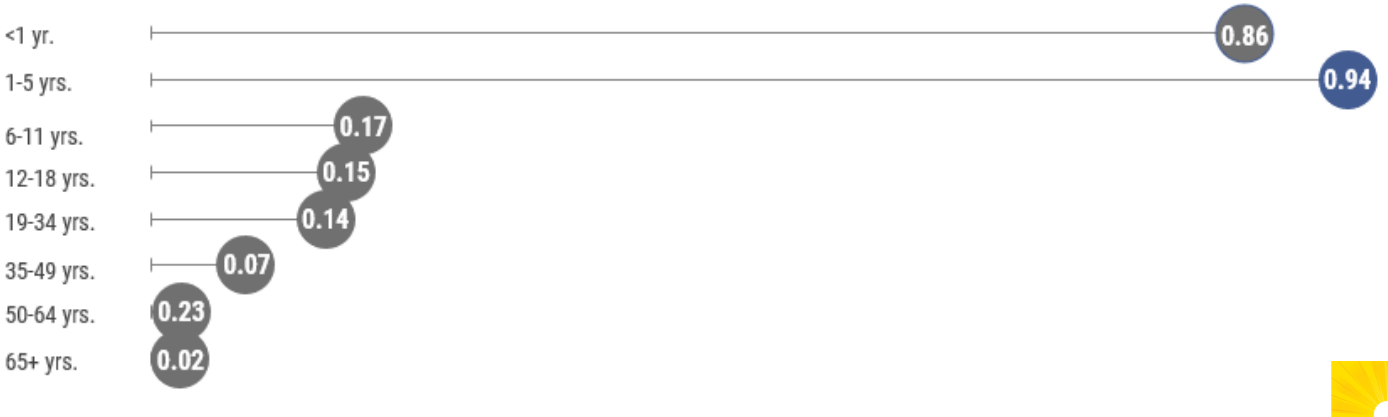


In 2022, 353 varicella cases were reported. The annual number of reported varicella cases increased from 2017 to 2019 and decreased significantly in 2020 and 2021.



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

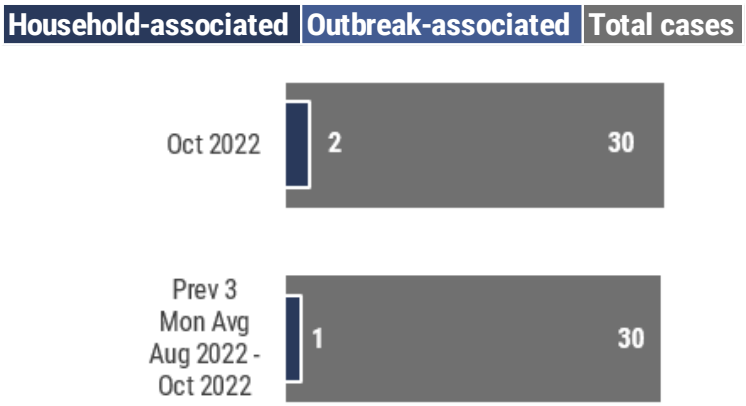
In October, the varicella rate was highest among 1-5 year olds at **0.94 cases** per 100,000 population. Infants <1 year old are too young to receive varicella vaccination, which is why vaccination of siblings, parents, grandparents, and other age groups is important in infection prevention among infants.



Varicella Surveillance

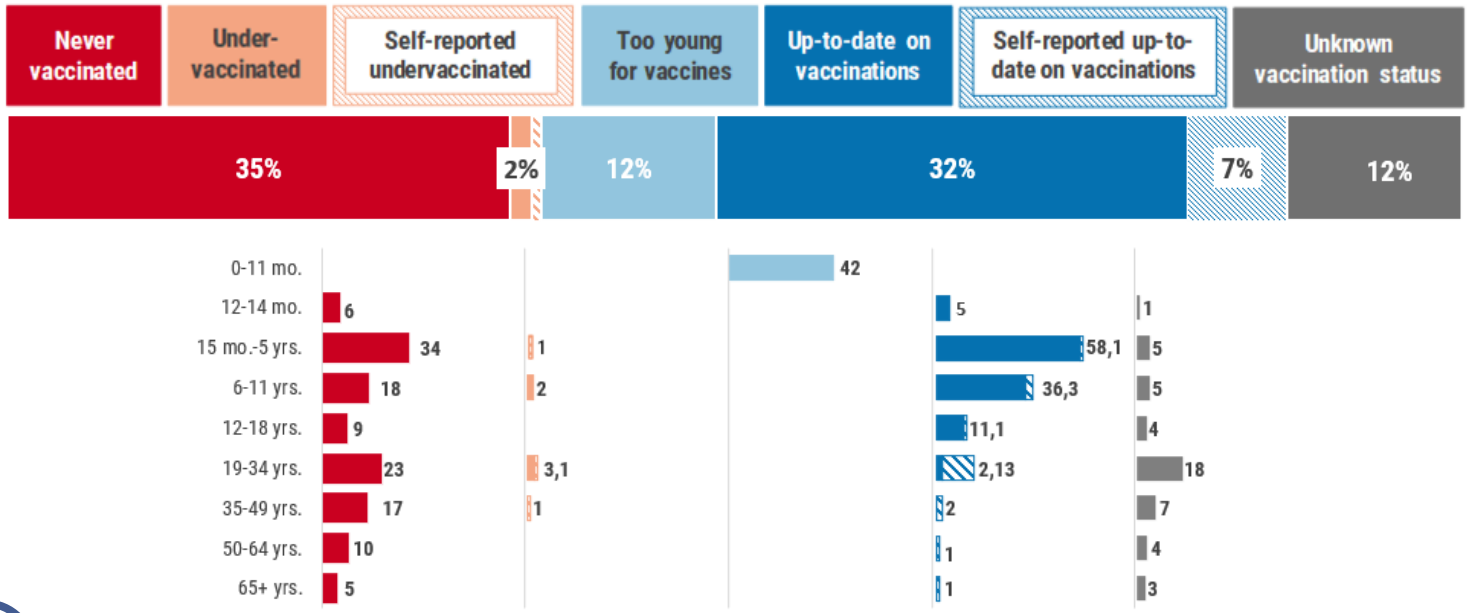
In October, **2 cases were household-associated** and **no cases were outbreak-associated.** For most varicella cases, exposure to other known cases is not identified. In Florida, transmission setting is not routinely identified for non-outbreak cases resulting in **73%** of cases reporting unknown setting in October.

People with shingles infection can transmit the virus that causes varicella to people without immunity. In October, **5 cases** reported contact with someone diagnosed with shingles during their exposure period.



In October 2022, **73% 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, **79 cases** in 2022 would not have been vaccinated under the current childhood immunization recommendations.

In 2022, 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.
- Case data is calculated using CDC MMWR Report Year.*
- Pertussis, varicella, hepatitis A and meningococcal disease 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, hepatitis A, and meningococcal disease 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, hepatitis A, and meningococcal disease 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.
  - An outbreak for meningococcal disease occurs when there are multiple cases of the same serogroup in a community or institution over a short period of time. For more information, please see CDC meningococcal outbreak guidance: https://www.cdc.gov/meningoccal/outbreaks/index.html

- 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 2021 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.