

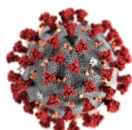
# EPI SCOPE

FLORIDA DEPARTMENT OF HEALTH IN SEMINOLE COUNTY EPIDEMIOLOGY NEWSLETTER // NOV 2021 ISSUE

## What's Included?

Norovirus Season.....	1
U.S. Antibiotic Awareness Week.....	2
Hand, Foot and Mouth Disease.....	2
Alert: Flu in Colleges/Universities....	3
Monthly Surveillance Data.....	9
Additional Info & Resources.....	10

## Fast Stats & Updates



COVID-19 case counts have plateaued in Seminole County in recent weeks.



**65%** of eligible\* Seminole County residents have received at least one dose of a COVID-19 vaccine.

*\*Note the percent has decreased from the last newsletter as the eligible population now includes everyone ages 5 years and older.*

For more information, view the latest weekly COVID-19 report on the [Florida Department of Health COVID-19 website](#).



**Influenza (Flu) activity is increasing in Seminole County and across Florida.** Encourage patients to get their annual flu shot and discuss cough and sneeze etiquette and proper hand washing to reduce the spread of the flu.

## NOROVIRUS SEASON

by Tyler Weston, MPH

Help Prevent the Spread of  
**NOROVIRUS** A STOMACH BUG  
Stop norovirus! Clean surfaces that are touched a lot.



Fall is officially underway, and so is the start of norovirus season. Norovirus is a highly contagious, gastrointestinal (GI) illness that causes diarrhea, vomiting, nausea, and abdominal pain. The virus is commonly spread by having direct contact with an infected person or consuming contaminated food or water. The Centers for Disease Control and Prevention (CDC) estimates that norovirus causes roughly 19 to 21 million cases of vomiting and diarrheal illness and nearly 2.3 million outpatient clinic visits annually. It is also estimated that the virus leads to 465,000 emergency department visits, 109,000 hospitalizations, and 900 deaths each year. Though norovirus can affect people of all ages, infants, young children, the elderly, and individuals with weakened immune systems are particularly at a higher risk for norovirus illness. Outbreaks of norovirus are quite common, with roughly 2,500 outbreaks reported in the United States annually. While outbreaks can occur at any time throughout the year, they are most common during the colder months from November to April.

In addition to being the leading cause of acute gastroenteritis in the U.S. and worldwide, norovirus is also the most common cause of foodborne illness and outbreaks. Around 50% of all outbreaks of food illness are caused by norovirus in the U.S., with most outbreaks occurring in settings such as restaurants. Other commonly reported settings for norovirus outbreaks include healthcare facilities (e.g., long-term care facilities and hospitals), schools and childcare facilities, and cruise ships. Foods that are commonly involved in outbreaks of norovirus include leafy greens, fresh fruits, and shellfish (e.g., oysters).

The Florida Department of Health in Seminole County (DOH-Seminole) investigates outbreaks of norovirus and norovirus-like illness. While individual cases of norovirus are not reportable in Florida, healthcare providers should report all outbreaks of acute gastroenteritis, including suspected outbreaks of norovirus, to the appropriate local, state, or territorial health department. The CDC defines an outbreak of norovirus as two or more similar illnesses that result from a common exposure that is either suspected or laboratory-confirmed to be caused by norovirus. Healthcare workers are encouraged to practice proper hand hygiene after having contact with fecal material from a patient or after contact with anyone suspected or confirmed with norovirus. Other general norovirus prevention measures include safely handling and preparing food, avoiding preparing food or caring for others while symptomatic, and regularly cleaning and disinfecting high-touch surfaces. If norovirus is identified in a facility, custodial staff should use an EPA-approved norovirus disinfectant and follow the contact time as listed by the manufacturer.

For more information about norovirus, recent trends and outbreaks, and food safety and healthcare resources, please visit the CDC's [Norovirus](#) webpage or the Florida Department of Health's [Norovirus Infection](#) webpage. **For any questions about norovirus or to report a suspected outbreak of acute gastroenteritis, please contact the DOH-Seminole Epidemiology Program at 407-665-3243.**

Sources: [CDC Norovirus](#); [CDC Norovirus—What Healthcare Providers Should Know](#); [FDOH Norovirus Infection](#)

# NATIONAL ANTIBIOTIC AWARENESS WEEK

by Carley Robinson, MPH, CPH

November 18-24 marks U.S. Antibiotic Awareness Week (USAAW). Per the CDC's 2019 Antibiotics Resistance Threats in the United States report, each year antibiotic resistance is responsible for an estimated 35,000 deaths and involve 2.8 million infections. The annual healthcare price tag for this threat is significant, around \$4.6 billion, which is driven by only six organisms. *Clostridioides difficile*, also known as "C. diff," causes an infection typically found among patients with a long history of antibiotic use, which resulted in 12,800 deaths and 223,900 cases in 2017. The good news is that sound antibiotic stewardship can reduce the threat of these infections. As healthcare providers, these are some measures you can take to ensure antibiotic stewardship in healthcare decision-making:



- Ensure that patients understand that a viral respiratory infection will not improve with the use of antibiotics and provide them with alternatives to alleviate their symptoms.
- Remind patients that antibiotics only treat certain infections caused by bacteria, not viruses.
- When prescribing antibiotics, the shortest effective duration of the right antibiotic is critical to antibiotic stewardship.
- Provide education on the dangers of overuse of antibiotics, including possible reactions, C. diff infection, and creating resistant infections.
- Empower patients to be aware of the signs and symptoms of sepsis and what to do if these occur. If you suspect sepsis, communicate this to the hospital staff so that treatment can be appropriately.

For additional information, including patient messaging and other resources, visit the [CDC's USAAW website](#).

## HAND, FOOT AND MOUTH DISEASE AWARENESS

by Taylor Kwiatkowski, MPH

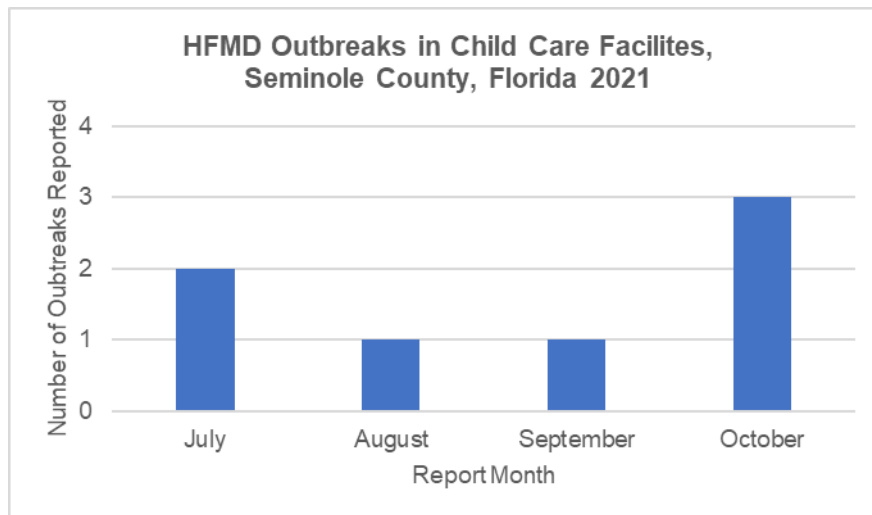
Hand, foot, and mouth disease (HFMD) is a commonly occurring illness typically spread in the summer and fall months. It's caused by viruses in the Enterovirus family including Coxsackievirus A16, Coxsackievirus A6 and Enterovirus 71.

Symptoms of HFMD generally include fever, depressed appetite, mouth sores, and skin rash, most commonly on the hands, mouth, and/or feet. Infants and children under the age of five are usually affected with outbreaks often occurring in child care settings. The usual incubation period for HFMD is between three and six days, with mild symptoms which typically resolve on their own after seven to 10 days. While there is no specific medical treatment for HFMD, use of over the counter medications may help reduce fever and pain. Dehydration is another concern, as mouth sores may make it painful to swallow. Ensuring the patient is drinking enough fluids to stay hydrated is a key concern.

HFMD is usually most contagious during the first week of infection. Transmission occurs following contact with the fluid from blisters or scabs from the rash, respiratory droplets, or feces. Contact with objects contaminated with the virus and then touching your eyes, nose or mouth is a concern. Hand washing, environmental cleaning of frequently touched surfaces, and avoidance of touching your eyes, nose, and mouth are the most effective forms of prevention for HFMD.

Seminole County has experienced seven outbreaks of HFMD in 2021, with the first outbreak occurring in July. All seven outbreaks have occurred in child care facilities or preschools with no apparent links to one another.

**While HFMD is not considered a reportable disease or condition, facilities are required to report any outbreaks associated with the disease to the Florida Department of Health in Seminole County (DOH-Seminole). Contact DOH-Seminole at 407-665-3243 to report an outbreak of HFMD or consult with the Epidemiology Program.**



**This is an official**  
**CDC HEALTH ADVISORY**

Distributed via the CDC Health Alert Network  
November 24, 2021, 11:00 AM ET  
CDCHAN-00458

## **Increasing Seasonal Influenza A (H3N2) Activity, Especially Among Young Adults and in College and University Settings, During SARS-CoV-2 Circulation**

### **Summary**

The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory about increased influenza A(H3N2) activity that could mark the beginning of the 2021-2022 influenza season. The purpose of this HAN Health Advisory is to

1. Remind public health practitioners and clinicians to recommend and offer the current seasonal influenza vaccine to all eligible persons aged six months and older (Flu vaccine and COVID-19 vaccine can be given at the same visit).
2. Remind clinicians to consider testing for both influenza virus and SARS-CoV-2 in patients with influenza-like illness (ILI).
3. Advise clinicians that antiviral treatment is recommended as early as possible for any patient with confirmed or suspected influenza who is: a) hospitalized; b) at higher risk for influenza complications; or c) developing progressive illness. In patients with suspected influenza, decisions about starting antiviral treatment should not wait for laboratory confirmation of influenza, however COVID-19 should be excluded if a rapid assay is available.
4. Remind public health practitioners and clinicians to consider mitigation measures including antiviral post-exposure prophylaxis during influenza outbreaks in institutions (e.g., long-term care facilities, university dormitories) in the setting of co-circulation of SARS-CoV-2.
5. Remind the public to use non-pharmaceutical interventions (NPI) or everyday preventive actions, in addition to getting a flu vaccine. Everyday preventive actions include staying home when sick, covering coughs and sneezes, and washing hands often.

### **Background**

Recent increases in influenza activity in many places in the United States could mark the beginning of the 2021-2022 influenza season in the United States. While influenza activity is still low overall nationally, an increase of influenza A(H3N2) viruses has been detected in recent weeks, with most of these infections occurring in young adults. CDC also is aware of influenza outbreaks in colleges and universities in several states. Influenza vaccination coverage is still low and there is still time this season to benefit from getting an annual influenza vaccine.

Available seasonal influenza vaccines in the United States provide protection against four different influenza viruses: A(H1N1)pdm09, A(H3N2), B/Victoria lineage, and B/Yamagata lineage viruses. In the past, influenza A(H3N2) virus-predominant seasons were associated with more hospitalizations and deaths in persons aged 65 years and older than other age groups than other influenza viruses. Influenza A(H3N2) viruses evolve more rapidly to escape human immunity. The influenza A(H3N2) component of this season's vaccines was recently updated in response to the evolution of a new group of viruses called 2a (i.e., 3C.2a1b.2a) that did not circulate widely last year and were not included in last season's H3N2 vaccine component.<sup>1</sup> Most H3N2 viruses that have been analyzed in the United States so far are genetically closely related to the current vaccine's H3N2 component. However, this emerging group has continued to evolve, and there are now two subgroups (2a.1 and 2a.2) that are genetically closely related to each other, but do have some antigenic differences from each other (i.e., post-infection ferret

antibodies from one virus might not efficiently bind the other virus).<sup>2</sup> CDC virus surveillance data shows that most of the A(H3N2) viruses recently identified in the United States (October–November 2021) are in the 2a.2 group that is related to but distinguishable from the vaccine component (i.e., 2a.1). It is not known what impact the differences in the circulating viruses and the vaccine viruses may have on vaccine effectiveness. However, influenza vaccine effectiveness in general has been lower against A(H3N2) viruses than against the other three influenza viruses that could circulate [influenza A(H1N1)pdm09 or influenza B viruses].<sup>3</sup> Influenza activity during the 2020–2021 season was low throughout the United States and the timing and intensity of the upcoming 2021–2022 influenza season is uncertain. Because influenza activity was low last season, we are anticipating a lower level of community protection that we rely on year after year to reduce the risk of a severe influenza season. Thus, CDC is anticipating an increase of influenza illness this winter, and both A(H3N2) and B-Victoria viruses are already co-circulating. Moreover, as SARS-CoV-2 continues to circulate in the United States, illnesses associated with both viruses might stress healthcare systems. A growing body of scientific studies suggest that even when vaccination does not prevent infection it can reduce the severity of influenza illness, helping to avert serious outcomes including hospitalization and death.

CDC recommends that healthcare providers continue to recommend and offer influenza vaccination to persons aged six months and older because influenza activity is ongoing. Vaccination protects against four different viruses and is likely to reduce hospitalization and death associated with currently circulating influenza viruses and other influenza viruses that might circulate later in the season. Influenza antiviral medications are an important adjunct that should be used in addition to influenza vaccination. While vaccination is the primary means for preventing influenza, antiviral medications are a second line of defense used to treat influenza after infection has occurred. Early treatment with influenza antiviral medications is the most effective way to treat influenza and reduce complications.<sup>4-8</sup>

Influenza antivirals also can be used for post-exposure prophylaxis (PEP) to prevent infection.<sup>4,5,9</sup> This can reduce the risk of influenza among persons who are exposed to someone who has influenza. Influenza antivirals have historically been used for PEP among residents in institutional settings, such as long-term care facilities, to help control influenza outbreaks. In the context of SARS-CoV-2 co-circulation, influenza antiviral treatment and PEP could also be considered in other communal settings (e.g., shelters, university dormitories, prisons) to reduce strain on healthcare services in these institutions during influenza outbreaks. In general, CDC recommends initiating influenza antiviral PEP within 48 hours of contact with someone who has influenza.

## **Recommendations for Clinicians and Public Health Practitioners**

### **1. Recommend and offer influenza vaccination for all eligible persons aged six months and older**

Anyone who has not received an influenza vaccine this season should get vaccinated now. For 2021-2022, CDC recommends using any licensed, age-appropriate influenza vaccine as an option for vaccination this season.<sup>10</sup> Vaccination coverage is lower this season as of the week ending November 6, 2021 in certain groups at higher risk of severe influenza illness, such as pregnant persons and children, compared with the same period in 2020.<sup>11</sup> Vaccination is the best way to reduce the spread of influenza and reduce influenza illness and complications that can result in hospitalization and death. Both influenza and COVID-19 vaccines can be administered at the same visit, without regard to timing. If a patient is due for both vaccines, providers are encouraged to offer both vaccines at the same visit.

### **2. Treat patients with suspected or confirmed influenza who meet clinical criteria with influenza antivirals**

CDC recommends influenza antiviral medications to treat influenza as an important adjunct to vaccination. Treatment with influenza antivirals has been shown to be safe. Influenza antivirals benefit clinical and public health by reducing illness and severe outcomes of influenza based on evidence from observational studies, randomized controlled trials, and meta-analyses of randomized controlled trials.<sup>4-8,12</sup>

- CDC recommends influenza antiviral treatment **as soon as possible** for patients with suspected or confirmed influenza who are:
  - Hospitalized

- Outpatients at increased risk for complications<sup>9</sup>
- Outpatients with progressive disease <sup>9</sup>
- Influenza antiviral treatment may be offered to patients with uncomplicated influenza based on clinician judgment to shorten their illness duration or lessen symptoms. The use of antiviral treatment in patients with uncomplicated influenza might help lessen the stress on healthcare systems when both influenza and SARS-CoV-2 are co-circulating.
- Antivirals are most effective when started **within two days after the beginning of illness**. It is also possible that antiviral treatment started after 48 hours may offer some benefit.<sup>4,8,12</sup>
- Potential also exists for co-infection of influenza and SARS-CoV-2 viruses. In such situations, influenza antivirals can be given for influenza illness.
- Because of the importance of early treatment, **decisions about starting antiviral treatment should not wait for laboratory confirmation of influenza**. However, COVID-19 should be excluded with a rapid diagnostic assay if one is available.

There are two oral influenza antiviral medications approved by the U.S. Food and Drug Administration (FDA) **commonly available by prescription** to treat influenza virus infection that can also be used for PEP following influenza exposure.<sup>9</sup> These include *oseltamivir* (trade name Tamiflu®), and *baloxavir marboxil* (trade name Xofluza®) (Table 1). **Inhaled zanamivir and intravenous peramivir antiviral medications are used less frequently.**<sup>9</sup> Additional information on these influenza antiviral medications is available [here](#).

**Table 1: Summary of most common antiviral medications for treatment and post-exposure prophylaxis of influenza<sup>9</sup>**

<b>Drug</b>	<b>Oseltamivir (Tamiflu®)</b>	<b>Baloxavir (Xofluza®)</b>
Approved by FDA	1999	2018
Mechanism	Neuraminidase inhibitor	Cap-dependent endonuclease inhibitor
Route of administration	<b>Oral</b>	<b>Oral</b>
Treatment dosing	<b>Daily dosing for 5 days</b> <ul style="list-style-type: none"> <li>● Adults: 75 mg <b>twice daily</b></li> <li>● Children: varies by age/weight<sup>9</sup></li> </ul>	<b>Single dose only</b> <ul style="list-style-type: none"> <li>● &lt;80 kg: 40 mg</li> <li>● ≥80 kg: 80 mg</li> </ul>
Post-exposure prophylaxis dosing	<b>Daily dosing for 7 days</b> <ul style="list-style-type: none"> <li>● Adults: 75 mg <b>once daily</b></li> <li>● Children: varies by age/weight<sup>9</sup></li> </ul>	<b>Single dose only</b> <ul style="list-style-type: none"> <li>● &lt;80 kg: 40 mg</li> <li>● ≥80 kg: 80 mg</li> </ul>
Age	<b>Treatment:</b> any age for treatment <b>PEP:</b> ≥3 months	<b>Treatment or PEP:</b> ≥12 years
Contraindications	Known hypersensitivity	Known hypersensitivity

### 3. Use of influenza antivirals for post-exposure prophylaxis (PEP)

Both oseltamivir and baloxavir are FDA-approved for influenza PEP. The efficacy of PEP in reducing virus acquisition to uninfected household contacts is high for oseltamivir (68%-89%)<sup>13</sup> and baloxavir (86%).<sup>5</sup> In general, before the COVID-19 pandemic, CDC did not recommend widespread or routine use of influenza antiviral medications for PEP in the community.<sup>9</sup> However, PEP has been recommended previously in closed settings such as long-term care facilities or crowded group settings such as refugee resettlement facilities. In these situations, CDC has recommended using clinical judgment for antiviral PEP for certain exposed non-ill close contacts of persons with suspected or confirmed influenza. Given the unique considerations of influenza outbreaks in various settings in the context of co-circulation with SARS-CoV-2, influenza antiviral PEP might be considered for persons

- Who have had recent close contact with a person with influenza (e.g., roommates)
- In confined quarters (e.g., dormitories, shelters, prisons) with increasing incidence of influenza



- Who are at increased risk for severe illness from influenza<sup>14</sup>
- Who have had recent close contact with a person with influenza and will be traveling for the holidays to reduce transmission during travel as well as to reduce transmission to family members or friends who may be at higher risk for influenza complications<sup>14</sup>

#### Considerations for choice of PEP antivirals (Table 1):

- A key difference between the drugs relates to the longer half-life of baloxavir (days) vs. the shorter half-life of oseltamivir (hours). Thus, for PEP, **baloxavir can be administered as a single dose** while **oseltamivir requires daily dosing for seven days**.
- **Dosing:** Treatment and prophylaxis (prevention) dosing is the same for baloxavir, but for oseltamivir, treatment dosing is twice daily, and prophylaxis is once daily.
- **Timing of PEP:** CDC recommends initiating PEP within 48 hours of contact with an influenza case, if PEP is provided. In general, PEP for oseltamivir should not be started >48 hours after exposure due to concerns about resistance with lower PEP dose in persons with active influenza.
- **Duration of PEP:** Antiviral medications are effective as PEP only if a person takes them the entire time they are around another person who has influenza.
- Rates of oseltamivir and baloxavir resistance among circulating influenza A viruses remain low. However, additional monitoring is necessary, especially with baloxavir, which has had limited use compared to oseltamivir.

#### 4. Influenza testing

Information to assist clinicians about influenza testing decisions, including in the context of SARS-CoV-2 co-circulation, is available [here](#). The most accurate influenza tests (high sensitivity and specificity) are molecular assays. Molecular assays are recommended for hospitalized patients with suspected influenza. Information on influenza molecular assays is available [here](#).

#### 5. Non-pharmaceutical interventions

Because no single intervention can provide complete protection against influenza virus transmission, emphasis should be placed on multiple strategies, including pharmaceutical (e.g., influenza vaccines and antiviral medications) and non-pharmaceutical interventions. Measures that are used for COVID-19 might also provide protection against influenza. Non-pharmaceutical interventions may include

- Community measures (e.g., physical distancing, masking)
- Environmental measures (e.g., routine surface cleaning)
- Advising and encouraging symptomatic persons to stay home and use frequent hand hygiene, and proper cough etiquette

#### Recommendations for the Public

1. **Get a flu vaccine as soon as possible.** There's still time to protect yourself from flu this season. You can get a flu vaccine and a COVID-19 vaccine at the same time. Vaccines are the best tool for preventing influenza and can reduce the risk of severe illness and death associated with influenza.
2. **Take everyday preventive actions that can help reduce the spread of germs, like flu.**
  - These [everyday preventive actions](#) include staying home when sick, covering coughs and sneezes, and washing your hands often. While CDC does not recommend wearing a face mask to protect you from getting flu, [wearing a face mask](#) is recommended to protect you and others against COVID-19 at this time.
3. If you develop flu symptoms (which can be similar to symptoms of other respiratory viruses), reach out to your healthcare provider who may test you to determine if your sickness is due to flu or another virus that has similar symptoms, such as COVID-19.
4. **Take antiviral drugs if prescribed by your healthcare provider.**
  - It's important to remember that there also are [drugs that can be used to treat flu illness](#).
  - Antiviral drugs are not meant to replace flu vaccine. A flu vaccine is the best way to help prevent seasonal flu and its potentially serious complications. Antiviral drugs are a second line of defense that can be used to treat flu if you do get sick.

- Flu antiviral drugs work best when started within two days of a person getting sick.
- CDC recommends that people who are very sick or who are at higher risk of developing serious flu complications get antiviral treatment as early as possible without waiting for test results.
- Many patients might not be aware that drugs to treat influenza illness are available. A fact sheet for patients is available [here](#).

### For More Information

[CDC Tracking Flu in Young Adults](#)  
[Healthy Habits to Help Protect Against Flu](#)

### Additional Resources for Clinicians:

- [Summary of Influenza Antiviral Treatment Recommendations for Clinicians](#)
- [Clinical Description and Lab Diagnosis of Influenza](#)
- [Interim Guidance for Influenza Outbreak Management in Long-Term and Post-Acute Care Facilities](#)  
[Influenza Virus Testing in Investigational Outbreaks in Institutional or Other Closed Settings](#)

### References

1. World Health Organization. Recommended composition of influenza virus vaccines for use in the 2021-2022 northern hemisphere influenza season. ([https://cdn.who.int/media/docs/default-source/influenza/202102\\_recommendation.pdf](https://cdn.who.int/media/docs/default-source/influenza/202102_recommendation.pdf) Last accessed on: 16 November 2021).
2. World Health Organization. Recommended composition of influenza virus vaccines for use in the 2022 southern hemisphere influenza season. ([https://cdn.who.int/media/docs/default-source/influenza/who-influenza-recommendations/vcm-southern-hemisphere-recommendation-2022/202109\\_recommendation.pdf?sfvrsn=698a54b9\\_12&download=true](https://cdn.who.int/media/docs/default-source/influenza/who-influenza-recommendations/vcm-southern-hemisphere-recommendation-2022/202109_recommendation.pdf?sfvrsn=698a54b9_12&download=true) Last accessed on: 16 November 2021).
3. Okoli GN, Racovitan F, Abdulwahid T, Righolt CH, Mahmud SM. Variable seasonal influenza vaccine effectiveness across geographical regions, age groups and levels of vaccine antigenic similarity with circulating virus strains: A systematic review and meta-analysis of the evidence from test-negative design studies after the 2009/10 influenza pandemic. *Vaccine* 2021;39(8):1225-1240. <https://doi.org/10.1016/j.vaccine.2021.01.032>.
4. Uyeki TM, Bernstein HH, Bradley JS, et al. Clinical Practice Guidelines by the Infectious Diseases Society of America: 2018 Update on Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management of Seasonal Influenza. *Clin Infect Dis* 2019;68(6):895-902. <https://doi.org/10.1093/cid/ciy874>.
5. Ikematsu H, Hayden FG, Kawaguchi K, et al. Baloxavir Marboxil for Prophylaxis against Influenza in Household Contacts. *N Engl J Med* 2020;383(4):309-320. <https://doi.org/10.1056/NEJMoa1915341>.
6. Hayden FG, Sugaya N, Hirotsu N, et al. Baloxavir Marboxil for Uncomplicated Influenza in Adults and Adolescents. *N Engl J Med* 2018;379(10):913-923. <https://doi.org/10.1056/NEJMoa1716197>.
7. Muthuri SG, Venkatesan S, Myles PR, et al. Effectiveness of neuraminidase inhibitors in reducing mortality in patients admitted to hospital with influenza A H1N1pdm09 virus infection: a meta-analysis of individual participant data. *Lancet Respir Med* 2014;2(5):395-404. [https://doi.org/10.1016/S2213-2600\(14\)70041-4](https://doi.org/10.1016/S2213-2600(14)70041-4).
8. Venkatesan S, Myles PR, Bolton KJ, et al. Neuraminidase Inhibitors and Hospital Length of Stay: A Meta-analysis of Individual Participant Data to Determine Treatment Effectiveness Among Patients Hospitalized With Nonfatal 2009 Pandemic Influenza A(H1N1) Virus Infection. *J Infect Dis* 2020;221(3):356-366. <https://doi.org/10.1093/infdis/jiz152>.
9. CDC: Influenza Antiviral Medications: Summary for Clinicians. (<https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm> Last accessed on: 16 November 2021).

10. Grohskopf LA, Alyanak E, Ferdinands JM, et al. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices, United States, 2021-22 Influenza Season. *MMWR Recomm Rep* 2021;70(5):1-28. <https://doi.org/10.15585/mmwr.rr7005a1>.
11. CDC: Weekly National Flu Vaccination Dashboard. (<https://www.cdc.gov/flu/fluview/dashboard/vaccination-dashboard.html>) Last accessed on: 16 November 2021).
12. Campbell AP, Tokars JI, Reynolds S, et al. Influenza Antiviral Treatment and Length of Stay. *Pediatrics* 2021;148(4). <https://doi.org/10.1542/peds.2021-050417>.
13. Fiore AE, Fry A, Shay D, et al. Antiviral agents for the treatment and chemoprophylaxis of influenza --- recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recomm Rep* 2011;60(1):1-24. (<https://www.ncbi.nlm.nih.gov/pubmed/21248682>).
14. CDC. People at Higher Risk of Flu Complications. (<https://www.cdc.gov/flu/highrisk/index.htm>) Last accessed on: 16 November 2021).

*The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.*

---

**Categories of Health Alert Network messages:**

**Health Alert** Requires immediate action or attention; highest level of importance  
**Health Advisory** May not require immediate action; provides important information for a specific incident or situation  
**Health Update** Unlikely to require immediate action; provides updated information regarding an incident or situation  
**HAN Info Service** Does not require immediate action; provides general public health information

##This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations##



# SEMINOLE COUNTY MONTHLY SURVEILLANCE DATA

Confirmed and probable cases of select notifiable diseases as per 64D-3, Florida Administrative Code

*These data are provisional and subject to change.*

Disease	Seminole Monthly Total		Year to Date Total		Seminole County Annual Totals		
	October 2021	October 2020	Seminole 2021	Florida 2021	2020	2019	2018
<b>A. Vaccine Preventable</b>							
Measles	0	0	0	0	0	0	0
Mumps	0	0	0	6	0	1	0
Pertussis	0	0	1	41	10	6	4
Varicella	3	1	12	297	18	24	17
<b>B. CNS Diseases &amp; Bacteremias</b>							
Creutzfeldt-Jakob Disease (CJD)	0	0	1	18	0	1	1
Meningitis (Bacterial, Cryptococcal, Mycotic)	0	0	0	67	1	2	3
Meningococcal Disease	0	0	0	23	0	0	0
<b>C. Enteric Infections</b>							
Campylobacteriosis	7	2	46	3199	38	75	59
Cryptosporidiosis	1	0	3	267	4	4	1
Cyclosporiasis	0	0	10	251	6	25	1
<i>E. coli Shiga Toxin (+)</i>	1	0	26	466	6	7	9
Giardiasis	1	0	11	548	16	14	18
Hemolytic Uremic Syndrome (HUS)	0	0	0	3	0	0	0
Listeriosis	0	0	0	48	0	0	0
Salmonellosis	6	10	73	5122	76	120	121
Shigellosis	1	5	7	388	12	22	17
<b>D. Viral Hepatitis</b>							
Hepatitis A	0	0	0	158	10	48	30
Hepatitis B in Pregnant Women	0	0	2	255	2	13	4
Hepatitis B, Acute	1	1	9	456	8	16	16
Hepatitis C, Acute	1	1	17	1241	28	15	6
<b>E. Vectorborne/Zoonoses</b>							
Animal Rabies	1	1	1	69	7	2	1
Rabies, possible exposure	2	13	63	2985	134	180	134
Chikungunya Fever	0	0	0	1	0	0	1
Dengue	0	0	0	0	0	5	0
Eastern Equine Encephalitis	0	0	0	0	0	0	0
Lyme Disease	1	0	3	178	3	4	3
Malaria	0	0	2	34	0	3	4
West Nile Virus	0	0	0	1	0	0	0
Zika Virus Disease	0	0	0	0	0	0	1
<b>F. Others</b>							
Chlamydia	158	134	1,574	n/a	1730	2002	1979
Gonorrhea	46	49	557	n/a	591	620	646
Hansen's Disease	0	0	0	10	1	0	1
Legionellosis	2	1	12	402	13	8	16
Mercury Poisoning	0	0	0	14	0	0	0
Syphilis, Total	18	12	193	n/a	151	148	133
Syphilis, Infectious (Primary and Secondary)	10	4	72	n/a	51	45	36
Syphilis, Early Latent	2	5	57	n/a	61	55	63
Syphilis, Congenital	0	0	0	n/a	1	0	2
Syphilis, Late Syphilis (Late Latent; Neurosyphilis)	6	3	64	n/a	38	48	32
Tuberculosis	1	0	4	n/a	7	4	12
<i>Vibrio Infections</i>	0	0	2	220	5	2	2

\*n/a—Data not available

## Florida Department of Health in Seminole County

400 W Airport Blvd, Sanford, FL 32773  
Phone: 407-665-3000  
<http://seminole.floridahealth.gov>

**Donna Walsh, MPA, BSN, RN**  
Health Officer

**Ana Scuteri, MPH**  
Assistant County Health Department  
Director

**Sarah Alvarez Wright, MPH, BSN**  
Executive Community Health Nursing  
Director

**Dr. Meena Joseph, MD**  
Medical Director

**Udgit Mehta, MBA, FCCM**  
Business & Community Relations  
Director

**Mirna Chamorro**  
Public Information Officer

### Epi Scope Editor

**Kevin M. Baker, MPH, CPH, CHES**  
Epidemiology Program Manager

### Disease Reporting

#### Epidemiology Program

Phone:  
COVID-19: 407-665-3000, option 1  
Non-COVID-19: 407-665-3243  
Fax: 407-845-6055

**Afterhours Urgent Disease  
Reporting and Consultations**  
Phone: 407-665-3000, option 1

**Tuberculosis Program**  
Phone: 407-665-3243  
Fax: 407-665-3279

**STD Program**  
Phone: 407-665-3384  
Fax: 407-845-6134

**HIV/AIDS Program**  
Phone: 407-723-5065  
Fax: 407-858-5985

### Email Address\*

DiseaseControlSeminole@FLHealth.gov

*\*Do not include any confidential  
information in email.*

# ADDITIONAL INFORMATION AND RESOURCES

## Florida Department of Health Websites

[Florida Department of Health](#)

[Florida Department of Health in Seminole County](#)

## General Public Health Surveillance & Data Resources

[Florida Statewide Weekly Influenza Surveillance Report—Flu Review](#)

[CDC U.S. Weekly Influenza Surveillance Report—FluView](#)

[Florida Health CHARTS—Public Health Data](#)

[Agency for Health Care Administration Data](#)

## COVID-19 Surveillance & Data Resources

[Florida Department of Health—COVID-19 Data and Information](#)

[CDC—U.S. COVID-19 Data](#)

[World Health Organization—Nationwide COVID-19 Data](#)

## Practitioner Resources

[Florida Department of Health Practitioner Disease Report Form](#)

[Florida Department of Health—Report Food and Waterborne Illness](#)

## Health Alerts and Advisories

- [CDC Travel Health Notices](#)
- [FDA Food Recalls](#)

## Epi Scope Information

The Epi Scope is a monthly newsletter provided at no cost to consumers to share epidemiological data and trends, public health and health care guidance and current events to Seminole County stakeholders.

To subscribe to the Epi Scope distribution list, please visit the Florida Department of Health in Seminole County [Epi Scope webpage](#).

