



This is an official DHEC Health Update

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2020-2021 South Carolina Influenza Surveillance

Summary

Although influenza viruses circulate year-round, influenza activity often begins to increase in October and peak activity is typically detected between December and February. DHEC conducts year-round surveillance for influenza using both state-mandated (i.e., mandatory) and voluntary reporting systems. These systems collect information on influenza viruses (e.g. strain, subtype, and/or lineage) and influenza disease burden. Combined, these systems assist in:

- Determining when and where influenza activity is occurring in the state
- Determining what influenza viruses are circulating
- Detecting changes in influenza viruses
- Tracking influenza-related illness
- Understanding influenza morbidity and mortality in South Carolina
- Identifying novel strains of influenza
- Identifying anti-viral resistance in circulating influenza strains

Data from these systems are summarized and reported on DHEC's influenza surveillance website at:
<https://www.scdhec.gov/FluWatch>

During the 2020-2021 influenza season, it's likely that influenza viruses and SARS-CoV-2 will be circulating simultaneously. This may present unique challenges and this update serves to provide healthcare professionals and laboratories with current information about influenza surveillance and reporting requirements in South Carolina as well as the potential to diagnose COVID-19 in symptomatic individuals.

State-mandated Influenza Surveillance Components & Reporting Requirements

South Carolina State Law # 44-29-10 and Regulation # 61-20 requires reporting of diseases and conditions to local and state health departments. The following influenza-related conditions are reportable:

- Novel Influenza A Infections
Human infections with an influenza A virus subtype that is different from currently circulating human influenza H1 and H3 viruses (e.g., swine or avian influenza viruses) must be **reported immediately** to the regional health department.

- Examples for Avian influenza: A(H5N1), A(H7N9), and A(H9N2)
- Examples for Swine influenza: A(H1N2v), A(H3N1v), A(H3N2v)
- Laboratory Confirmed Influenza Infections (culture, rapid molecular assay, RT-PCR, DFA, IFA)
 Laboratory reports of positive influenza results via culture, rapid molecular assay, reverse transcription polymerase chain reaction (RT-PCR), direct fluorescent antibody (DFA), and indirect fluorescent antibody (IFA) testing must be **routinely reported** to DHEC **within 3 days** either electronically via the South Carolina Infectious Disease and Outbreak Network for Externals (SCIONx) or by using the [DHEC 1129 card](https://scdhec.gov/sites/default/files/Library/D-1129.pdf) (available at: <https://scdhec.gov/sites/default/files/Library/D-1129.pdf>).
 - **Note:** This does not include rapid influenza diagnostic tests (RIDTs) which are antigen detection assays that can detect influenza viral antigens.
- Influenza-associated Hospitalizations
 - **An influenza-associated hospitalization is defined as a patient hospitalized greater than 24 hours with a positive influenza diagnostic test (e.g. RT-PCR, rapid molecular assay, DFA, IFA, culture, or RIDT).**
 - The total number of influenza-associated hospitalizations must be **reported** to the regional health department by age group (0-4, 5-18, 19-24, 25-49, 50-64, 65+) **by noon** each **Monday** for the preceding week. Reporting of all influenza-associated hospitalizations must be done either electronically via the South Carolina Infectious Disease and Outbreak Network for Externals (SCIONx) or by using the [DHEC 3964 worksheet](https://scdhec.gov/sites/default/files/Library/D-3964.pdf) (available at: <https://scdhec.gov/sites/default/files/Library/D-3964.pdf>). **Only report new admissions each week.**
- Influenza-associated Deaths
 - **An influenza-associated death is defined as a death resulting directly or indirectly from a clinically compatible illness that was confirmed to be influenza by an appropriate positive influenza laboratory or rapid diagnostic test (culture, rapid molecular assay, RT-PCR, DFA, IFA, RIDT) or autopsy report. There should be no complete recovery between the illness and death.**
 - All influenza deaths (pediatric and adult) are **urgently reportable within 24 hours by phone** to the regional health department. Upon notification of a death, the Regional Epidemiology Team will follow up to obtain additional information needed for the case report form.

Voluntary Influenza Surveillance

Providers have the option of participating in one or both of South Carolina's two voluntary influenza surveillance systems. These systems include submission of specimens for testing by RT-PCR (DHEC Viral Surveillance Network) and monitoring and reporting of Influenza-like Illnesses (ILINet).

- DHEC Viral Surveillance Network
 - The DHEC Public Health Laboratory (PHL) provides culture media, packaging, processing and shipping labels free of charge to participating providers. Enrolled providers are requested to submit specimens for testing throughout the influenza season. These samples will be tested at the PHL and results will also be reported to CDC.
 - If a provider would like to participate in the DHEC Viral Surveillance Network at the PHL, please contact Christy Greenwood at (803) 896-0819 or jeffcoca@dhec.sc.gov to learn more and receive testing supplies.

- U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)
 - ILINet is a national surveillance system in which a network of providers submit the number of patients seen with influenza-like illness (ILI) and the total number of patients seen each week. ILI is defined as fever (temperature of $\geq 100^{\circ}\text{F}$) plus a cough and/or a sore throat in the absence of another known cause. Incentives are offered for enrolled providers.
 - Providers who are interested in participating in ILINet should contact the DHEC influenza surveillance coordinator, Hani Mohamed, at mohamehm@dhec.sc.gov.

State Laboratory Testing and Specimen Submission

In 2020-2021, the DHEC PHL will offer **influenza RT-PCR** on samples submitted for influenza surveillance. All positive specimens will be subtyped for influenza A or influenza B subtypes. Negative specimens will also be tested for other respiratory pathogens by RT-PCR. Specimen submission should focus on the following groups:

- Patients with ILI seen at facilities participating in the DHEC Viral Surveillance Network,
- Medically attended ILI and acute respiratory illness (ARI) in children under 18 years of age,
- Unusual or severe presentations of ILI,
- Vaccine failure,
- Patients admitted to hospital intensive care units with severe influenza-like illness (ILI) and no other confirmed diagnosis (e.g., COVID-19, RSV, Adenovirus),
- ILI outbreaks, particularly among children in child-care and school settings,
- Fatalities associated with ILI,
- All Influenza A unsubtypeable PCR results.

Testing may also be performed at the PHL when staff in the DHEC Division of Acute Disease Epidemiology (DADE) or the Regional Epidemiology Team determine that such testing is necessary (e.g., under the auspices of an outbreak investigation).

The current specimen types acceptable for testing by the DHEC PHL are:

- Upper respiratory specimens: nasopharyngeal swab (NPS) or throat swab
- Lower respiratory specimens: bronchoalveolar lavage, tracheal aspirates or bronchial washes

A nasopharyngeal swab remains the specimen of choice for influenza testing. Lower respiratory specimens may be appropriate for critically ill patients who are highly suspected of having influenza. These patients may clear virus from their upper respiratory tract, while lower respiratory specimens remain positive.

If testing is indicated, collect an appropriate specimen, as listed above, as soon as possible after symptom onset. **Please note the following guidance for specimen submission:**

- Submit specimens within 3 days of collection.
- All specimens must be submitted in viral transport media.
- Use polyester swabs when collecting nasopharyngeal or throat specimens.
- Ship specimens cold.
- Submit specimens with a completed DHEC PHL Laboratory Request Form ([D-1335, multi-part Form](#), available at: <https://scdhec.gov/sites/default/files/Library/D-1335.pdf>) and ensure the date of illness onset is recorded on the test request form.

COVID-19 Testing During Influenza Season

Due to the co-circulation of influenza viruses and the SARS-CoV-2 virus, testing for both pathogens in patients presenting with respiratory symptoms should be considered. As the symptoms of influenza and COVID-19 can overlap, it may be difficult to accurately diagnose the cause of a patient's illness unless diagnostic testing is performed. This could be particularly important as some studies suggest that morbidity and mortality may be higher among patients with influenza and COVID-19 co-infection. The results of testing will help guide treatment and patient management decisions, such as the use of antiviral medication for patients with influenza and the need for isolation in patients with COVID-19.

Resources for Additional Information

- DHEC Influenza Monitoring Website:
<https://www.scdhec.gov/FluWatch>
- South Carolina 2020 List of Reportable Conditions
<https://scdhec.gov/ReportableConditionsList>
- CDC Influenza surveillance website:
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>
- Advisory Committee on Immunization Practices 2020-21 Influenza Season Recommendations
<https://www.cdc.gov/mmwr/volumes/69/rr/rr6908a1.htm>
- CDC algorithm for assisting in the interpretation of influenza test results and clinical decision-making when influenza is circulating in the community
<https://www.cdc.gov/flu/professionals/diagnosis/algorithm-results-circulating.htm>
- CDC algorithm for assisting in the interpretation of influenza test results and clinical decision-making when influenza is NOT circulating in the community
<https://www.cdc.gov/flu/professionals/diagnosis/algorithm-results-not-circulating.htm>
- CDC Frequently Asked Influenza Questions: 2020-2021 Season
<https://www.cdc.gov/flu/season/faq-flu-season-2020-2021.htm>
- ISDA: *Clinical Practice Guidelines by the Infectious Diseases Society of America: 2018 Update on Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management of Seasonal Influenza*
<https://academic.oup.com/cid/article/68/6/e1/5251935>

DHEC contact information for reportable diseases and reporting requirements

Reporting of **influenza** is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2020 List of Reportable Conditions available at:

<https://www.scdhec.gov/sites/default/files/Library/CR-009025.pdf>

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices – 2020			
Mail or call reports to the Epidemiology Office in each Public Health Region			
MAIL TO:			
Lowcountry 4050 Bridge View Drive, Suite 600 N. Charleston, SC 29405 Fax: (843) 953-0051	Midlands 2000 Hampton Street Columbia, SC 29204 Fax: (803) 576-2993	Pee Dee 1931 Industrial Park Road Conway, SC 29526 Fax: (843) 915-6506	Upstate 200 University Ridge Greenville, SC 29602 Fax: (864) 282-4373
CALL TO:			
Lowcountry Allendale, Bamberg, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Dorchester, Hampton, Jasper, Orangeburg Office: (843) 441-1091 Nights/Weekends: (843) 441-1091	Midlands Aiken, Barnwell, Chester, Edgefield, Fairfield, Kershaw, Lancaster, Lexington, Newberry, Richland, Saluda, York Office: (888) 801-1046 Nights/Weekends: (888) 801-1046	Pee Dee Clarendon, Chesterfield, Darlington, Dillon, Florence, Georgetown, Horry, Lee, Marion, Marlboro, Sumter, Williamsburg Office: (843) 915-8886 Nights/Weekends: (843) 915-8845	Upstate Abbeville, Anderson, Cherokee, Greenville, Greenwood, Laurens, McCormick, Oconee, Pickens, Spartanburg, Union Office: (864) 372-3133 Nights/Weekends: (864) 423-6648
For information on reportable conditions, see https://scdhec.gov/ReportableConditions		<u>DHEC Bureau of Communicable Disease Prevention & Control</u> Division of Acute Disease Epidemiology 2100 Bull St • Columbia, SC 29201 Phone: (803) 898-0861 • Fax: (803) 898-0897 Nights / Weekends: 1-888-847-0902	

Categories of Health Alert messages:

Health Alert	Conveys the highest level of importance; warrants immediate action or attention.
Health Advisory	Provides important information for a specific incident or situation; may not require immediate action.
Health Update	Provides updated information regarding an incident or situation; unlikely to require immediate action.
Info Service	Provides general information that is not necessarily considered to be of an emergent nature.