

This is an official
DHEC Health Update

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2019-2020 South Carolina Influenza Surveillance

This update is to provide healthcare professionals with the latest information regarding:

- SC influenza surveillance and reporting systems
- State-mandated influenza surveillance
- Voluntary influenza surveillance
- State laboratory influenza testing and specimen submission
- Resource Links
- Attachments: Regional health department contact information and influenza-associated hospitalizations reporting worksheet

SC Influenza Surveillance and Reporting Systems

South Carolina influenza surveillance consists of both state-mandated (i.e., mandatory) and voluntary reporting systems for year-round influenza surveillance. 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 SC
- Identifying novel strains of influenza
- Identifying anti-viral resistance in circulating influenza strains

Data from these systems are reported on DHEC's influenza surveillance website at:

<http://www.scdhec.gov/Health/DiseasesandConditions/InfectiousDiseases/Flu/FluData/>

Reporting Change

Effective September 29, 2019, positive rapid molecular assay results will be included in the state-mandated reportable condition, under Lab-confirmed influenza cases. This change will be

reflected on the 2020 List of Reportable Conditions.

Rapid molecular assays are a newer type of molecular influenza diagnostic test that detect influenza viral RNA or nucleic acids in upper respiratory tract specimens in approximately 15 to 30 minutes. Reported sensitivities of available rapid molecular assays range from 66-100%. Rapid molecular assays does not refer to rapid influenza diagnostics tests (RIDTs) and the use of rapid molecular assays is recommended by the Infectious Diseases Society of America (IDSA) over the use of RIDTs for the detection of influenza viruses in respiratory specimens of outpatients.

State-mandated Influenza Surveillance Components

SC 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:

- Influenza A, Novel (Avian & Swine) (not 2009 H1N1 or H3)
Human infections with novel (swine or avian) influenza virus A (other than H3 or 2009 H1N1) must be **reported immediately** to the local health department.
 - Example for Avian influenza: A(H5N1), A(H7N9), and A(H9N2)
 - Example for Swine influenza: A(H1N2v), A(H3N1v), A(H3N2v)

- Laboratory confirmed Influenza (culture, rapid molecular assay, RT-PCR, DFA, IFA)
Laboratory reports of positive influenza results via culture, rapid molecular assay, RT-PCR, DFA, and 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 using the [DHEC 1129 card](#).

- Influenza-associated hospitalizations
 - **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. Positive influenza tests include culture, rapid molecular assay, RT-PCR, DFA, IFA, and RIDT. For weekly reporting, see the attached influenza-associated hospitalizations reporting worksheet. **Only report new admissions** each week.

- Influenza-associated death
 - **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 laboratory or rapid diagnostic test or autopsy report. There should be no complete recovery between the illness and death.**
 - All influenza deaths (pediatric and adult) are **reportable within 24 hours by phone** to the regional health department. Positive influenza tests include culture, rapid molecular assay, RT-PCR, DFA, IFA, RIDT or autopsy report consistent with influenza. 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 be reported to CDC.
 - If a provider would like to participate in the Viral Surveillance Network at the PHL, please contact Christy Greenwood, Virology & Rabies laboratory 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 submits 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 at mohamehm@dhec.sc.gov.

State Laboratory Testing and Specimen Submission

In 2019-2020, the SC DHEC PHL will offer **influenza RT-PCR** on samples submitted for influenza surveillance. All positive specimens will be subtyped for either 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 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. 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 public health staff in the Division of Acute Disease Epidemiology (DADE) or the Regional Public Health Epidemiologic Response staff determine that such testing is necessary (e.g., under the auspices of an outbreak investigation).

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

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

Specimen Submission

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 SC DHEC PHL Laboratory Request Form ([D-1335, multi-part Form](#)); ensure the date of illness onset is recorded on the test request form.

Resources for Additional Information

- DHEC Influenza Monitoring Website:
<http://www.scdhec.gov/Health/DiseasesandConditions/InfectiousDiseases/Flu/FluData/>
- South Carolina 2019 List of Reportable Conditions
<https://www.scdhec.gov/sites/default/files/Library/CR-009025.pdf>
- CDC Influenza surveillance website:
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>
- Advisory Committee on Immunization Practices 2018-19 Influenza Season Recommendations
<https://www.cdc.gov/mmwr/volumes/67/rr/rr6703a1.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>
- 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 2019 List of Reportable Conditions available at:

<http://www.scdhec.gov/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 – 2019			
Mail or call reports to the Epidemiology Office in each Public Health Region			
MAIL TO:			
<u>Lowcountry</u> 4050 Bridge View Drive, Suite 600 N. Charleston, SC 29405 Fax: (843) 953-0051	<u>Midlands</u> 2000 Hampton Street Columbia, SC 29204 Fax: (803) 576-2993	<u>Pee Dee</u> 145 E. Cheves Street Florence, SC 29506 Fax: (843) 661-4859	<u>Upstate</u> 200 University Ridge Greenville, SC 29602 Fax: (864) 282-4373
CALL TO:			
<u>Lowcountry</u> Berkeley, Charleston, Dorchester Phone: (843) 953-0043 Nights/Weekends: (843) 441-1091 Beaufort, Colleton, Hampton, Jasper Phone: (843) 322-2453 Nights/Weekends: (843) 441-1091 Allendale, Bamberg, Calhoun, Orangeburg Phone: (803) 268-5833 Nights/Weekends: (843) 441-1091	<u>Midlands</u> Kershaw, Lexington, Newberry, Richland Phone: (803) 576-2749 Nights/Weekends: (888) 801-1046 Chester, Fairfield, Lancaster, York Phone: (803) 286-9948 Nights/Weekends: (888) 801-1046 Aiken, Barnwell, Edgefield, Saluda Phone: (803) 642-1618 Nights/Weekends: (888) 801-1046	<u>Pee Dee</u> Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion Phone: (843) 661-4830 Nights/Weekends: (843) 915-8845 Clarendon, Lee, Sumter Phone: (803) 773-5511 Nights/Weekends: (843) 915-8845 Georgetown, Horry, Williamsburg Phone: (843) 915-8804 Nights/Weekends: (843) 915-8845	<u>Upstate</u> Anderson, Oconee Phone: (864) 260-5581 Nights/Weekends: (866) 298-4442 Abbeville, Greenwood, McCormick Phone: (864) 260-5581 Nights/Weekends: (866) 298-4442 Cherokee, Greenville, Laurens, Pickens, Spartanburg, Union Phone: (864) 372-3133 Nights/Weekends: (866) 298-4442
For information on reportable conditions, see http://www.scdhec.gov/ReportableConditions		DHEC Bureau of Disease Control 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.



Reporting Worksheet for Influenza-Associated Hospitalizations

Please fax or email this worksheet to your regional health department by NOON on MONDAY for the preceding week. Contact information for Regional Epidemiology staff can be found at <http://www.scdhec.gov/Library/CR-009025.pdf>. A laboratory confirmed influenza-associated hospitalization is defined as a patient hospitalized greater than 24 hours with a positive influenza diagnostic test. Laboratory confirmation includes RT-PCR, viral culture, DFA, IFA, and rapid tests. Report zeros if there were no influenza hospitalizations. Contact the regional health department to report an influenza associated death.

Reporting Hospital: _____

County: _____

Date of Report: MM___/DD___/YY_____

Reporting Week: MM___/DD___/YY_____ - MM___/DD___/YY_____ (Sunday-Saturday)

Contact name: _____

Contact # _____-_____-_____

Age Group	Total Weekly Hospitalizations
0 to 4	
5 to 17	
18 to 49	
50 to 64	
65 and older	
Total	