

Flu Watch



South Carolina's Weekly Influenza Surveillance Report
South Carolina Department of Health and Environmental Control
Division of Acute Disease Epidemiology
<http://www.scdhec.gov/health/disease/acute/flu.htm>

Week Ending September 26, 2009 (MMWR Week 38)

Highlights:

Influenza Activity Level: REGIONAL

Note: Activity level definitions are found on page 8

ILI Activity Status (South Atlantic ILI baseline is 2.2%): BELOW baseline in the Upstate (.80%) and ABOVE baseline in the Midlands (4.05%) and along the Coast (11.81%). State ILI is 5.71%. The South Atlantic baseline is 2.2%*. These data reflect reports from 17 (19%) providers.

Note: See county map on page 2 for regional descriptions

SC Viral Isolate and RT-PCR Activity: During the reporting week, 107 specimens tested positive for influenza. Since October 4, 2008, 1066 specimens tested by our Bureau of Labs (BOL) have been positive for influenza. A total of 466 positive specimens have been reported by other labs.

Positive Rapid Flu Test Activity: There were 4193 positive tests reported. 34,890 positive rapid tests have been reported since September 28, 2008.

Hospitalizations: 69 hospitalizations were reported. Since September 1, 2009, 145 hospitalizations have been reported.

Deaths: 4 deaths were reported. Since September 1, 2009, 7 deaths have been reported.

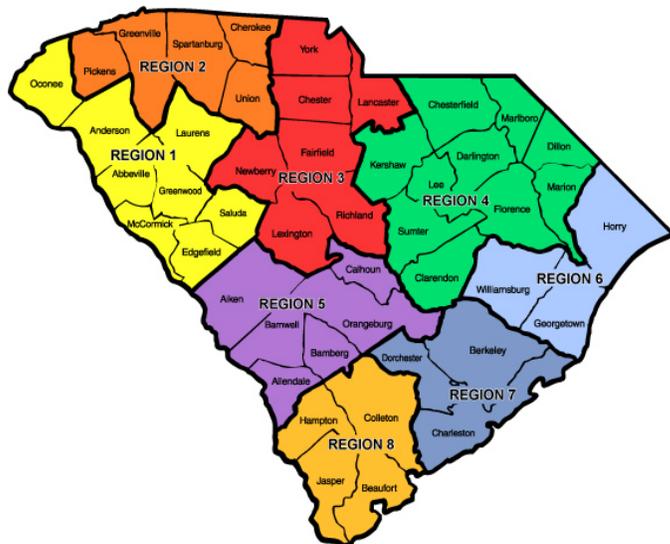
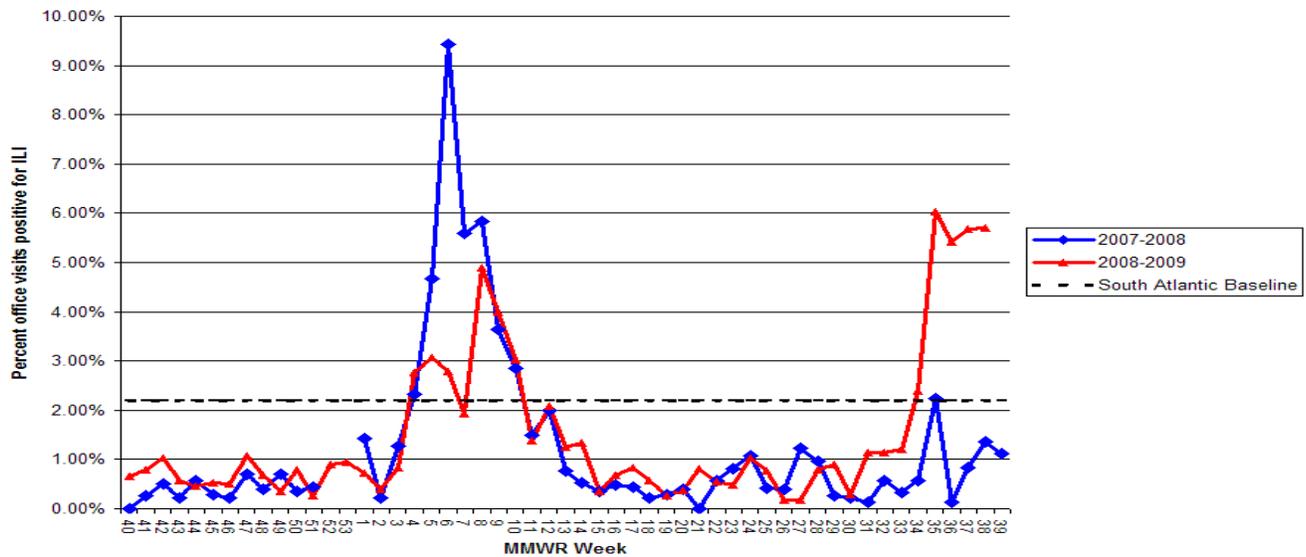
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*The South Atlantic region consists of Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. The baseline is the mean percentage of patient visits for ILI during non-influenza weeks for the previous three seasons plus two standard deviations.

I. ILINet Influenza-Like Illness Surveillance

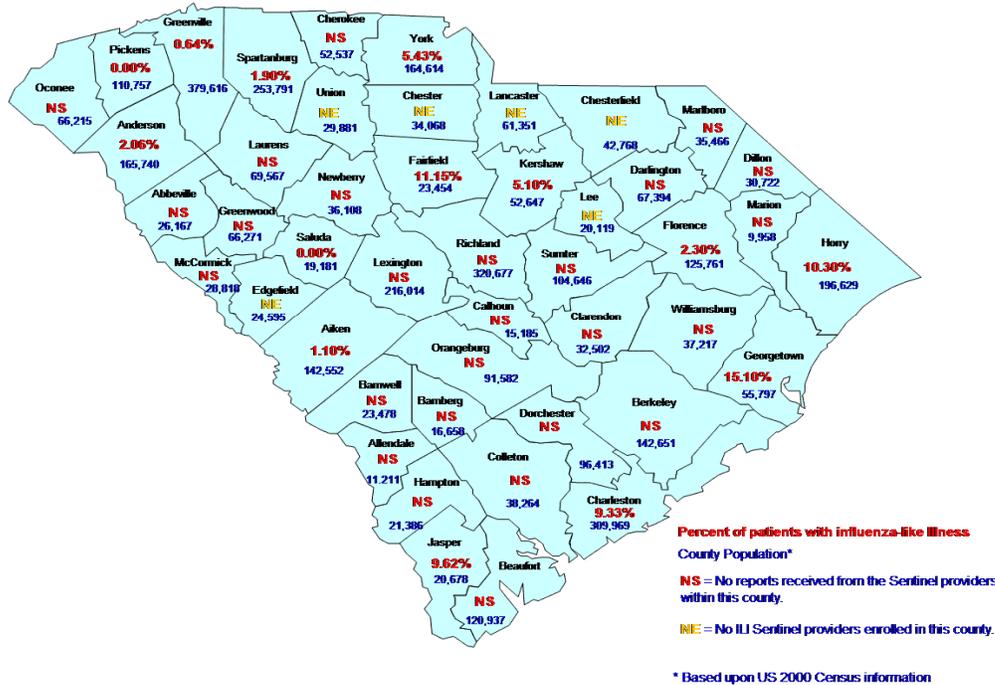
During MMWR week 38, ending September 26, 2009, 5.71% of patient visits to SC ILNet providers were due to ILI. This percentage is above regional (2.2%) and national (2.4%) baselines. This compares to @1.35% last year. Reports were received from providers in 14 counties, representing all 8 regions. The percentage of visits ranged from 0% to 21.4%.

Percentage of Visits for Influenza-like Illness (ILI) Reported by Sentinel Providers in South Carolina, 2007-2008 and 2008-2009 Influenza Seasons



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1 -2	.80	6
Midlands-Regions 3-5	4.05	6
Coastal-Regions 6-8	11.81	5

Reported Sentinel Provider Influenza-Like Illness, by County
September 20, 2009 - September 26, 2009



II. Virologic Surveillance

111 specimens were tested by BOL. Of these, 48 (43.2%) were positive. Another 59 positive specimens were reported by other clinical labs. Since October 4, 2008, a total of 1066 specimens tested by BOL have been positive. 466 specimens tested by other clinical labs have been positive.

Positive confirmatory influenza test results Current MMWR Week		
	BOL	Other clinical labs
Number of specimens tested	111	
Number of positive specimens	48	59
Positive specimens by type/subtype		
Influenza A		21
A (H1)		
A (H3)		
A (novel H1N1)	48	38
Influenza B		
*Culture and/or RT-PCR (SC residents)		

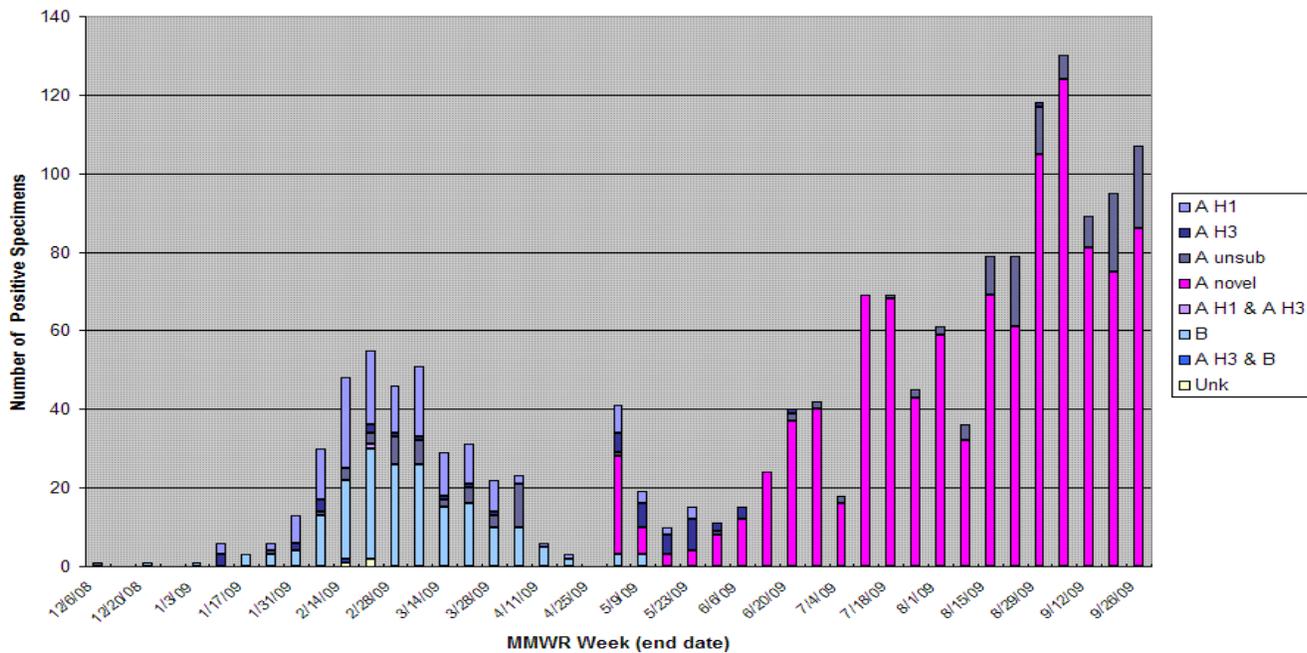
Positive confirmatory influenza test results Cumulative		
	BOL	Other clinical labs
Number of specimens tested		
Number of positive specimens	1066	466
Positive specimens by type/subtype		
Influenza A	144	1
A (H1)	46	
A (H3)	1	
A (unsubtyped)	1	153
A (novel H1N1)	736	257
Influenza B	137	52
Unk		3
Other	2	
*Culture and/or RT-PCR (SC residents)		

Positive Influenza Culture and RT-PCR Results by County (all labs)

September 28, 2008 - September 26, 2009

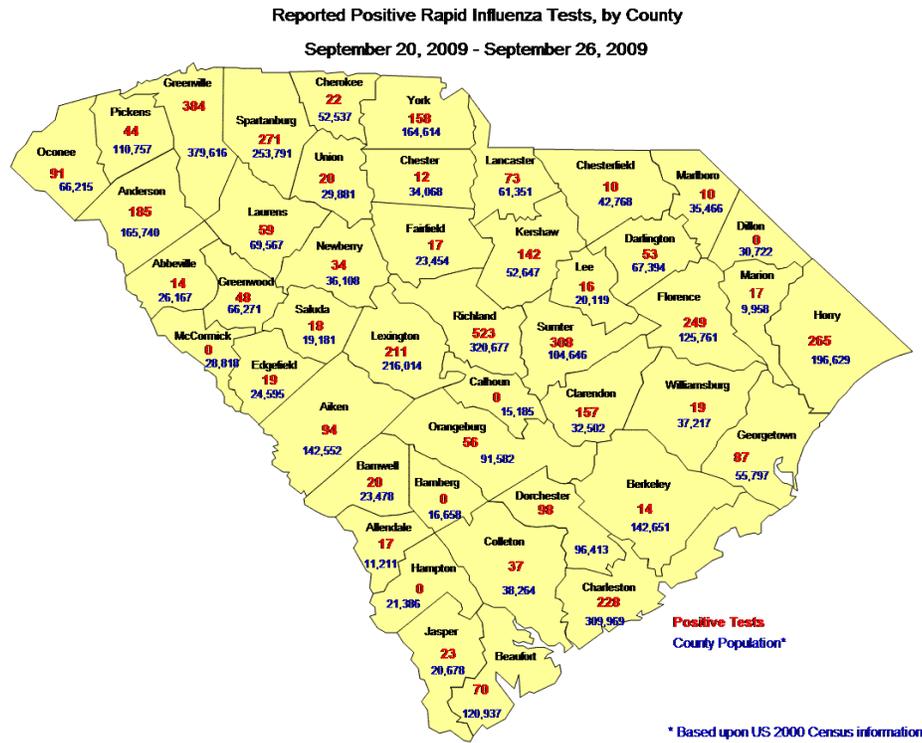


Influenza Culture and RT-PCR Results by MMWR Week

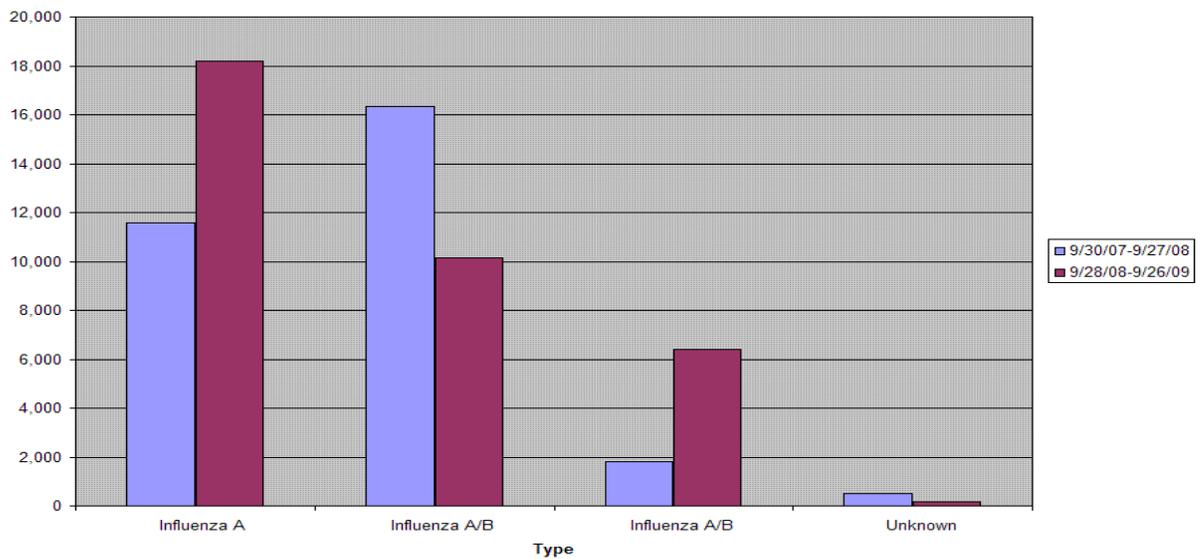


III. Positive Rapid Flu

There were 4193 positive rapid antigen tests reported for the week ending September 26, 2009. A total of 34,890 positive tests have been reported this season.



Positive Rapid Antigen Tests 2007-08 vs 2008-09



IV. Influenza hospitalizations and deaths

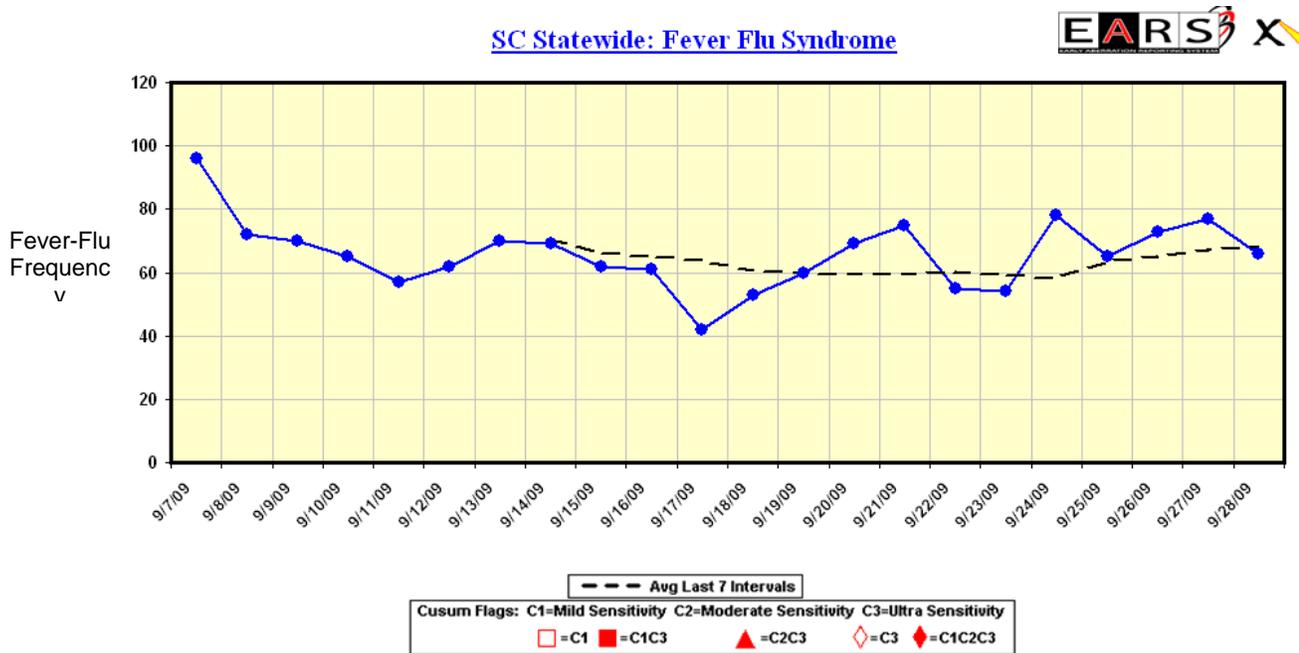
A total of 69 influenza hospitalizations were reported by 48 hospitals during the past week. 4 deaths were reported. Since September 1, 2009, 145 hospitalizations and 7 deaths have been reported.

	Total number	
	Previous week (9/20-9/26)	Cumulative (since 9/1/09)
Number of Hospitals Reporting (current week)	48	
Hospitalizations	69	145
Deaths	4	7

V. South Carolina Aberration Alerting Network (SCAAN): Hospital ED Syndromic Surveillance

Syndromic Report:

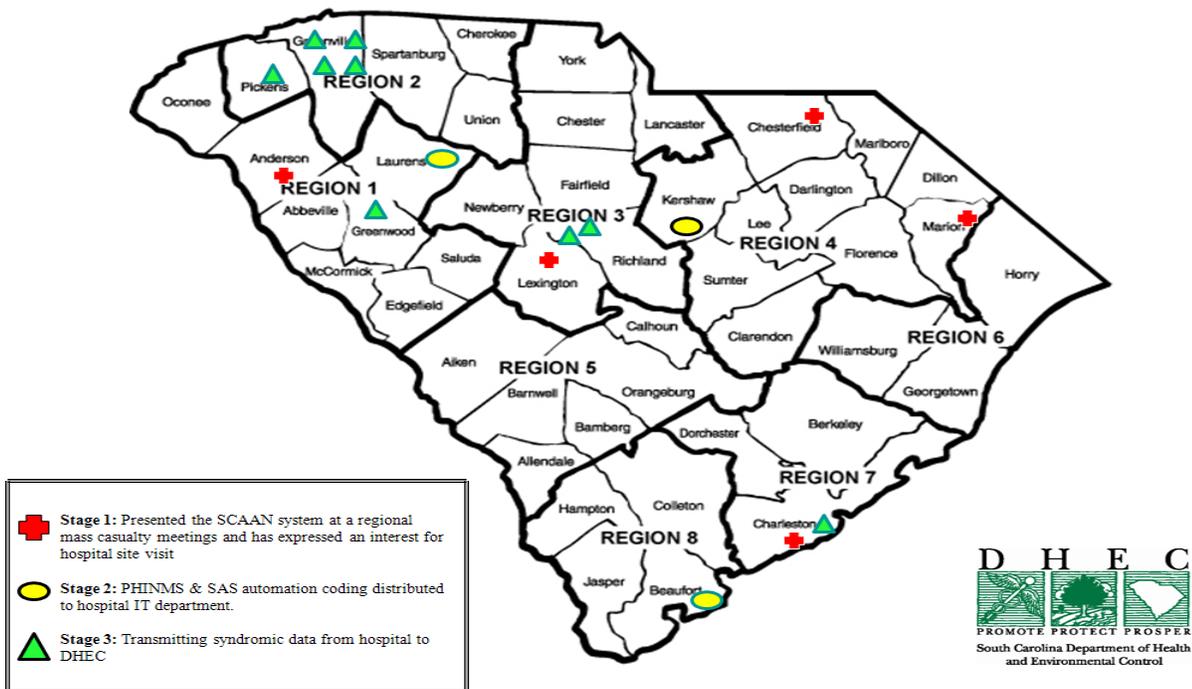
There are no syndromic alerts to report at this time.



Cumulative Sums Analysis (CUSUM):

- C1 = Flags because of sharp rise in counts from 1 day to the next
- C2 = Flags because of aberrant, initial, rapid rise in counts and peak in counts
- C3 = Flags because of a gradual rise in counts over a short time

SCAAN: Hospital ED Coverage as of Sept. 1, 2009



VI. South Carolina Influenza Surveillance Components

What does influenza surveillance in South Carolina consist of?

South Carolina influenza surveillance consists of mandatory and voluntary reporting systems for year-round influenza surveillance. These networks provide information on influenza virus strain and subtype and influenza disease burden.

South Carolina Influenza Surveillance Systems:

Mandatory reporting:

Positive Influenza Culture Reporting

Positive influenza culture results from commercial laboratories should be reported to DHEC within 7 days electronically via CHES or using a DHEC 1129 card.

Positive Rapid Antigen Test Reporting

DHEC requires weekly submission to the local health department of summary numbers of positive rapid influenza tests and influenza type identified. This should be reported by fax or email by **noon on Monday** for the preceding week.

Influenza death reporting

Lab confirmed influenza deaths, pediatric and adult, should be reported to DHEC within 7 days. These include results from viral culture, PCR, rapid flu tests, DFA, IFA or autopsy results consistent with influenza. Hospitals should report deaths to their regional health department by noon on Monday for the preceding week.

Influenza hospitalizations

DHEC now requires weekly submission of laboratory confirmed influenza hospitalizations. Hospitals should report these to their regional health department by **noon on Monday** for the preceding week.

Voluntary networks:

Laboratory Viral Isolate Network

Viral isolate surveillance is essential for identifying circulating influenza strain subtype information, and the identification of new strains that may need to be included in the next year’s influenza vaccine. Participating providers receive culture media, packaging, processing and shipping labels in order to submit a subset of specimens to the Bureau of Labs (BOL).

Influenza-Like Illness (ILINet) Sentinel Providers Network

ILINet focuses on the number of patients presenting with influenza-like symptoms in the absence of another known cause. 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. Providers submit weekly reports to the CDC of the total number of patients seen in a week and the subset number of those patients with ILI symptoms by age group.

For additional information about ILINet or to become a provider, contact the Acute Disease Epidemiology influenza surveillance coordinator at springcb@dhec.sc.gov.

VII. Influenza Activity Levels

Activity Level	ILI activity/Outbreaks		Laboratory data
No activity	Low	And	No lab confirmed cases
Sporadic	Not increased	And	Isolated lab-confirmed cases
	OR		
Local	Increased ILI in 1 region; ILI activity in other regions is not increased	And	Lab confirmed outbreak in one institution
	OR		
Regional	2 or more institutional outbreaks (ILI or lab confirmed) in 1 region; ILI activity in other regions is not increased	And	Recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI
	OR		
Regional	Increased ILI in 2-3 regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
	OR		
Widespread	Institutional outbreaks (ILI or lab confirmed) in 2-3 regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
	OR		
Widespread	Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at 4 of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the state.