

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 October 3, 2009 (MMWR Week 39)

Highlights:

Influenza Activity Level: WIDESPREAD

Note: Activity level definitions are found on page 8

ILI Activity Status (South Atlantic ILI baseline is 2.2%): BELOW baseline in the Upstate (1.57%) and ABOVE baseline in the Midlands (6.90%) and along the Coast (14.45%). State ILI is 7.77%. The South Atlantic baseline is 2.2%*. These data reflect reports from 18 (20%) providers.

Note: See county map on page 2 for regional descriptions

SC Viral Isolate and RT-PCR Activity: During the reporting week, 87 specimens tested positive for influenza. Since October 4, 2008, 1106 specimens tested by our Bureau of Labs (BOL) have been positive for influenza. A total of 483 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: 99 hospitalizations were reported. Since September 1, 2009, 272 hospitalizations have been reported.

Deaths: 2 deaths were reported. Since September 1, 2009, 9 deaths have been reported.

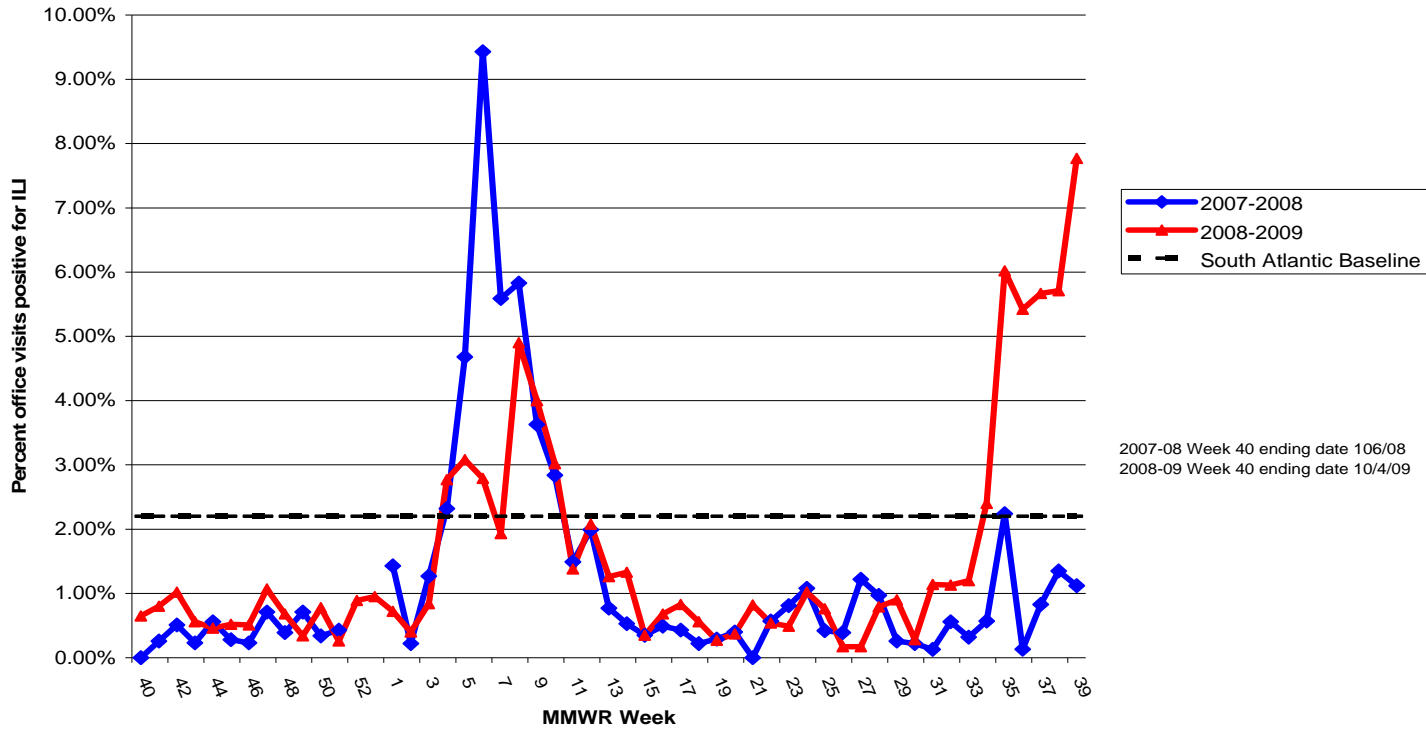
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*The South Atlantic region consists of Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. The baseline is the mean percentage of patient visits for ILI during non-influenza weeks for the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

I. ILINet Influenza-Like Illness Surveillance

During MMWR week 39, ending October 3, 2009, 7.77% 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 1.12% this time last year. Reports were received from providers in 15 counties, representing all 8 regions. The percentage of visits ranged from 0% to 22.5%.

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



Reported Influenza-Like Illness by Sentinel Providers
September 27, 2009-October 3, 2009

County	ILI %	County	ILI %
Abbeville	NS	Greenwood	NS
Aiken	1.29%	Hampton	NS
Allendale	NS	Horry	10.46%
Anderson	1.03%	Jasper	12.80%
Bamberg	NS	Kershaw	4.43%
Barnwell	13.91%	Lancaster	NE
Beaufort	NS	Laurens	NS
Berkeley	NS	Lee	NE
Calhoun	NS	Lexington	NS
Charleston	2.29%	Marion	NS
Cherokee	NS	Marlboro	NS
Chester	NE	McCormick	0.41%
Chesterfield	NE	Newberry	NS
Clarendon	NS	Oconee	NS
Colleton	NS	Orangeburg	NS
Darlington	NS	Pickens	NS
Dillon	NS	Richland	NS
Dorchester	NS	Saluda	0.00%
Edgefield	NE	Spartanburg	3.72%
Fairfield	9.20%	Sumter	NS
Florence	4.99%	Union	NE
Georgetown	22.45%	Williamsburg	NS
Greenville	1.33%	York	5.09%

NS: No reports received
NE: No enrolled providers



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1 -2	1.57	6
Midlands-Regions 3-5	6.90	7
Coastal-Regions 6-8	14.45	5

II. Virologic Surveillance

147 specimens were tested by BOL. Of these, 40 (27.2%) were positive. Another 47 positive specimens were reported by other clinical labs. Since October 4, 2008, a total of 1107 specimens tested by BOL have been positive. 513 specimens tested by other clinical labs have been positive.

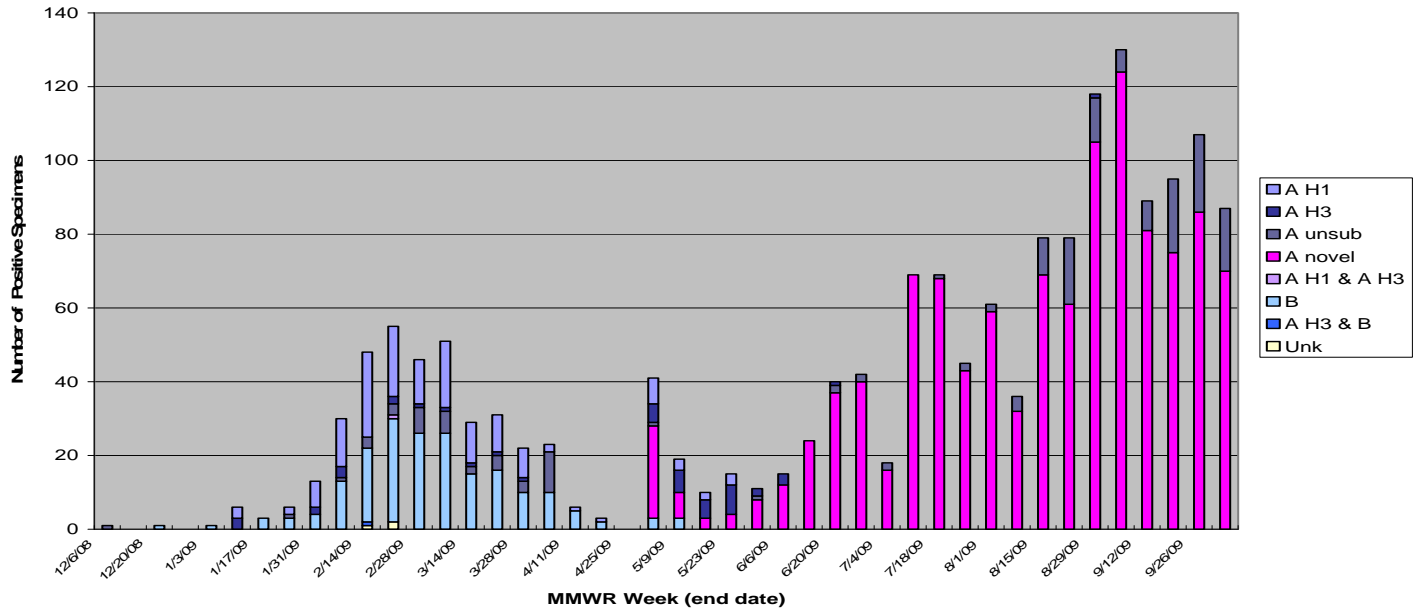
Positive confirmatory influenza test results Current MMWR Week		
	BOL	Other clinical labs
Number of specimens tested	147	
Number of positive specimens	40	17
Positive specimens by type/subtype		
Influenza A		17
A (H1)		
A (H3)		
A (novel H1N1)	40	30
Influenza B		
*Culture and/or RT-PCR (SC residents)		

Positive confirmatory influenza test results Cumulative		
	BOL	Other clinical labs
Number of specimens tested		
Number of positive specimens	1106	513
Positive specimens by type/subtype		
Influenza A		1
A (H1)	144	
A (H3)	46	
A (unsubtyped)	1	170
A (novel H1N1)	776	287
Influenza B	137	52
Unk		3
Other	2	
*Culture and/or RT-PCR (SC residents)		

Positive Confirmatory tests by County
September 28, 2008-October 3, 2009

County	Total	County	Total
Abbeville	3	Greenwood	36
Aiken	49	Hampton	10
Allendale	18	Horry	44
Anderson	24	Jasper	18
Bamberg	28	Kershaw	13
Barnwell	5	Lancaster	3
Beaufort	135	Laurens	24
Berkeley	26	Lee	12
Calhoun	2	Lexington	71
Charleston	166	Marion	14
Cherokee	6	Marlboro	23
Chester	7	McCormick	1
Chesterfield	5	Newberry	34
Clarendon	20	Oconee	29
Colleton	23	Orangeburg	41
Darlington	10	Pickens	15
Dillon	7	Richland	269
Dorchester	30	Saluda	24
Edgefield	5	Spartanburg	64
Fairfield	7	Sumter	86
Florence	41	Union	3
Georgetown	29	Williamsburg	5
Greenville	57	York	13

Influenza Culture and RT-PCR Results by MMWR Week



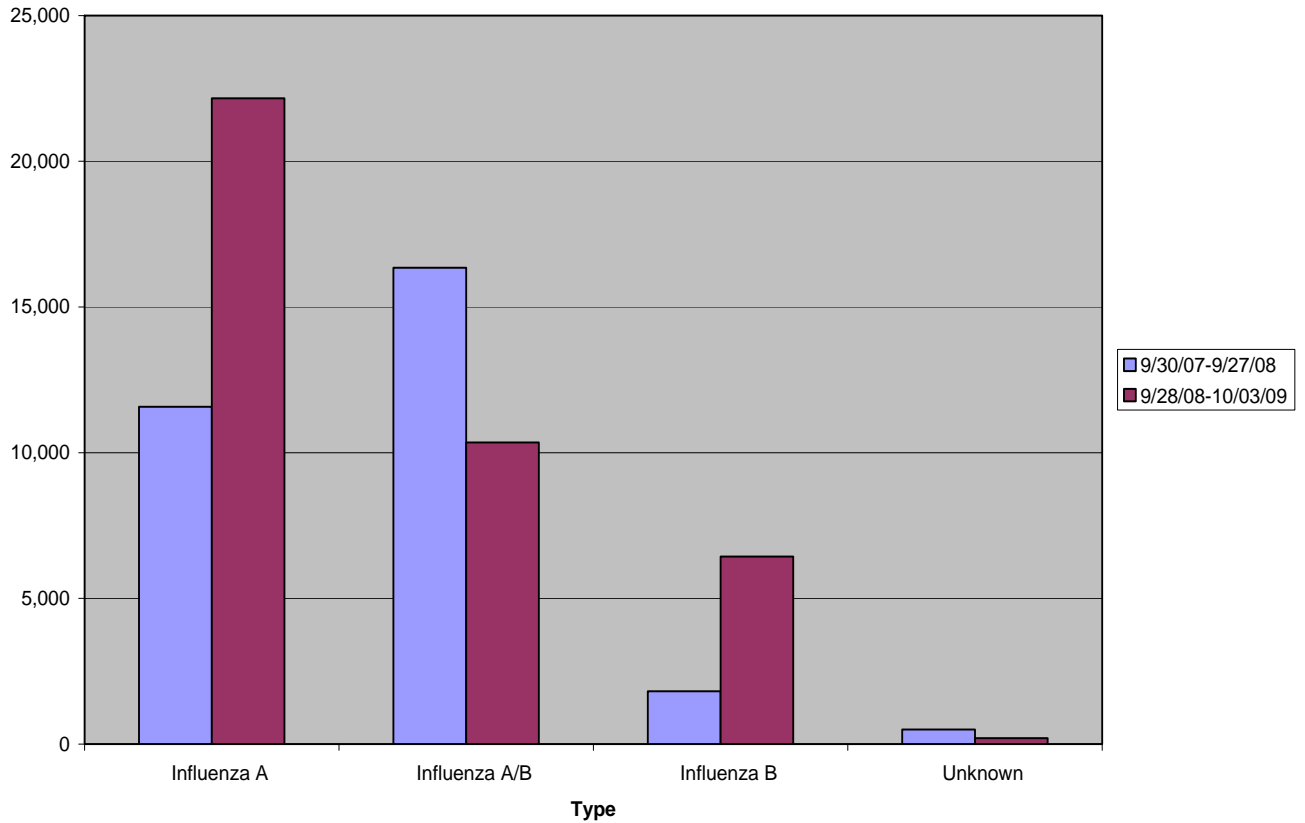
III. Positive Rapid Flu

There were 4261 positive rapid antigen tests reported for the week ending September 26, 2009. Of these 3986 were influenza A, 217 influenza A/B, 36 influenza B, and 22 unk/other. A total of 39,151 positive tests have been reported this season.

Positive Rapid Flu Tests by County
September 27, 2009-October 3, 2009

County	Positive Tests	County	Positive Tests
Abbeville	8	Horry	431
Aiken	89	Kershaw	190
Allendale	4	Lancaster	95
Anderson	234	Laurens	61
Berkeley	18	Lee	17
Charleston	201	Lexington	175
Cherokee	30	Marion	15
Chester	7	Marlboro	6
Chesterfield	21	Newberry	39
Clarendon	64	Oconee	38
Colleton	2	Pickens	51
Darlington	130	Richland	546
Dillon	2	Saluda	18
Dorchester	109	Spartanburg	183
Fairfield	23	Sumter	217
Florence	313	Union	3
Georgetown	95	Williamsburg	18
Greenville	509	York	241
Greenwood	58		

Positive Rapid Antigen Tests 2007-08 vs 2008-09



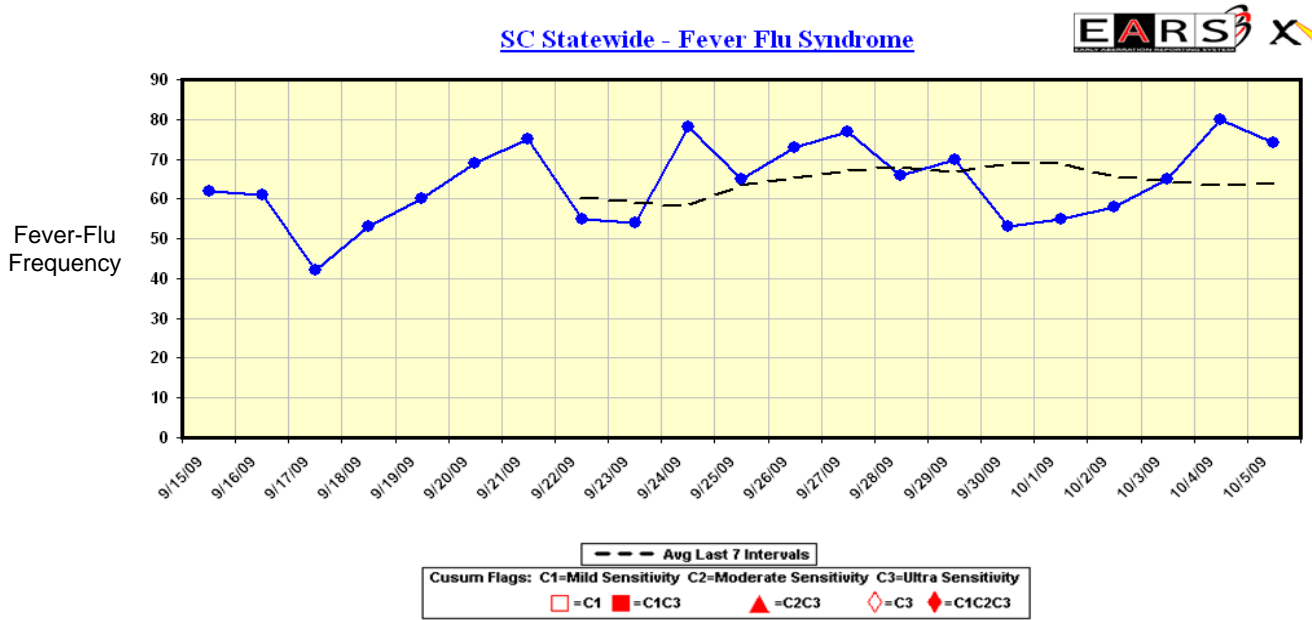
IV. Influenza hospitalizations and deaths

A total of 99 influenza hospitalizations were reported by 47 hospitals during the past week. 2 deaths were reported. Since September 1, 2009, 272 hospitalizations and 9 deaths have been reported.

	Total number	
Number of Hospitals Reporting (current week)	47	
	<i>Previous week (9/26-10/3)</i>	<i>Cumulative (since 9/1/09)</i>
Hospitalizations	99	272
Deaths	2	9

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

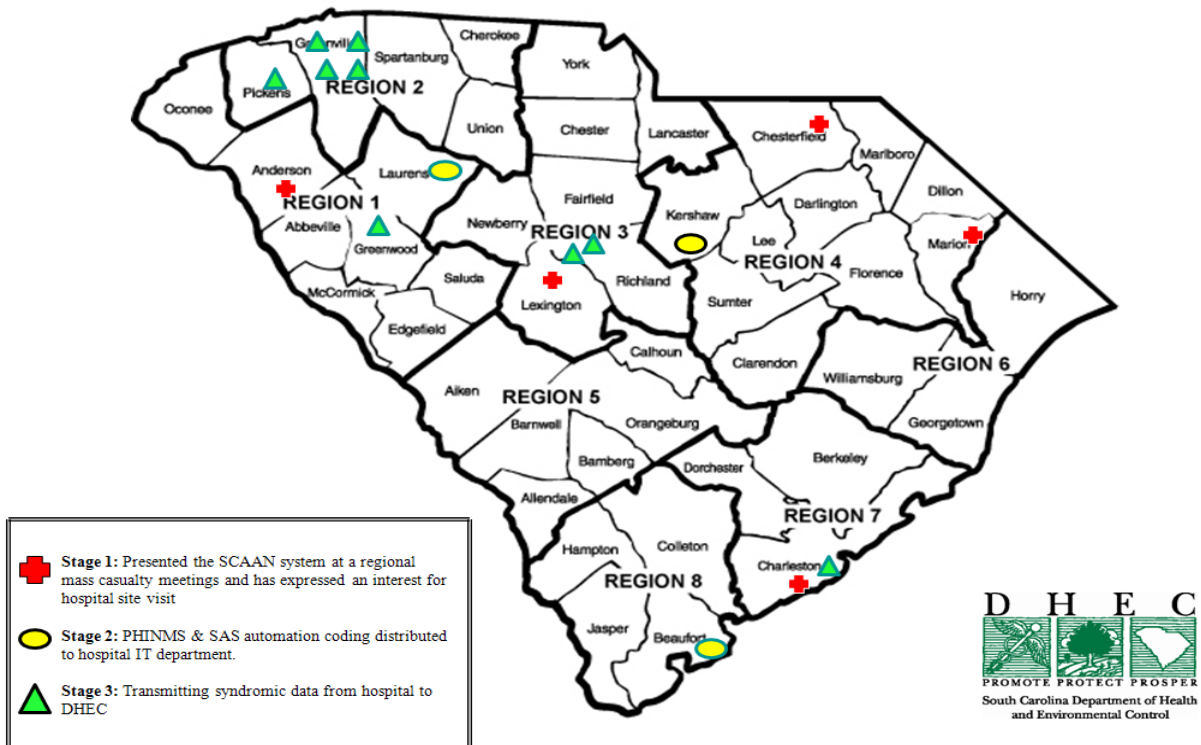
There are no syndromic alerts to report at this time.



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	Not increased	And	Lab confirmed outbreak in one institution
	Increased ILI 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	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 the outbreaks; virus activity is no greater than sporadic in other regions
	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
	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.