

# Flu Watch

Week Ending January 26, 2013 (MMWR Week 4)

*All data are provisional and may change as more reports are received.*

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MMWR Week 4 at a Glance:
<p><b>Influenza Activity Level: REGIONAL</b>            Note: Activity level definitions are found on page 15</p> <p><b>ILI Activity Status (South Carolina baseline is 2.05%*):</b> Below baseline in the Upstate (.60%) and in the Midlands (1.51%). Above baseline along the Coast (2.86%). The state ILI percentage was 1.26%. These data reflect reports from 17 (53.1%) providers.</p> <p><b>SC Viral Isolate and RT-PCR Activity:</b> 30 positive specimens were reported. Since 9/30/12, 848 positive specimens have been reported.</p> <p><b>Positive Rapid Flu Test Activity:</b> 784 positive rapid tests were reported. Since 9/30/12, 40,980 positive rapid tests have been reported.</p> <p><b>Hospitalizations:</b> 47 lab confirmed hospitalizations were reported. Since 9/30/12, 1326 hospitalizations have been reported.</p> <p><b>Deaths:</b> No lab confirmed deaths were reported. Since 9/30/12, 31 deaths have been reported.</p>

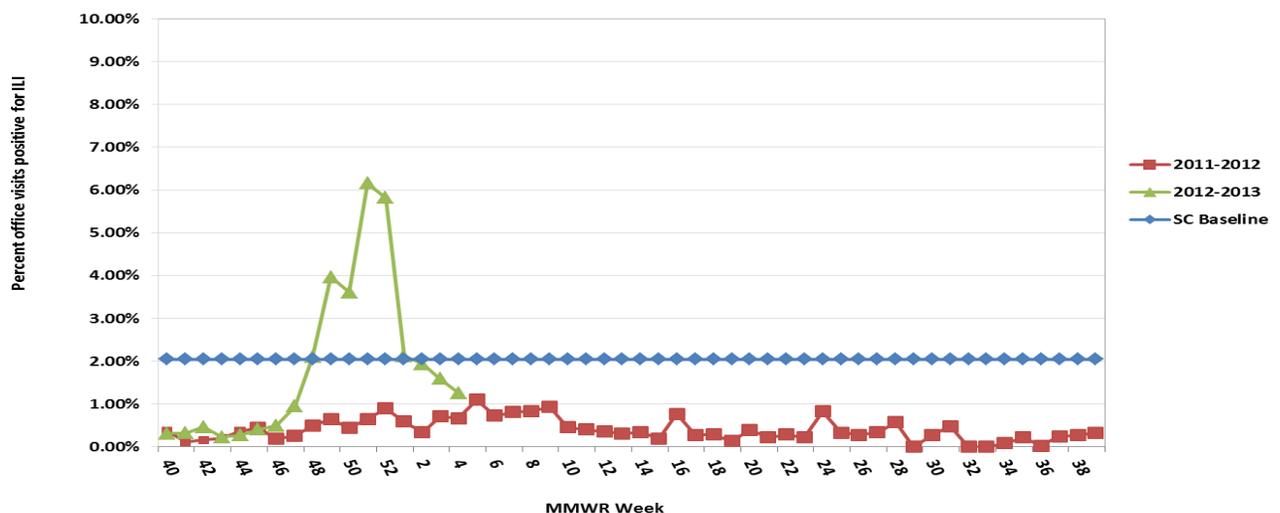
Summary of ILI Activity, Positive Confirmatory Tests, and Influenza Associated Hospitalizations and Deaths

	<i>Current week</i>	<i>Previous week</i>	<i>Change from previous week</i>
Percent of ILI visits reported by ILINet providers	1.26%	1.59%	▼ .33
Number of positive confirmatory tests	30	34	▼ 34
Number of lab confirmed flu hospitalizations	47	68	▼ 21
Number of lab confirmed flu deaths	0	3	▼ 3

## I. ILINet Influenza-Like Illness Surveillance

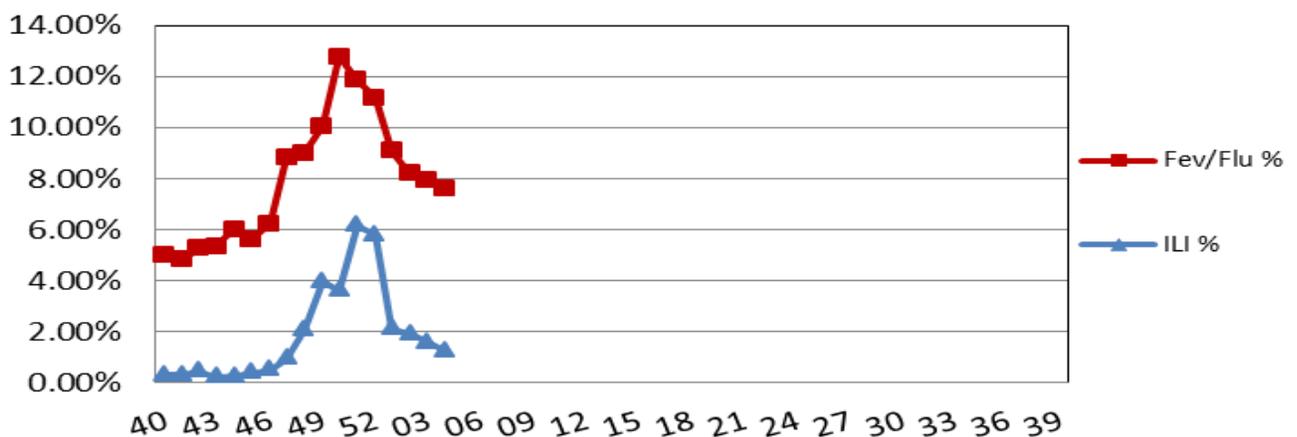
During the most recent MMWR week, 1.26% of patient visits to SC ILINet providers were due to ILI. This is below the state baseline (2.05%). This ILI percentage compares to .67% this time last year. Reports were received from providers in 13 counties, representing 7 of the 8 regions. The statewide percentage of ER visits with fever-flu syndrome was 7.60%.

**Percentage of Visits for Influenza-like Illness (ILI) Reported by Sentinel Providers in South Carolina  
2011-2012 and 2012-2013 Influenza Seasons**



\*The SC baseline is the mean percentage of patient visits for ILI during non-influenza weeks (weeks when percent of positive lab tests was below 20%) for the previous three seasons plus two standard deviations.

**SC Fever Flu Percentage Compared to ILI Percentage  
September 30, 2012 - January 26, 2013**

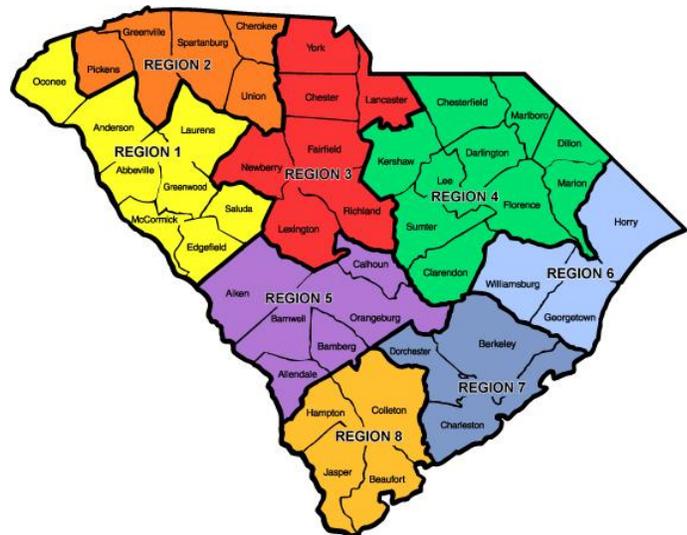


\*Only includes hospitals participating in SC syndromic surveillance

## Influenza-Like Illness Reported by Sentinel Providers January 20, 2013 – January 26, 2013

County	ILI %	County	ILI %
Abbeville	---	Greenwood	NR
Aiken	0%	Hampton	.74%
Allendale	---	Horry	NR
Anderson	0%	Jasper	NR
Bamberg	---	Kershaw	0%
Barnwell	---	Lancaster	---
Beaufort	NR	Laurens	NR
Berkeley	NR	Lee	---
Calhoun	---	Lexington	2.22%
Charleston	NR	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	NR
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	0%
Dillon	NR	Richland	2.59%
Dorchester	NR	Saluda	1.22%
Edgefield	---	Spartanburg	.98%
Fairfield	---	Sumter	NR
Florence	.70%	Union	---
Georgetown	3.71%	Williamsburg	---
Greenville	.41%	York	3.01%

NR: No reports received  
 ---: No enrolled providers



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1 -2	.60	8
Midlands-Regions 3-5	1.51	7
Coastal-Regions 6-8	2.86	2

\*County ILI percentages are affected by the number of reporting providers within that county.

## II. Virologic Surveillance

<i>Positive confirmatory influenza test results* Current MMWR Week (1/20/13 – 1/26/13)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	25	NA
<b>Number of positive specimens</b>	21 <sup>†</sup>	9
<b>Influenza A unsubtype</b>		2
<b>Influenza A H1N1</b>		1
<b>Influenza A H3N2</b>	21	5
<b>Influenza B</b>		1
<b>Other</b>		

Includes culture, RT-PCR, DFA, and IFA

<sup>†</sup>Includes 8 positive specimens from week 3

During the previous MMWR week, 30 positive specimens were reported.

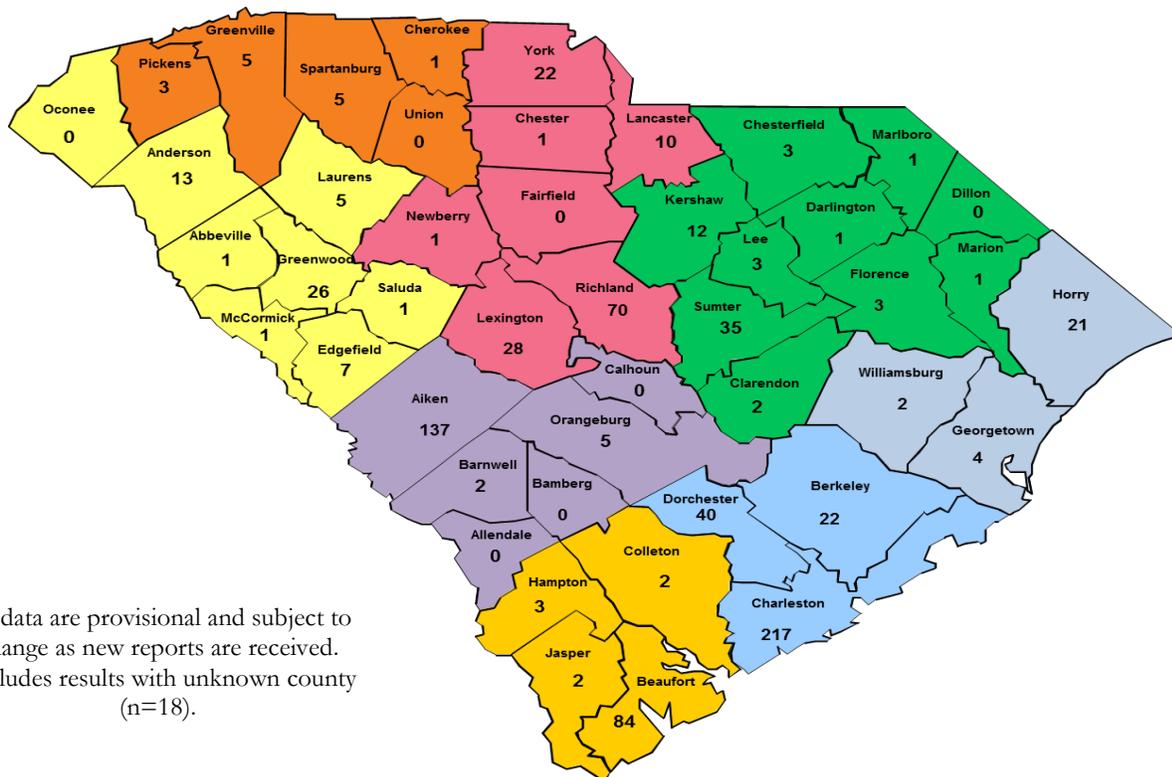
<i>Positive confirmatory influenza test results* Cumulative (09/30/12 – 1/26/13)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	345	NA
<b>Number of positive specimens</b>	247 (65.5%)	504
<b>Influenza A unsubtype</b>		229 (45.9%)
<b>Influenza A H1N1</b>	13 (5.75%)	7 (1.21)
<b>Influenza A H3N2</b>	222(88.9%)	252 (49.9%)
<b>Influenza B</b>	12 (5.3%)	16 (3.03%)
<b>Other</b>		

Includes culture, RT-PCR, DFA, and IFA

**Positive Confirmatory Tests by County  
Current Week 1/20/13 – 1/26/13**

County	Positive Tests	County	Positive Tests	County	Positive Tests
Abbeville		Dillon		Marion	
Aiken	1	Dorchester		Marlboro	
Allendale		Edgefield		McCormick	
Anderson		Fairfield		Newberry	
Bamberg		Florence		Oconee	
Barnwell		Georgetown		Orangeburg	
Beaufort	15	Greenville		Pickens	
Berkeley		Greenwood		Richland	4
Calhoun		Hampton		Saluda	
Charleston	5	Horry		Spartanburg	
Cherokee		Jasper		Sumter	1
Chester		Kershaw	1	Union	
Chesterfield		Lancaster		Williamsburg	
Clarendon		Laurens		York	1
Colleton	1	Lee		Unknown	1
Darlington		Lexington			

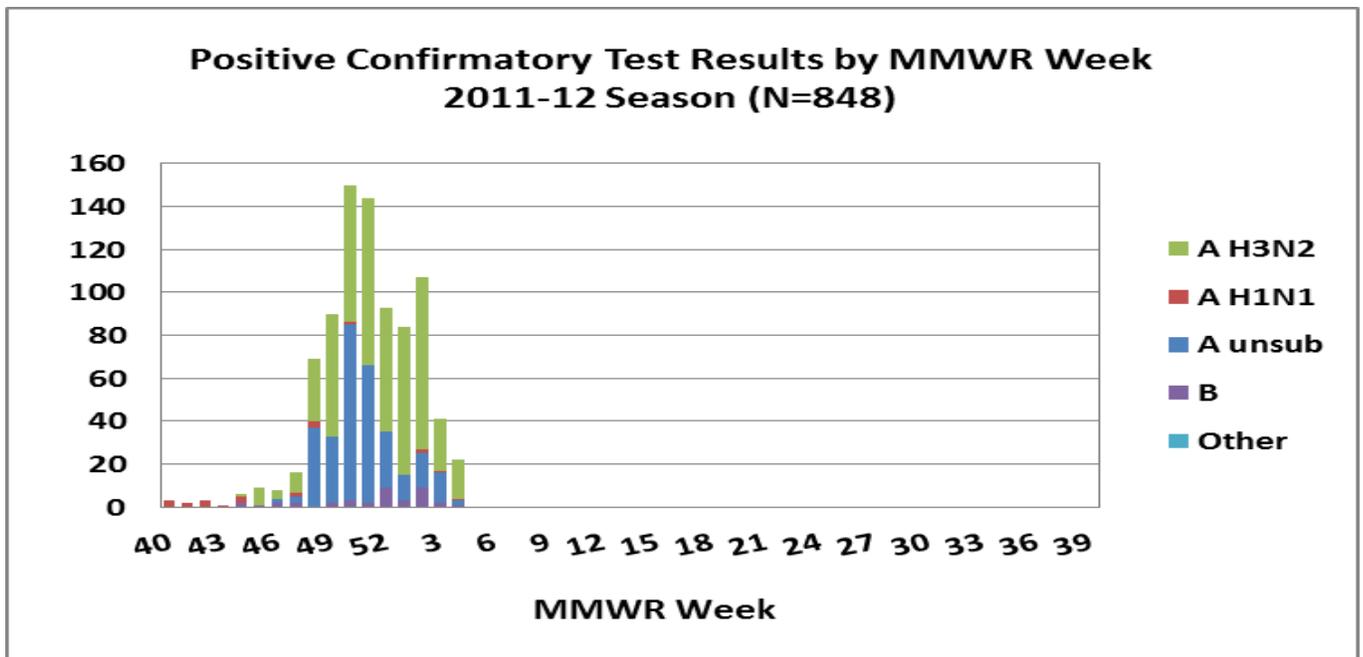
**Map of Positive Confirmatory Tests by County  
Cumulative 09/30/12 – 1/26/13**



All data are provisional and subject to change as new reports are received. Excludes results with unknown county (n=18).

**Positive Confirmatory Tests by County and Type  
Cumulative 9/30/12 – 1/26/13**

	A H1N1	A H3N2	B	A Unsub	Unk		A H1N1	A H3N2	B	A Unsub	Unk
<b>Region 1</b>						<b>Region 2</b>					
Abbeville		1				Cherokee					1
Anderson		8	1	5		Greenville		2			5
Edgefield		1		6		Pickens		3			
Greenwood		22	1	3		Spartanburg		1	1		4
Laurens		2		4		Union					
McCormick		1				<b>Region 4</b>					
Oconee						Chesterfield		1	1		1
Saluda		1				Clarendon	1	1			3
<b>Region 3</b>						Darlington		1			1
Chester				1		Dillon					
Fairfield						Florence		1	1		5
Lancaster		3		7		Kershaw		8			4
Lexington		4		24		Lee		2			1
Newberry				1		Marion			1		
Richland		14	2	54		Marlboro		1			
York		10	2	10		Sumter		31	3		3
<b>Region 5</b>						<b>Region 6</b>					
Aiken	1	3	2	130	1	Georgetown		4			
Allendale						Horry		17			4
Bamberg						Williamsburg					2
Barnwell				2		<b>Region 8</b>					
Calhoun				1		Beaufort	15	61	2		6
Orangeburg		4		3		Colleton			2		
<b>Region 7</b>						Hampton		1			2
Berkeley		16	6			Jasper		2			
Charleston	3	203	5	6		Unknown		16	1		1
Dorchester		37	3								

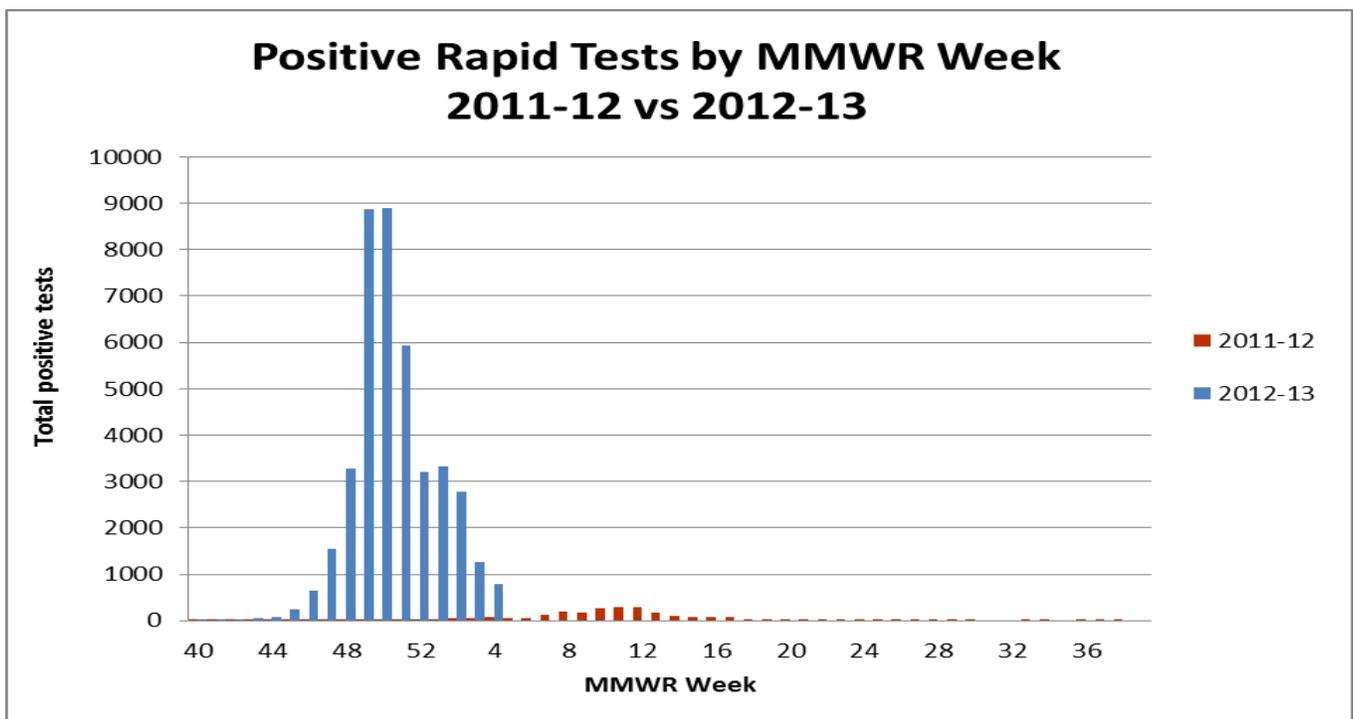


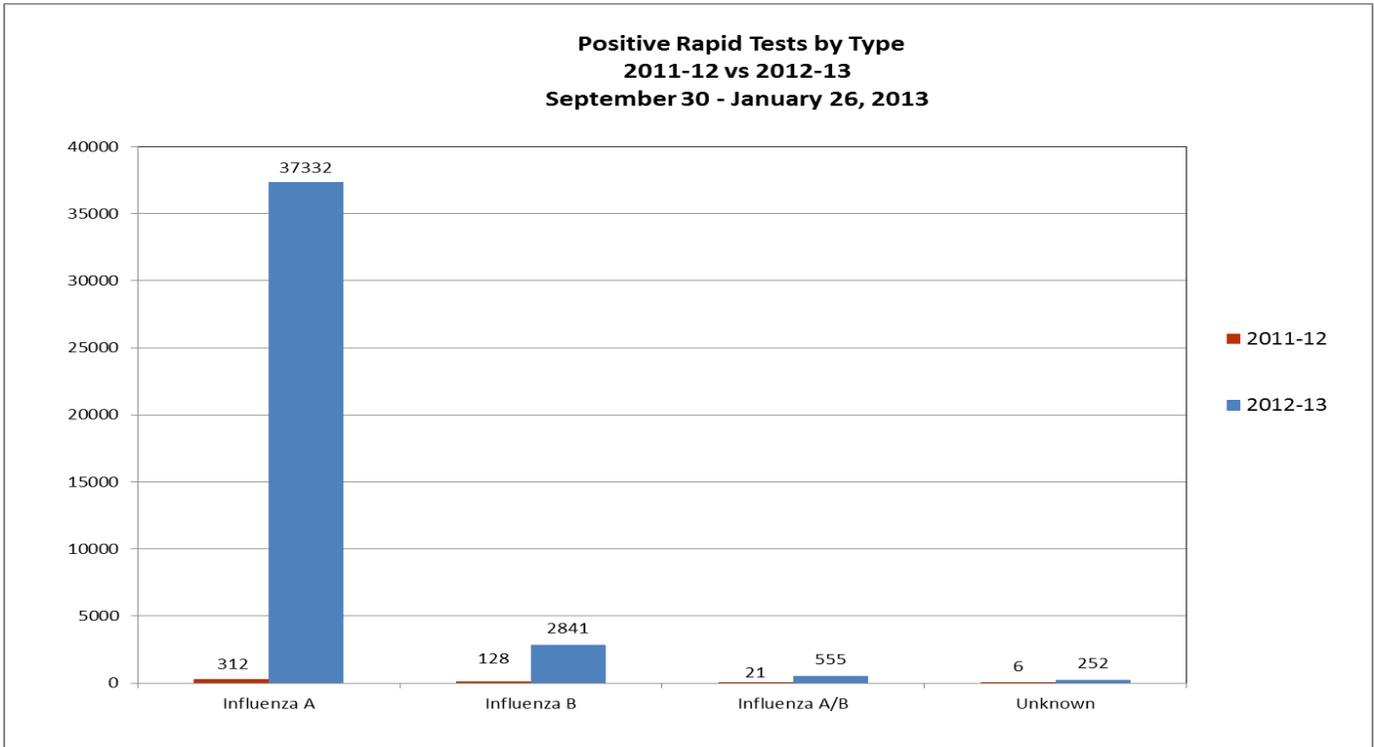
### III. Positive Rapid Antigen Tests

During the past MMWR week, 784 positive rapid antigen tests were reported. Of these, 547 were influenza A, 226 were influenza B, 8 were influenza A/B, and 3 were unknown. This compares to 65 this time last year. 40,980 positive rapid tests have been reported this year.

#### Positive Rapid Flu Tests by County January 20, 2013 – January 26, 2013

County	Positive Tests	County	Positive Tests	County	Positive Tests
Abbeville	22	Dillon	13	Lexington	49
Aiken	4	Dorchester	36	Marion	4
Allendale	8	Edgefield		Marlboro	
Anderson	23	Fairfield	4	McCormick	
Bamberg		Florence	48	Newberry	11
Barnwell	6	Georgetown	39	Oconee	4
Beaufort	32	Greenville	72	Orangeburg	3
Berkeley	13	Greenwood	16	Pickens	5
Calhoun		Hampton	2	Richland	63
Charleston	123	Horry	66	Saluda	
Cherokee		Jasper	4	Spartanburg	30
Chester	2	Kershaw	1	Sumter	19
Chesterfield	3	Lancaster	9	Union	1
Clarendon	3	Laurens	6	Williamsburg	1
Colleton	1	Lee	1	York	20
Darlington	7				





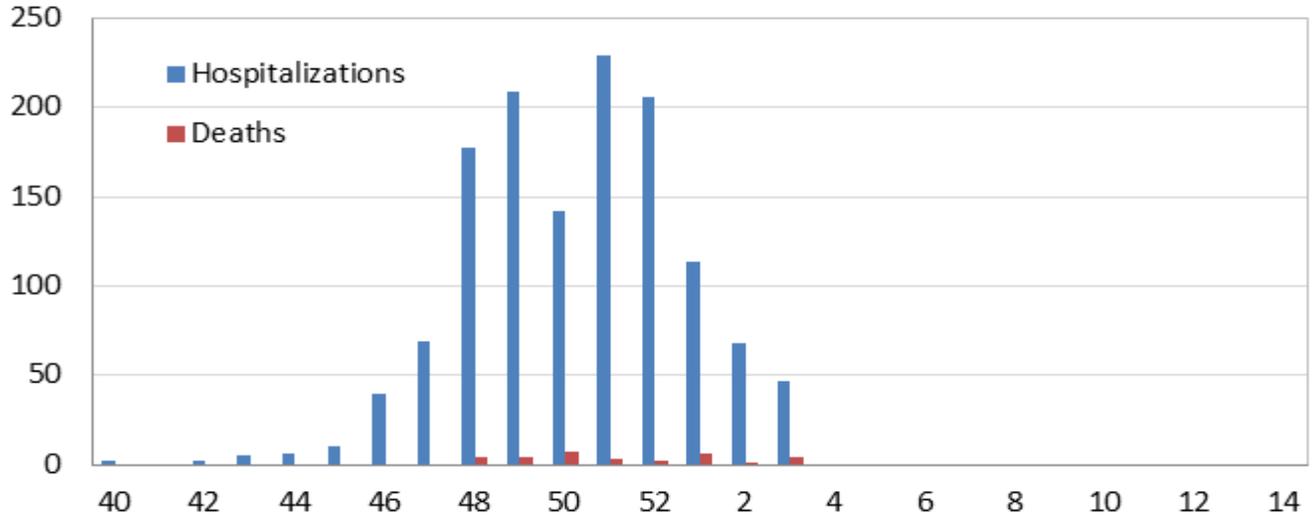
#### IV. Influenza hospitalizations and deaths

During the past MMWR week, 47 lab confirmed\* influenza hospitalizations were reported. Zero lab confirmed deaths were reported.

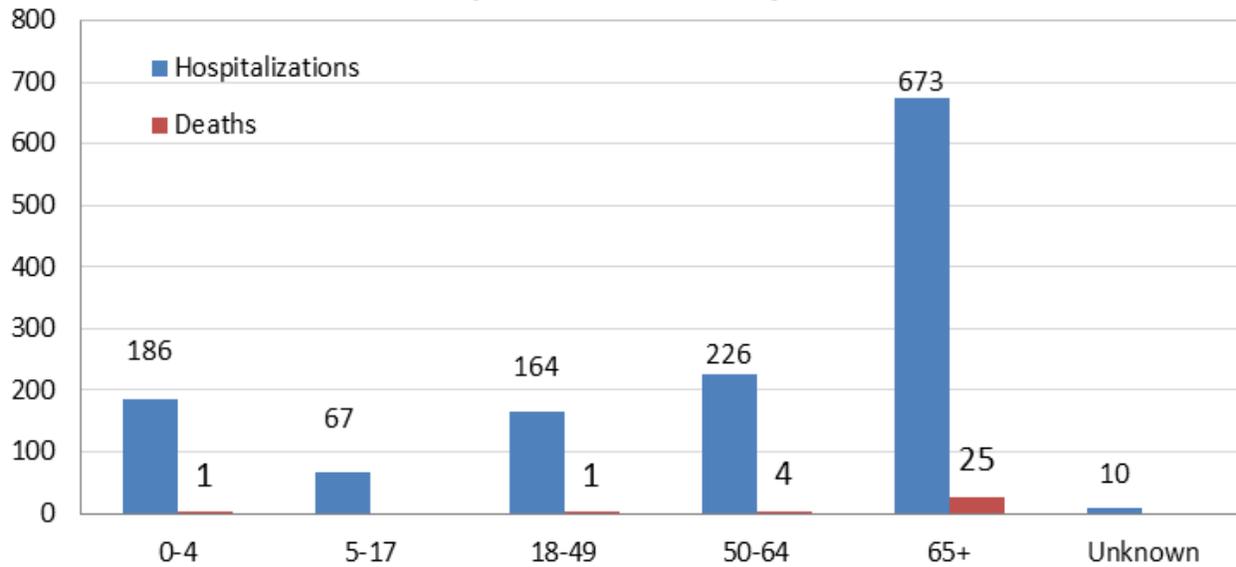
	Total number*	
Number of Reporting Hospitals (Current week)	54	
	<i>Current MMWR Week (1/20/13-1/26/13)</i>	<i>Cumulative (since 09/30/12)</i>
Hospitalizations	47	1326
Deaths	0	31

\*These data are provisional. Lab confirmation for hospitalizations and deaths includes culture, PCR, DFA, IFA, and rapid test.

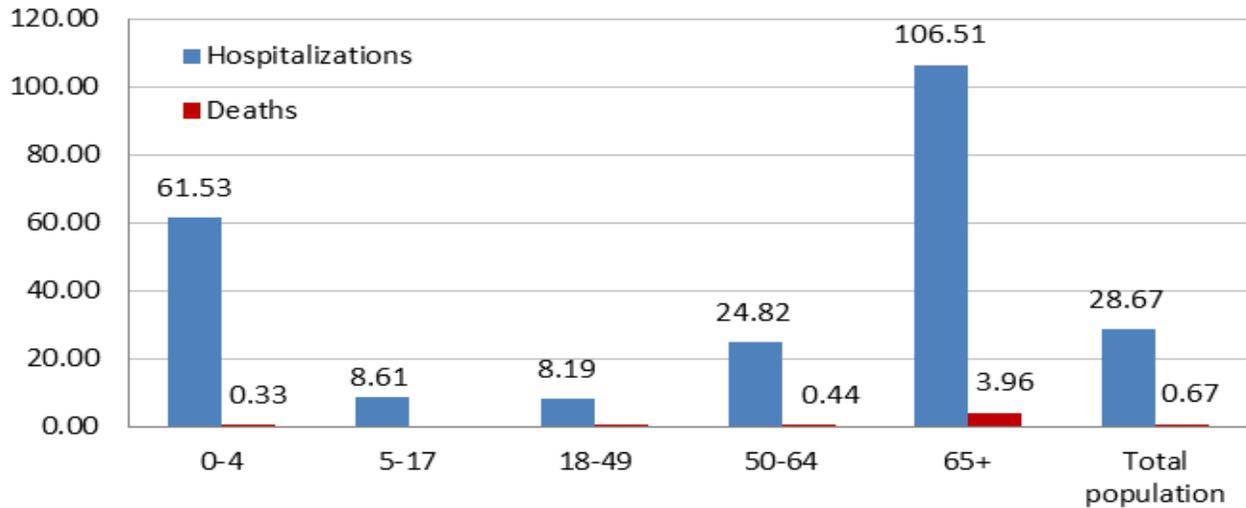
**Reported Cases of Laboratory Confirmed Influenza  
Hospitalizations and Deaths  
by MMWR week  
September 30, 2012 - January 19, 2013**



**Reported Cases of Laboratory Confirmed Influenza  
Hospitalizations (n=1326) and Deaths (n=31)  
September 30 - January 19, 2013**



**Laboratory Confirmed Influenza Case rate/100,000  
Hospitalizations (n=1326) and Deaths (n=31) by age group  
September 30, 2012 - January 26, 2013**



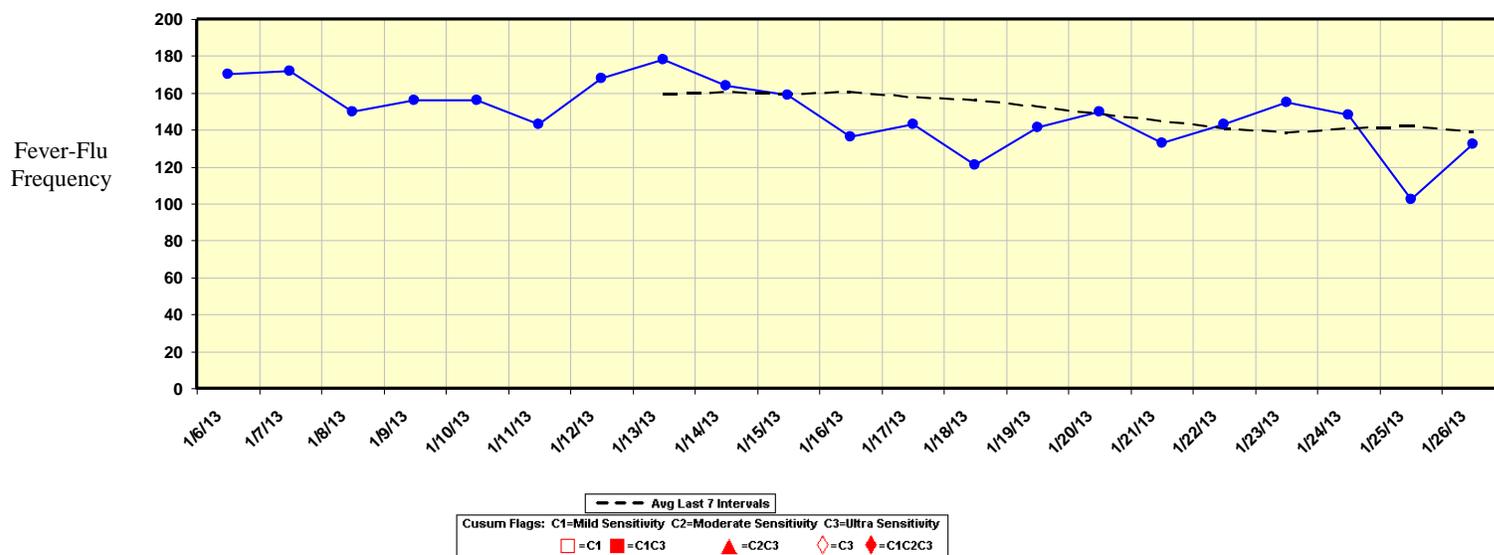
**Lab Confirmed Influenza Deaths by County  
September 30, 2012 – January 26, 2013**

County	Number of Deaths
Aiken	2
Barnwell	1
Beaufort	1
Charleston	1
Cherokee	1
Clarendon	1
Greenville	4
Horry	1
Jasper	1
Lexington	3
McCormick	1
Newberry	1
Oconee	2
Pickens	3
Richland	3
Spartanburg	2
Sumter	1
York	2
<b>Total</b>	<b>31</b>

## V. South Carolina Disease Alerting, Reporting & Tracking System (SC-DARTS)



### Statewide - Fever Flu Syndrome



#### 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

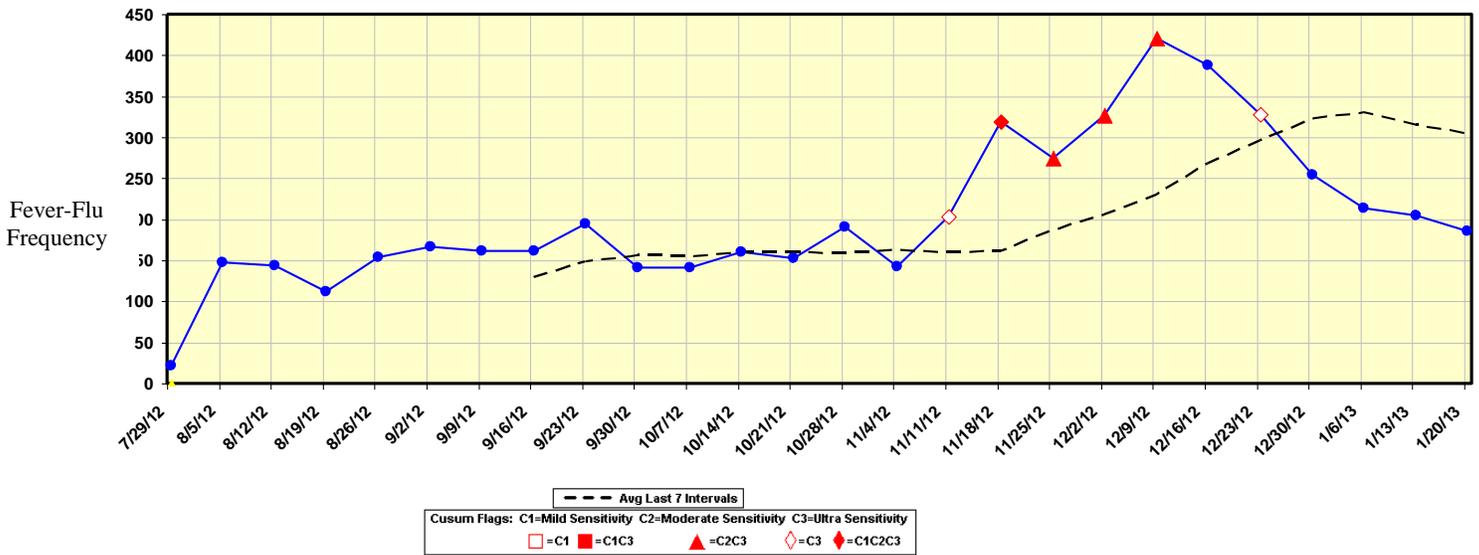
The SC Statewide Fever-Flu Syndrome graph above illustrates the daily counts of hospital emergency department (ED) visits with an Influenza-like Illness (ILI) for the past 21 days. A total of 21 hospital facilities are reporting to the SC-DARTS system. These 21 include: AnMed Health (Region 1); Self Regional (Region 1); Oconee Medical Center (Region 1); Palmetto Health Alliance (Region 2 & 3); Greenville Hospital System (Region 2); Kershaw Health (Region 4); McLeod Health (Region 4); Elgin Urgent Care (Region 4); Medical University of South Carolina (Region 7); Roper (Region 7); St. Francis (Region 7); Trident (Region 7); Colleton (Region 8); and Hampton Regional (Region 8).

#### Statewide CUSUM Flag Alerts Description:

No flags for the past week.

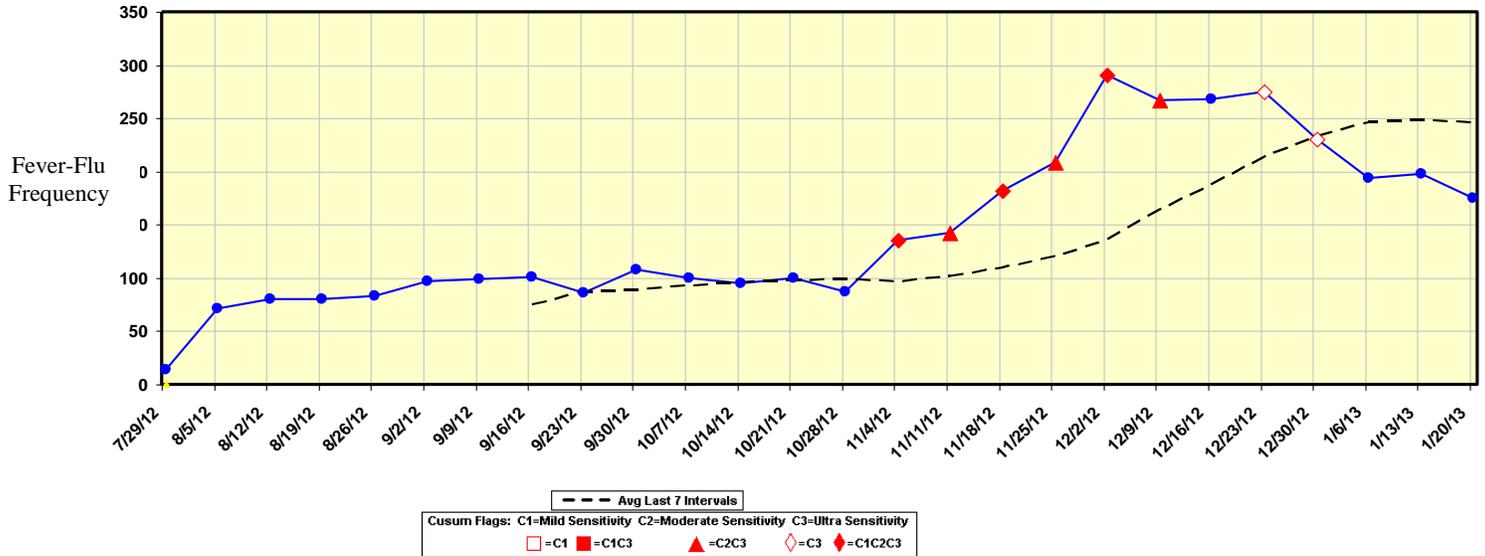
Below are the fever-flu syndrome graphs by Region for the past 180 days (weekly interval).

### Region 1 - Fever Flu Syndrome



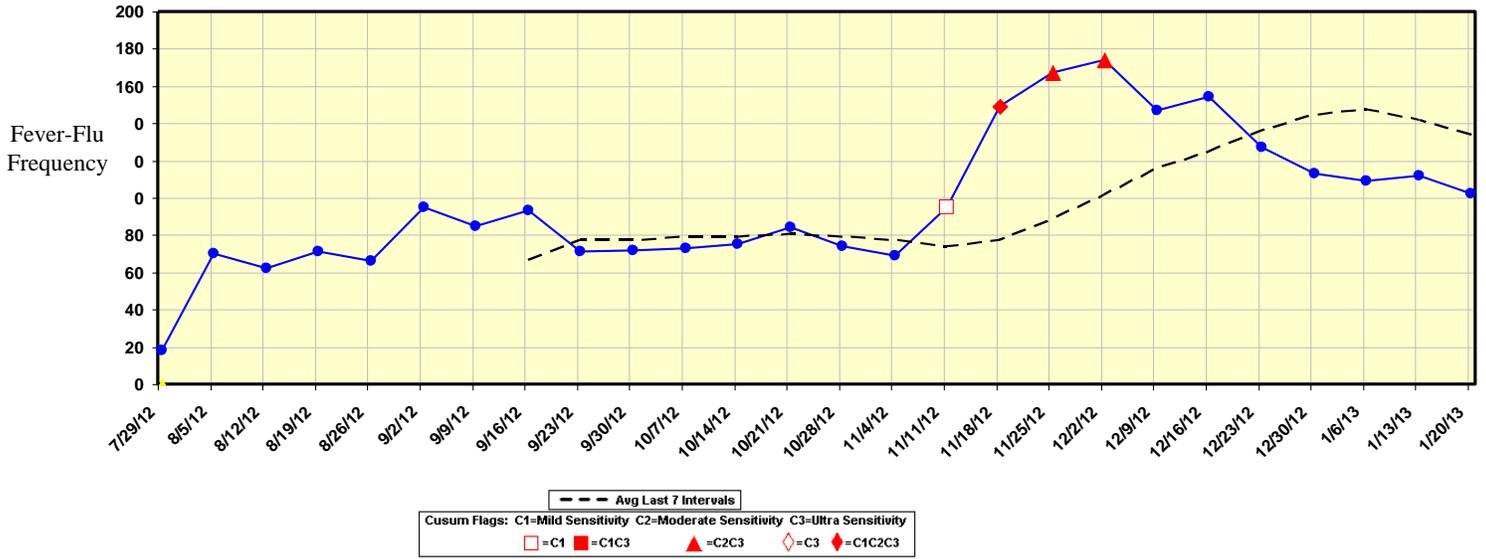
Region1 Hospitals (# of Facilities): AnMed Health (3); Self-Regional (1); Oconee Medical Center (1);

### Region 2 - Fever Flu Syndrome



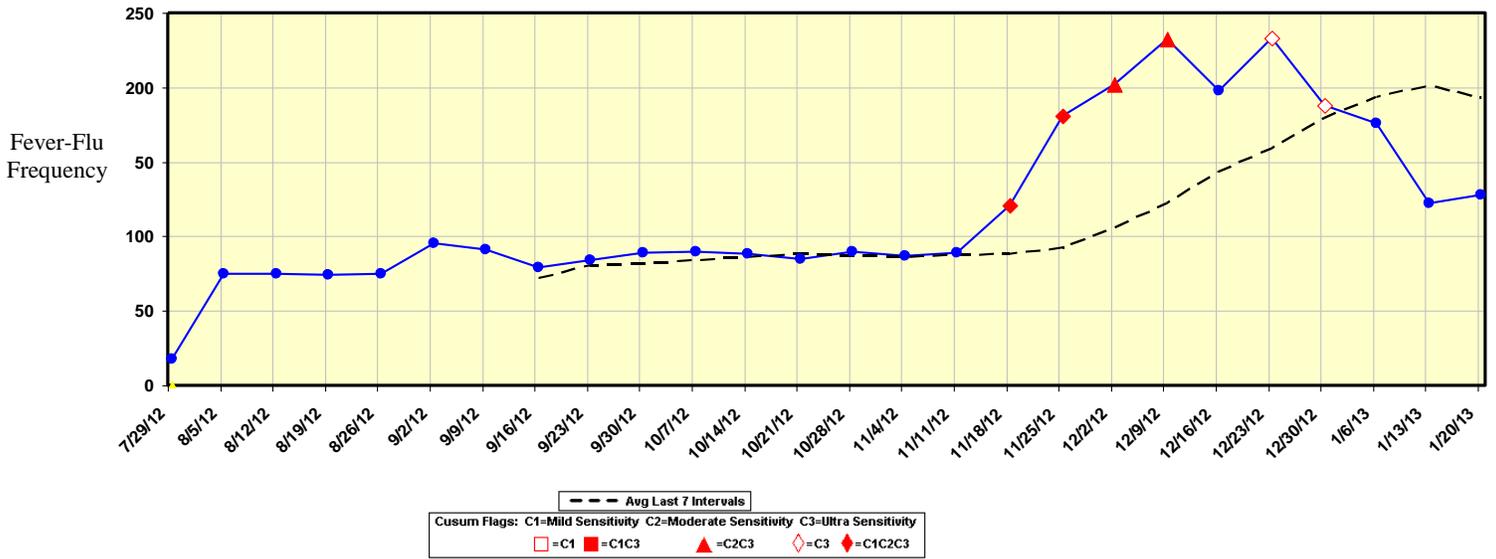
Region 2 Hospitals (# of Facilities): Greenville Hospital System (4); Palmetto Health Easley (1)

**Region 3 - Fever Flu Syndrome**



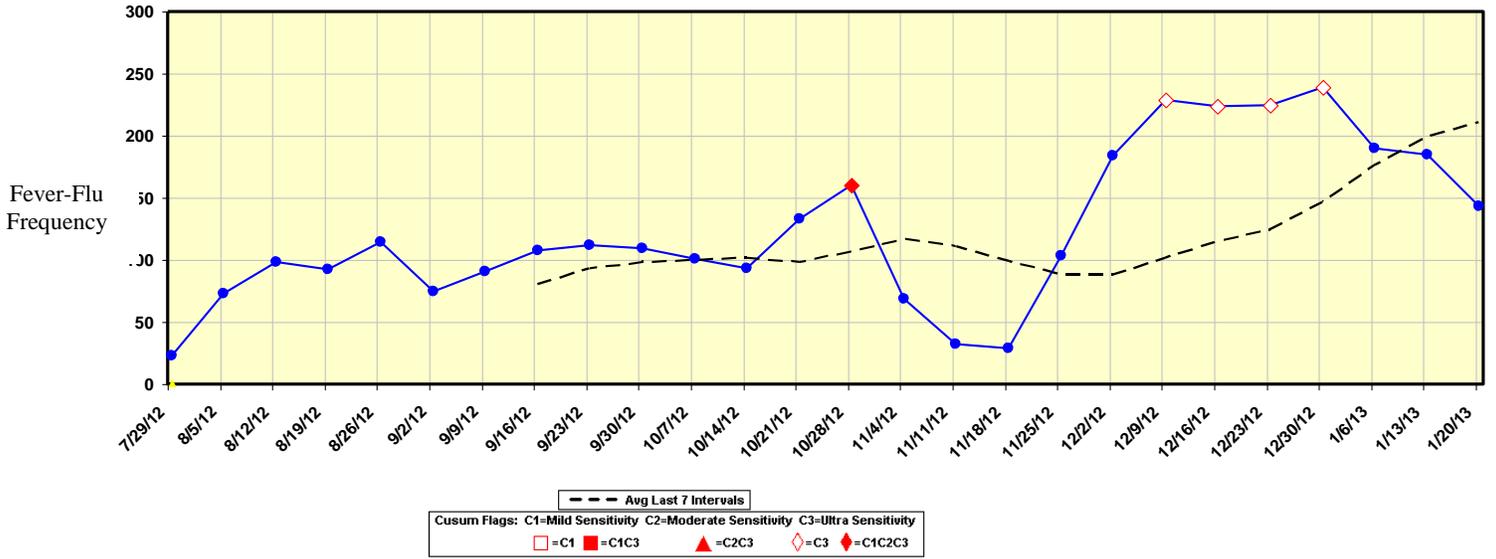
Region 3 Hospitals (# of Facilities): Palmetto Health Baptist (1), Palmetto Health Richland (1)

**Region 4 - Fever Flu Syndrome**



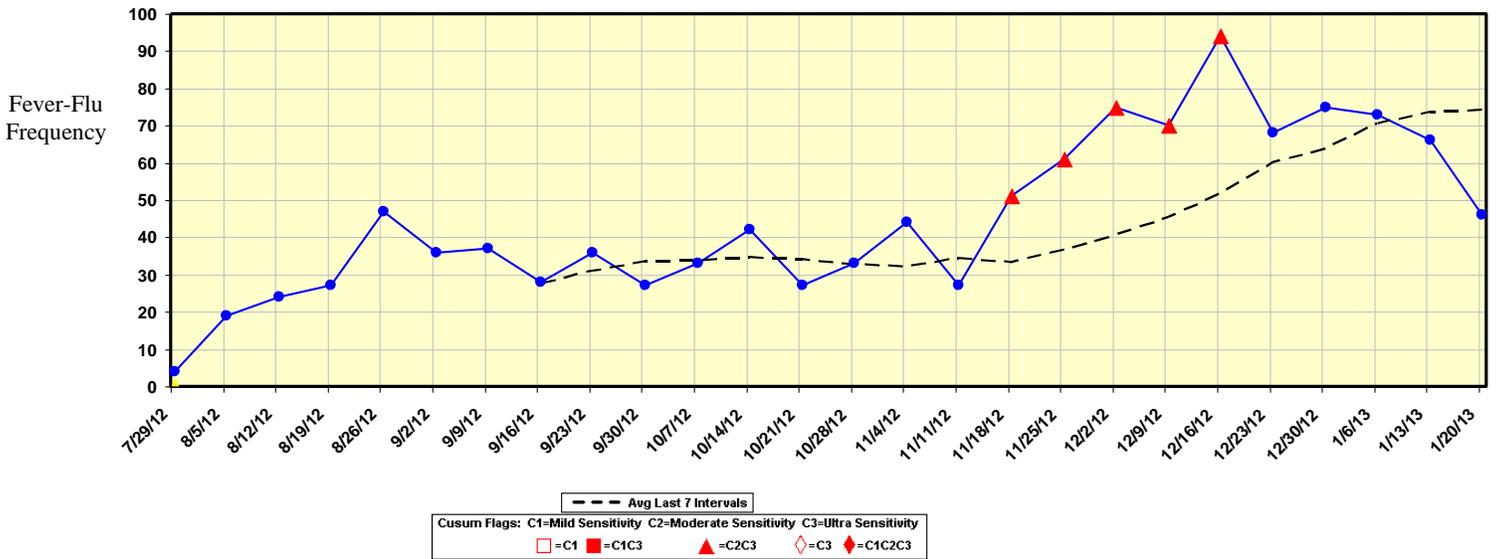
Region 4 Hospitals (# of Facilities): Kershaw Health (1); McLeod Health (1); Elgin Urgent Care (1)

**Region 7 - Fever Flu Syndrome**



Region 7 Hospitals (# of Facilities): Medical University of South Carolina (1), Roper (1), St. Francis (1), Trident (1)

**Region 8 - Fever Flu Syndrome**



Region 8 Hospitals (# of Facilities): Hampton Regional (1), Colleton (1)

## VI. Influenza activity levels

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

## VII. South Carolina Influenza Surveillance Components

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.

### Mandatory Reporting

#### Positive confirmatory test reporting

Positive influenza culture, PCR, DFA, and IFA results from commercial laboratories should be reported to DHEC within 7 days electronically via CHESS or using a DHEC 1129 card.

#### Positive rapid antigen test reporting

*Summary numbers* of positive rapid influenza tests and influenza type identified should be sent to the regional health department by fax or email before noon on Monday for the preceding week.

#### Influenza death reporting

Lab confirmed influenza deaths in adults should be reported to DHEC within 7 days. Lab confirmed influenza deaths in children under age 18 should be reported within 24 hours. 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 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.

For additional information about ILINet or to become an ILINet provider, contact the Acute Disease Epidemiology influenza surveillance coordinator at [springcb@dhec.sc.gov](mailto:springcb@dhec.sc.gov).

### Voluntary Networks

#### 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  $U \geq U100^{\circ}F$ ) 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.

#### South Carolina Disease Alerting, Reporting & Tracking System (SC-DARTS)

SC-DARTS is a collaborative network of syndromic surveillance systems within South Carolina. Currently our network contains the following data sources: SC Hospital Emergency Department (ED) chief-complaint data, Poison Control Center call data, Over-the-Counter (OTC) pharmaceutical sales surveillance, and CDC's BioSense Biosurveillance system. The hospital ED syndromic surveillance system classifies ED chief complaint data into appropriate syndrome categories (ex: Respiratory, GI, Fever, etc.). These syndrome categories are then analyzed using the cumulative sum (CUSUM) methodology to detect any significant increases. Syndromic reports are distributed back to the hospital on a daily basis.

To join the SC-DARTS system or for more information, please contact: **Alecia Alianell at 803-898-0269 or [alianeat@dhec.sc.gov](mailto:alianeat@dhec.sc.gov)**.

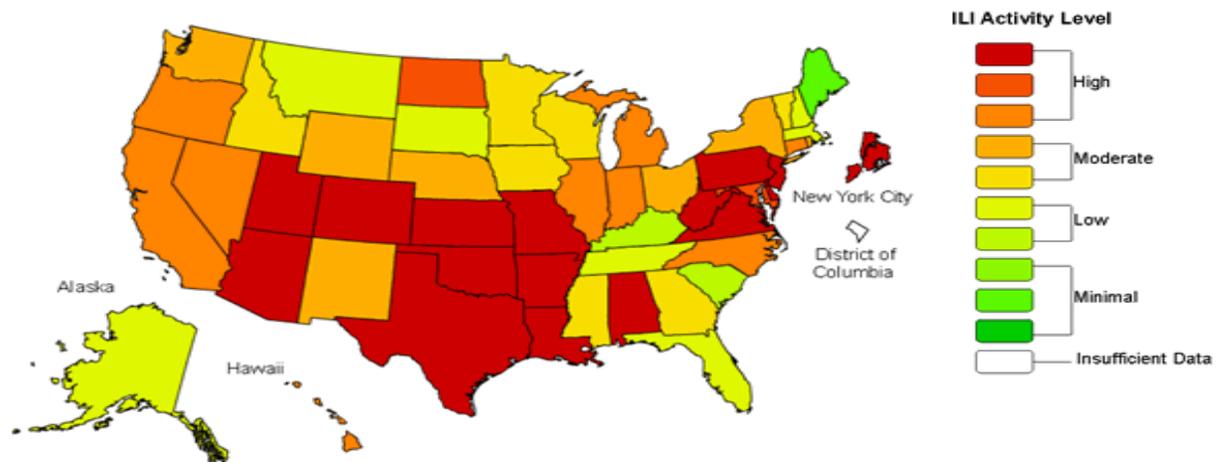
## VIII. National Surveillance MMWR Week 3 (1/13-1/19)

During week 3 (January 13-19), influenza activity remained elevated in the United States, but decreased in some areas.

- **Viral Surveillance:** Of 11,984 specimens tested and reported by collaborating laboratories, 3,129 (26.1%) were positive for influenza.
- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold.
- **Influenza-Associated Pediatric Deaths:** Eight influenza-associated pediatric deaths were reported.
- **Influenza-Associated Hospitalizations:** A cumulative rate for the season of 22.2 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. Of all hospitalizations, 50% were among adults 65 years and older.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 4.3%; this is above the national baseline of 2.2%. All 10 regions reported ILI above region-specific baseline levels. Twenty-six states and New York City experienced high ILI activity; 14 states experienced moderate activity; 9 states experienced low activity; 1 state experienced minimal activity, and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza:** Forty-seven states reported widespread geographic influenza activity; 2 states reported regional activity; the District of Columbia and one state reported local activity; Guam reported sporadic influenza activity, and Puerto Rico and the U.S. Virgin Islands did not report.

A description of surveillance methods is available at: <http://www.cdc.gov/flu/weekly/overview.htm>

**Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet  
2012-13 Influenza Season Week 3 ending Jan 19, 2013**



\*This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.

Data collected in ILINet may disproportionately represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state.

Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map are based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data is received.

Differences in the data presented here by CDC and independently by some state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.