

# Flu Watch

Week Ending December 1, 2012 (MMWR Week 48)

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

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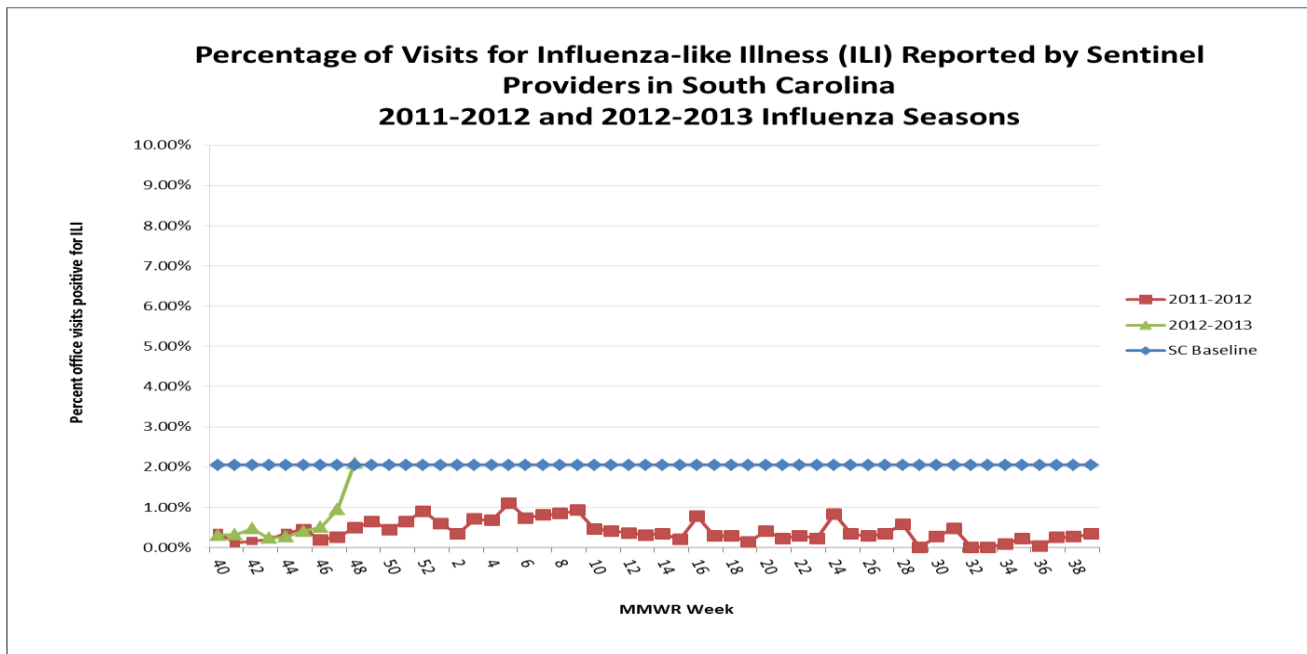
<b>MMWR Week 48 at a Glance:</b>	
<b>Influenza Activity Level: WIDESPREAD</b> Note: Activity level definitions are found on page 14	
<b>ILI Activity Status (South Carolina baseline is 2.05%*):</b> Above baseline in the Upstate (2.24%), below baseline in the Midlands (1.54%), and above baseline along the Coast (3.60%). The state ILI percentage was 2.10%. These data reflect reports from 19 (60%) providers.	
<b>SC Viral Isolate and RT-PCR Activity:</b> Forty-one positive specimens were reported. Since 9/30/12, 85 positive specimens have been reported.	
<b>Positive Rapid Flu Test Activity:</b> 3287 positive rapid tests were reported. Since 9/30/12, 5922 positive rapid tests have been reported.	
<b>Hospitalizations:</b> Sixty-eight lab confirmed hospitalizations were reported. Since 9/30/12, 131 hospitalizations have been reported.	
<b>Deaths:</b> Five lab confirmed deaths were reported.	

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

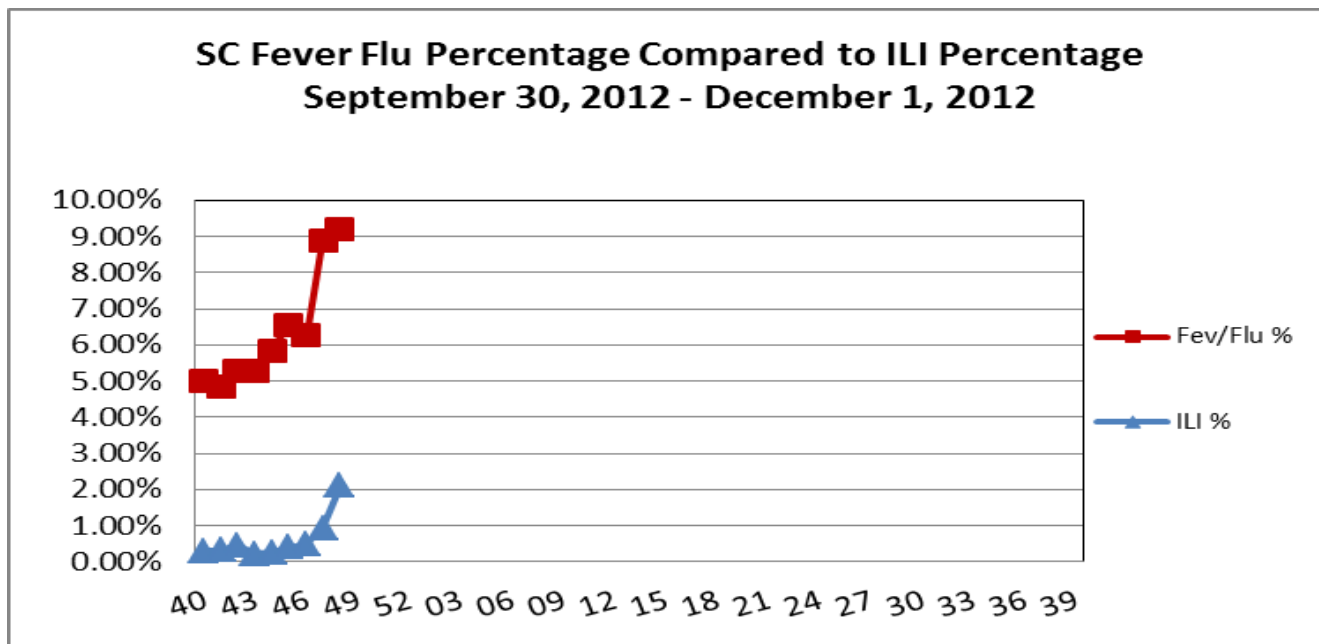
	<i>Current week</i>	<i>Previous week</i>	<i>Change from previous week</i>
Percent of ILI visits reported by ILINet providers	2.10%	.95%	▲ 1.65
Number of positive confirmatory tests	41	14	▲ 27
Number of lab confirmed flu hospitalizations	68	40	▲ 28
Number of lab confirmed flu deaths	5	0	▲ 5

## I. ILINet Influenza-Like Illness Surveillance

During the most recent MMWR week, 2.10% of patient visits to SC ILINet providers were due to ILI. This is above the state baseline (2.05%). This ILI percentage compares to .49 % this time last year. Reports were received from providers in 14 counties, representing 7 of the 8 regions. The statewide percentage of ER visits with fever-flu syndrome was 9.21%.



\*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.



\*Only includes hospitals participating in SC syndromic surveillance

## Influenza-Like Illness Reported by Sentinel Providers November 25, 2012 – December 1, 2012

County	ILI %	County	ILI %
Abbeville	---	Greenwood	NR
Aiken	1.08%	Hampton	1.08%
Allendale	---	Horry	NR
Anderson	5.26%	Jasper	NR
Bamberg	---	Kershaw	1.69%
Barnwell	---	Lancaster	---
Beaufort	NR	Laurens	NR
Berkeley	NR	Lee	---
Calhoun	---	Lexington	2.45%
Charleston	NR	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	5.88%
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	2.86%
Dillon	NR	Richland	1.80%
Dorchester	NR	Saluda	1.52%
Edgefield	---	Spartanburg	1.93%
Fairfield	---	Sumter	NR
Florence	.84%	Union	---
Georgetown	4.72%	Williamsburg	---
Greenville	2.18%	York	2.81%

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



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1 -2	2.24	9
Midlands-Regions 3-5	1.54	8
Coastal-Regions 6-8	3.60	2

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

## II. Virologic Surveillance

<i>Positive confirmatory influenza test results*</i> <i>Current MMWR Week (11/25/12 – 12/1/12)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	19	NA
<b>Number of positive specimens</b>	15	26
<b>Influenza A unsubtype</b>		18
<b>Influenza A H1N1</b>	1	1
<b>Influenza A H3N2</b>	14	7
<b>Influenza B</b>		
<b>Other</b>		

Includes culture, RT-PCR, DFA, and IFA

During the previous MMWR week, 41 positive specimens were reported.

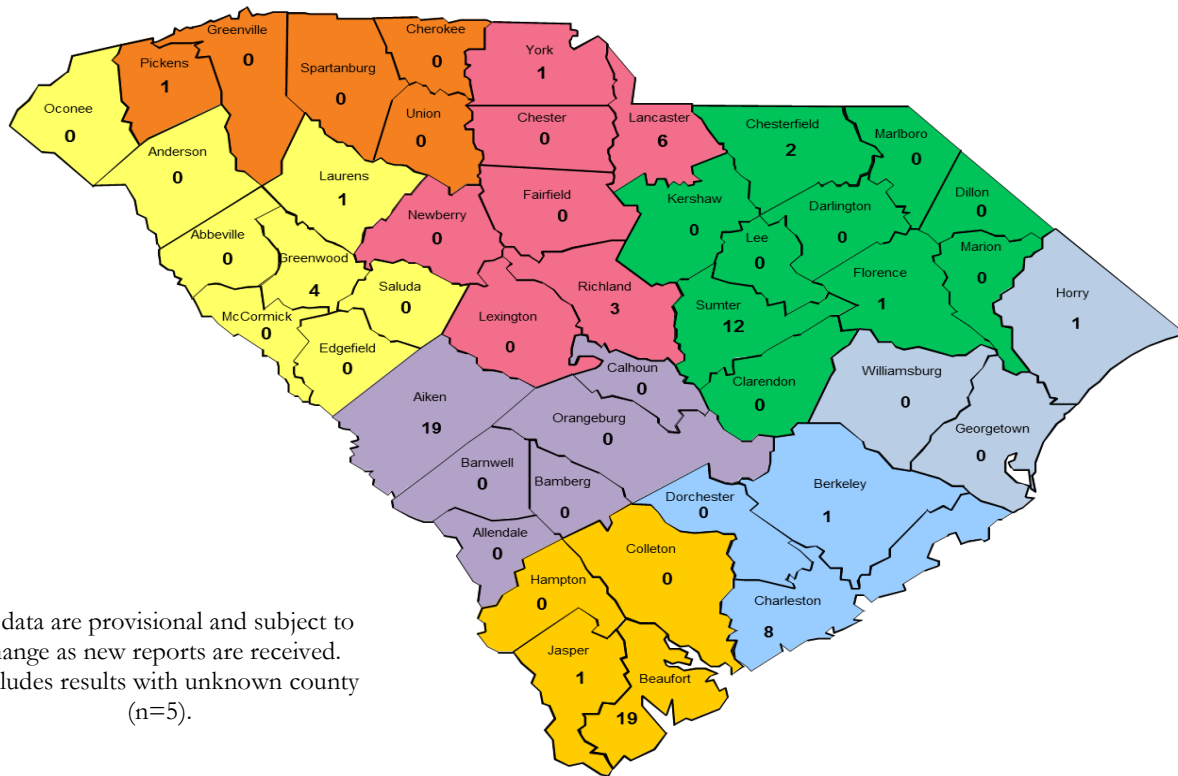
<i>Positive confirmatory influenza test results*</i> <i>Cumulative (09/30/12 – 12/1/12)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	70	NA
<b>Number of positive specimens</b>	49 (70%)	36
<b>Influenza A unsubtype</b>		19 (52.8%)
<b>Influenza A H1N1</b>	13 (26.5%)	3 (8.3%)
<b>Influenza A H3N2</b>	31 (63.2%)	12 (33.3%)
<b>Influenza B</b>	5 (10.2%)	2 (5.6%)
<b>Other</b>		

Includes culture, RT-PCR, DFA, and IFA

**Positive Confirmatory Tests by County**  
**Current Week 11/25/12 – 12/1/12**

County	Positive Tests	County	Positive Tests	County	Positive Tests
Abbeville		Dillon		Marion	
Aiken	17	Dorchester		Marlboro	
Allendale		Edgefield		McCormick	
Anderson		Fairfield		Newberry	
Bamberg		Florence	1	Oconee	
Barnwell		Georgetown		Orangeburg	
Beaufort	3	Greenville		Pickens	1
Berkeley		Greenwood	4	Richland	
Calhoun		Hampton		Saluda	
Charleston	4	Horry	1	Spartanburg	
Cherokee		Jasper	1	Sumter	2
Chester		Kershaw		Union	
Chesterfield	1	Lancaster	2	Williamsburg	
Clarendon		Laurens	1	York	1
Colleton		Lee		Unknown	2
Darlington		Lexington			

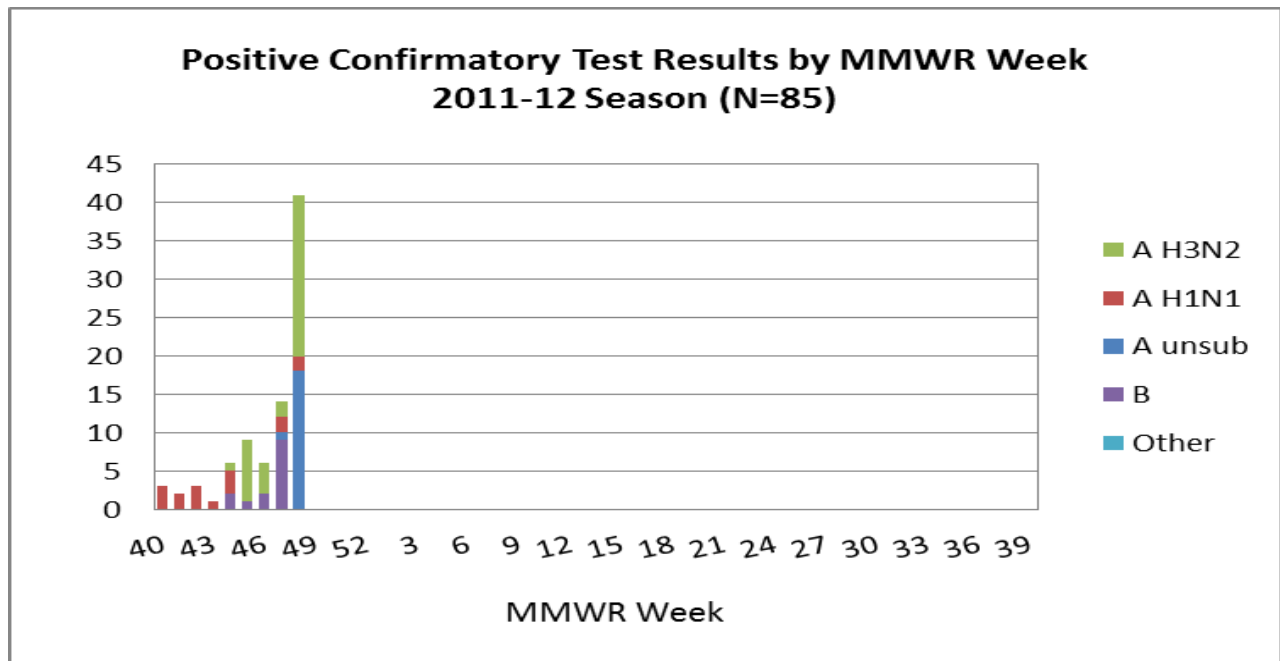
**Map of Positive Confirmatory Tests by County**  
**Cumulative 09/30/12 – 12/1/12**



All data are provisional and subject to change as new reports are received. Excludes results with unknown county (n=5).

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

	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						Cherokee					
Anderson						Greenville					
Edgefield						Pickens		1			
Greenwood						Spartanburg					
Laurens		5				Union					
McCormick						<b>Region 4</b>					
Oconee						Chesterfield		1	1		
Saluda						Clarendon					
<b>Region 3</b>						Darlington					
Chester						Dillon					
Fairfield						Florence		1			
Lancaster		5		1		Kershaw					
Lexington						Lee					
Newberry						Marion					
Richland			2	1		Marlboro					
York	1					Sumter		12			
<b>Region 5</b>						<b>Region 6</b>					
Aiken	1	2		16		Georgetown					
Allendale						Horry		1			
Bamberg						Williamsburg					
Barnwell						<b>Region 8</b>					
Calhoun						Beaufort	15	3	1		
Orangeburg						Colleton					
<b>Region 7</b>			1			Hampton					
Berkeley						Jasper		1			
Charleston		7	1			Unknown		4	1		
Dorchester											

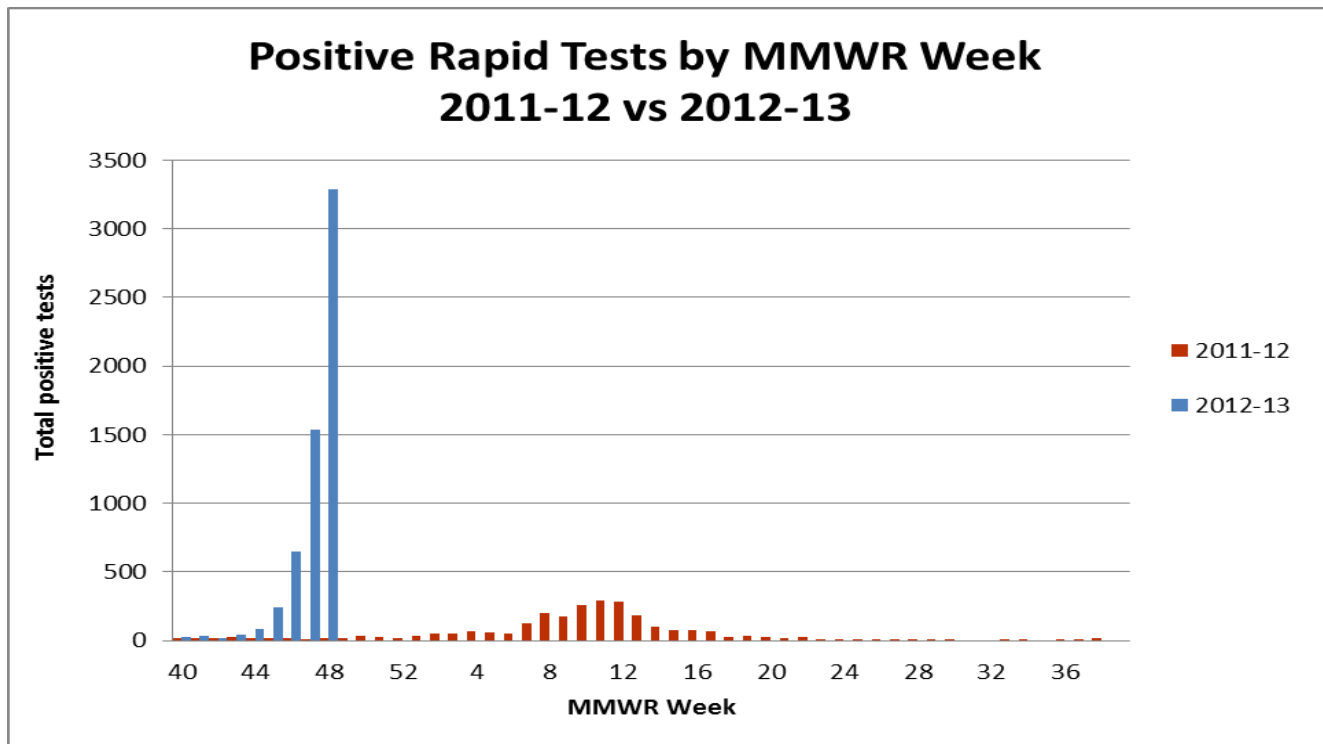


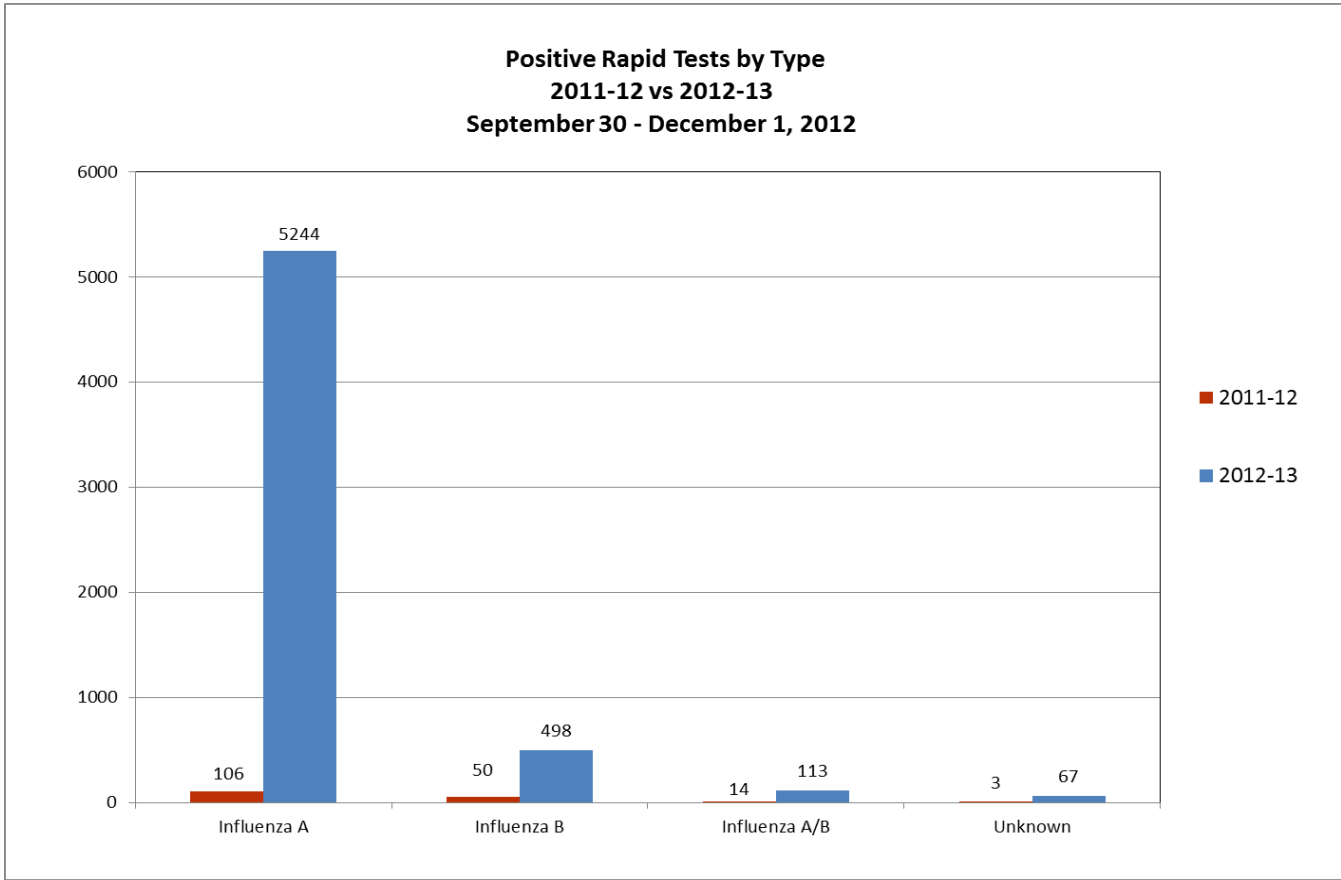
### III. Positive Rapid Antigen Tests

During the past MMWR week, 3287 positive rapid antigen tests were reported. Of these, 2969 were influenza A, 185 were influenza B, 66 were influenza A/B, and 67 were unknown. This compares to 19 this time last year. 5922 positive rapid tests have been reported this year.

#### Positive Rapid Flu Tests by County November 25, 2012 – December 1, 2012

County	Positive Tests	County	Positive Tests	County	Positive Tests
Abbeville	17	Dillon	3	Lexington	194
Aiken	139	Dorchester		Marion	1
Allendale	3	Edgefield	25	Marlboro	6
Anderson	336	Fairfield	2	McCormick	
Bamberg		Florence	132	Newberry	14
Barnwell	15	Georgetown		Oconee	87
Beaufort		Greenville	565	Orangeburg	80
Berkeley	15	Greenwood	74	Pickens	200
Calhoun		Hampton		Richland	398
Charleston	168	Horry	103	Saluda	2
Cherokee		Jasper		Spartanburg	82
Chester	27	Kershaw	82	Sumter	58
Chesterfield	19	Lancaster	126	Union	3
Clarendon	17	Laurens	21	Williamsburg	
Colleton		Lee	1	York	224
Darlington	48				





#### IV. Influenza hospitalizations and deaths

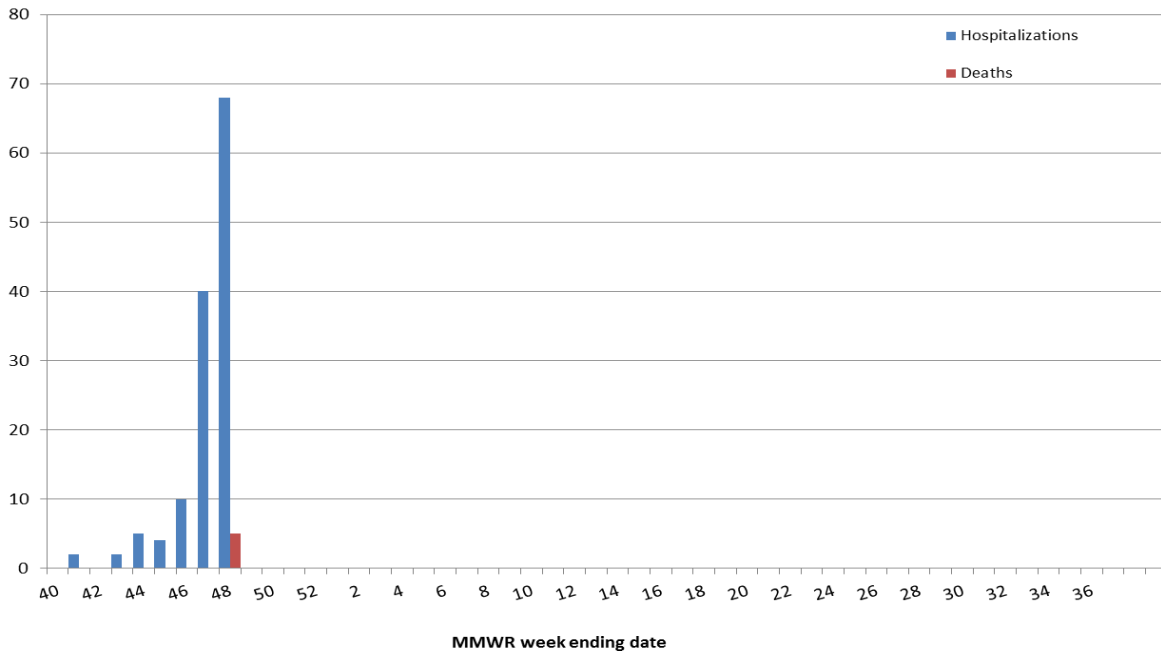
During the past MMWR week, 68 lab confirmed\* influenza hospitalizations were reported. Five lab confirmed deaths were reported.

	Total number*	
<b>Number of Reporting Hospitals (Current week)</b>	37	
	<i>Current MMWR Week (11/25- 12/1/12)</i>	<i>Cumulative (since 09/30/12)</i>
<b>Hospitalizations</b>	68	131
<b>Deaths</b>	5	5

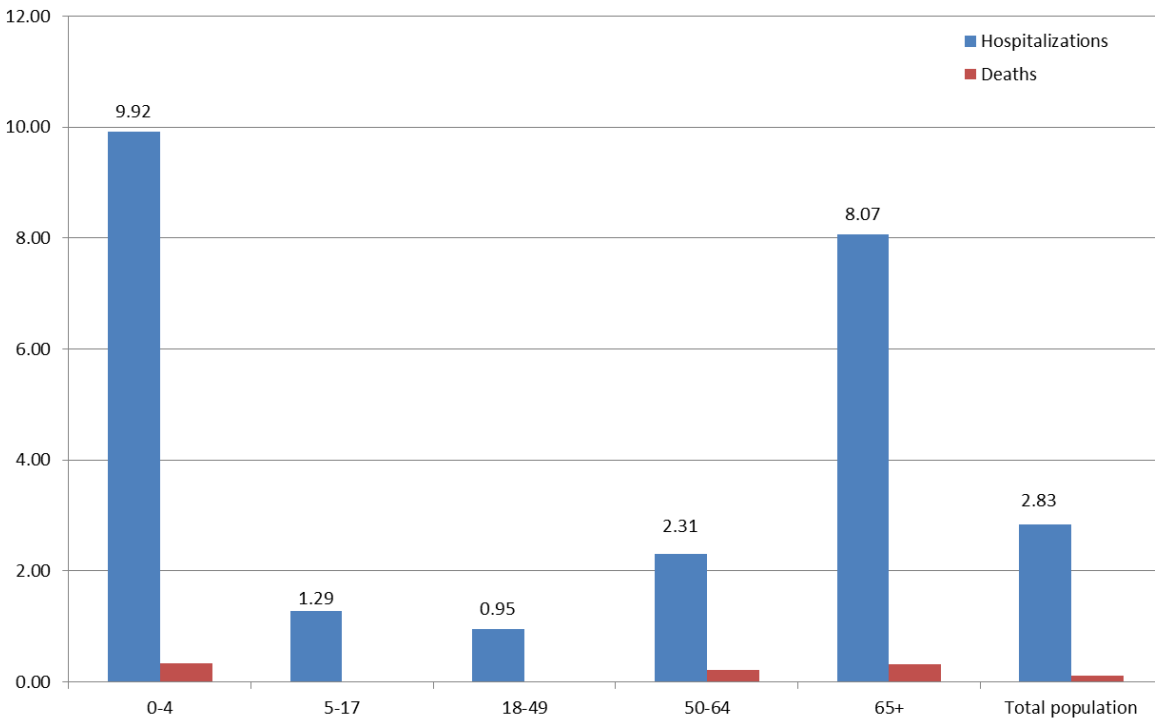
\*These data are provisional. Lab confirmation for hospitalizations and deaths includes culture, PCR, DFA, IFA, and rapid test.



**Reported Cases of Laboratory Confirmed Influenza Hospitalizations and Deaths  
by MMWR week  
September 30, 2012 - December 1, 2012**

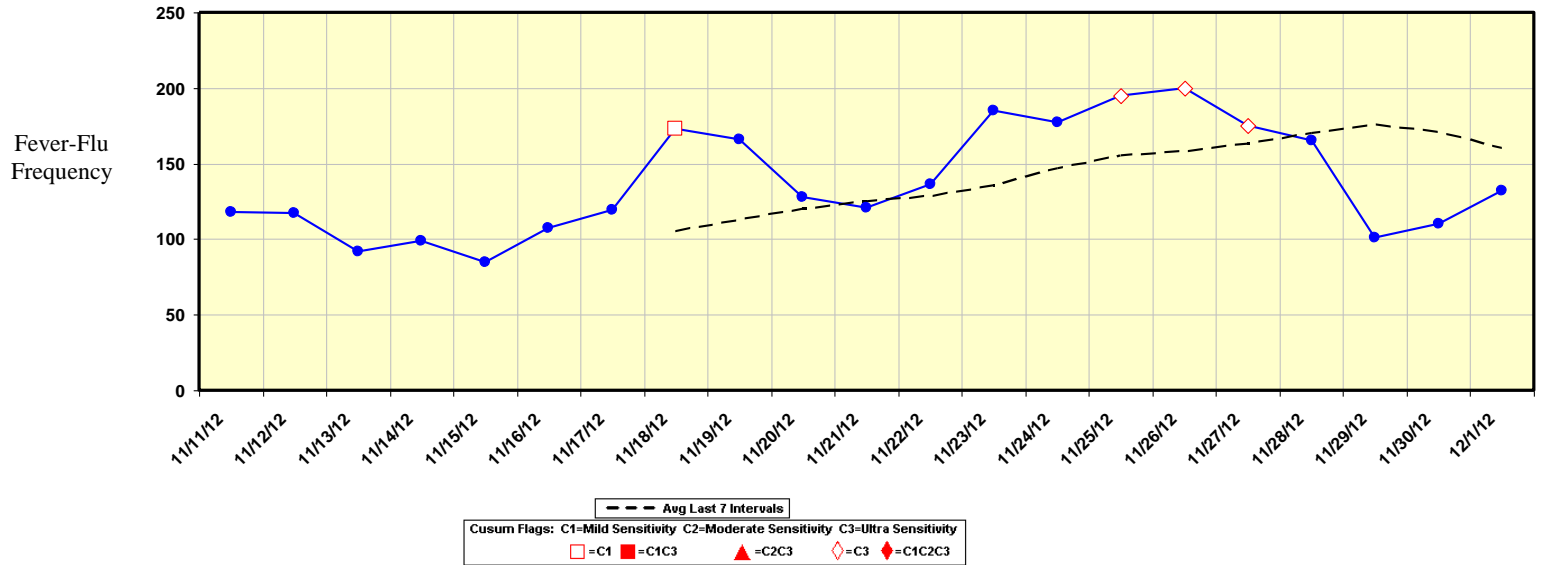


**Laboratory Confirmed Influenza Case rate/100,000  
Hospitalizations (n=131) and Deaths (n=5) by age group  
September 30, 2012 - December 1, 2012**



## 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

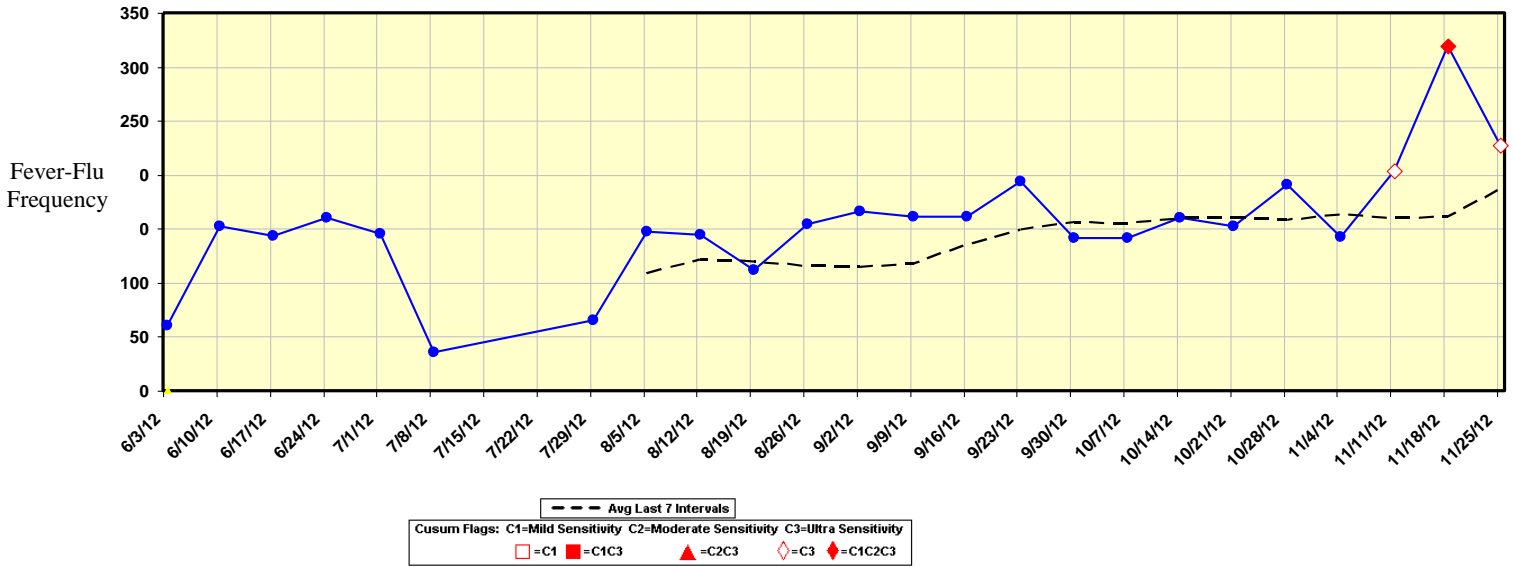
The SC Statewide Fever-Flu Syndrome graph above illustrates the daily counts of hospital emergency department (ED) visits with an Influenza-like Illness (ILI) for the past 21 days. A total of 21 hospital facilities are reporting to the SC-DARTS system. These 21 include: AnMed Health (Region 1); Self 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.

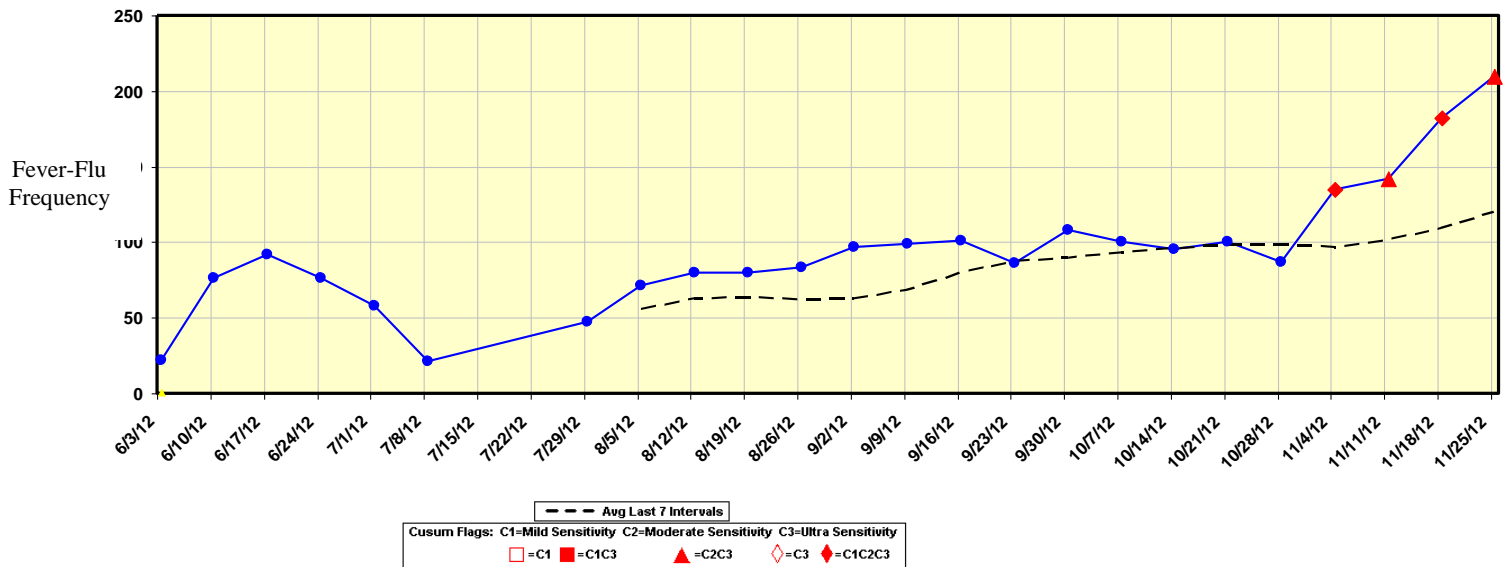
Below are the fever-flu syndrome graphs by Region for the past 180 days (weekly interval).

### Region 1 - Fever Flu Syndrome



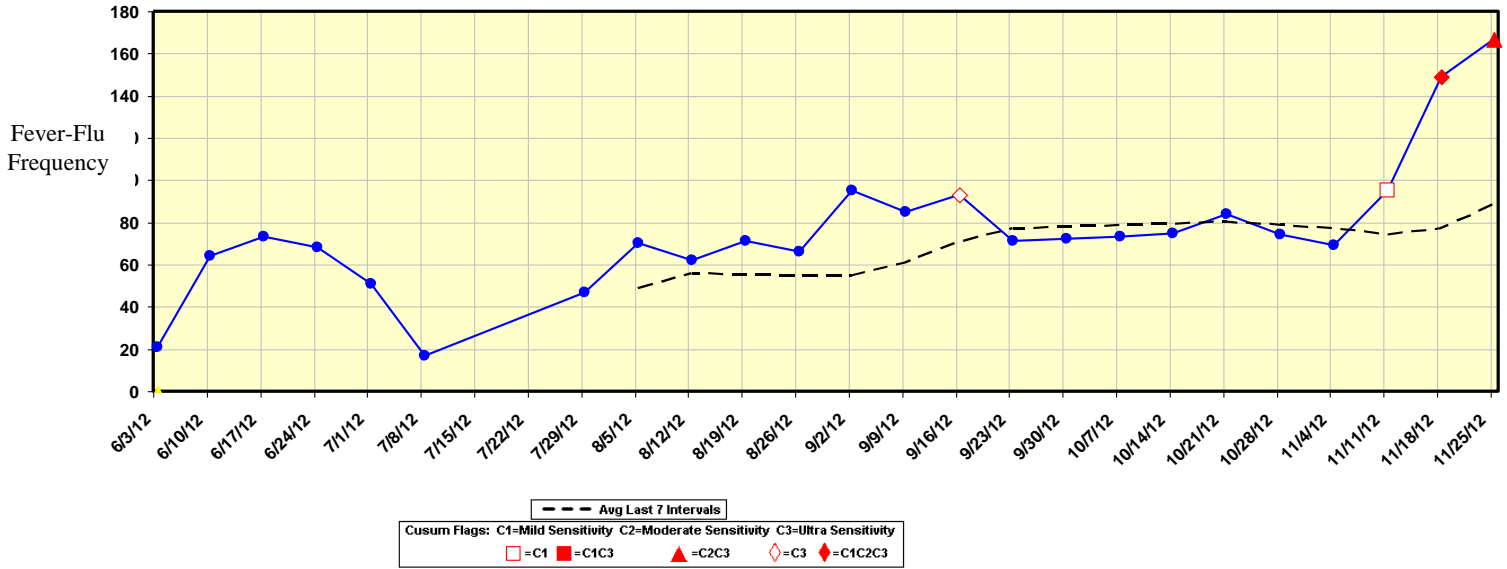
Region1 Hospitals (# of Facilities): AnMed Health (3); Self-Regional (1); Oconee Medical Center (1);

### Region 2 - Fever Flu Syndrome



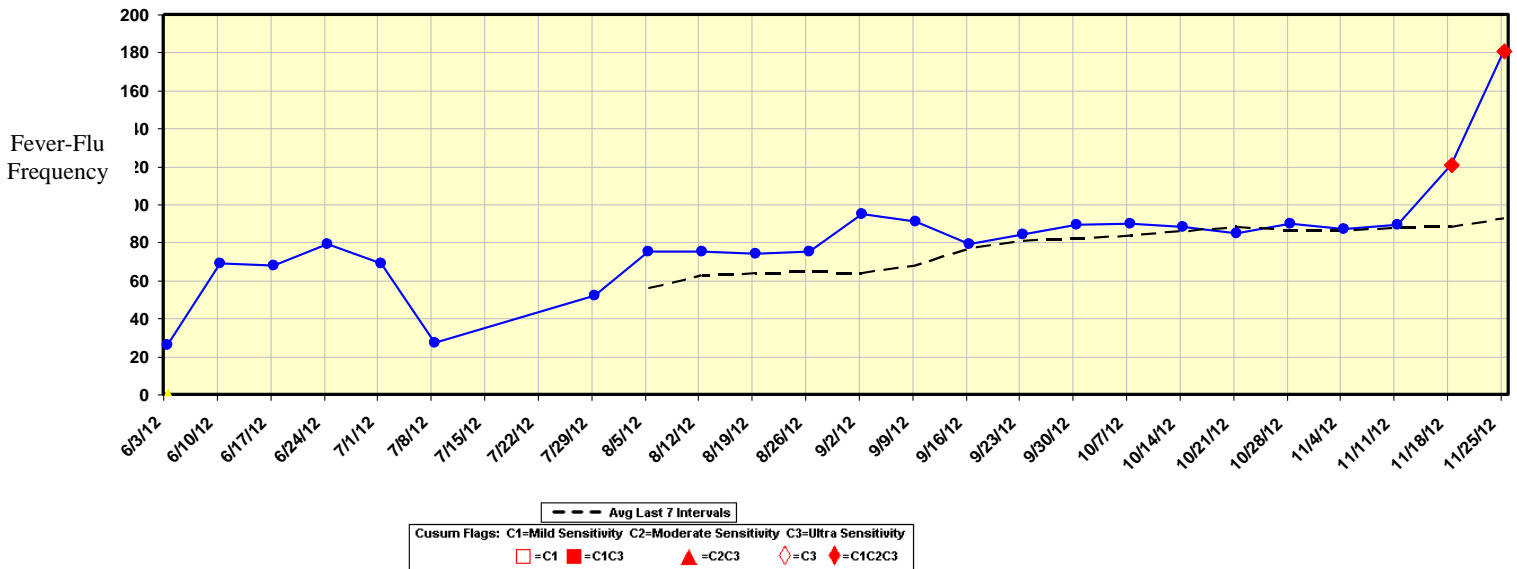
Region 2 Hospitals (# of Facilities): Greenville Hospital System (4); Palmetto Health Easley (1)

### Region 3 - Fever Flu Syndrome



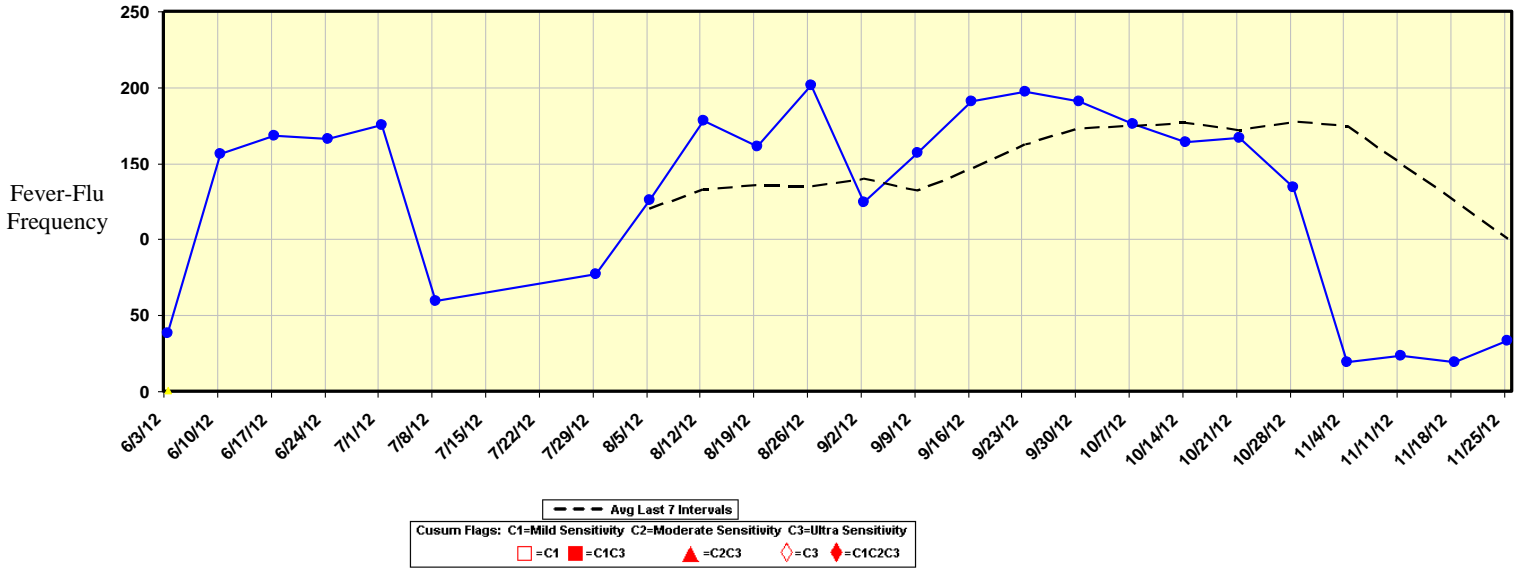
Region 3 Hospitals (# of Facilities): Palmetto Health Baptist (1), Palmetto Health Richland (1)

### Region 4 - Fever Flu Syndrome



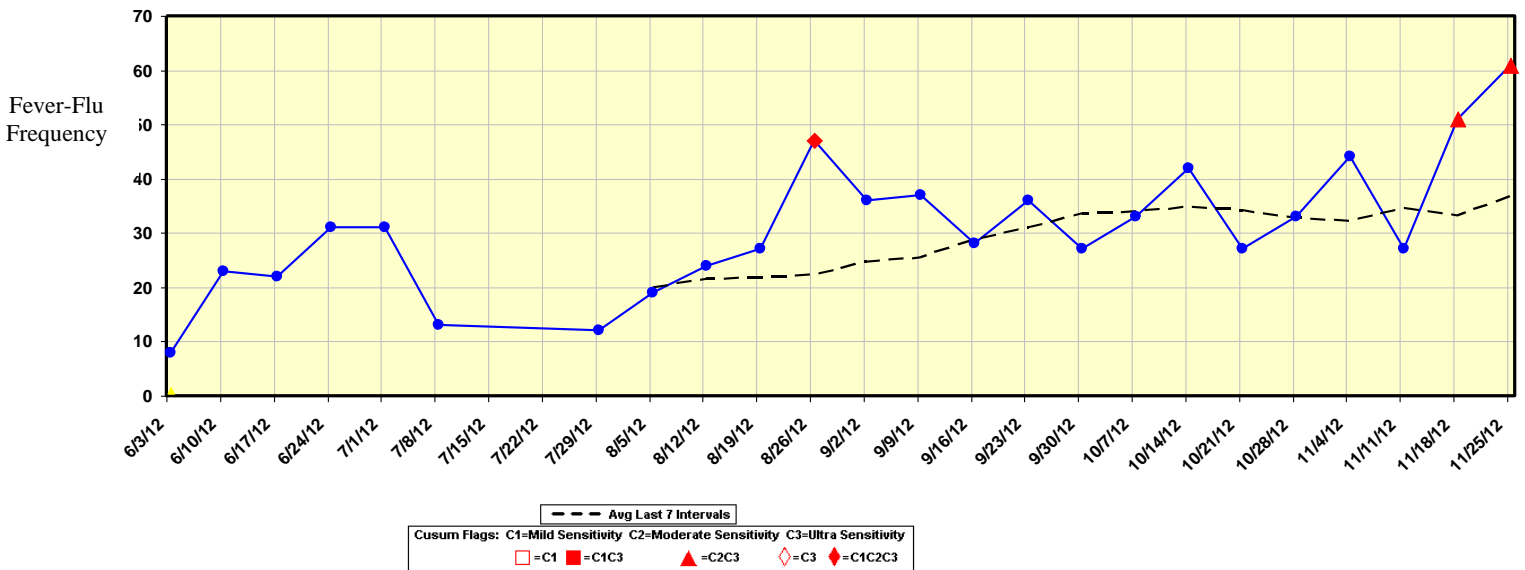
Region 4 Hospitals (# of Facilities): Kershaw Health (1); McLeod Health (1); Elgin Urgent Care (1)

### 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>Local</b>	<b>OR</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
<b>Regional</b>	Increased ILI in 2-3 regions	<b>And</b>	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
	<b>OR</b>		
<b>Regional</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>OR</b>		
<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.

## 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)**.

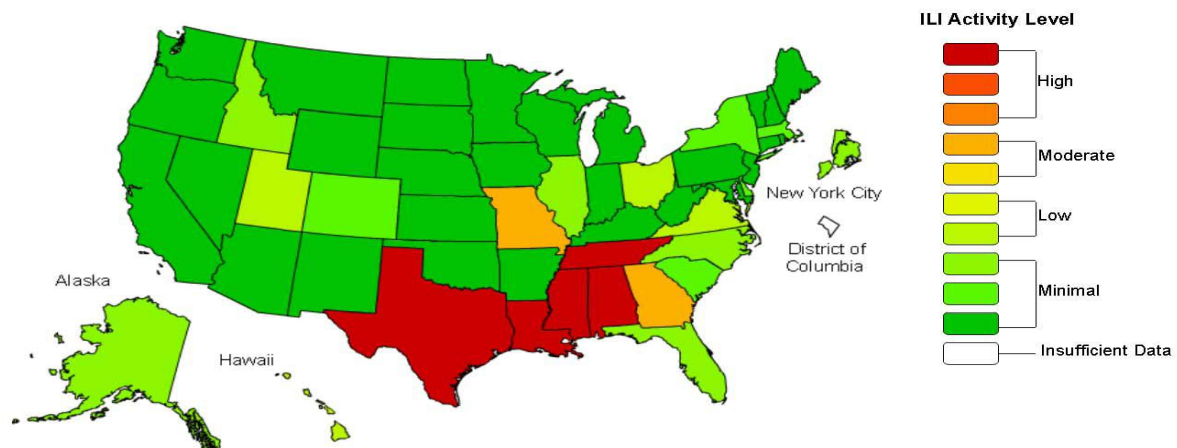
## VIII. National Surveillance MMWR Week 47 (11/18-11/24)

During week 47 (November 18-24, 2012), influenza activity increased in the U.S.

- o **Viral Surveillance:** Of 5,342 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 47, 812 (15.2%) were positive for influenza.
- o **Novel Influenza A Virus:** One human infection with a novel influenza A virus was reported.
- o **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- o **Influenza-associated Pediatric Deaths:** No influenza-associated pediatric deaths were reported.
- o **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 2.2%, which is at the national baseline of 2.2%. Five regions reported ILI above region-specific baseline levels. Five states experienced high ILI activity, two states experienced moderate ILI activity; 4 states experienced low ILI activity; New York City and 39 states experienced minimal ILI activity, and the District of Columbia had insufficient data.
- o **Geographic Spread of Influenza:** The geographic spread of influenza in 4 states was reported as widespread; 7 states reported regional activity; 19 states reported local activity; the District of Columbia and 18 states reported sporadic activity; Guam and 1 state reported no influenza activity, and Puerto Rico, the U.S. Virgin Islands and 1 state 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 47 ending Nov 24, 2012**



\*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.