

# Flu Watch

Week Ending November 17, 2012 (MMWR Week 46)

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

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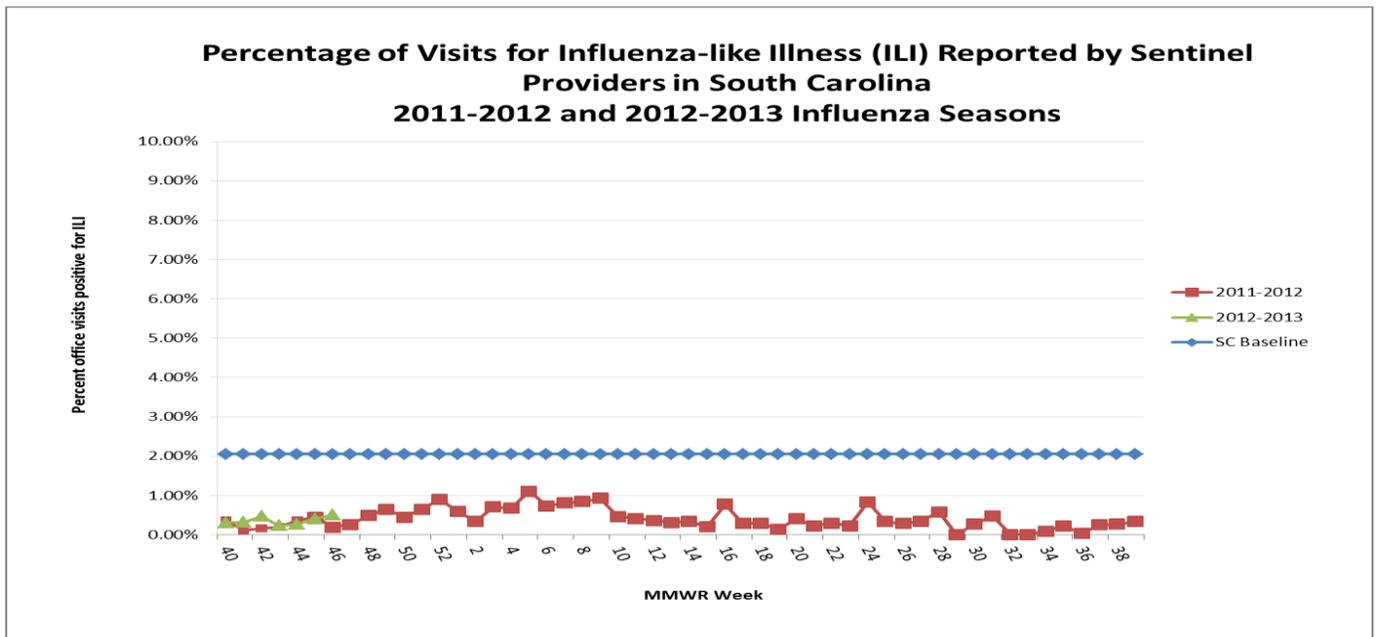
MMWR Week 46 at a Glance:
<p><b>Influenza Activity Level: Sporadic</b>            Note: Activity level definitions are found on page 14</p>
<p><b>ILI Activity Status (South Carolina baseline is 2.05%*):</b> Below baseline in the Upstate (.53%), Midlands (.45%), and along the Coast (62%). The state ILI percentage was .50%. These data reflect reports from 16 (50%) providers.</p>
<p><b>SC Viral Isolate and RT-PCR Activity:</b> Six positive specimens were reported. Since 9/30/12, 30 positive specimens have been reported.</p>
<p><b>Positive Rapid Flu Test Activity:</b> 540 positive rapid test was reported. Since 9/30/12, 744 positive rapid tests have been reported.</p>
<p><b>Hospitalizations:</b> Ten lab confirmed hospitalizations were reported. Since 9/30/12, 21 hospitalizations have been reported.</p>
<p><b>Deaths:</b> No lab confirmed deaths were reported.</p>

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

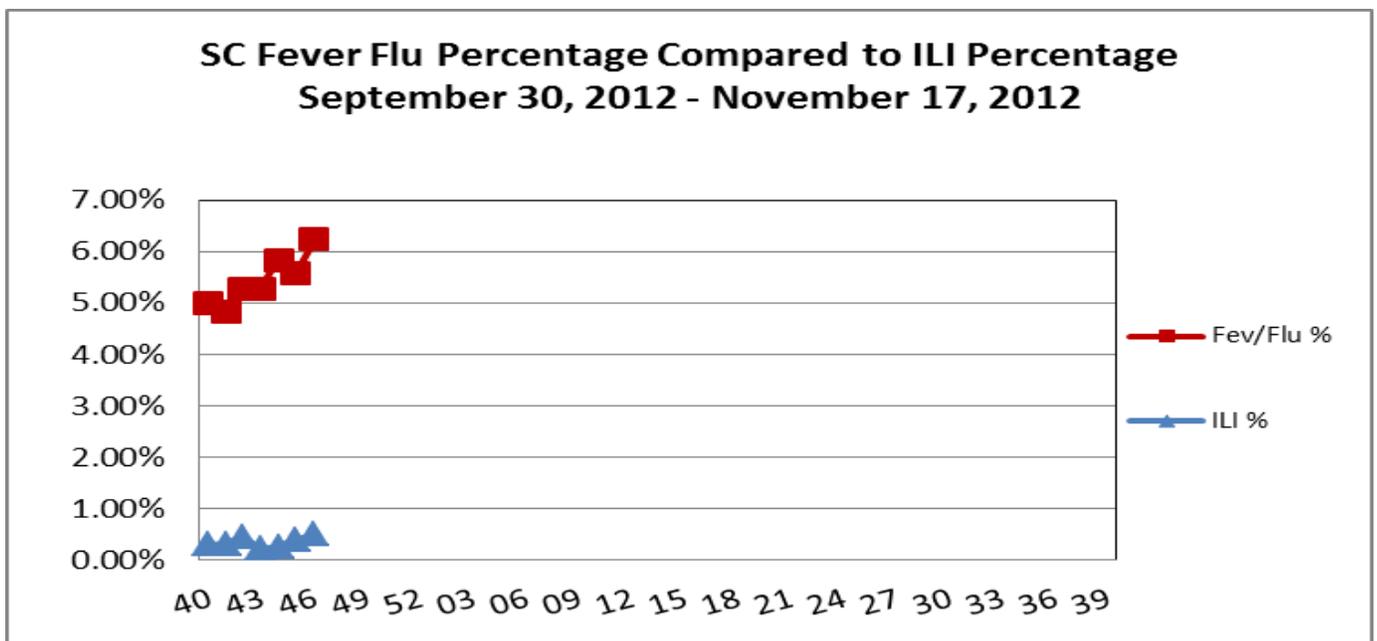
	<i>Current week</i>	<i>Previous week</i>	<i>Change from previous week</i>
Percent of ILI visits reported by ILINet providers	.50%	.41%	▲ .09
Number of positive confirmatory tests	6	9	▼ 3
Number of lab confirmed flu hospitalizations	10	3	▲ 7
Number of lab confirmed flu deaths	0	0	0

## I. ILINet Influenza-Like Illness Surveillance

During the most recent MMWR week, .50% of patient visits to SC ILINet providers were due to ILI. This is below the state baseline (2.05%). This ILI percentage compares to .19 % 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 6.25%.



\*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.

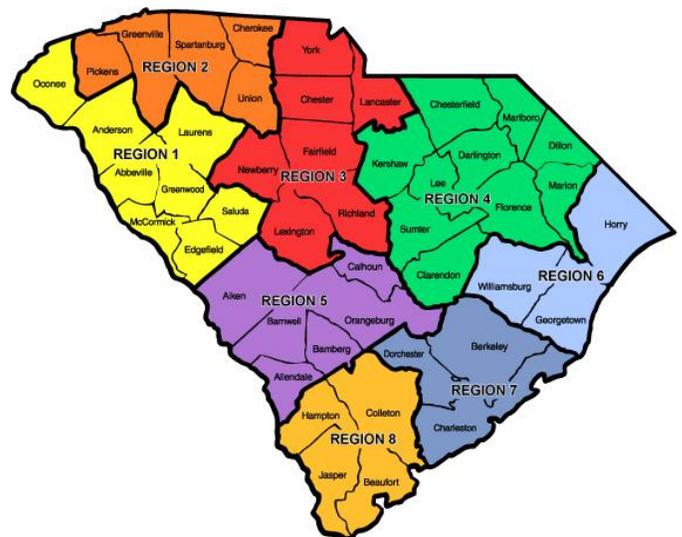


\*Only includes hospitals participating in SC syndromic surveillance

## Influenza-Like Illness Reported by Sentinel Providers November 11, 2012 – November 17, 2012

County	ILI %	County	ILI %
Abbeville	---	Greenwood	NR
Aiken	0%	Hampton	0%
Allendale	---	Horry	NR
Anderson	1.69%	Jasper	NR
Bamberg	---	Kershaw	0%
Barnwell	---	Lancaster	---
Beaufort	NR	Laurens	NR
Berkeley	NR	Lee	---
Calhoun	---	Lexington	NR
Charleston	NR	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	.82%
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	0%
Dillon	NR	Richland	.59%
Dorchester	NR	Saluda	0%
Edgefield	---	Spartanburg	1.55%
Fairfield	---	Sumter	NR
Florence	.52%	Union	---
Georgetown	.90%	Williamsburg	---
Greenville	.26%	York	.64%

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



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1 -2	.53	8
Midlands-Regions 3-5	.45	6
Coastal-Regions 6-8	.62	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 (11/11/12 - 11/17/12)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	7	NA
<b>Number of positive specimens</b>	5	1
<b>Influenza A unsubtype</b>		
<b>Influenza A H1N1</b>		
<b>Influenza A H3N2</b>	3	1
<b>Influenza B</b>	2	
<b>Other</b>		

Includes culture, RT-PCR, DFA, and IFA

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

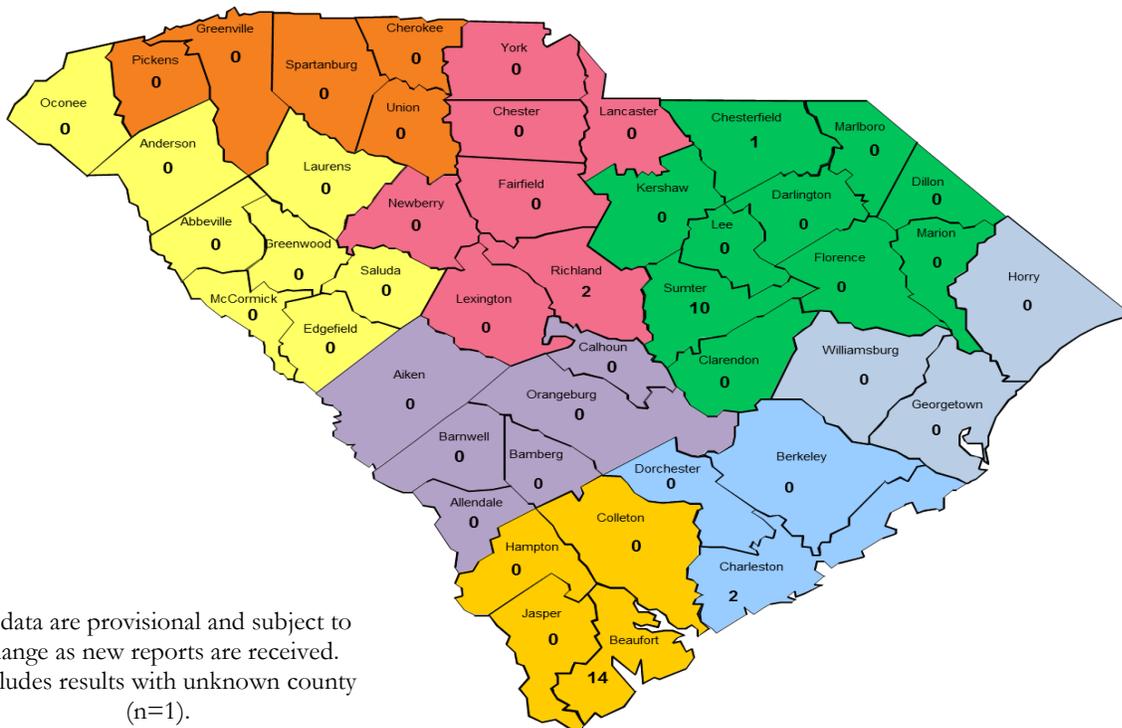
<i>Positive confirmatory influenza test results*</i> <i>Cumulative (09/30/12 - 11/17/12)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	40	NA
<b>Number of positive specimens</b>	24 (60%)	6
<b>Influenza A unsubtype</b>		
<b>Influenza A H1N1</b>	10 (41.7%)	2 (33.3%)
<b>Influenza A H3N2</b>	10 (41.7%)	3 (50%)
<b>Influenza B</b>	4 (16.7%)	1 (16.7%)
<b>Other</b>		

Includes culture, RT-PCR, DFA, and IFA

**Positive Confirmatory Tests by County  
Current Week 11/11/12 – 11/17/12**

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

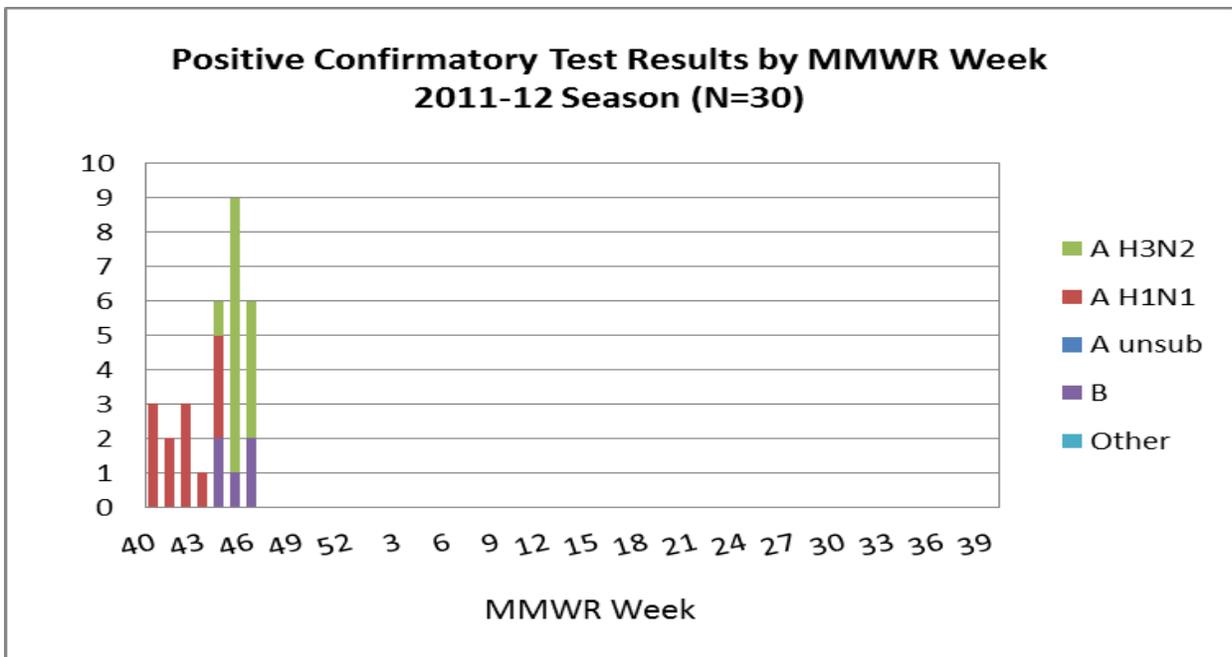
**Map of Positive Confirmatory Tests by County  
Cumulative 09/30/12 – 11/17/12**



All data are provisional and subject to change as new reports are received. Excludes results with unknown county (n=1).

**Positive Confirmatory Tests by County and Type  
Cumulative 9/30/12 – 11/17/12**

	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					
Greenwood						Spartanburg					
Laurens						Union					
McCormick						<b>Region 4</b>					
Oconee						Chesterfield			1		
Saluda						Clarendon					
<b>Region 3</b>						Darlington					
Chester						Dillon					
Fairfield						Florence					
Lancaster						Kershaw					
Lexington						Lee					
Newberry						Marion					
Richland			2			Marlboro					
York						Sumter		10			
<b>Region 5</b>						<b>Region 6</b>					
Aiken						Georgetown					
Allendale						Horry					
Bamberg						Williamsburg					
Barnwell						<b>Region 8</b>					
Calhoun						Beaufort	12	1	1		
Orangeburg						Colleton					
<b>Region 7</b>						Hampton					
Berkeley						Jasper					
Charleston		1	1			Unknown		1			
Dorchester											



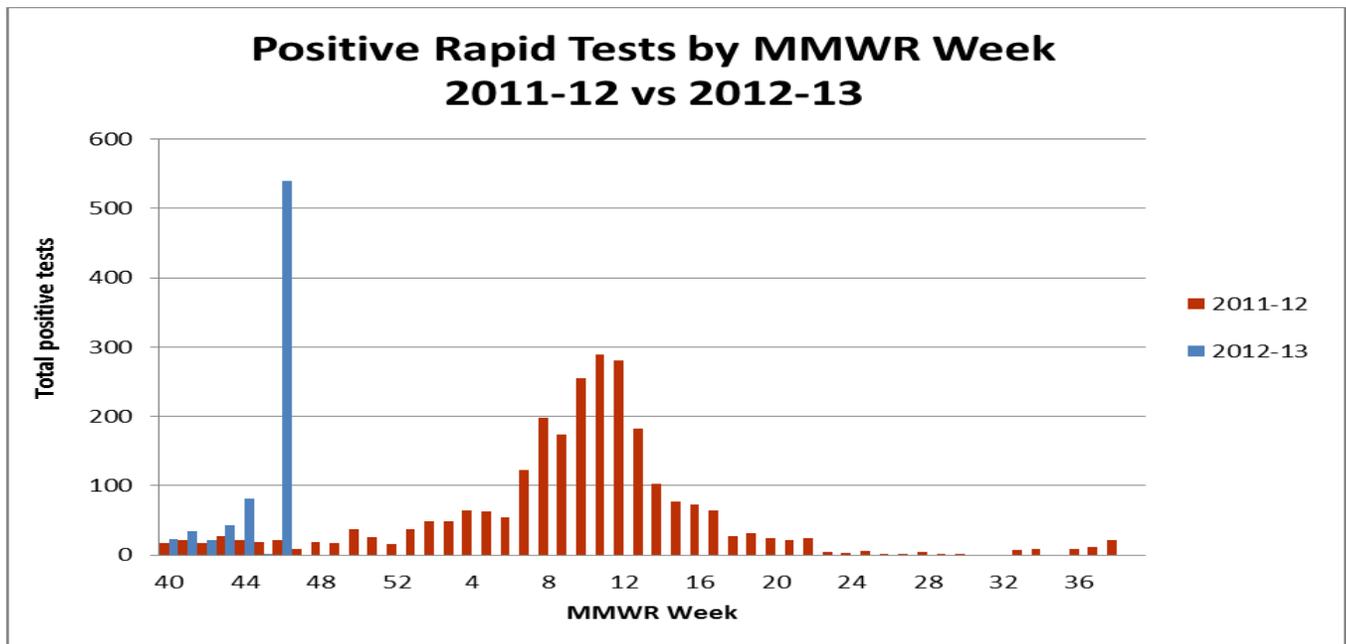
### III. Positive Rapid Antigen Tests

During the past MMWR week, 540 positive rapid antigen tests were reported. Of these, 458 were influenza A, 77 were influenza B and 5 were influenza A/B. This compares to 22 this time last year. 744 positive rapid tests have been reported this year.

#### Positive Rapid Flu Tests by County November 11, 2012 – November 17, 2012

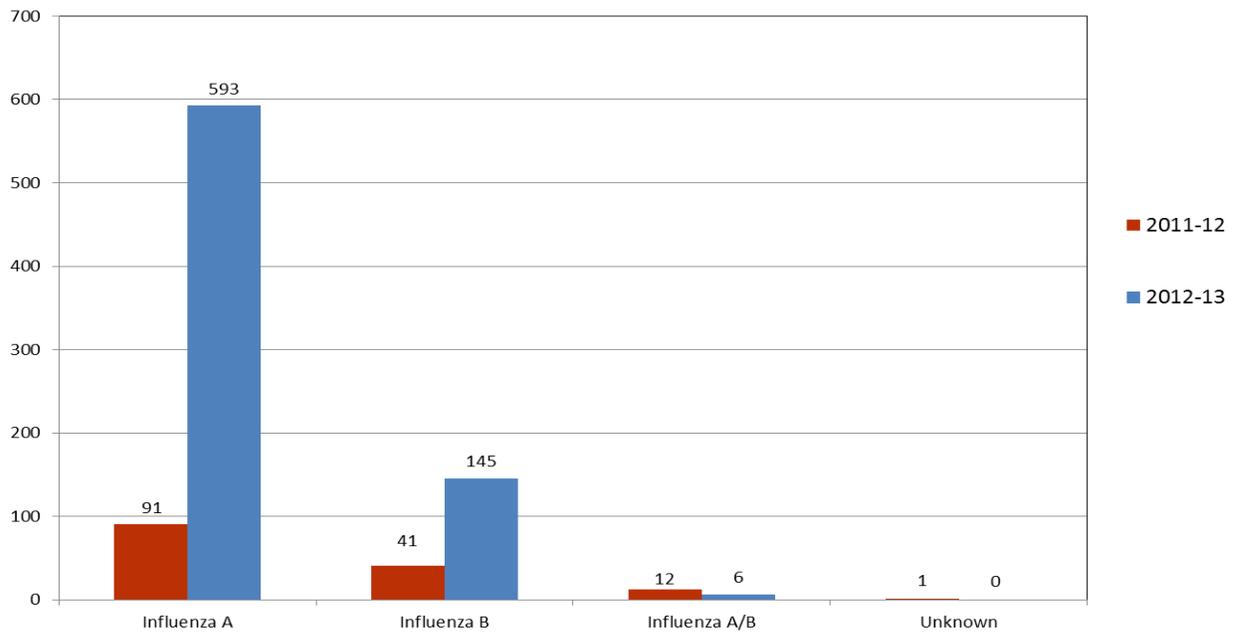
County	Positive Tests	County	Positive Tests	County	Positive Tests
Abbeville	1	Dillon		Lexington	8
Aiken	28	Dorchester	14	Marion	
Allendale		Edgefield		Marlboro	
Anderson	46	Fairfield	1	McCormick	
Bamberg		Florence	20	Newberry	
Barnwell		Georgetown		Oconee	34
Beaufort		Greenville	121	Orangeburg	
Berkeley	5	Greenwood	9	Pickens	39
Calhoun		Hampton		Richland	81
Charleston	36	Horry		Saluda	
Cherokee		Jasper		Spartanburg	11
Chester		Kershaw	15	Sumter	38
Chesterfield		Lancaster	12	Union	
Clarendon	1	Laurens	5	Williamsburg	
Colleton		Lee		York	11
Darlington	4				

\*Data reporting may have been affected by the Veteran's Day holiday.



\*\* The dramatic increase in positive rapid tests for the previous can partially be attributed to the Veterans Day holiday and delayed reporting.

**Positive Rapid Tests by Type  
2011-12 vs 2012-13  
September 30 - November 17, 2012**



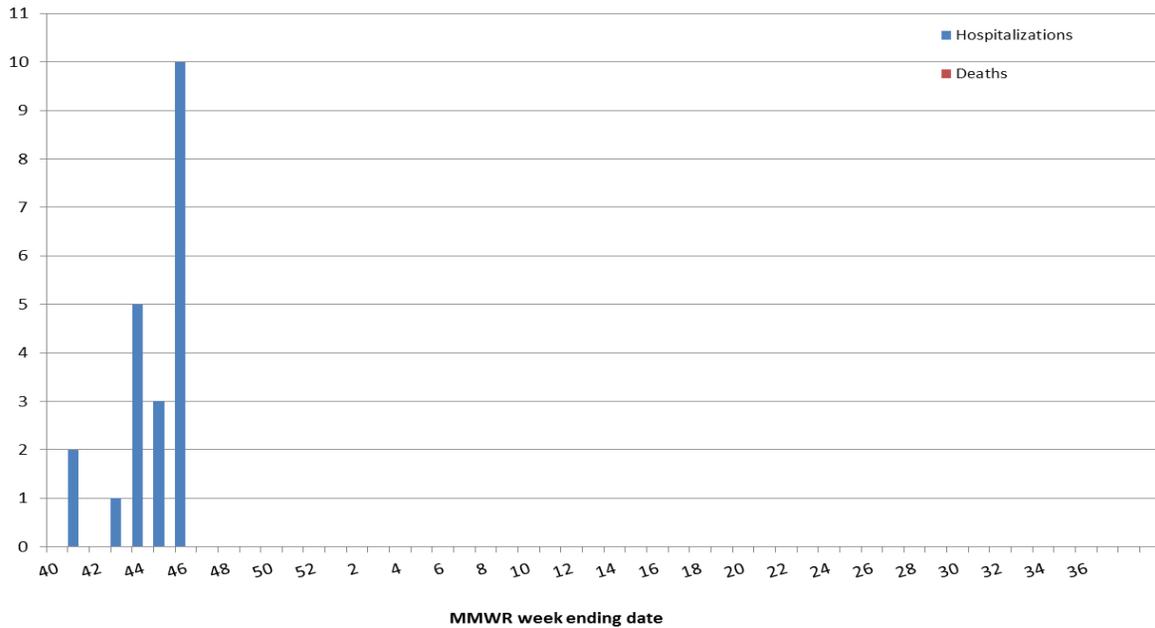
#### *IV. Influenza hospitalizations and deaths*

During the past MMWR week, ten lab confirmed\* influenza hospitalizations were reported. No lab confirmed deaths were reported.

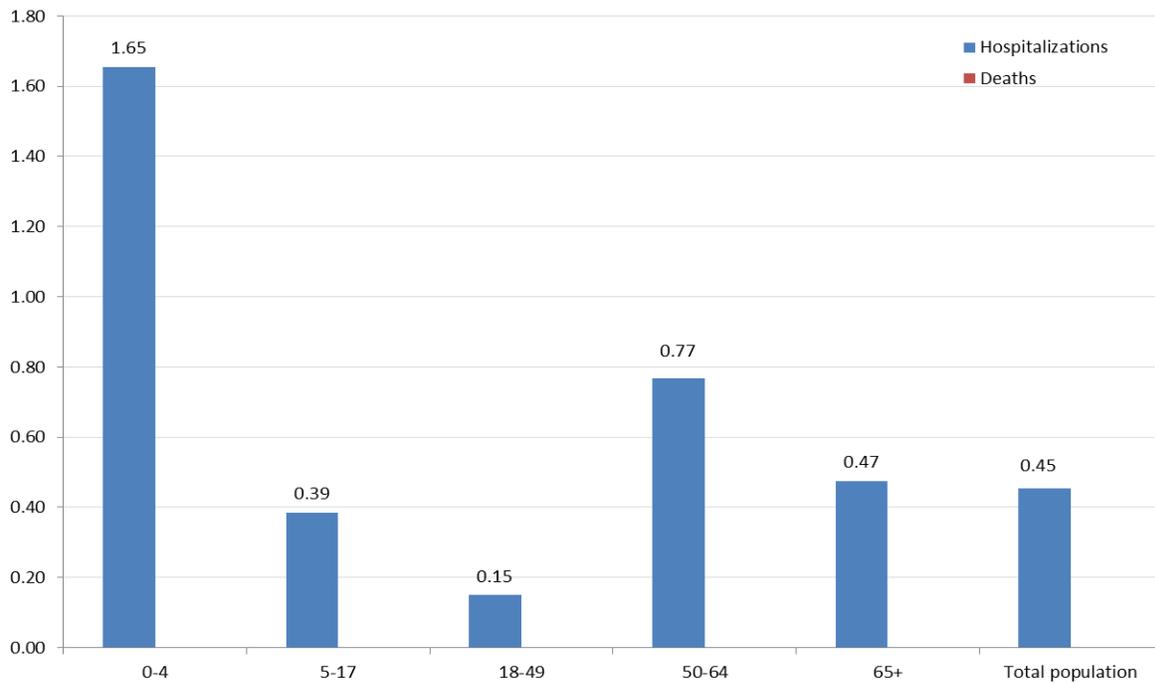
	Total number*	
Number of Reporting Hospitals (Current week)	35	
	<i>Current MMWR Week (11/11- 11/17/12)</i>	<i>Cumulative (since 09/30/12)</i>
Hospitalizations	10	21*
Deaths	0	0

\*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 - November 17, 2012**

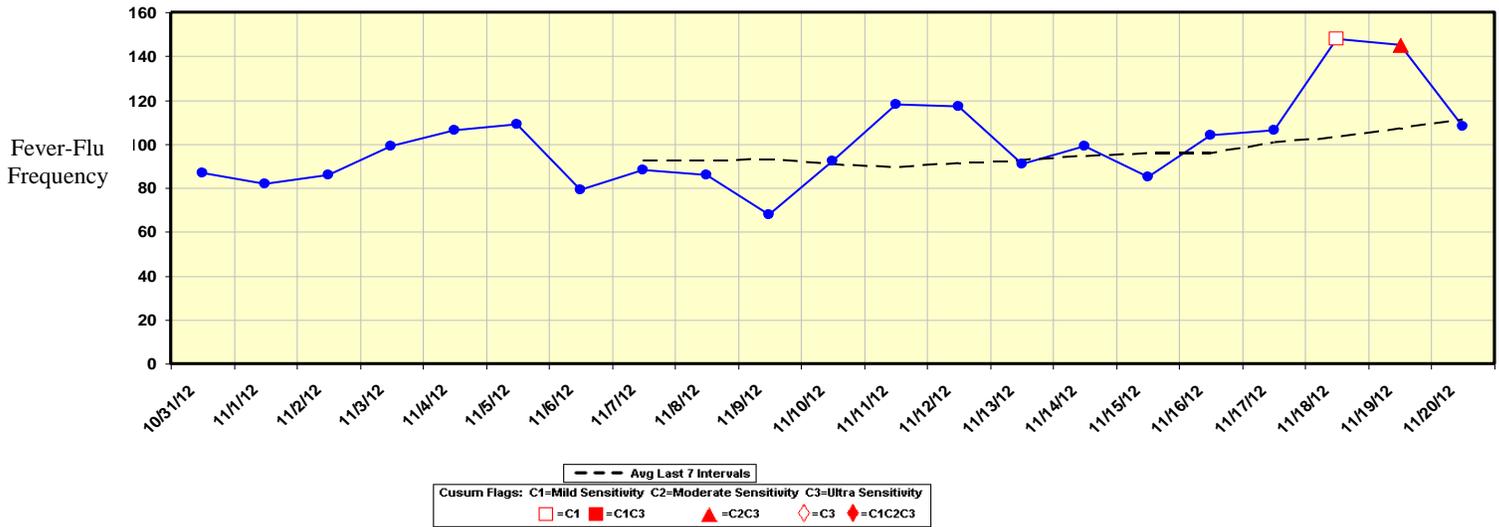


**Laboratory Confirmed Influenza Case rate/100,000  
Hospitalizations (n=21) and Deaths (n=0) by age group  
September 30, 2012 - November 17, 2012**



# 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

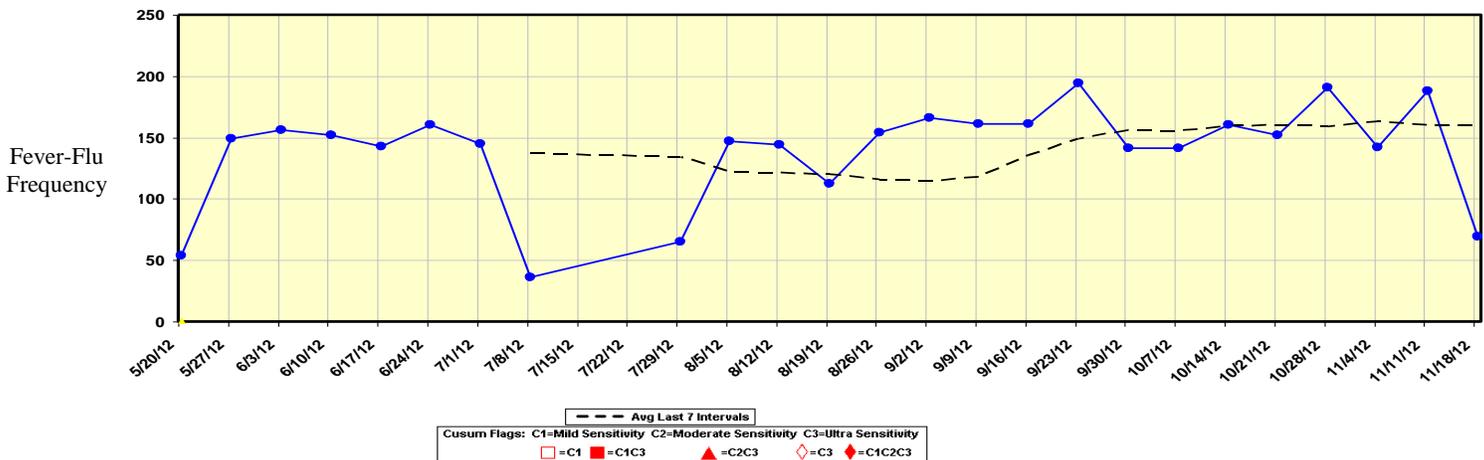
The SC Statewide Fever-Flu Syndrome graph above illustrates the daily counts of hospital emergency department (ED) visits with an Influenza-like Illness (ILI) for the past 21 days. A total of 21 hospital facilities are reporting to the SC-DARTS system. These 21 include: AnMed Health (Region 1); Self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

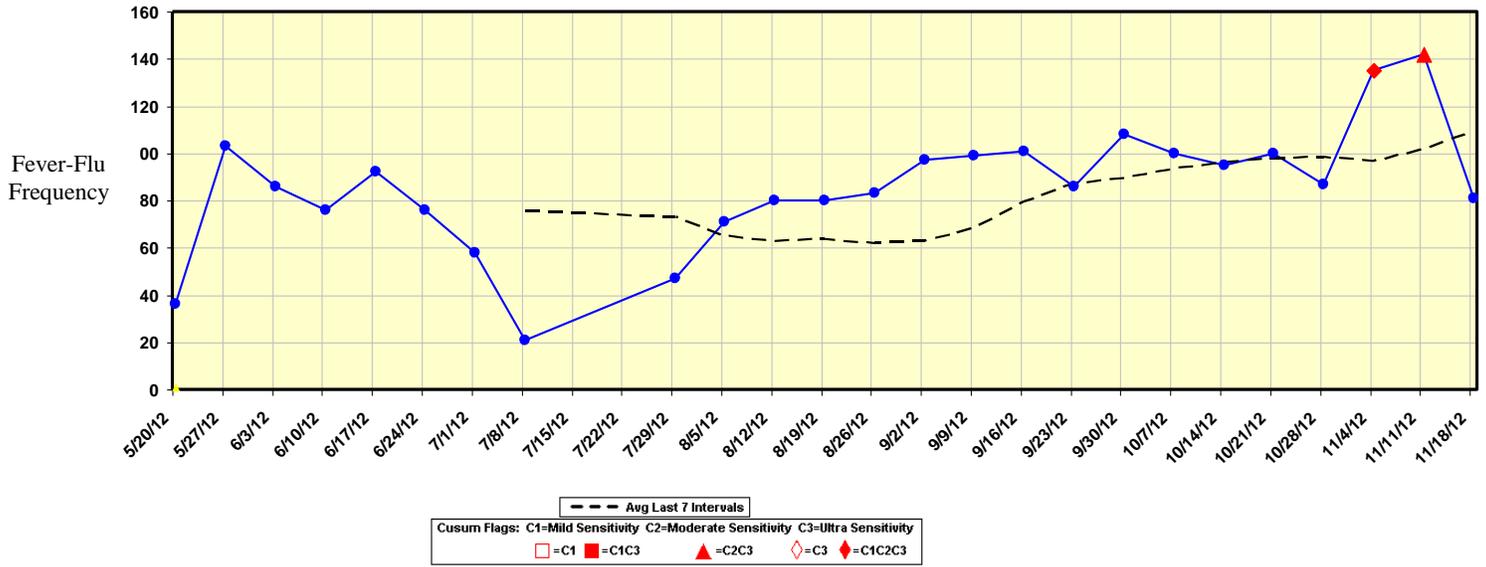
Below are the fever-flu syndrome graphs by Region for the past 180 days (weekly interval).

## Region 1 - Fever Flu Syndrome



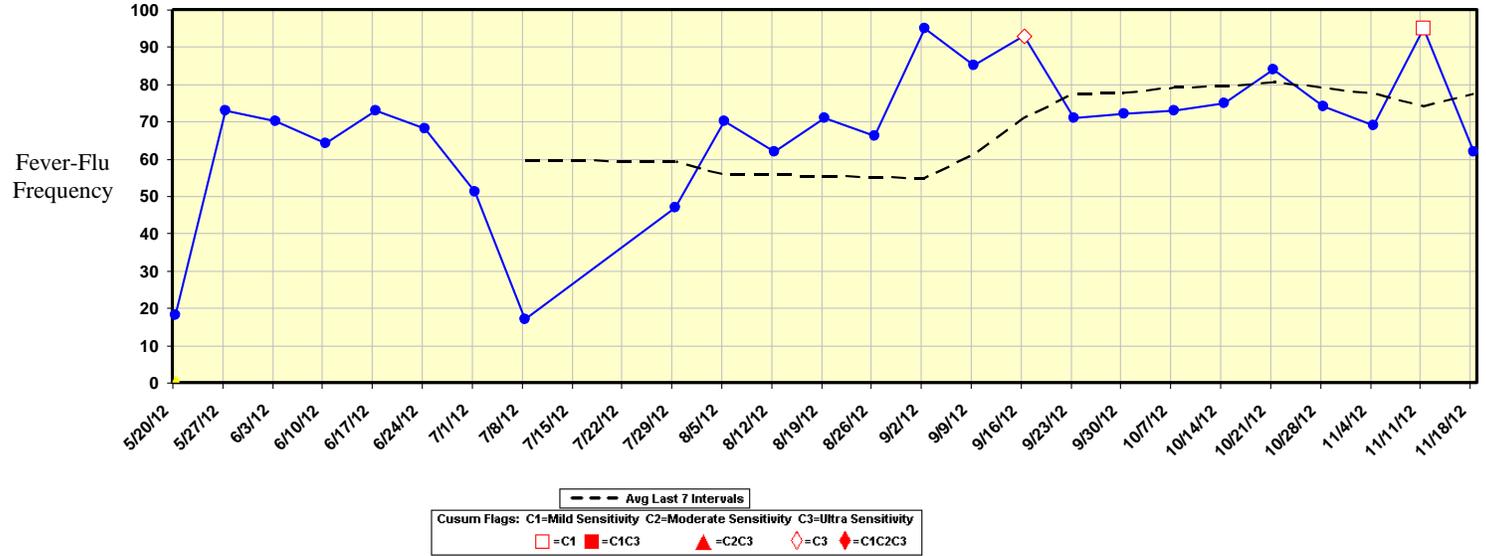
Region1 Hospitals (# of Facilities): AnMed Health (3); Self-Regional (1); Oconee Medical Center (1);

### Region 2 - Fever Flu Syndrome



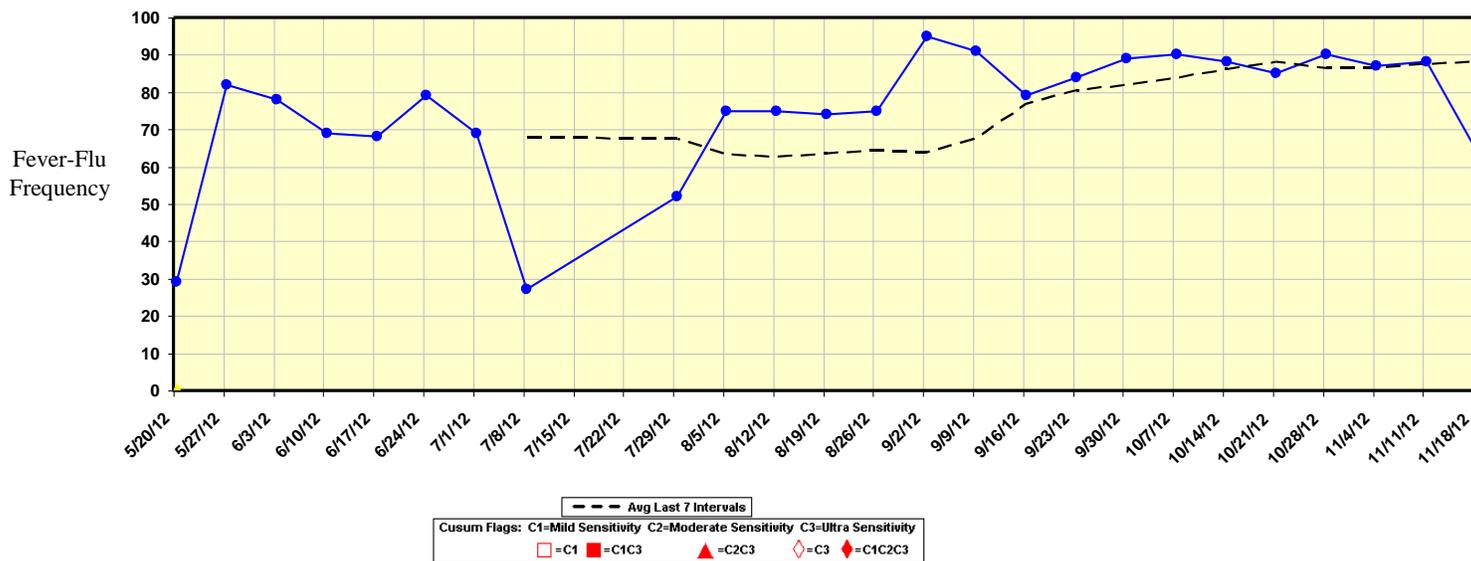
Region 2 Hospitals (# of Facilities): Greenville Hospital System (4); Palmetto Health Easley (1)

### Region 3 - Fever Flu Syndrome



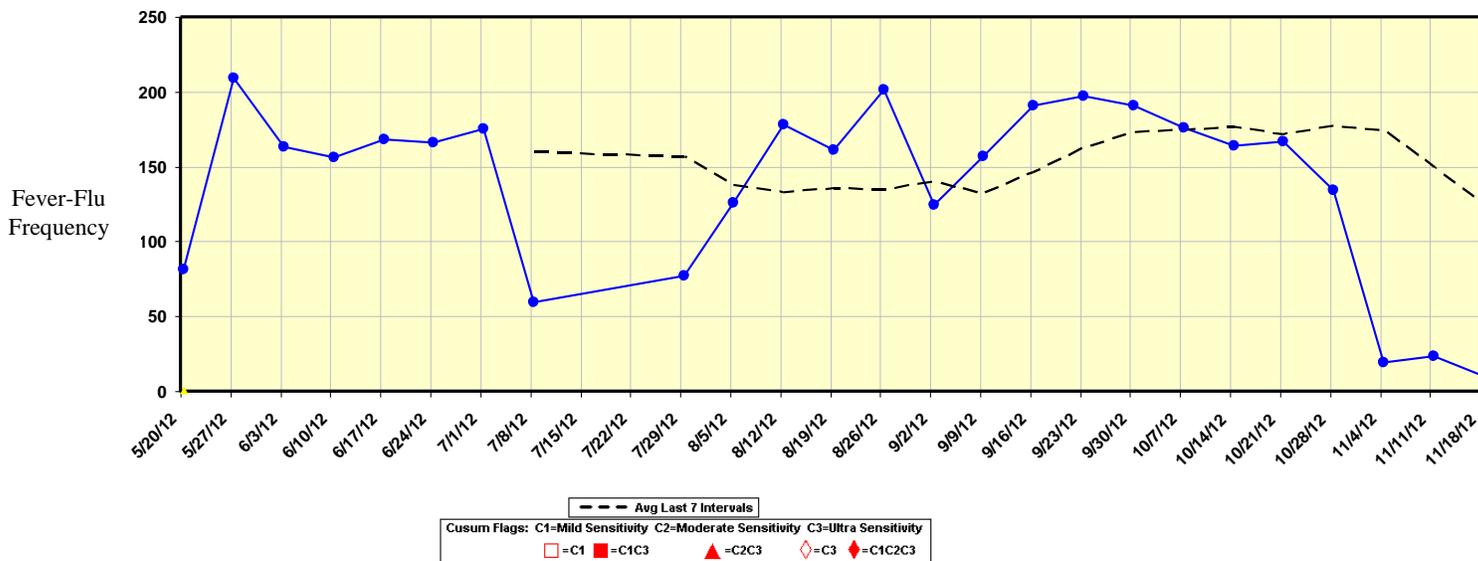
Region 3 Hospitals (# of Facilities): Palmetto Health Baptist (1), Palmetto Health Richland (1)

### Region 4 - Fever Flu Syndrome



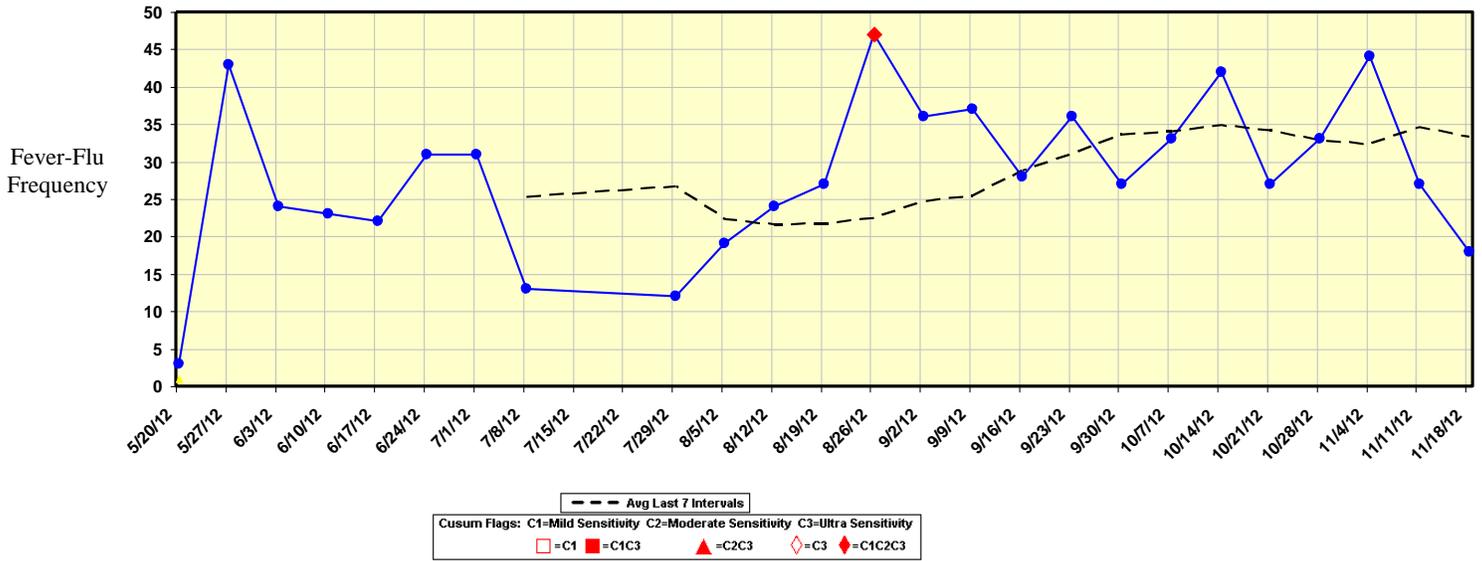
Region 4 Hospitals (# of Facilities): Kershaw Health (1); McLeod Health (1); Elgin Urgent Care (1)

### 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



## VI. 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
	Not increased	And	OR Lab confirmed outbreak in one institution
Local	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
	2 or more institutional outbreaks (ILI or lab confirmed) in 1 region; ILI activity in other regions is not increased	And	OR 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
Regional	Increased ILI in 2-3 regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
	Institutional outbreaks (ILI or lab confirmed) in 2-3 regions	And	OR Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
Widespread	Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least 4 of the regions	And	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)**.

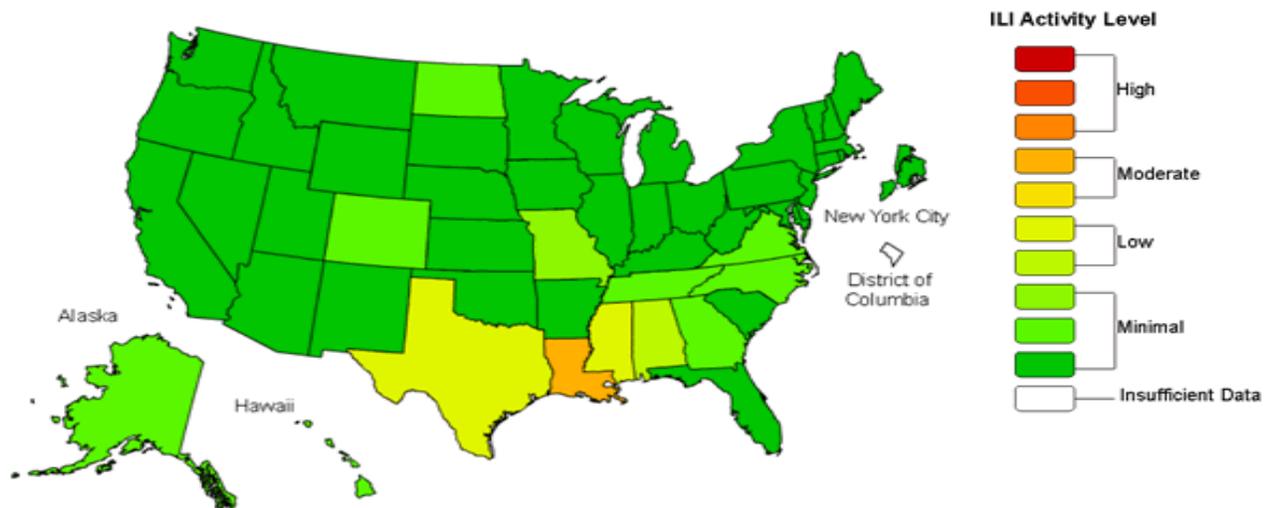
## VIII. National Surveillance MMWR Week 45 (11/4-11/10)

During week 45 (November 4-10, 2012), influenza activity increased in the United States.

- **Viral Surveillance:** Of 4,147 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 45, 311 (7.5%) were positive for influenza.
- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- **Influenza-associated Pediatric Deaths:** No influenza-associated pediatric deaths were reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 1.4%, which is below the national baseline of 2.2%. All 10 regions reported ILI below region-specific baseline levels. One state experienced moderate ILI activity, three states experienced low ILI activity; New York City and 46 states experienced minimal ILI activity, and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza:** The geographic spread of influenza in 4 states was reported as regional; 8 states reported local activity; the District of Columbia and 32 states reported sporadic activity; Guam and 5 states 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 45 ending Nov 10, 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.