



# Flu Watch 2010-11 Season

South Carolina Department of Health and Environmental Control  
 Division of Acute Disease Epidemiology  
 Influenza Surveillance Weekly Report

<http://www.scdhec.gov/health/disease/acute/flu.htm>

## Week Ending November 13, 2010 (MMWR Week 45)

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

### Highlights:

#### Influenza Activity Level: Sporadic

Note: Activity level definitions are found on page 15

**ILI Activity Status (South Carolina baseline is 2.05%\*):** Below baseline in the Upstate (.18%), Midlands (.17%) and along the Coast (1.54%). The state ILI percentage was .48%. These data reflect reports from 18 (40.9%) providers.

Note: See map of counties on page 3 for regional descriptions

**SC Viral Isolate and RT-PCR Activity:** No positive cultures or PCRs were reported by any lab. Since October 3, 2010, 2 specimens tested by our BOL have been positive for influenza.

**Positive Rapid Flu Test Activity:** There were 58 positive rapid tests reported.

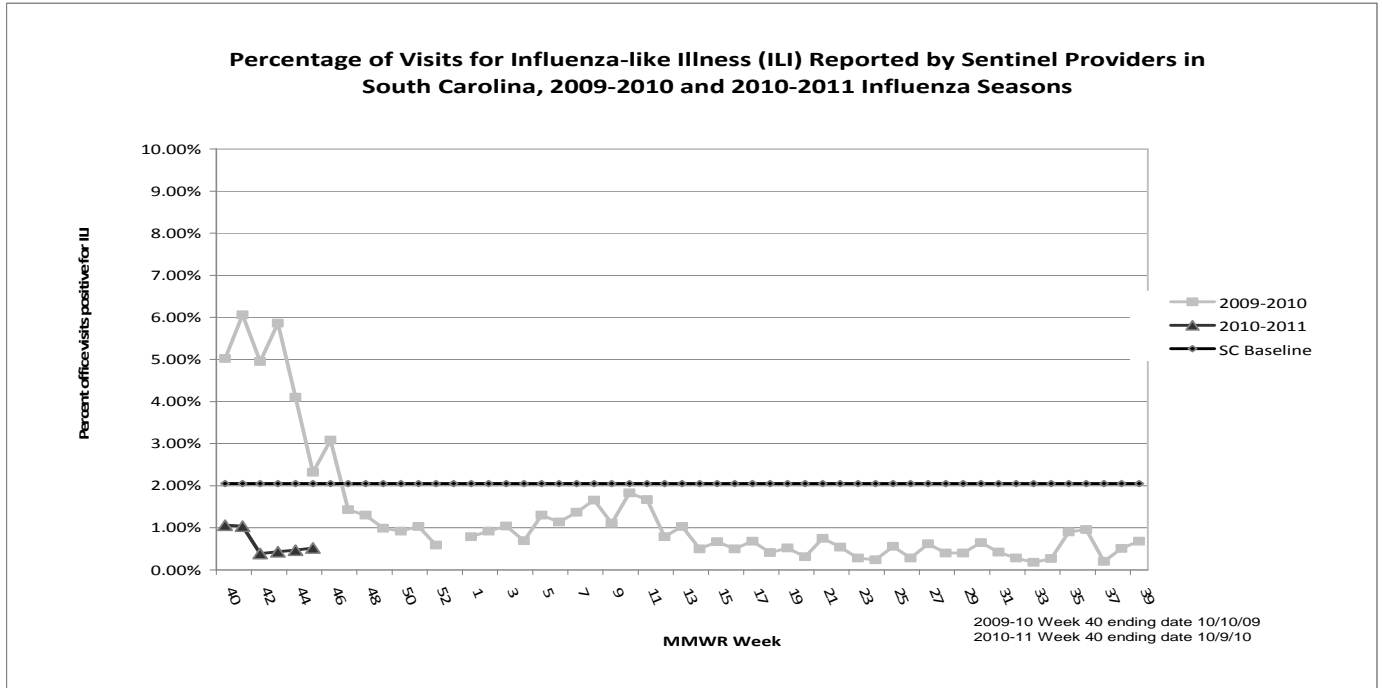
**Hospitalizations:** Five lab confirmed hospitalizations were reported. Lab confirmation includes culture, PCR, DFA, IFA, and rapid tests.

**Deaths:** No lab confirmed deaths were reported.

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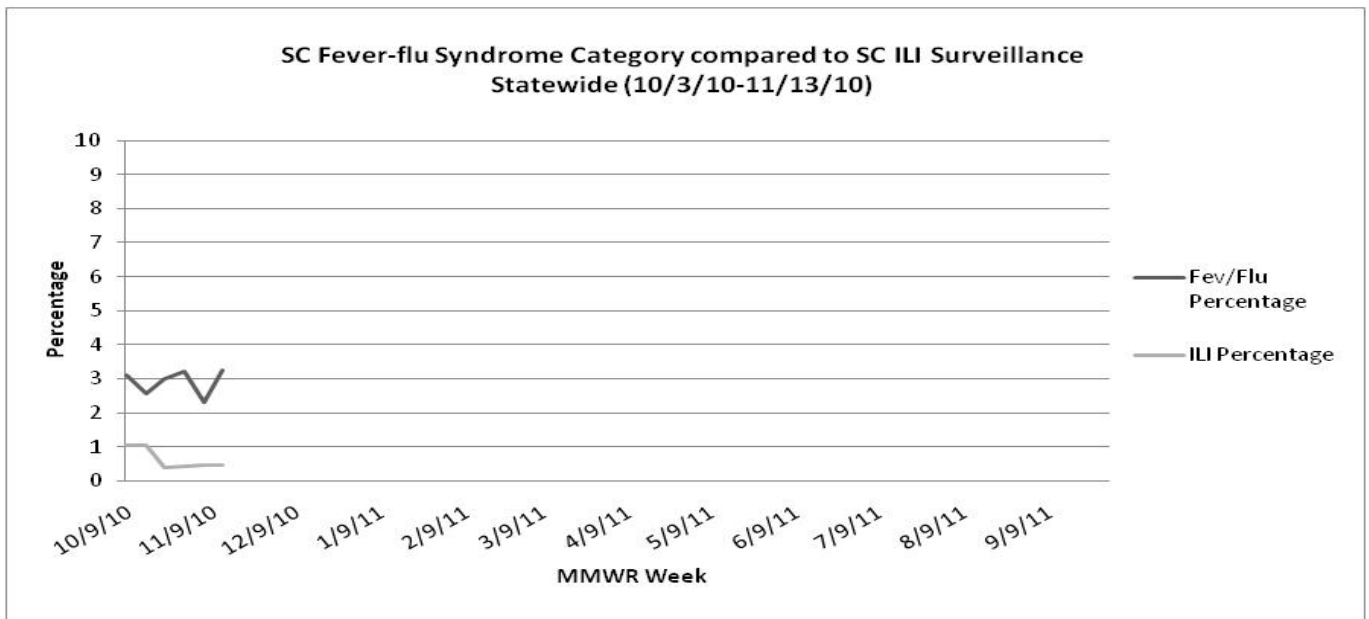
## I. ILINet Influenza-Like Illness Surveillance

During MMWR week 45 ending November 13, 2010, .48% of patient visits to SC ILINet providers were due to ILI. This is below the state baseline (2.05%). This ILI percentage compares to 2.32% this time last year. Reports were received from providers in 14 counties, representing 7 of the 8 regions.



\*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.

The statewide percentage of ER visits with fever-flu syndrome (only includes hospitals participating in SC syndromic surveillance) was 3.24%.



Reported Influenza-Like Illness by Sentinel Providers  
November 7, 2010-November 13, 2010

County	ILI %	County	ILI %
Abbeville	---	Greenwood	0%
Aiken	0%	Hampton	NR
Allendale	---	Horry	NR
Anderson	0%	Jasper	NR
Bamberg	---	Kershaw	0%
Barnwell	---	Lancaster	---
Beaufort	NR	Laurens	NR
Berkeley	NR	Lee	---
Calhoun	---	Lexington	1.0%
Charleston	1.46%	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	0%
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	NR
Dillon	NR	Richland	NR
Dorchester	NR	Saluda	.62%
Edgefield	---	Spartanburg	0%
Fairfield	.51%	Sumter	NR
Florence	0%	Union	---
Georgetown	1.65%	Williamsburg	---
Greenville	.25%	York	.49%

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



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1-2	.18	8
Midlands-Regions 3-5	.17	7
Coastal-Regions 6-8	1.54	3

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

## II. Virologic Surveillance

During the past MMWR week (11/7-11/13), the BOL tested 9 specimens. None were positive for influenza. No positive specimens were reported by any commercial lab.

<b>Positive confirmatory influenza test results*</b> <b>Current MMWR Week (11/7/10-11/13/10)</b>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	9	-
<b>Number of positive specimens</b>	0	
<b>Positive specimens by type/subtype</b>		
<b>A (H1)</b>		
<b>A (H3)</b>		
<b>A (unsubtyped)</b>		
<b>A (2009 H1N1)</b>		
<b>Influenza B</b>		
<b>*Culture and/or RT-PCR</b>		

<b>Positive confirmatory influenza test results*</b> <b>Cumulative (10/3/10-11/13/10)</b>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	29	-
<b>Number of positive specimens</b>	2	
<b>Positive specimens by type/subtype</b>		
<b>Influenza A</b>		
<b>A (H3)</b>	1	
<b>A (unsubtyped)</b>		
<b>A (2009 H1N1)</b>		
<b>Influenza B</b>	1	
<b>Unk</b>		
<b>Other</b>		
<b>*Culture and/or RT-PCR</b>		

Positive Cultures and PCRs by County (2010-11)\*  
 October 3, 2010-November 13, 2010

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

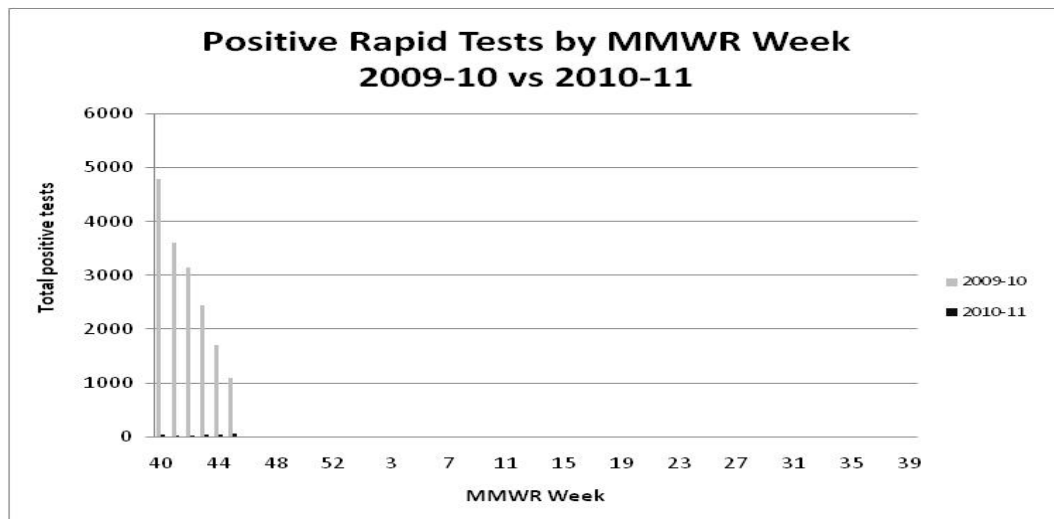
\*These data are provisional.

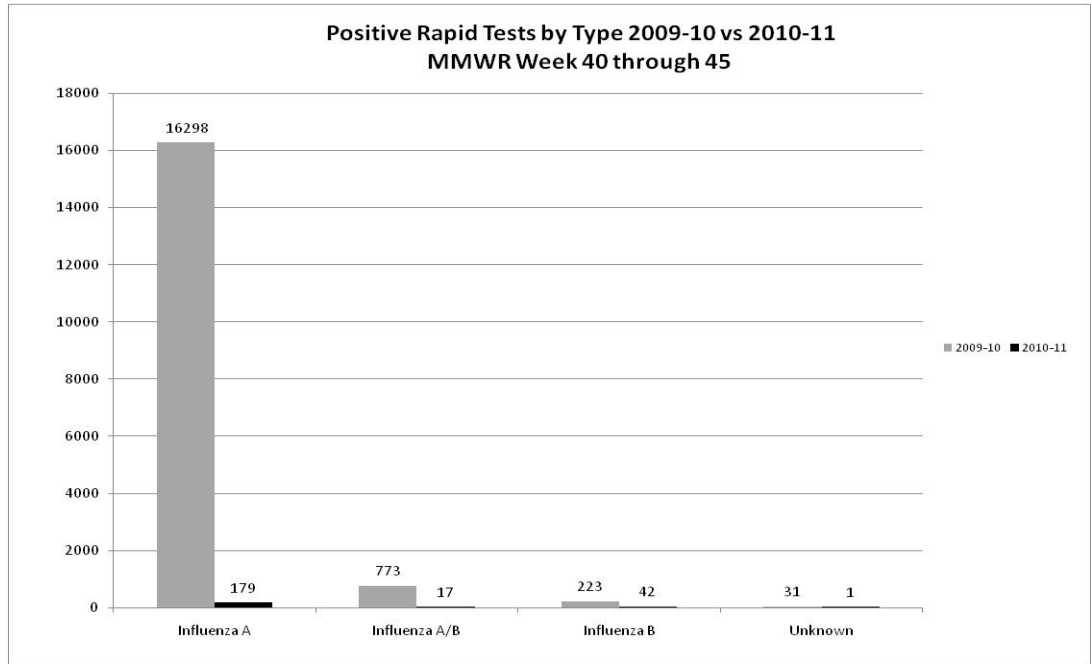
### III. Positive Rapid Antigen Tests

There were 58 positive rapid antigen tests reported for the week ending November 13, 2010. Of these, 41 were influenza A, 6 were influenza A/B, and 11 were influenza B. Since the beginning of the season, 239 positive rapid tests have been reported. This compares to 17,325 this time last year.

Positive Rapid Flu Tests by County  
November 7, 2010 – November 13, 2010

County	Positive Tests	County	Positive Tests
Abbeville		Greenwood	9
Aiken		Hampton	
Allendale		Horry	13
Anderson	3	Jasper	
Bamberg		Kershaw	
Barnwell		Lancaster	
Beaufort	4	Laurens	4
Berkeley		Lee	
Calhoun		Lexington	2
Charleston		Marion	
Cherokee		Marlboro	2
Chester		McCormick	
Chesterfield		Newberry	
Clarendon		Oconee	5
Colleton		Orangeburg	
Darlington	1	Pickens	
Dillon		Richland	9
Dorchester		Saluda	
Edgefield		Spartanburg	4
Fairfield		Sumter	
Florence		Union	
Georgetown	2	Williamsburg	
Greenville		York	
		Unknown	





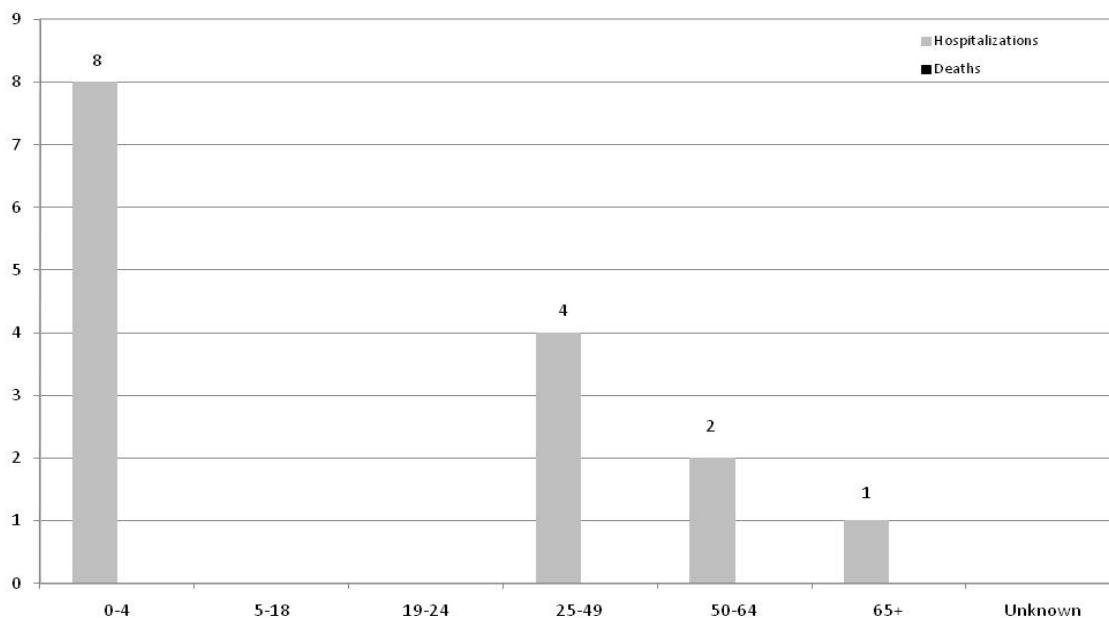
#### IV. Influenza hospitalizations and deaths

Five lab\* confirmed influenza hospitalizations were reported for the past week. No deaths were reported.

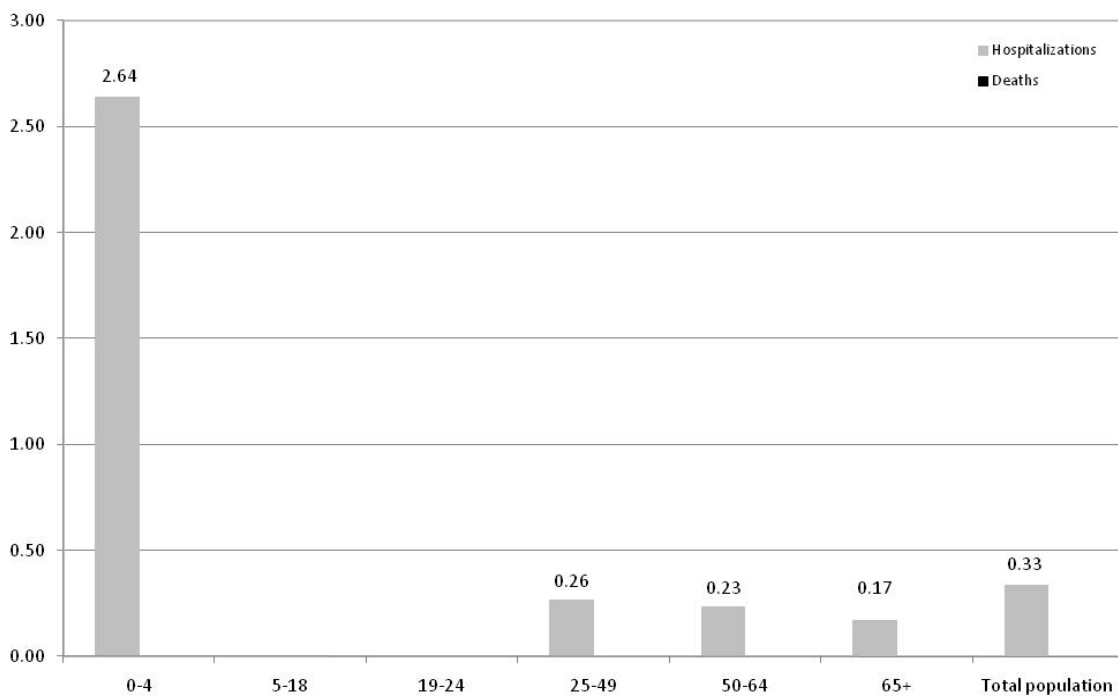
	<b>Total number*</b>	
<b>Number of Hospitals Reporting (current week)</b>	34	
	<i>Previous MMWR (11/7-11/13)</i>	<i>Cumulative (since 10/3/10)</i>
<b>Hospitalizations</b>	5	15
<b>Deaths</b>	0	0

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

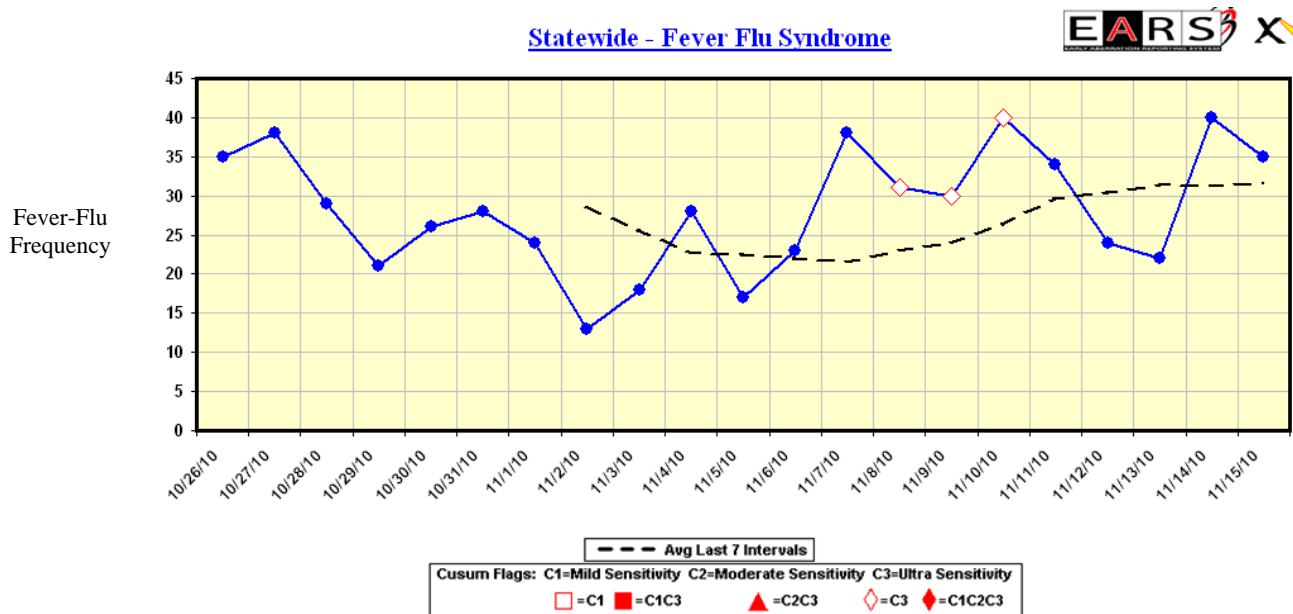
**Reported Cases of Laboratory Confirmed Influenza  
Hospitalizations (n=15) and Deaths (n=0)  
October 3, 2010 - November 13, 2010**



**Laboratory Confirmed Influenza Case rate/100,000  
Hospitalizations (n=15) and Deaths (n=0) by age group  
October 3, 2010 - November 13, 2010**



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



### 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**

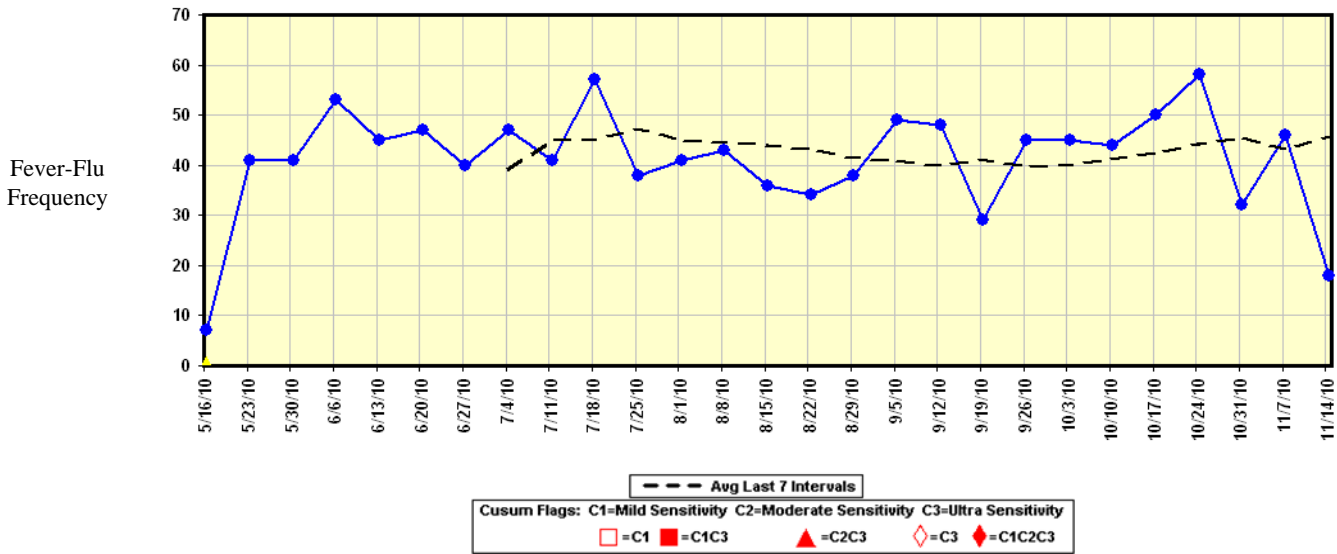
The SC Statewide Fever-Flu Syndrome graph above illustrates the daily counts of hospital emergency department (ED) visits with an Influenza-like Illness (ILI) for the past 21 days. A total of 16 hospital facilities are reporting to the SCAAN system. These 16 include: AnMed Health (Region 1); Self Regional (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); Medical University of South Carolina (Region 7); Roper (Region 7); St. Francis (Region 7), and Hampton Regional (Region 8).

### Statewide CUSUM Flag Alerts Description:

**C3 flags occurred on 11/8 – 11/10. This indicates a gradual rise in fever-flu counts over a short time. We will continue to monitor any significant changes.**

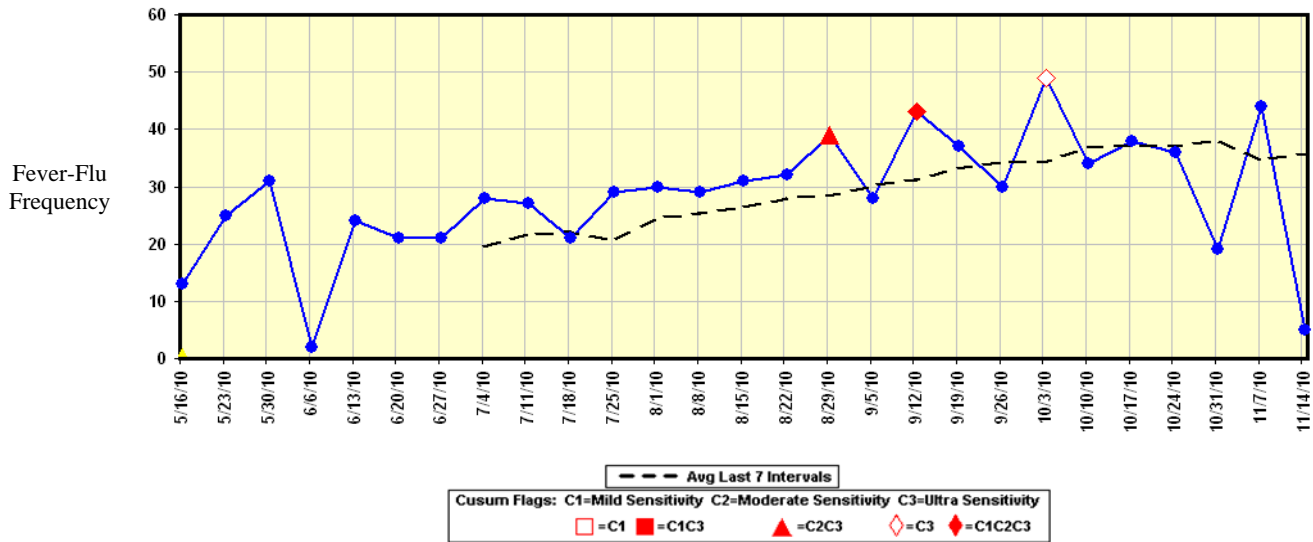
Below are the fever-flu syndrome graphs by Region for the past 180 days (weekly interval).

Region 1 - Fever Flu Syndrome



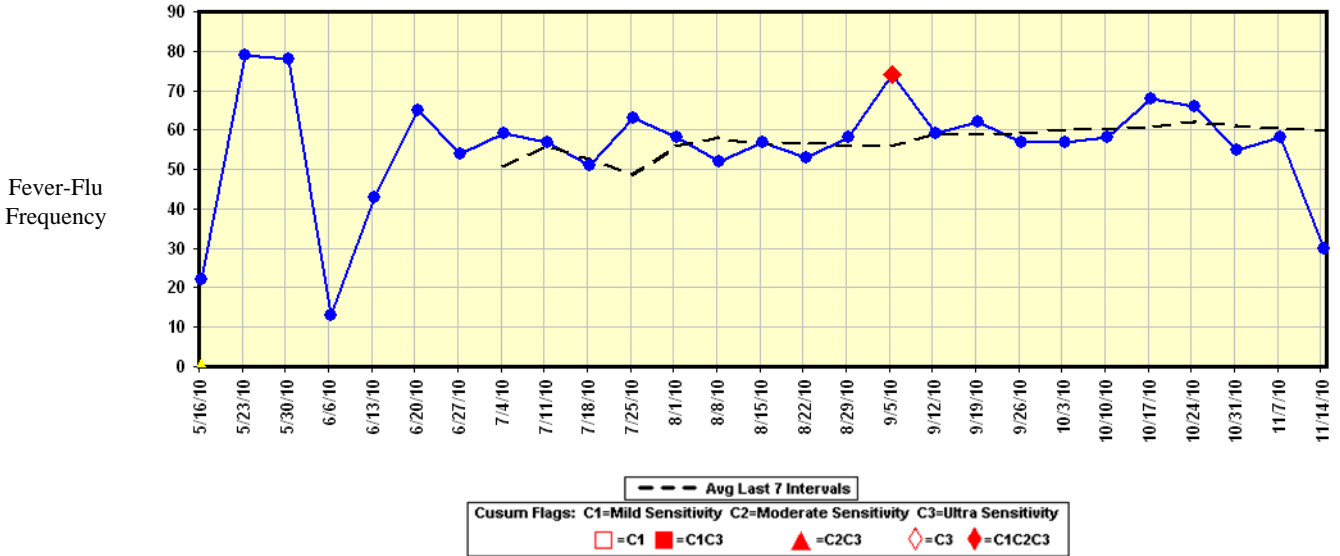
**Region1 Hospitals (# of Facilities): AnMed Health (1); Self-Regional (1); Oconee Medical Center (1);**

Region 2 - Fever Flu Syndrome



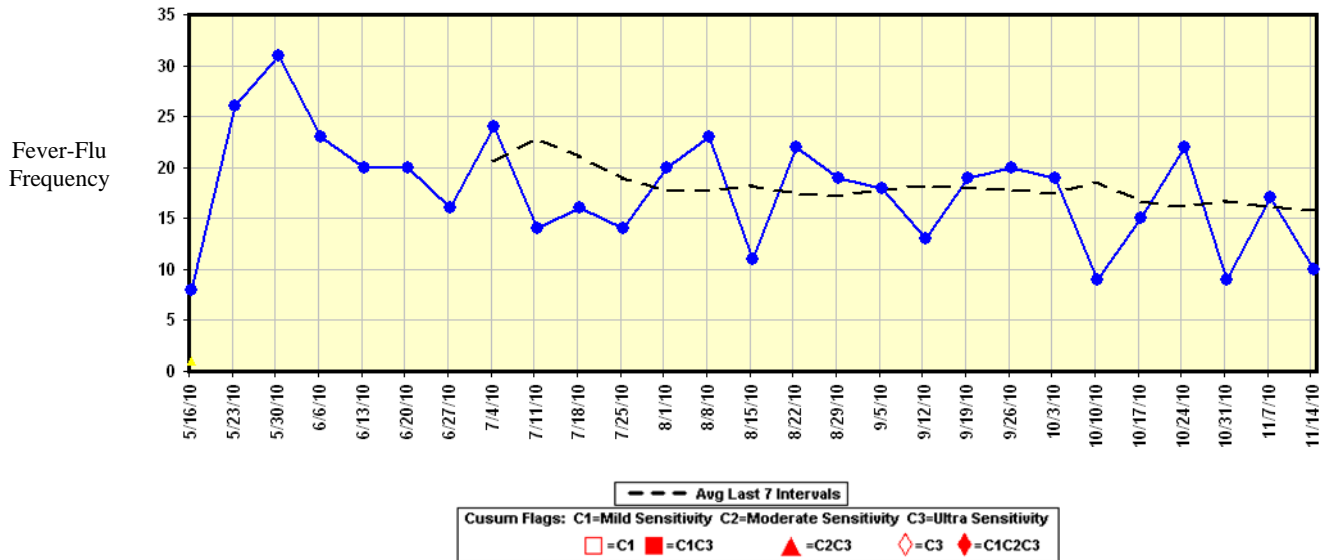
**Region 2 Hospitals (# of Facilities): Greenville Hospital System (4); Palmetto Health Easley (1)**

Region 3 - Fever Flu Syndrome



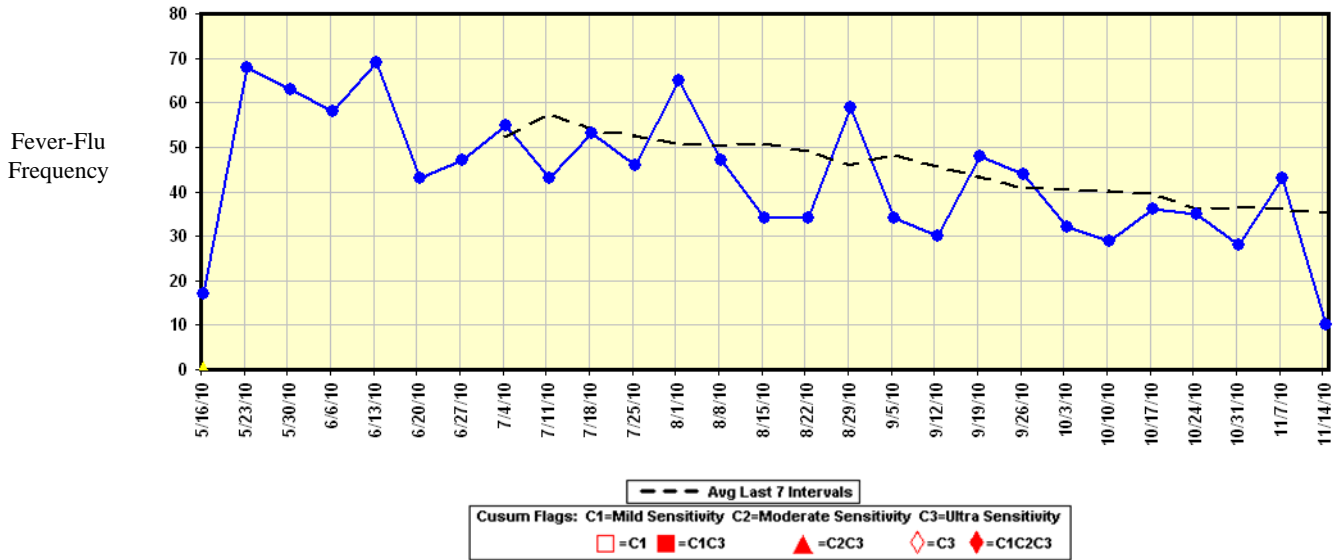
**Region 3 Hospitals (# of Facilities): Palmetto Health Baptist (1), Palmetto Health Richland (1)**

Region 4 - Fever Flu Syndrome



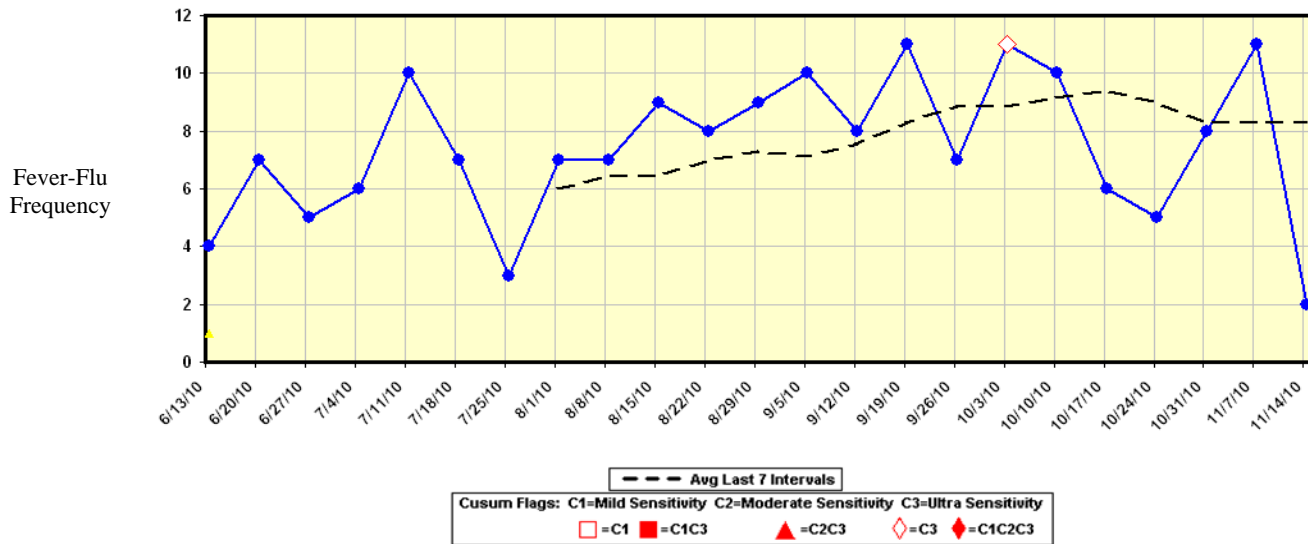
**Region 4 Hospitals (# of Facilities): Kershaw Health (1); McLeod Health (1)**

**Region 7 - Fever Flu Syndrome**



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

**Region 8 - Fever Flu Syndrome**



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

## VI. National influenza update (MMWR Week 44: 10/31-11/6)

**Note: CDC data is published on Friday for the previous MMWR week; therefore, national data reported below will lag behind SC state data by one week.**

During the week of October 31-November 6, ILI activity remained low. One hundred eighty five (6.8%) specimens tested by WHO and NREVSS labs and reported to the CDC were positive for influenza. Two human infections with novel A viruses were reported. The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold. One influenza-associated pediatric death was reported. The proportion of outpatient visits for ILI (1.3%) was below the national baseline (2.5%). All 10 regions reported ILI below region-specific baseline levels; one state experienced low ILI activity and 49 states experienced minimal ILI activity. Three states reported local activity. All others reported sporadic or no activity.

For more information, please visit <http://www.cdc.gov/flu/weekly/>.

## VII. 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.

#### ***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 to the regional health department of. 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 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 an ILINet provider, contact the Acute Disease Epidemiology influenza surveillance coordinator at [springcb@dhec.sc.gov](mailto:springcb@dhec.sc.gov).

#### South Carolina Aberration Alerting Network (SCAAN)

SCAAN 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 SCAAN system or for more information, please contact: Himel Dhotre at 803-898-1588 or [dhotrehc@dhec.sc.gov](mailto:dhotrehc@dhec.sc.gov).

## VIII. 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>Regional</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>Widespread</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
	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.