



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 October 16, 2010 (MMWR Week 41)

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

Highlights: The first positive culture (A H3) of the 2010-11 season was identified.

Influenza Activity Level: Sporadic

Note: Activity level definitions are found on page 14

ILI Activity Status (South Carolina baseline is 2.05%*): Below baseline in the Upstate (.21%) and Midlands (.40%). Above baseline along the Coast (4.75%). The state ILI percentage was 1.04%. These data reflect reports from 20 (45%) providers.

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

SC Viral Isolate and RT-PCR Activity: During the past MMWR (41) week, one positive specimen was reported by the DHEC Bureau of Labs (BOL). Since October 2, 2010, 1 specimen tested by our BOL has been positive for influenza.

Positive Rapid Flu Test Activity: There were 17 positive tests reported.

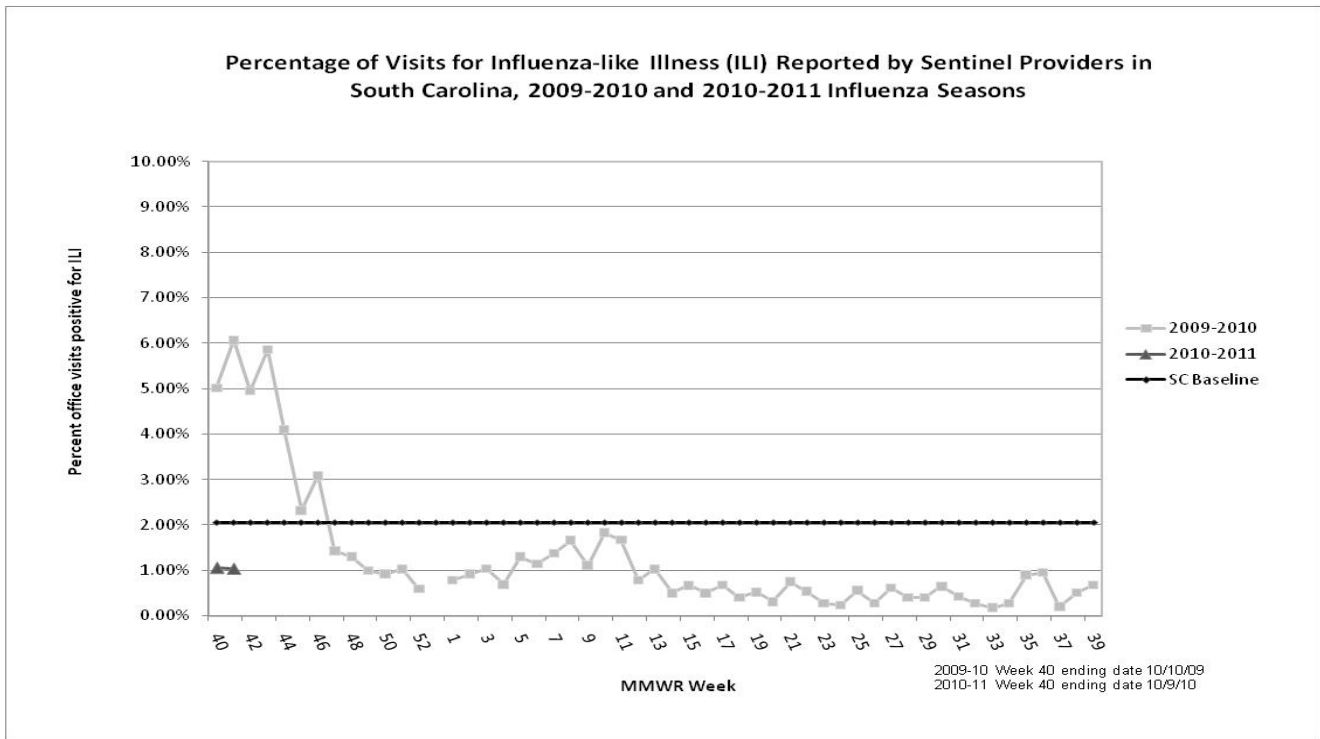
Hospitalizations: No hospitalizations were reported.

Deaths: No deaths were reported.

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I. ILINet Influenza-Like Illness Surveillance

During MMWR week 41 ending October 16, 2010, 1.04% of patient visits to SC ILINet providers were due to ILI. The state ILI is below the state baseline (2.05%). This ILI percentage compares to 6.06% this time last year. Reports were received from providers in 16 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.

Reported Influenza-Like Illness by Sentinel Providers
October 10, 2010-October 16, 2010

County	ILI %	County	ILI %
Abbeville	---	Greenwood	0%
Aiken	0%	Hampton	NR
Allendale	---	Horry	NR
Anderson	3.64%	Jasper	NR
Bamberg	---	Kershaw	0%
Barnwell	---	Lancaster	---
Beaufort	0%	Laurens	NR
Berkeley	NR	Lee	---
Calhoun	---	Lexington	0%
Charleston	4.75%	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	0%
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	0%
Dillon	NR	Richland	0%
Dorchester	NR	Saluda	0%
Edgefield	---	Spartanburg	0%
Fairfield	0%	Sumter	NR
Florence	1.08%	Union	---
Georgetown	NR	Williamsburg	---
Greenville	.14%	York	.67%

NR: No reports received

---: No enrolled providers



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1-2	.42	9
Midlands-Regions 3-5	.14	7
Coastal-Regions 6-8	4.75	4

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

II. Virologic Surveillance

During the past MMWR week (10/10-10/16), one specimen tested by the Bureau of Labs (BOL) was positive. There were no positive specimens reported by other clinical labs.

Positive confirmatory influenza test results* Current MMWR Week (10/10/10-10/16/10)		
	BOL	Other clinical labs
Number of specimens tested	3	-
Number of positive specimens	1	
Positive specimens by type/subtype		
A (H1)		
A (H3)	1	
A (unsubtyped)		
A (2009 H1N1)		
Influenza B		
*Culture and/or RT-PCR		

Positive confirmatory influenza test results* Cumulative (10/2/10-10/16/10)		
	BOL	Other clinical labs
Number of specimens tested	6	-
Number of positive specimens	1	
Positive specimens by type/subtype		
Influenza A		
A (H3)	1	
A (unsubtyped)		
A (2009 H1N1)		
Influenza B		
Unk		
Other		
*Culture and/or RT-PCR		

Positive Confirmatory tests by County (2010-11)*
October 2, 2010-October 16, 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	1
Dillon		Saluda	
Dorchester		Spartanburg	
Edgefield		Sumter	
Fairfield		Union	
Florence		Williamsburg	
Georgetown		York	
Greenville		Unknown	
Greenwood		Other	

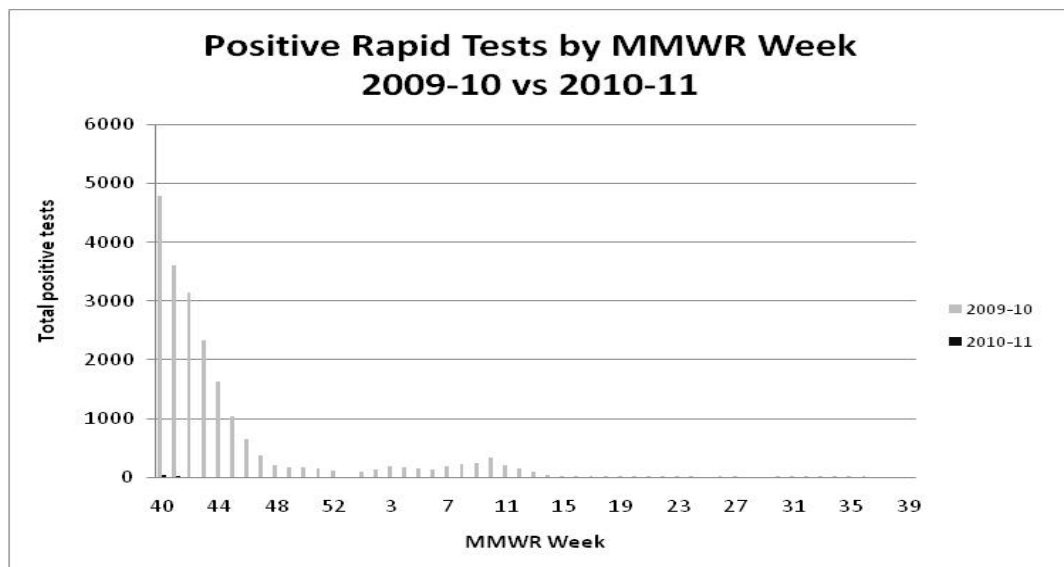
*These data include cultures and RT-PCRs and are provisional.

III. Positive Rapid Antigen Tests

There were 17 positive rapid antigen tests reported for the week ending October 16, 2010. Of these, 14 were influenza A and 3 were influenza B.

Positive Rapid Flu Tests by County
October 10, 2010 – October 16, 2010

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

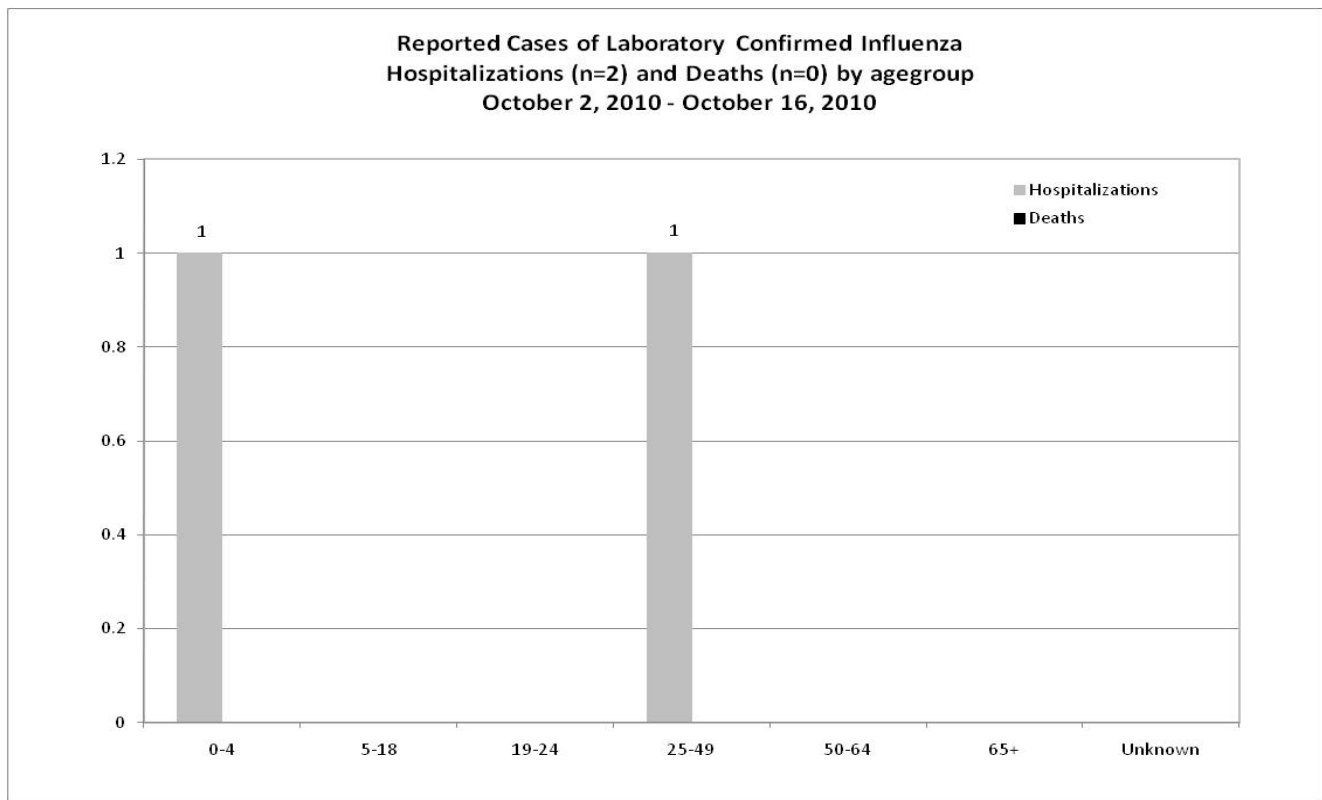


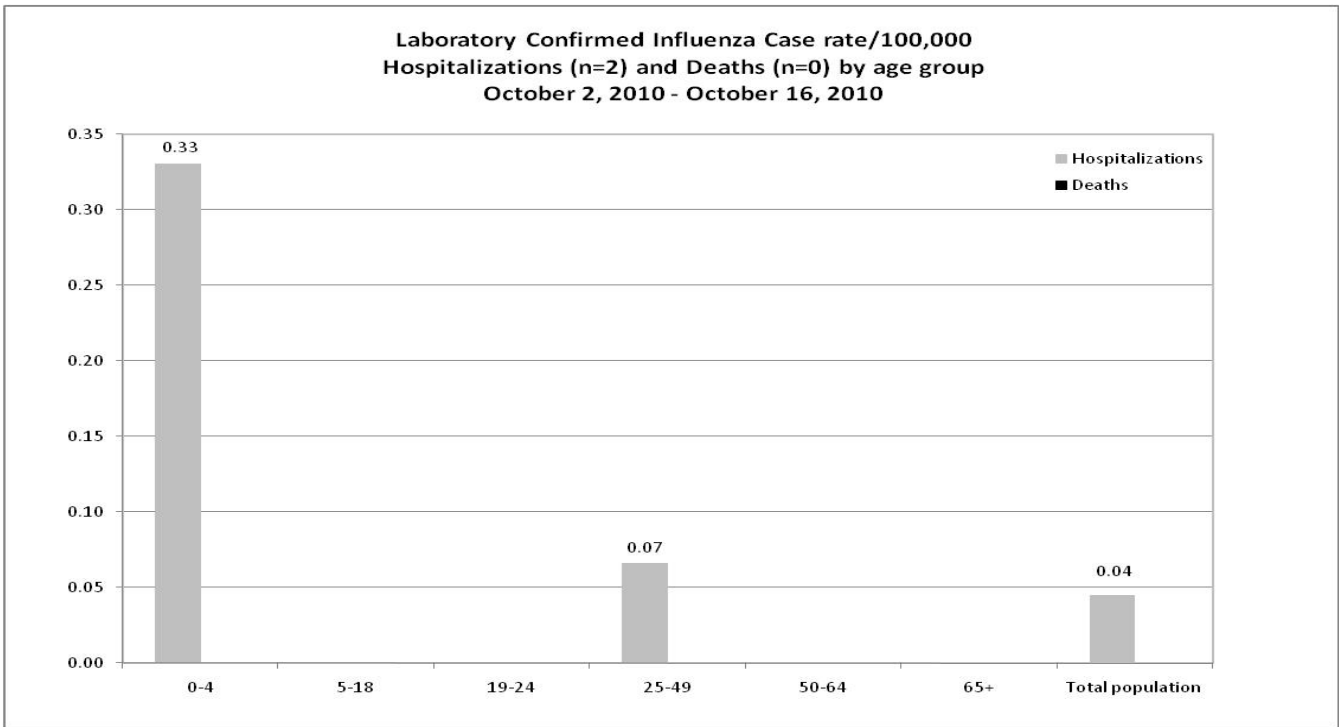
IV. Influenza hospitalizations and deaths

There were no lab confirmed influenza hospitalizations or deaths reported during the past week.

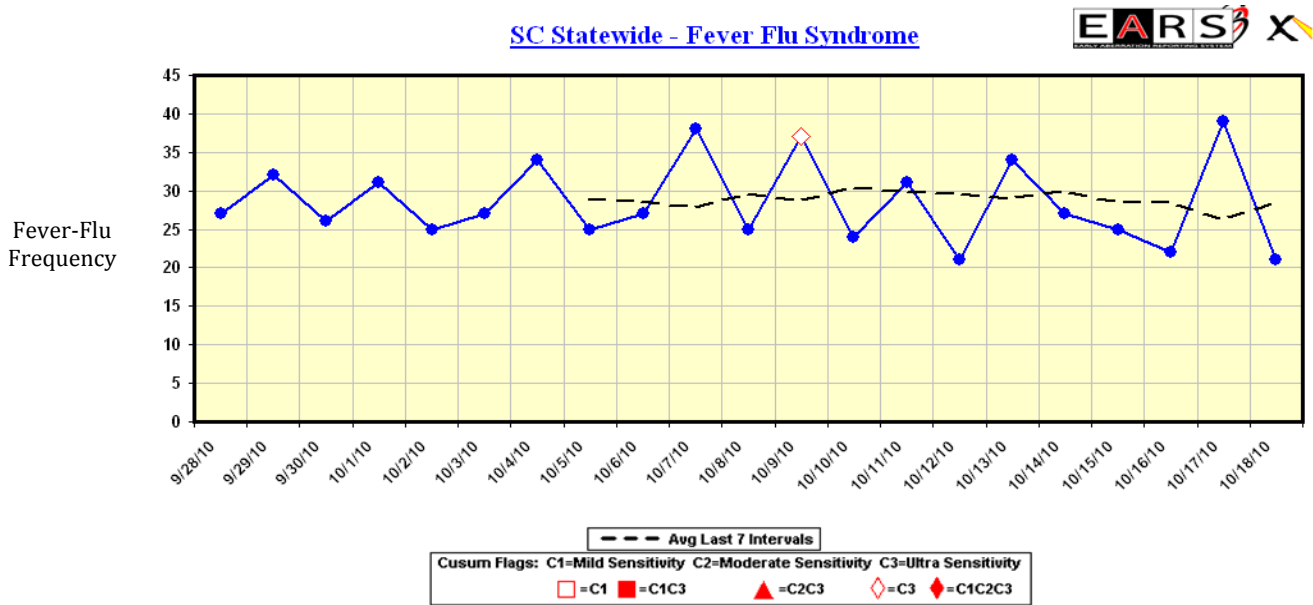
Number of Hospitals Reporting (current week)	Total number*	
	<i>Previous MMWR (10/10-10/16)</i>	<i>Cumulative (since 10/2/10)</i>
Hospitalizations	0	2
Deaths	0	0

*These data are provisional





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



Cumulative Sums Analysis (CUSUM):

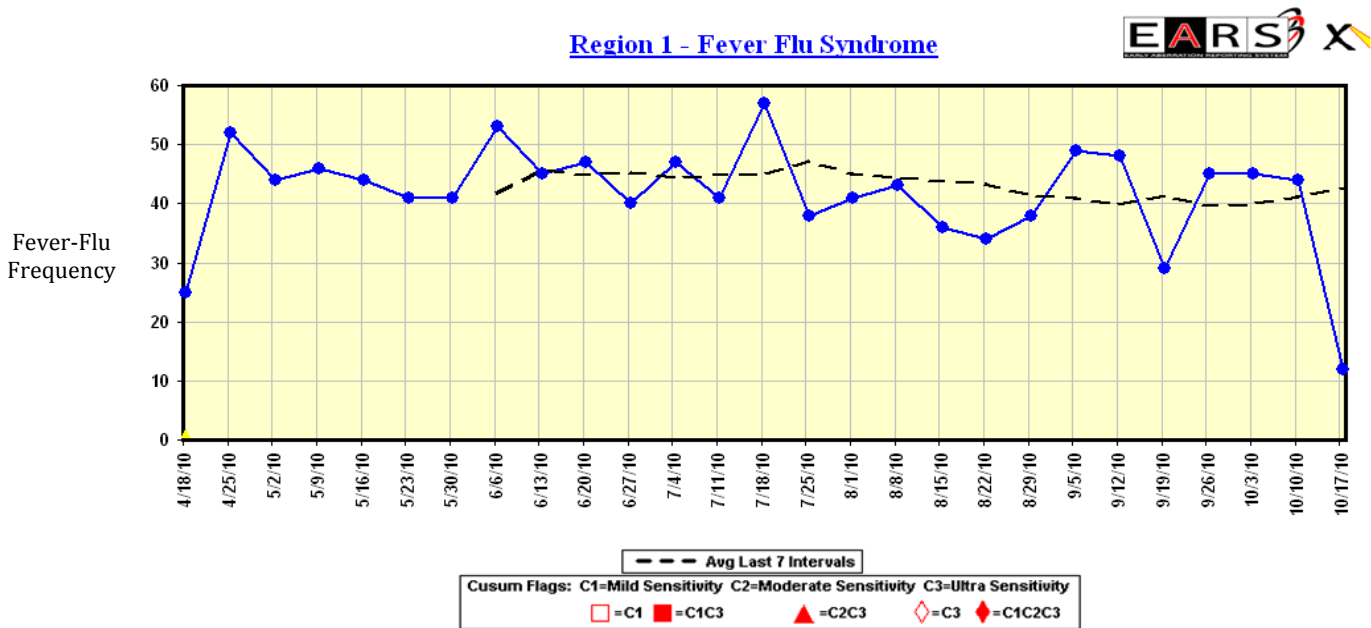
- C1 = Flags because of sharp rise in counts from 1 day to the next
- C2 = Flags because of aberrant, initial, rapid rise in counts and peak in counts
- C3 = Flags because of a gradual rise in counts over a short time

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:

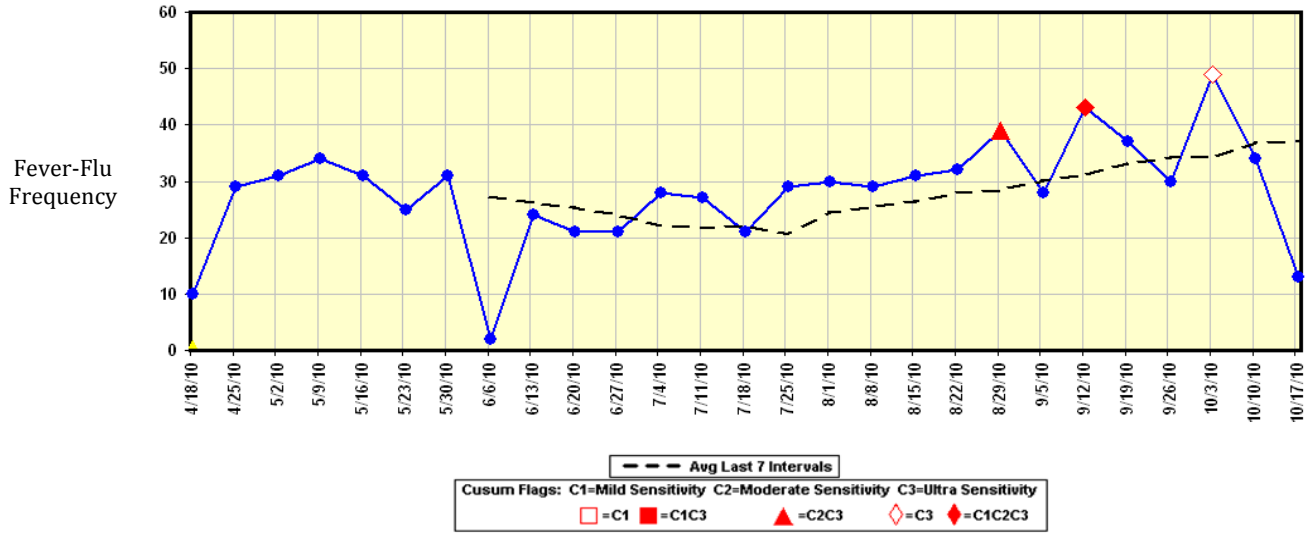
There were no flags the past week.

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



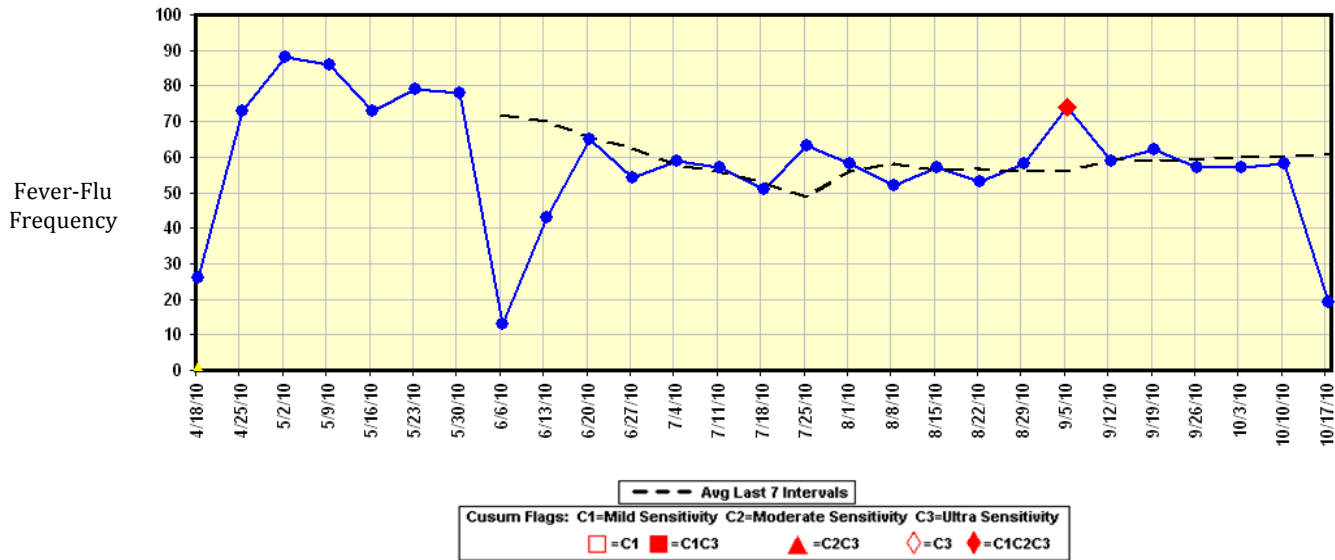
Region1 Hospitals (# of Facilities): AnMed Health (1); Self-Regional (1); Oconee Medical Center (1);

Region 2 - Fever Flu Syndrome



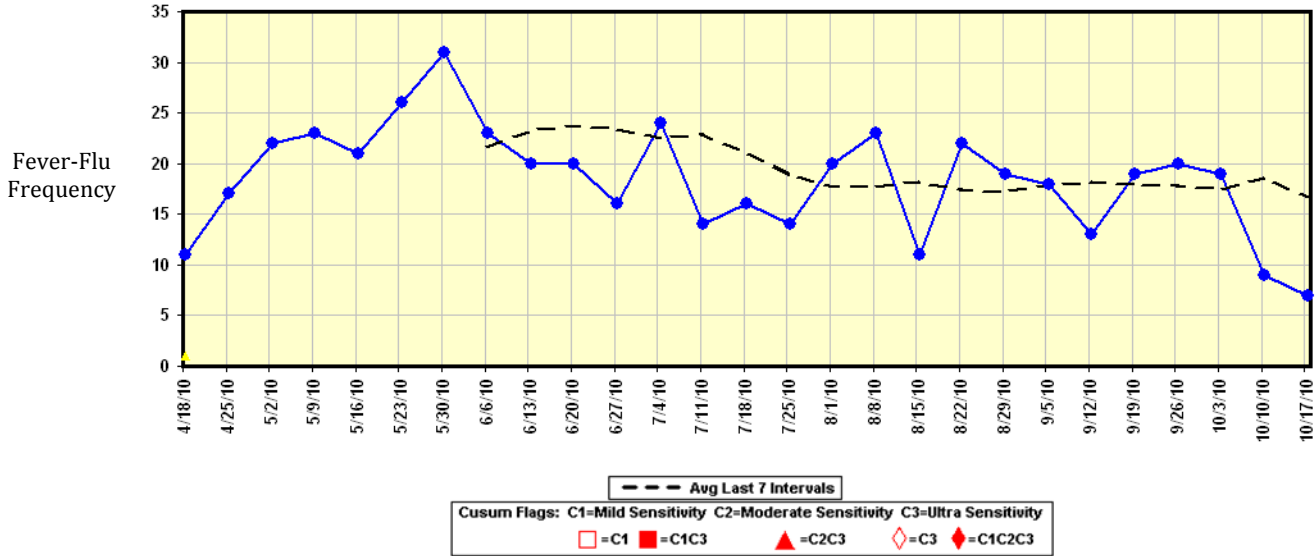
Region 2 Hospitals (# of Facilities): Greenville Hospital System (4); Palmetto Health Easley (1)

Region 3 - Fever Flu Syndrome



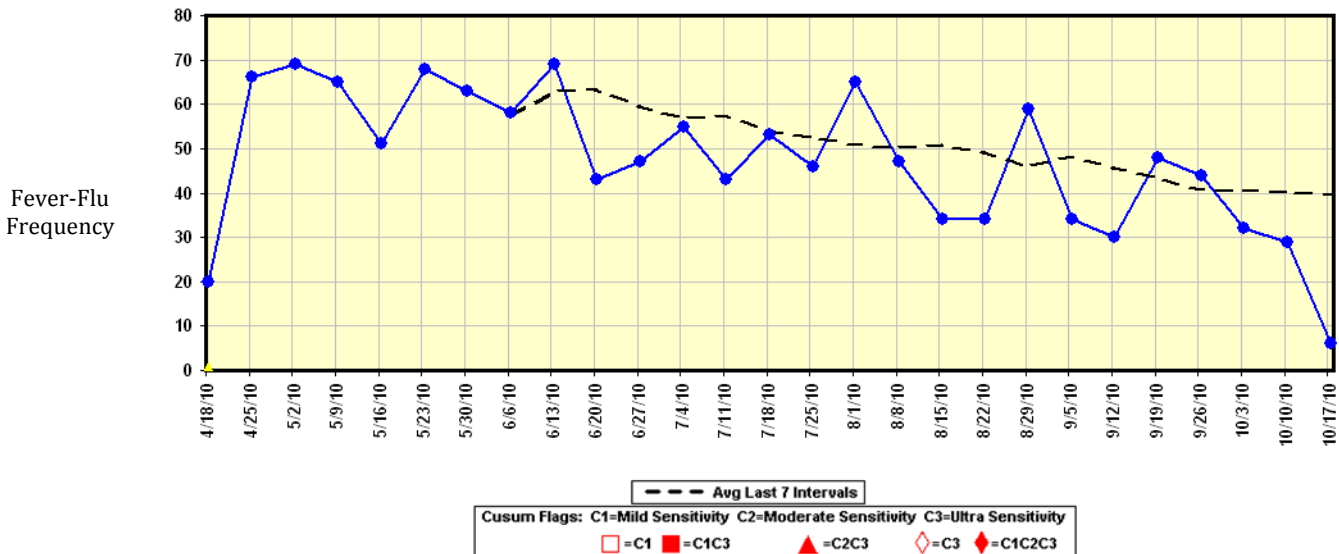
Region 3 Hospitals (# of Facilities): Palmetto Health Baptist (1), Palmetto Health Richland (1)

Region 4 - Fever Flu Syndrome



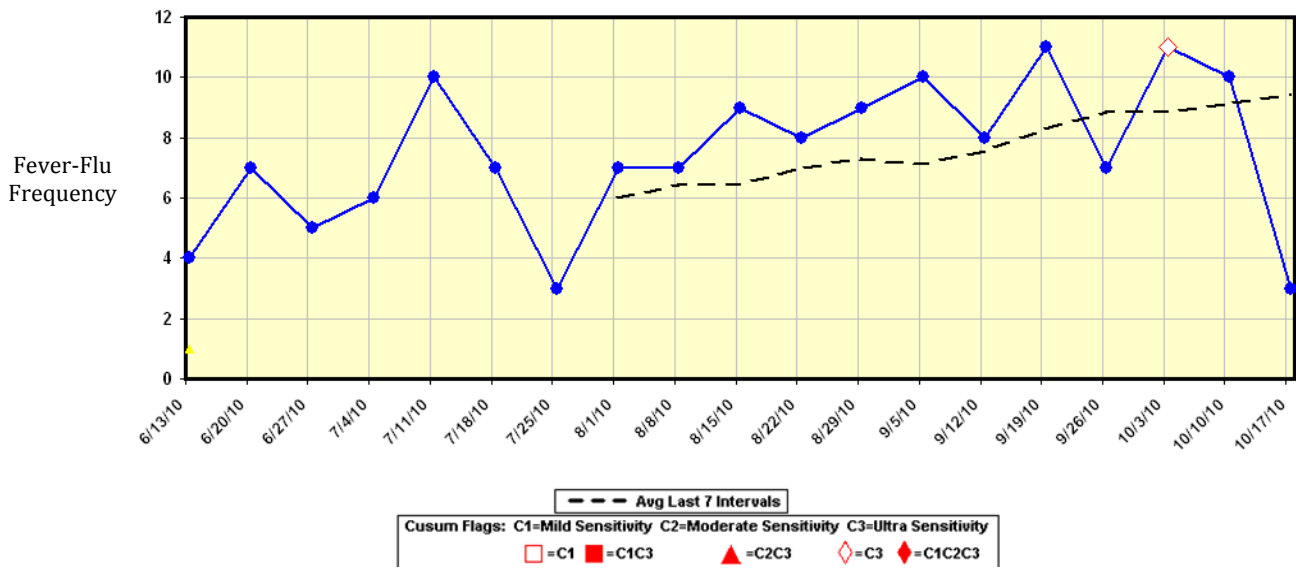
Region 4 Hospitals (# of Facilities): Kershaw Health (1); McLeod Health (1)

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 40: 10/2-10/9)

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 2-9, influenza activity was low in the US. Forty five (3.3%) specimens tested by World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC were positive for influenza. The proportion of outpatient visits for influenza-like illness (ILI) was below the national baseline with all 10 regions reporting ILI below region-specific baseline levels and all 48 states with sufficient data experiencing minimal ILI activity. Seven laboratory-confirmed influenza associated hospitalizations and one laboratory-confirmed influenza associated death were reported to CDC from 20 reporting jurisdictions.

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 CHESSE 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.

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: Himal Dhotre at 803-898-1588 or dhotrehc@dhec.sc.gov.

VIII. 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
Regional	OR		
	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
Regional	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.