

Flu Watch

Week Ending November 3, 2012 (MMWR Week 44)

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

<i>In this issue:</i>	
ILINet	2
Virologic surveillance	4
Rapid antigen tests	7
Hospitalizations and deaths	8
Syndromic Surveillance	10
Activity level definitions	14
SC influenza surveillance components	15
National Surveillance	16

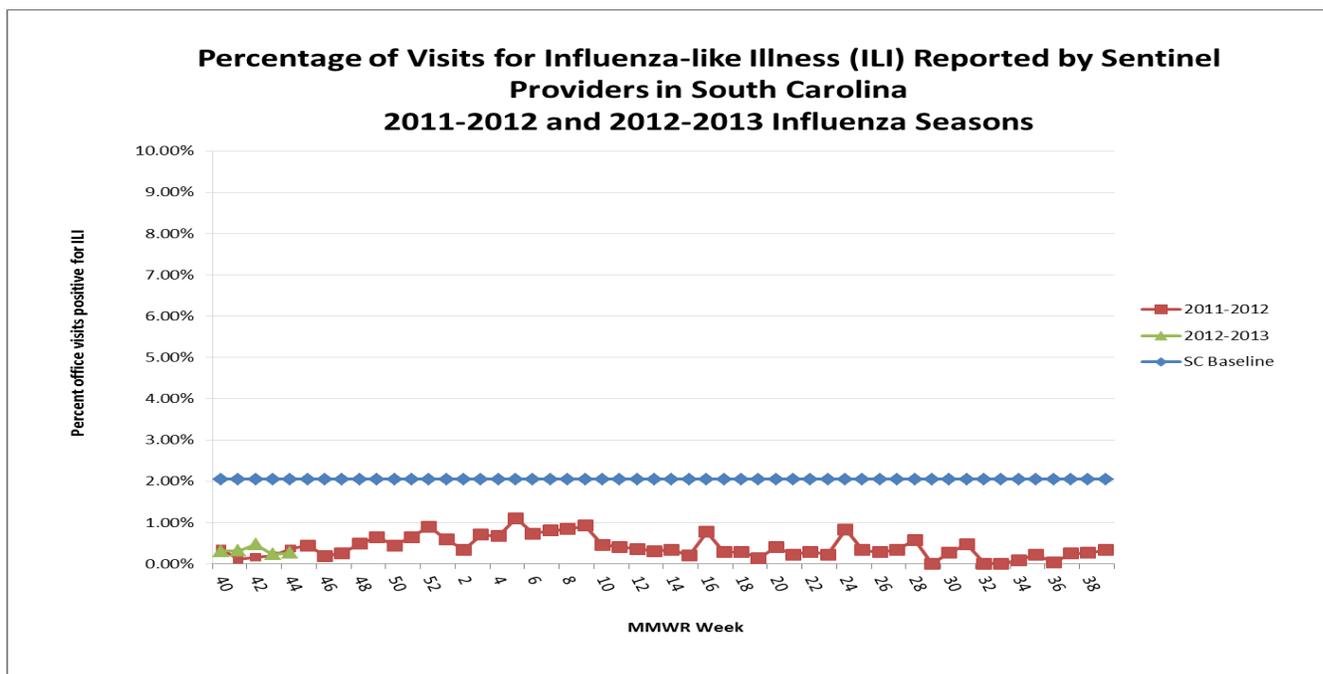
MMWR Week 44 at a Glance:	
Influenza Activity Level: Sporadic	Note: Activity level definitions are found on page 14
ILI Activity Status (South Carolina baseline is 2.05%*):	Below baseline in the Upstate (.06%), Midlands (.32%), and along the Coast (.52%). The state ILI percentage was .27%. These data reflect reports from 16 (50%) providers.
SC Viral Isolate and RT-PCR Activity:	Six positive specimens were reported. Since 9/30/12, 15 positive specimens have been reported.
Positive Rapid Flu Test Activity:	Seventy-four positive rapid tests were reported. Since 9/30/12, 195 positive rapid tests have been reported.
Hospitalizations:	Five lab confirmed hospitalizations were reported. Since 9/30/12, eight hospitalizations have been reported.
Deaths:	No lab confirmed deaths were reported.

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

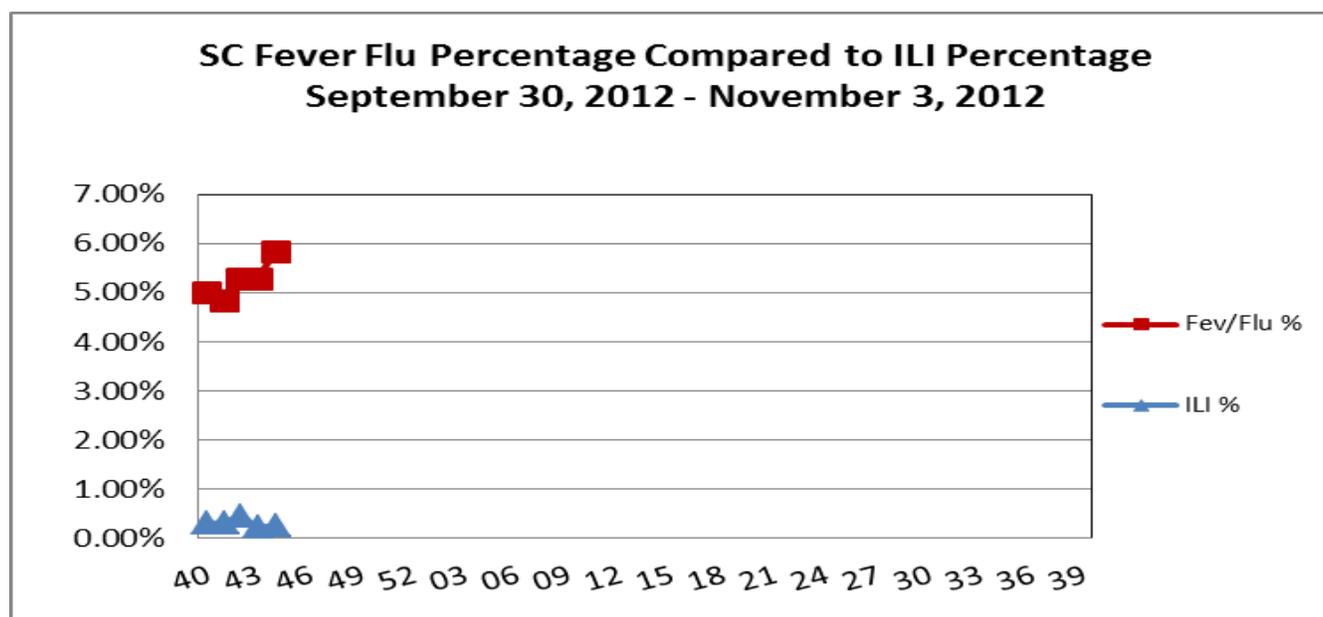
	<i>Current week</i>	<i>Previous week</i>	<i>Change from previous week</i>
Percent of ILI visits reported by ILINet providers	.27%	.23%	▲ .04
Number of positive confirmatory tests	6	1	▲ 5
Number of lab confirmed flu hospitalizations	5	1	▲ 4
Number of lab confirmed flu deaths	0	0	0

I. ILINet Influenza-Like Illness Surveillance

During the most recent MMWR week, .27% of patient visits to SC ILINet providers were due to ILI. This is below the state baseline (2.05%). This ILI percentage compares to .37 % 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 5.84%.



*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.

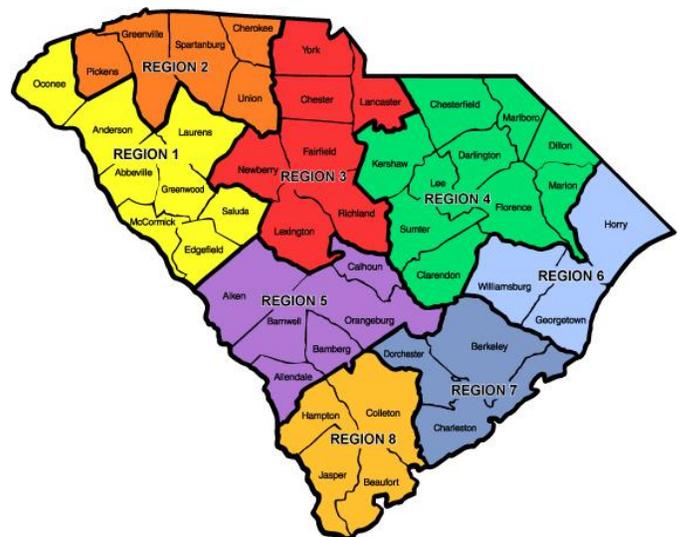


*Only includes hospitals participating in SC syndromic surveillance

Influenza-Like Illness Reported by Sentinel Providers October 28, 2012 – November 3, 2012

County	ILI %	County	ILI %
Abbeville	---	Greenwood	NR
Aiken	0%	Hampton	NR
Allendale	---	Horry	NR
Anderson	1.18%	Jasper	NR
Bamberg	---	Kershaw	.34%
Barnwell	---	Lancaster	---
Beaufort	0%	Laurens	NR
Berkeley	NR	Lee	---
Calhoun	---	Lexington	0%
Charleston	NR	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	0%
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	0%
Dillon	NR	Richland	.35%
Dorchester	NR	Saluda	0%
Edgefield	---	Spartanburg	0%
Fairfield	---	Sumter	NR
Florence	.48%	Union	---
Georgetown	.71%	Williamsburg	---
Greenville	0%	York	0%

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



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1 -2	.06	7
Midlands-Regions 3-5	.32	7
Coastal-Regions 6-8	.52	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 (10/28/12 - 11/3/12)</i>		
	BOL	Other clinical labs
Number of specimens tested	7	NA
Number of positive specimens	3	3
Influenza A unsubtype		
Influenza A H1N1	1	2
Influenza A H3N2		1
Influenza B	2	
Other		

Includes culture, RT-PCR, DFA, and IFA

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

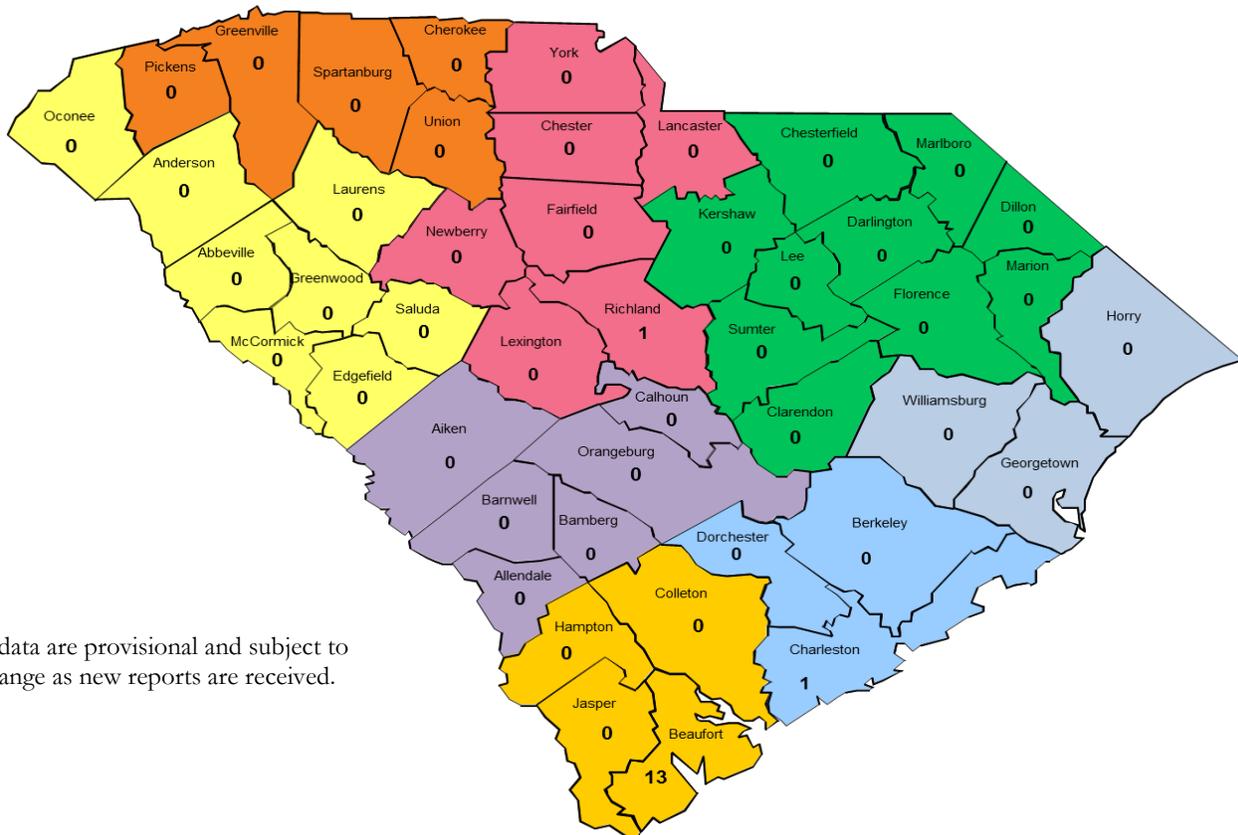
<i>Positive confirmatory influenza test results* Cumulative (09/30/12 - 11/3/12)</i>		
	BOL	Other clinical labs
Number of specimens tested	24	NA
Number of positive specimens	12 (50%)	3
Influenza A unsubtype		
Influenza A H1N1	10 (82%)	2
Influenza A H3N2		1
Influenza B	2 (18%)	
Other		

Includes culture, RT-PCR, DFA, and IFA

**Positive Confirmatory Tests by County
Current Week 10/28/12 – 11/3/12**

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

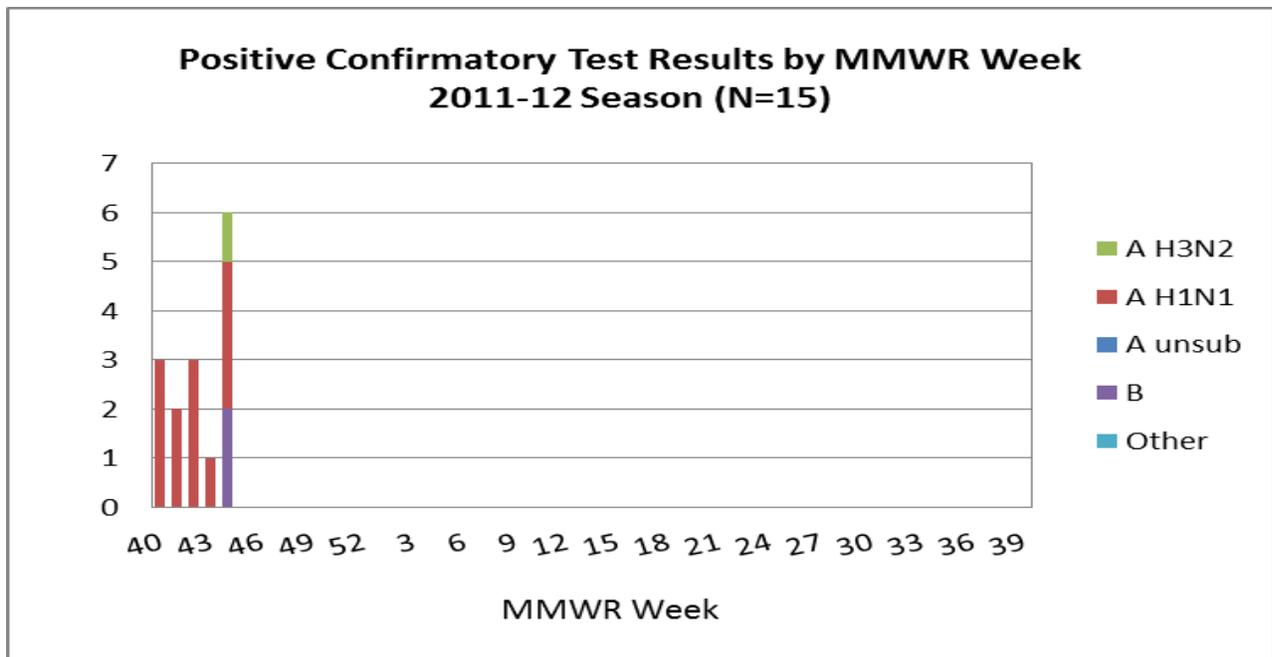
**Map of Positive Confirmatory Tests by County
Cumulative 09/30/12 – 11/3/12**



All data are provisional and subject to change as new reports are received.

**Positive Confirmatory Tests by County and Type
Cumulative 9/30/12 – 11/3/12**

	A H1N1	A H3N2	B	A Unsub	Unk		A H1N1	A H3N2	B	A Unsub	Unk
Region 1						Region 2					
Abbeville						Cherokee					
Anderson						Greenville					
Edgefield						Pickens					
Greenwood						Spartanburg					
Laurens						Union					
McCormick						Region 4					
Oconee						Chesterfield					
Saluda						Clarendon					
Region 3						Darlington					
Chester						Dillon					
Fairfield						Florence					
Lancaster						Kershaw					
Lexington						Lee					
Newberry						Marion					
Richland			1			Marlboro					
York						Sumter					
Region 5						Region 6					
Aiken						Georgetown					
Allendale						Horry					
Bamberg						Williamsburg					
Barnwell						Region 8					
Calhoun						Beaufort	12		1		
Orangeburg						Colleton					
Region 7						Hampton					
Berkeley						Jasper					
Charleston		1									
Dorchester											

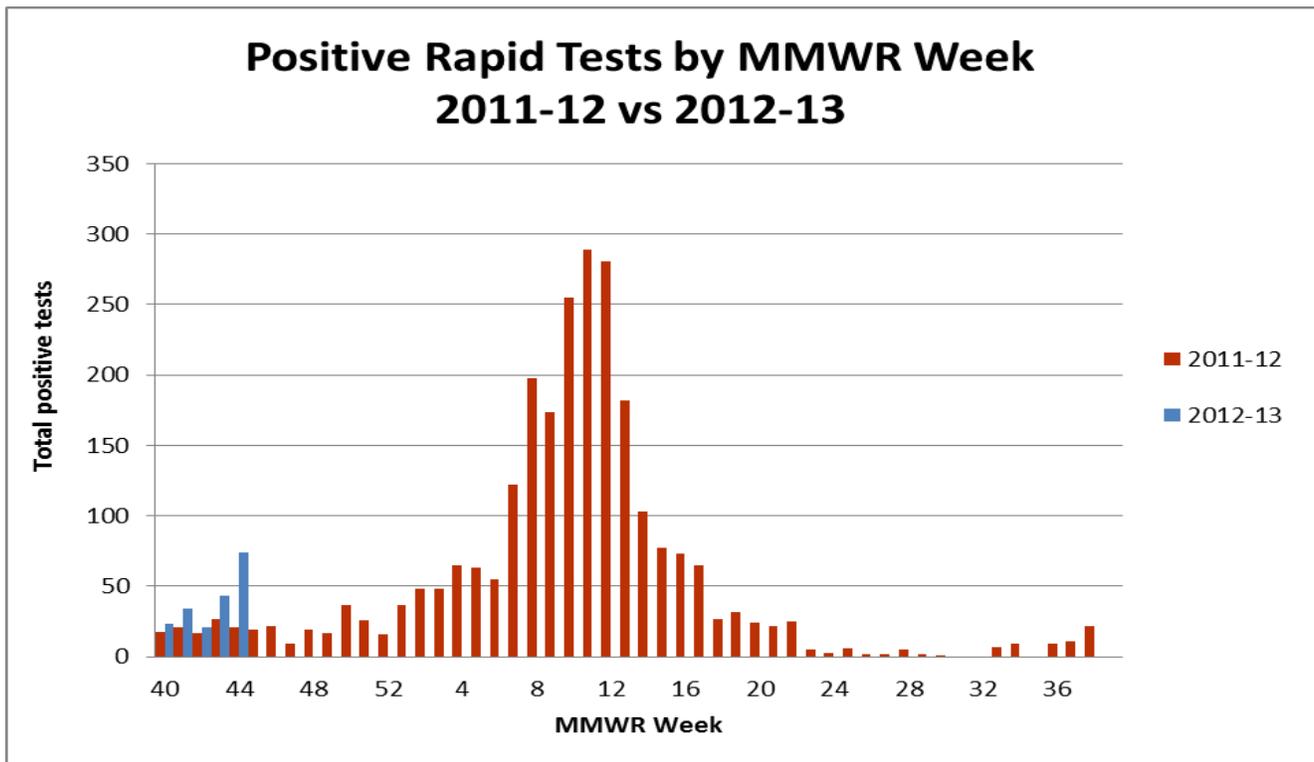


III. Positive Rapid Antigen Tests

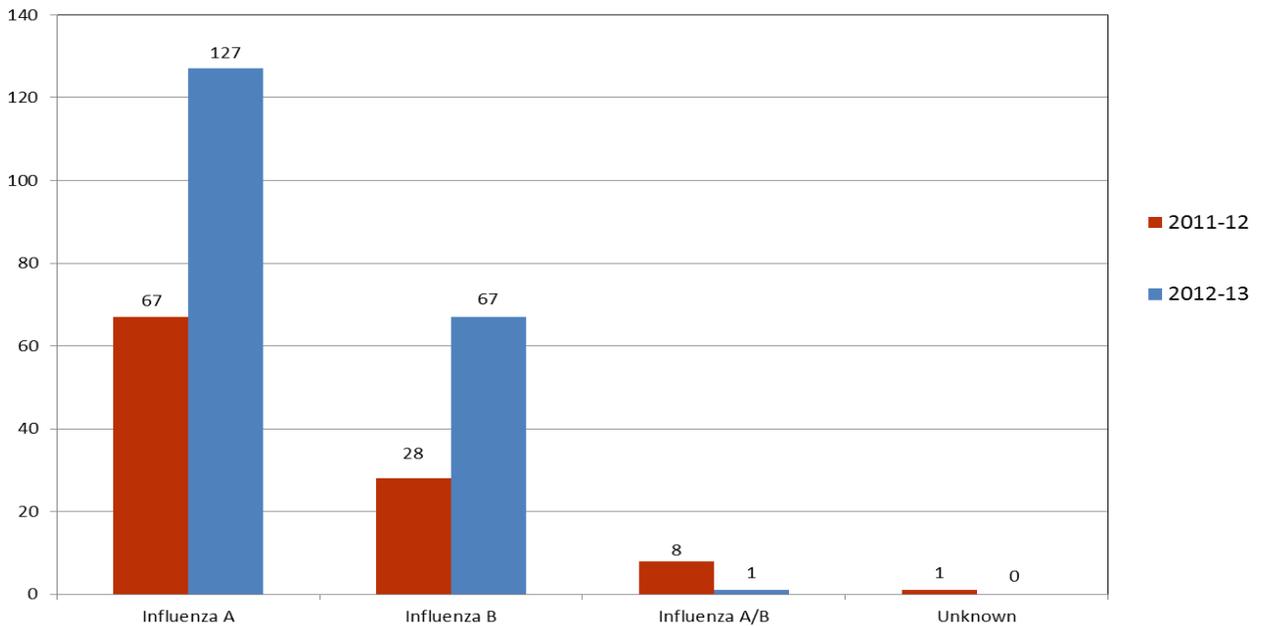
During the past MMWR week, 74 positive rapid antigen tests were reported. Of these, 57 were influenza A, 16 were influenza B, and one was influenza A/B. This compares to 21 this time last year.

Positive Rapid Flu Tests by County October 28, 2012 – November 3, 2012

County	Positive Tests	County	Positive Tests	County	Positive Tests
Abbeville	3	Dillon		Lexington	2
Aiken		Dorchester	2	Marion	
Allendale		Edgefield		Marlboro	
Anderson	1	Fairfield		McCormick	
Bamberg		Florence	1	Newberry	
Barnwell		Georgetown		Oconee	3
Beaufort	7	Greenville	10	Orangeburg	
Berkeley	3	Greenwood	1	Pickens	4
Calhoun		Hampton		Richland	3
Charleston	12	Horry	2	Saluda	
Cherokee		Jasper		Spartanburg	3
Chester		Kershaw		Sumter	11
Chesterfield		Lancaster		Union	
Clarendon		Laurens		Williamsburg	
Colleton		Lee		York	3
Darlington	2				



**Positive Rapid Tests by Type
2011-12 vs 2012-13
September 30 - November 3, 2012**



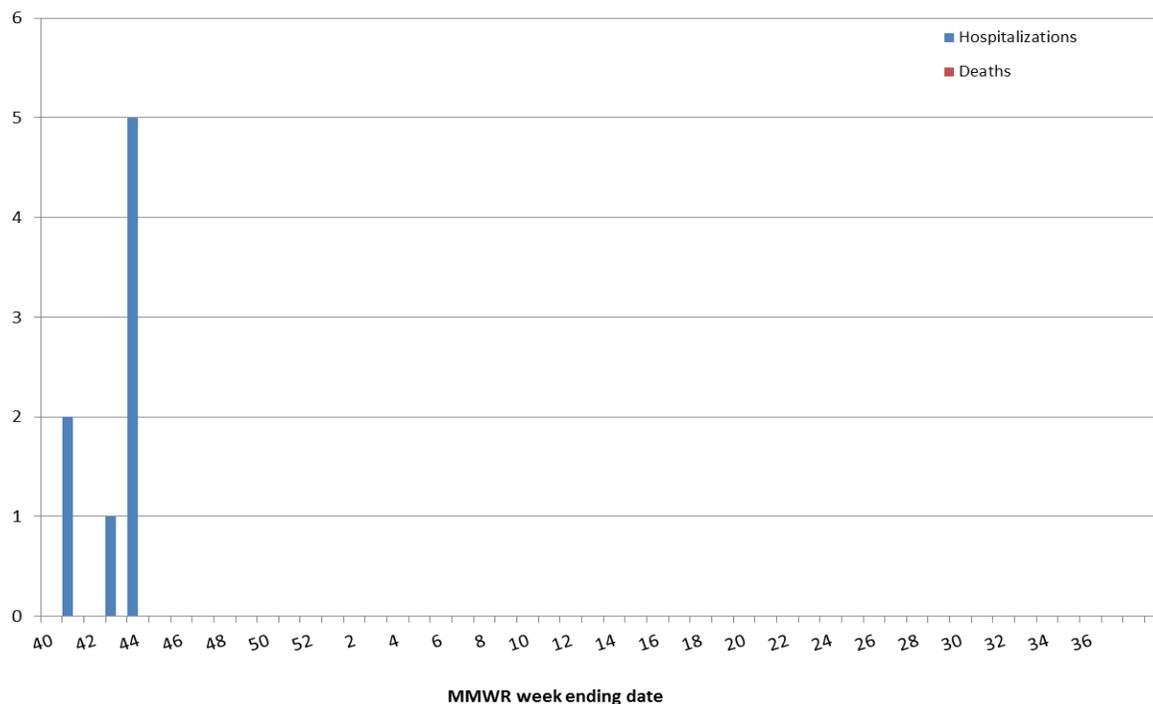
IV. Influenza hospitalizations and deaths

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

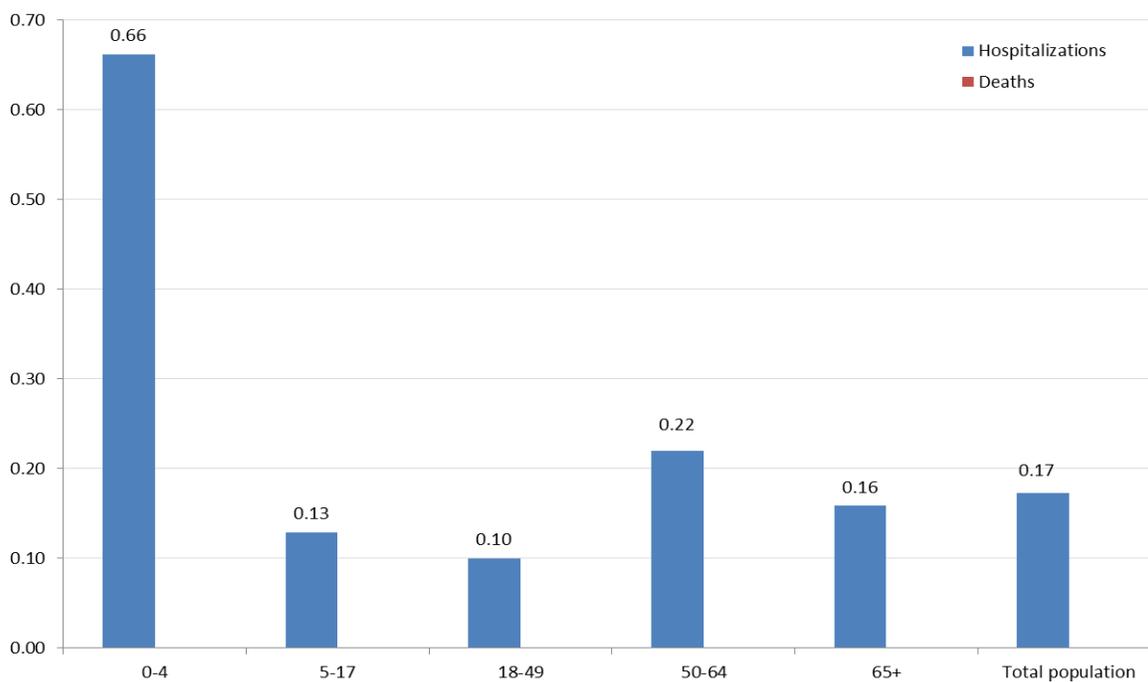
	Total number*	
Number of Reporting Hospitals (Current week)	28	
	<i>Current MMWR Week (10/28- 11/3/12)</i>	<i>Cumulative (since 09/30/12)</i>
Hospitalizations	5	8*
Deaths	0	0

*These data are provisional. Lab confirmation for hospitalizations and deaths includes culture, PCR, DFA, IFA, and rapid test. Includes one hospitalization from week 43 which was excluded from the previous report.

**Reported Cases of Laboratory Confirmed Influenza Hospitalizations and Deaths
by MMWR week
September 30, 2012 - November 3, 2012**



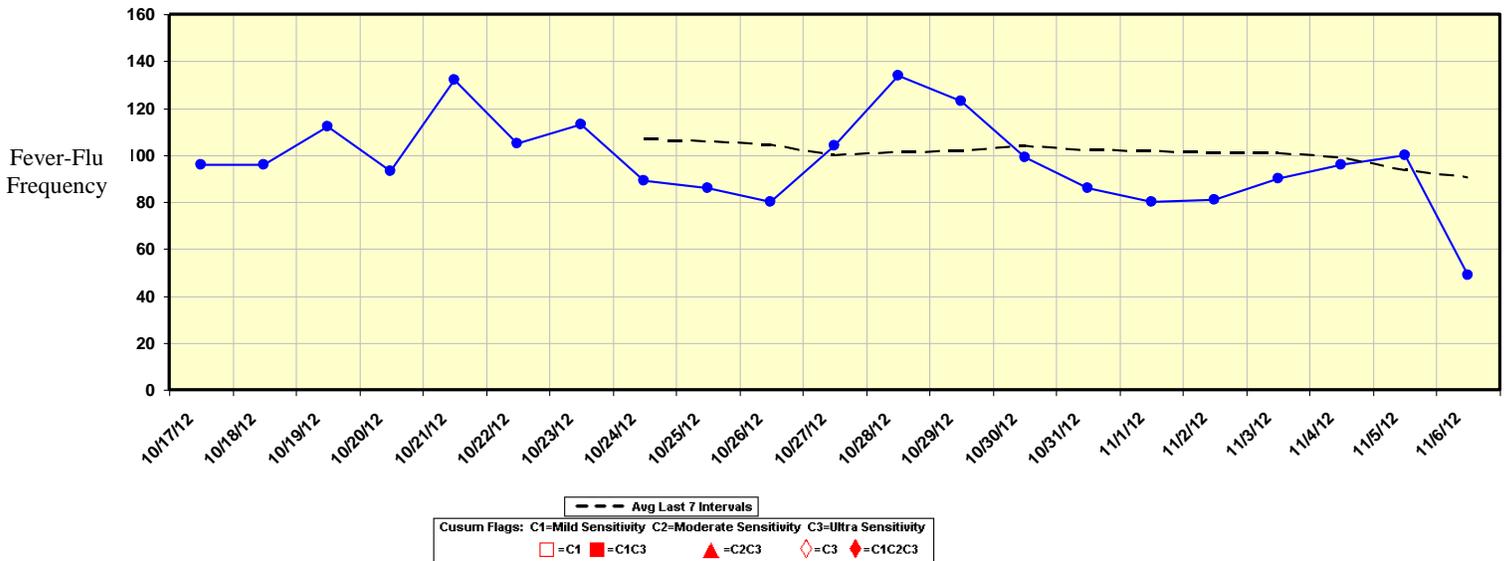
**Laboratory Confirmed Influenza Case rate/100,000
Hospitalizations (n=8) and Deaths (n=0) by age group
September 30, 2012 - November 3, 2012**



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

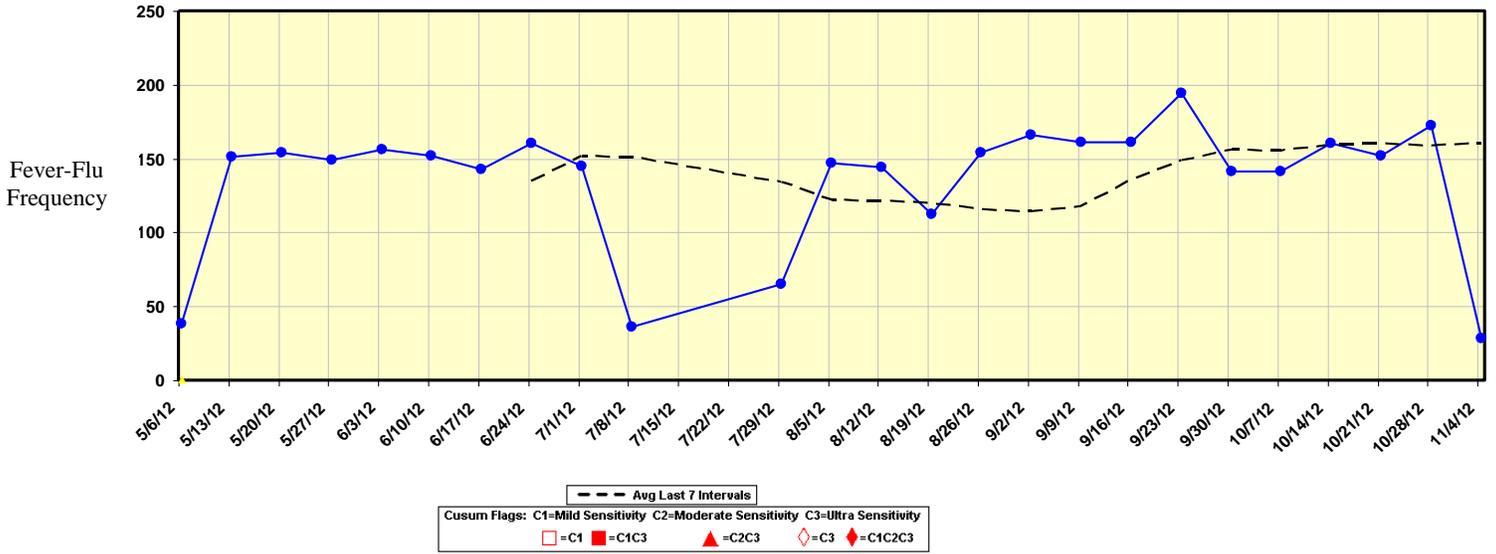
The SC Statewide Fever-Flu Syndrome graph above illustrates the daily counts of hospital emergency department (ED) visits with an Influenza-like Illness (ILI) for the past 21 days. A total of 21 hospital facilities are reporting to the SC-DARTS system. These 21 include: AnMed Health (Region 1); Self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

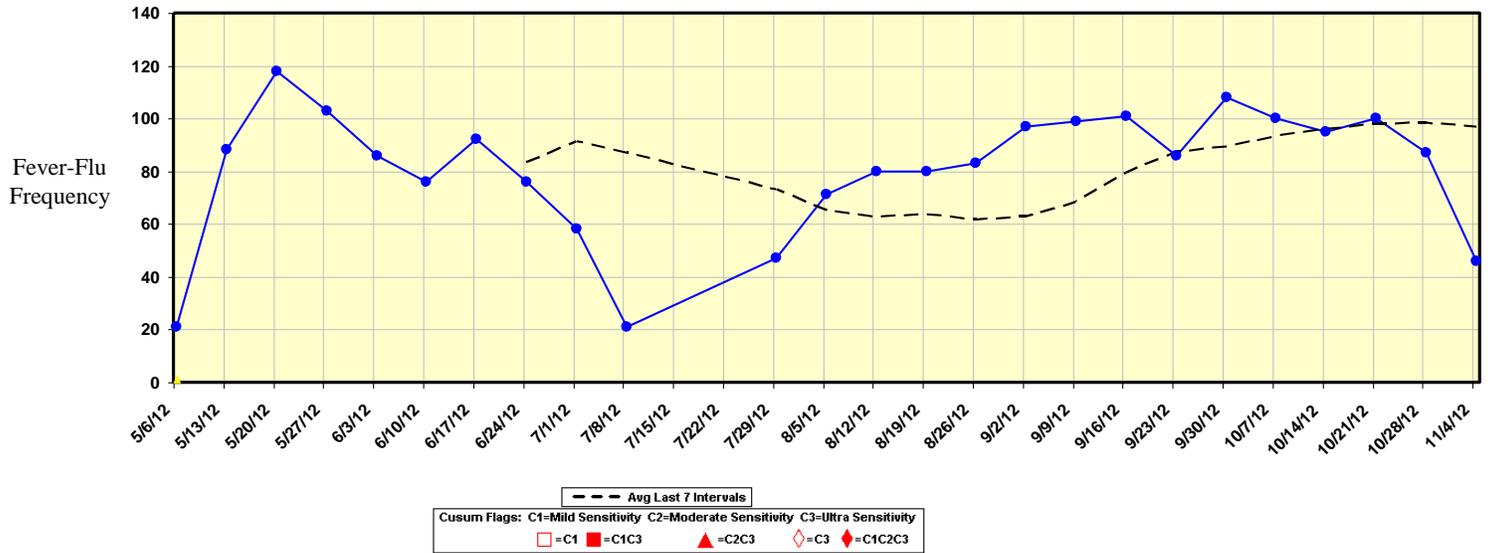
Below are the fever-flu syndrome graphs by Region for the past 180 days (weekly interval).

Region 1 - Fever Flu Syndrome



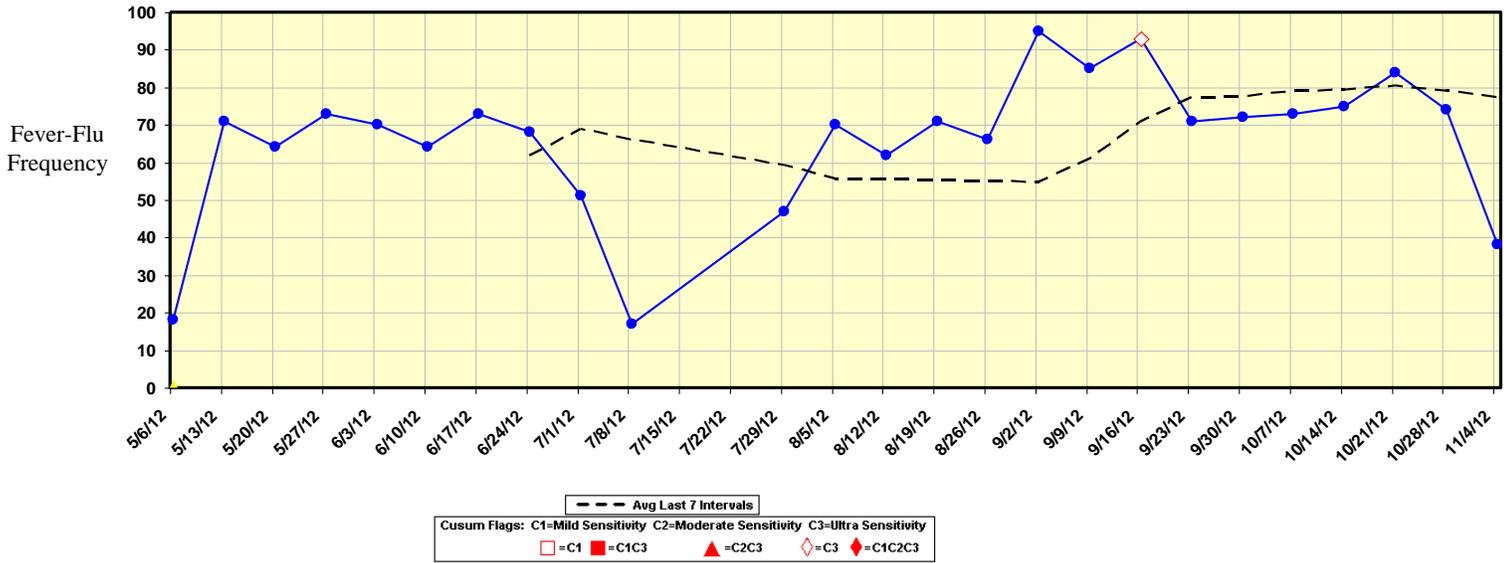
Region1 Hospitals (# of Facilities): AnMed Health (3); Self-Regional (1); Oconee Medical Center (1);

Region 2 - Fever Flu Syndrome



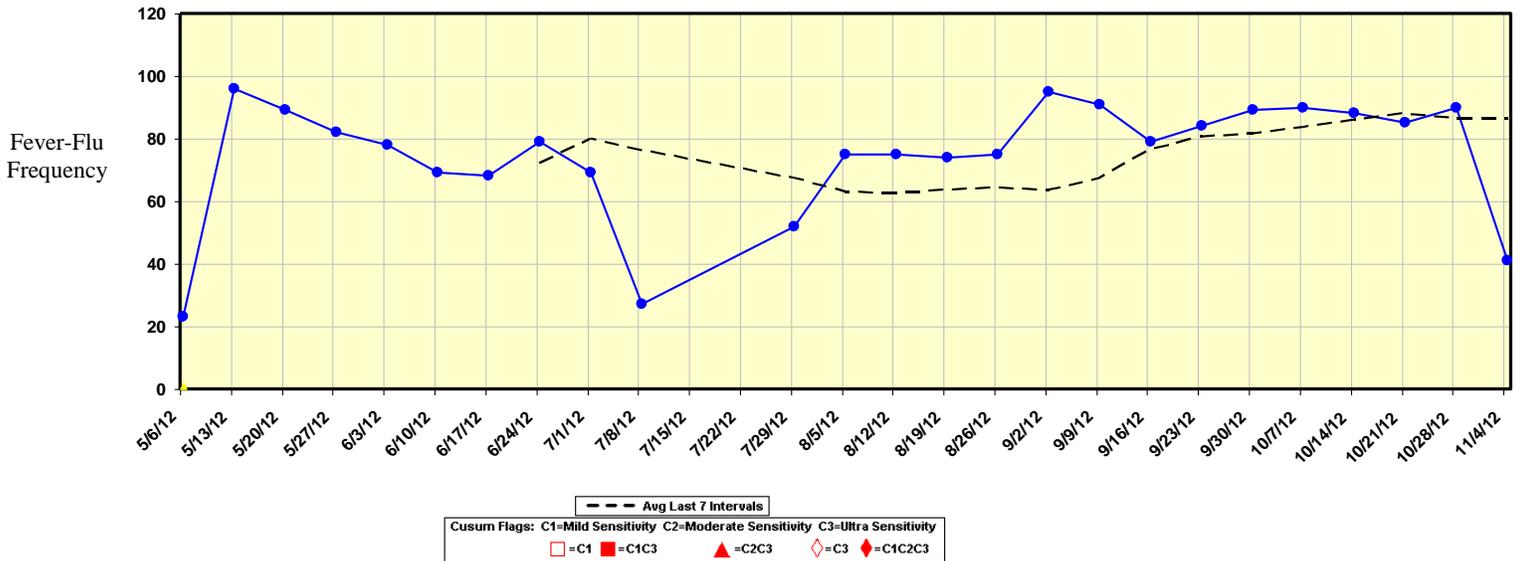
Region 2 Hospitals (# of Facilities): Greenville Hospital System (4); Palmetto Health Easley (1)

Region 3 - Fever Flu Syndrome



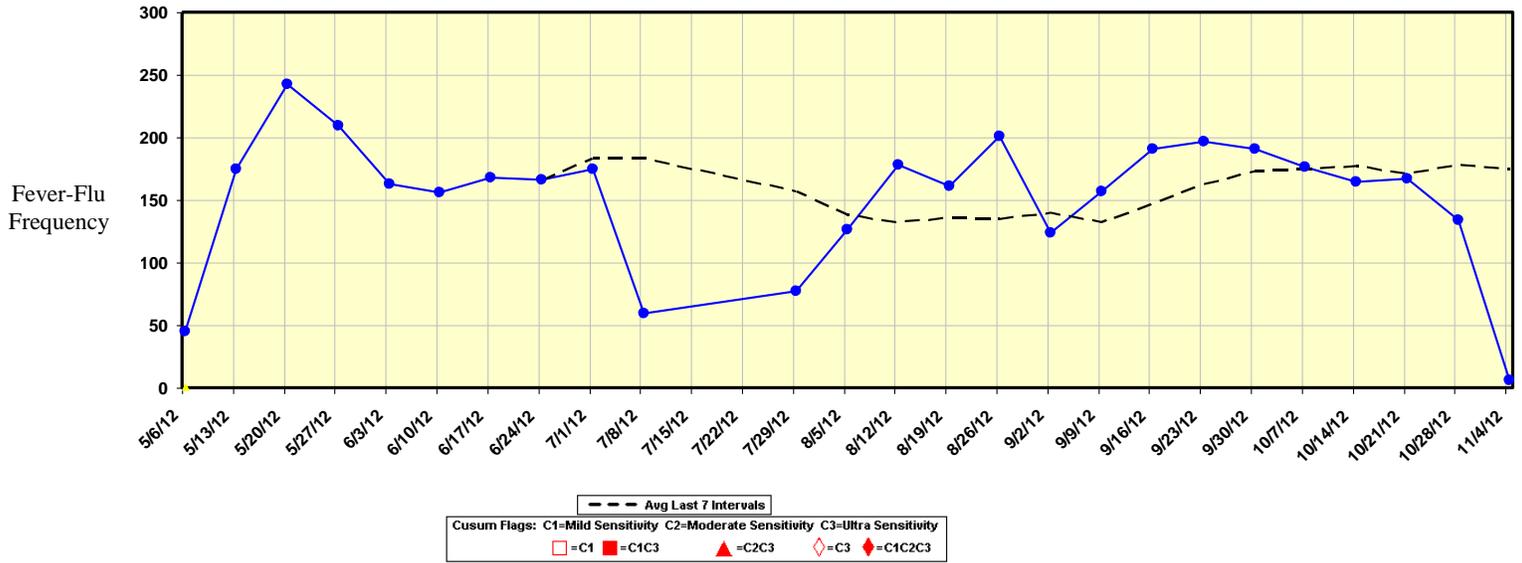
Region 3 Hospitals (# of Facilities): Palmetto Health Baptist (1), Palmetto Health Richland (1)

Region 4 - Fever Flu Syndrome



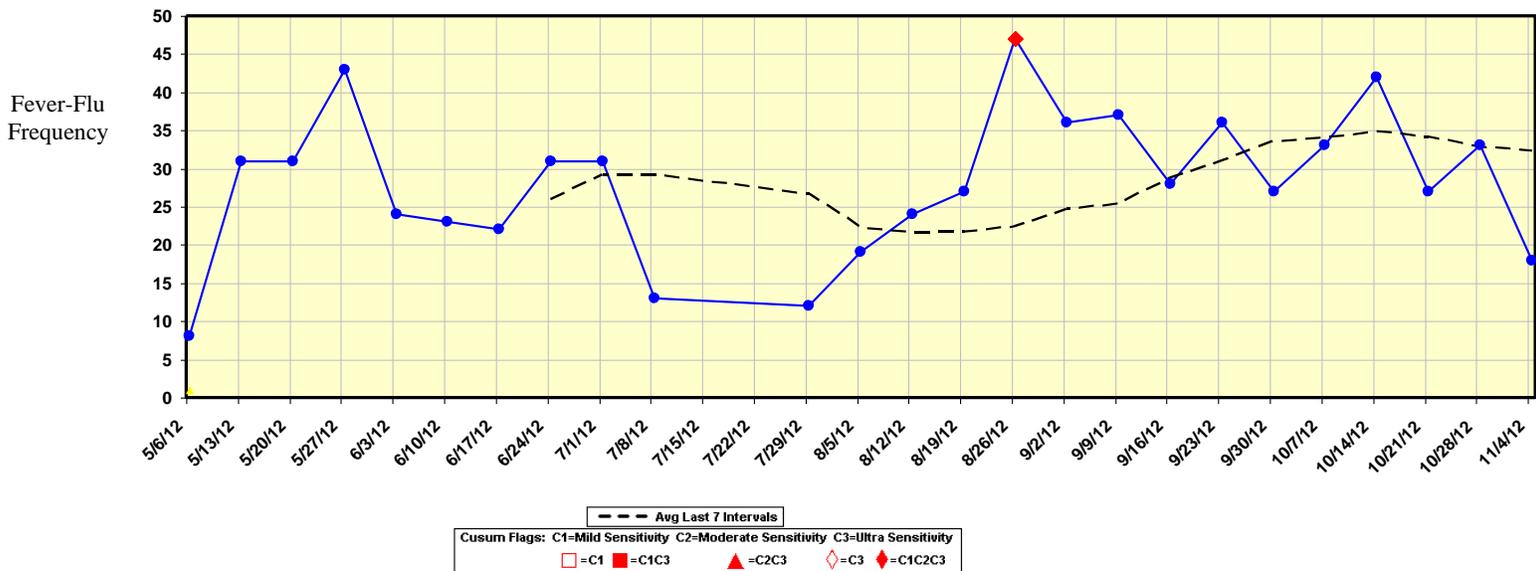
Region 4 Hospitals (# of Facilities): Kershaw Health (1); McLeod Health (1); Elgin Urgent Care (1)

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
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
Local	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		
Regional	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 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.

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**.

