

## South Carolina Department of Health and Environmental Control

### Division of Acute Disease Epidemiology

Week Ending November 9, 2013 (MMWR Week 45)

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

#### MMWR Week 45 at a Glance:

##### Influenza Activity Level: LOCAL

Note: Activity level definitions are found on page 13

**ILI Activity Status (South Carolina baseline is 2.05%\*):** The state ILI percentage was .50%. These data reflect reports from 11 (35.5%) providers.

**SC Viral Isolate and RT-PCR Activity:** Twelve positive specimens were reported. Since 9/29/13, 27 positive specimens have been reported.

**Positive Rapid Flu Test Activity:** Two hundred ninety one positive rapid tests were reported. Since 9/29/13, 746 positive rapid tests have been reported.

**Hospitalizations:** Twelve lab confirmed hospitalizations were reported. Since 9/29/13, 34 lab confirmed hospitalizations have been reported.

**Deaths:** One lab confirmed death was reported. Since 9/29/13, one lab confirmed death was reported.

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# Flu Watch

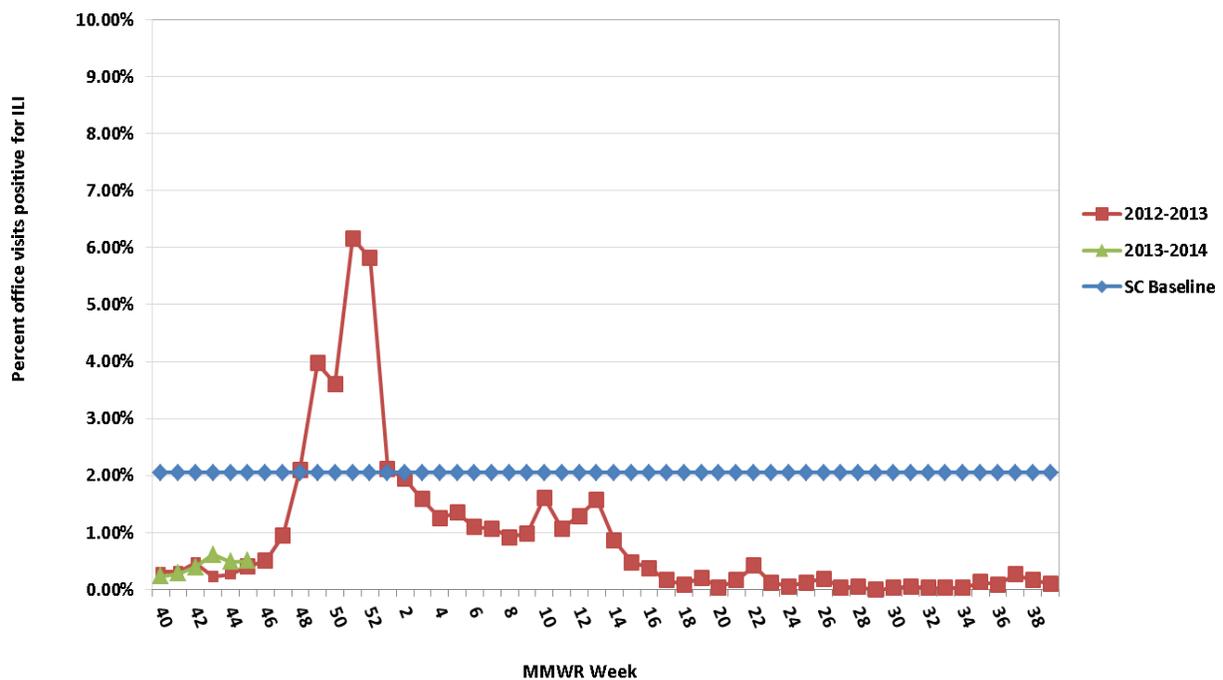
Summary of ILI Activity, Positive Confirmatory Tests, and Influenza Associated Hospitalizations and Deaths

	<i>Current week</i>	<i>Previous week</i>	<i>Change from previous week</i>
Percent of ILI visits reported by ILINet providers	.50%	.49%	▼ .01%
Number of positive confirmatory tests	12	3	▲ 9
Number of lab confirmed flu hospitalizations	12	6	▲ 6
Number of lab confirmed flu deaths	1	0	▲ 1

## 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 .41 % this time last year. Reports were received from providers in 8 counties, representing all 4 regions.

**Percentage of Visits for Influenza-like Illness (ILI) Reported by Sentinel Providers in South Carolina  
2012-2013 and 2013-2014 Influenza Seasons**

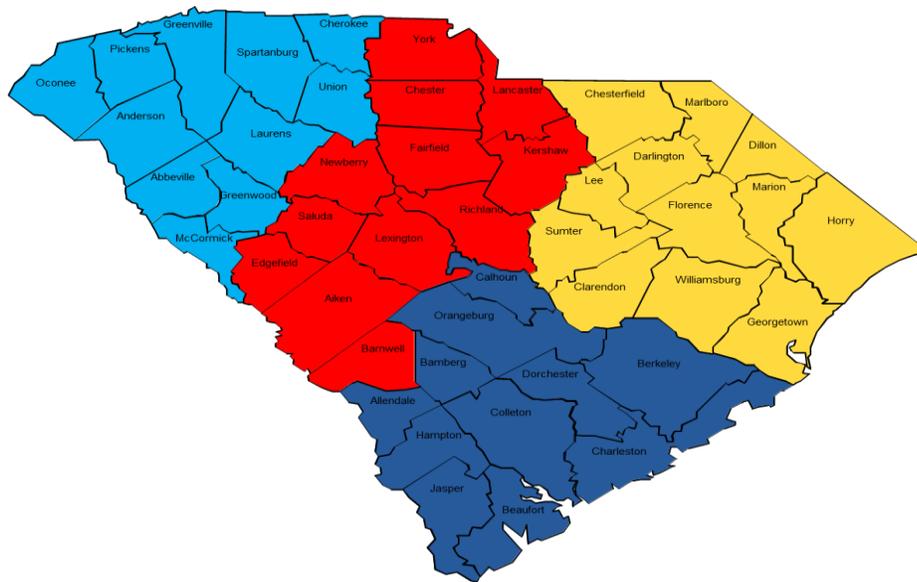


\*The SC baseline is the mean percentage of patient visits for ILI during non-influenza weeks (weeks when percent of positive lab tests was below 20%) for the previous three seasons plus two standard deviations.

## Influenza-Like Illness Reported by Sentinel Providers November 3, 2013 – November 9, 2013

County	ILI %	County	ILI %
Abbeville	---	Greenwood	NR
Aiken	NR	Hampton	NR
Allendale	---	Horry	NR
Anderson	0%	Jasper	NR
Bamberg	---	Kershaw	NR
Barnwell	---	Lancaster	---
Beaufort	NR	Laurens	NR
Berkeley	13.71%	Lee	---
Calhoun	---	Lexington	NR
Charleston	NR	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	NR
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	0%
Dillon	NR	Richland	.12%
Dorchester	NR	Saluda	0%
Edgefield	---	Spartanburg	0%
Fairfield	---	Sumter	NR
Florence	.42%	Union	---
Georgetown	NR	Williamsburg	---
Greenville	.14%	York	0%

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



\*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 (11/3/13 – 11/9/13)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
Number of specimens tested	8	-
Number of positive specimens	8	4
Influenza A unsubtype		
Influenza A H1N1	8	3
Influenza A H3N2		
Influenza B		1
Other		
Includes culture, RT-PCR, DFA, and IFA		

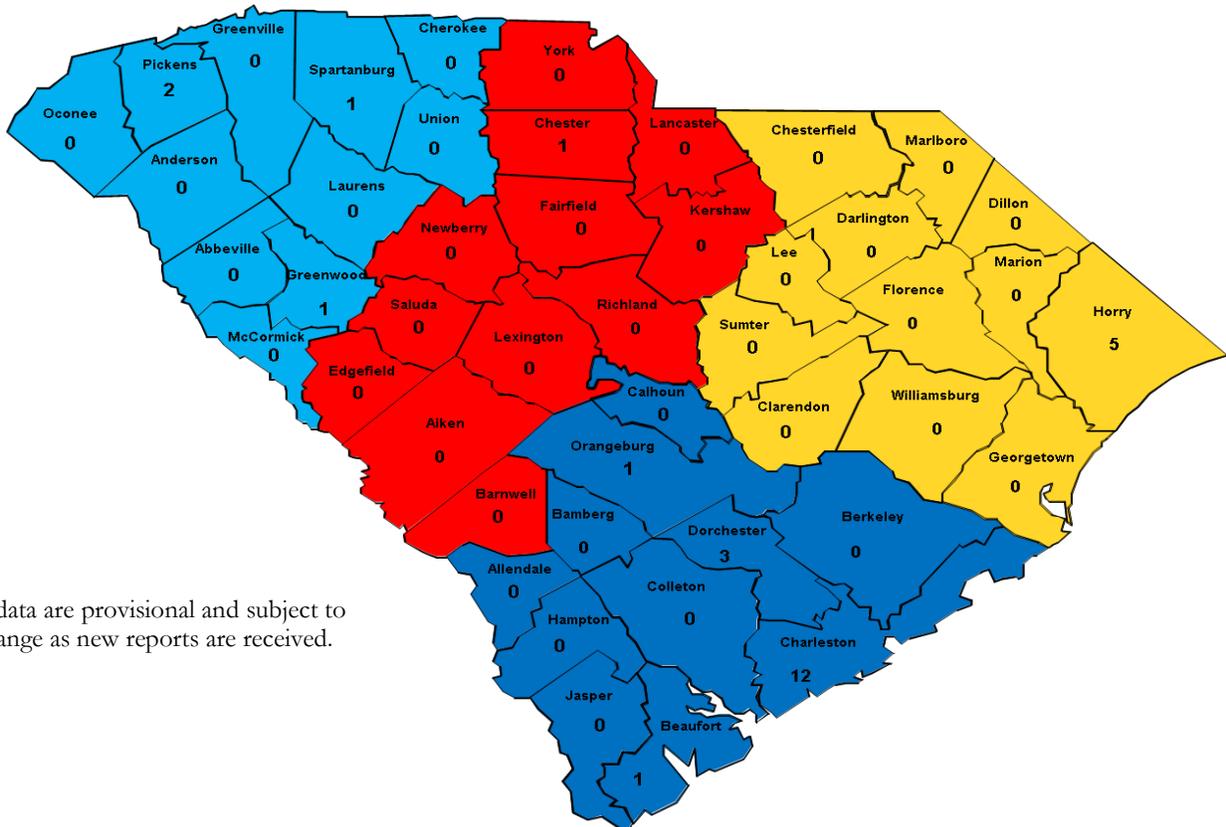
For the current MMWR reporting week, twelve positive specimens were reported.

<i>Positive confirmatory influenza test results*</i> <i>Cumulative (09/29/13 – 11/9/13)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
Number of specimens tested	36	NA
Number of positive specimens	11 (30.5%)	16
Influenza A unsubtype		1 (6.3%)
Influenza A H1N1	11 (100%)	13 (81.3%)
Influenza A H3N2		
Influenza B		2 (12.5%)
Other		
Includes culture, RT-PCR, DFA, and IFA		

**Positive Confirmatory Tests by County  
Current Week 11/3/13 – 11/9/13**

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	1
Beaufort		Greenville		Pickens	2
Berkeley		Greenwood		Richland	
Calhoun		Hampton		Saluda	
Charleston	4	Horry	5	Spartanburg	
Cherokee		Jasper		Sumter	
Chester		Kershaw		Union	
Chesterfield		Lancaster		Williamsburg	
Clarendon		Laurens		York	
Colleton		Lee		Unknown	
Darlington		Lexington			

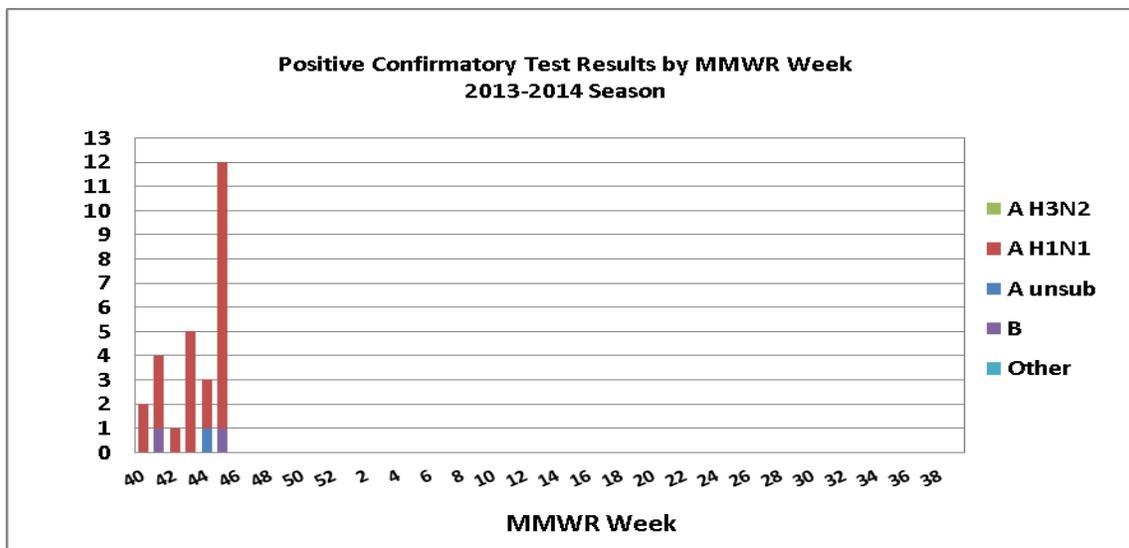
**Map of Positive Confirmatory Tests by County  
Cumulative 09/29/13 – 11/9/13**



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

**Positive Confirmatory Tests by County and Type  
Cumulative 9/29/13-11/9/13**

	A H1N1	A H3N2	B	A Unsub	Unk		A H1N1	A H3N2	B	A Unsub	Unk
<b>Upstate</b>											
Abbeville						McCormick					
Anderson						Oconee					
Cherokee						Pickens	2				
Greenwood	1					Spartanburg				1	
Greenville						Union					
Laurens											
<b>Midlands</b>											
Aiken						Lancaster					
Barnwell						Lexington					
Chester	1					Newberry					
Edgefield						Richland					
Fairfield						Saluda					
Kershaw						York					
<b>Pee Dee</b>											
Chesterfield						Horry	5				
Clarendon						Lee					
Darlington						Marion					
Dillon						Marlboro					
Florence						Sumter					
Georgetown						Williamsburg					
<b>Low Country</b>											
Allendale						Colleton					
Bamberg						Dorchester	3				
Beaufort	1					Hampton					
Berkeley						Jasper					
Calhoun						Orangeburg	1				
Charleston	10		2								
<b>Unknown County</b>											



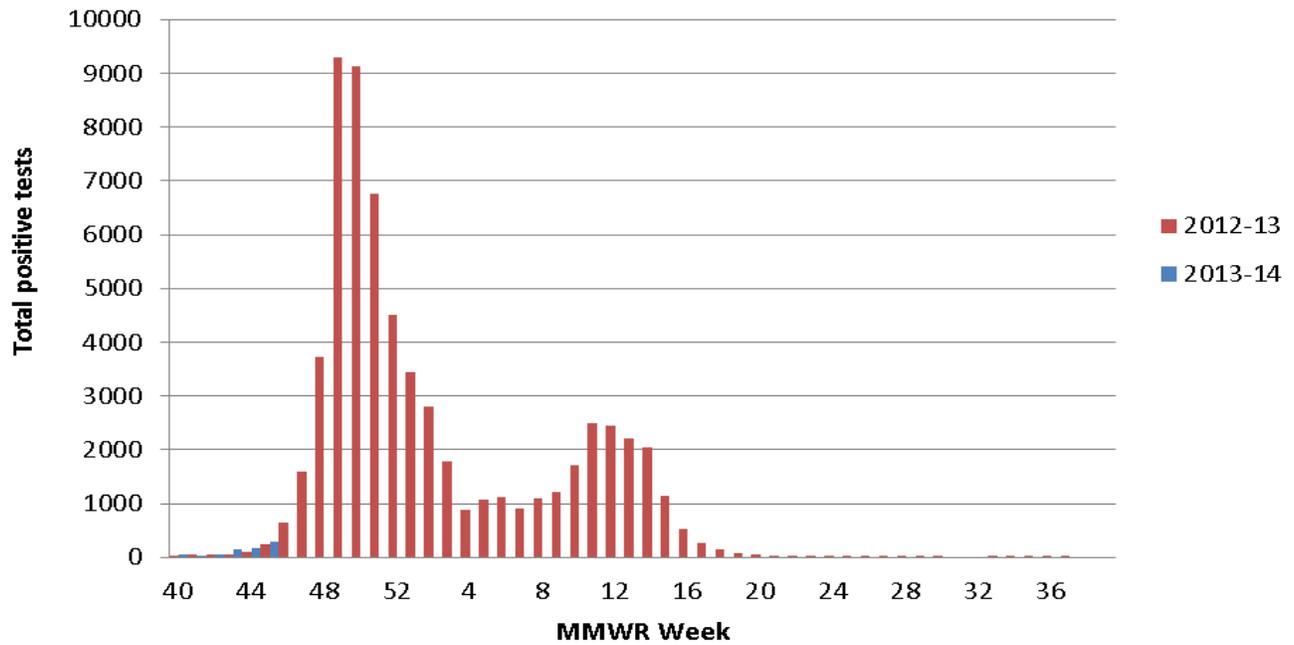
### III. Positive Rapid Antigen Tests

For the current MMWR reporting week, 291 positive rapid antigen tests were reported. Of these, 268 were influenza A, 2 were influenza A/B, and 21 were influenza B. This compares to 54 this time last year.

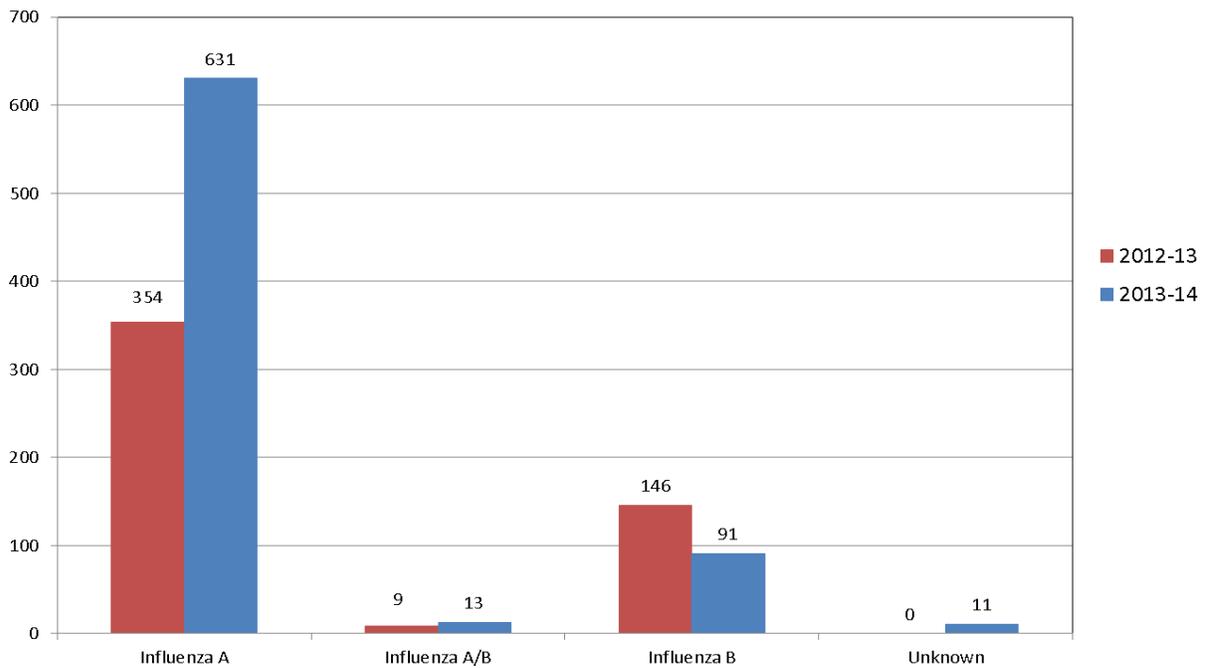
Positive Rapid Flu Tests by County Current Week 11/3/13 – 11/9/13					
County	Positive Tests	County	Positive Tests	County	Positive Tests
Abbeville		Dillon		Lexington	11
Aiken		Dorchester	47	Marion	
Allendale		Edgefield		Marlboro	
Anderson		Fairfield		McCormick	
Bamberg		Florence	1	Newberry	2
Barnwell		Georgetown	3	Oconee	2
Beaufort	2	Greenville	9	Orangeburg	
Berkeley	8	Greenwood	2	Pickens	1
Calhoun		Hampton		Richland	10
Charleston	98	Horry	45	Saluda	
Cherokee	5	Jasper		Spartanburg	10
Chester	1	Kershaw		Sumter	
Chesterfield		Lancaster	8	Union	
Clarendon	3	Laurens		Williamsburg	
Colleton	6	Lee		York	15
Darlington	2				

Positive Rapid Flu Tests by County and Type Cumulative (9/29/13 – 11/9/13)														
County	A	A/B	B	Unk/ Other	County	A	A/B	B	Unk/ Other	County	A	A/B	B	Unk/ Other
Abbeville					Dillon					Lexington	15		5	
Aiken	2				Dorchester	93	2	2		Marion				
Allendale					Edgefield					Marlboro				
Anderson	5		2		Fairfield	3	1			McCormick				
Bamberg					Florence	11		10		Newberry	4		2	
Barnwell					Georgetown	5		1		Oconee	9		2	
Beaufort	8		2		Greenville	28	2	7		Orangeburg				9
Berkeley	18				Greenwood	2				Pickens	8		1	
Calhoun					Hampton					Richland	21	1	20	
Charleston	223	3	8		Horry	65	1	6	2	Saluda				
Cherokee	5				Jasper					Spartanburg	16		1	
Chester	2				Kershaw	9		2		Sumter	2			
Chesterfield	1				Lancaster	6		3		Union	3	1		
Clarendon	9	2			Laurens					Williamsburg				
Colleton	7				Lee					York	44		7	
Darlington	7		8											

## Positive Rapid Tests by MMWR Week 2012-13 vs 2013-14



## Positive Rapid Tests by Type 2012-13 vs 2013-14 September 29, 2013 - November 9, 2013

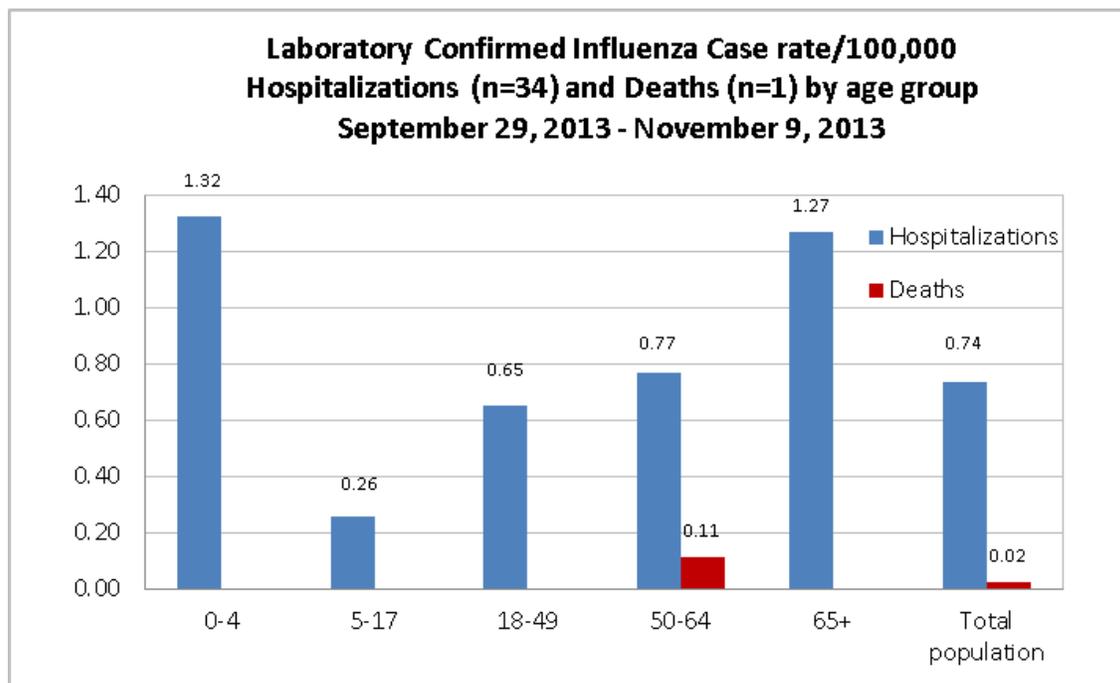


## IV. Influenza hospitalizations and deaths

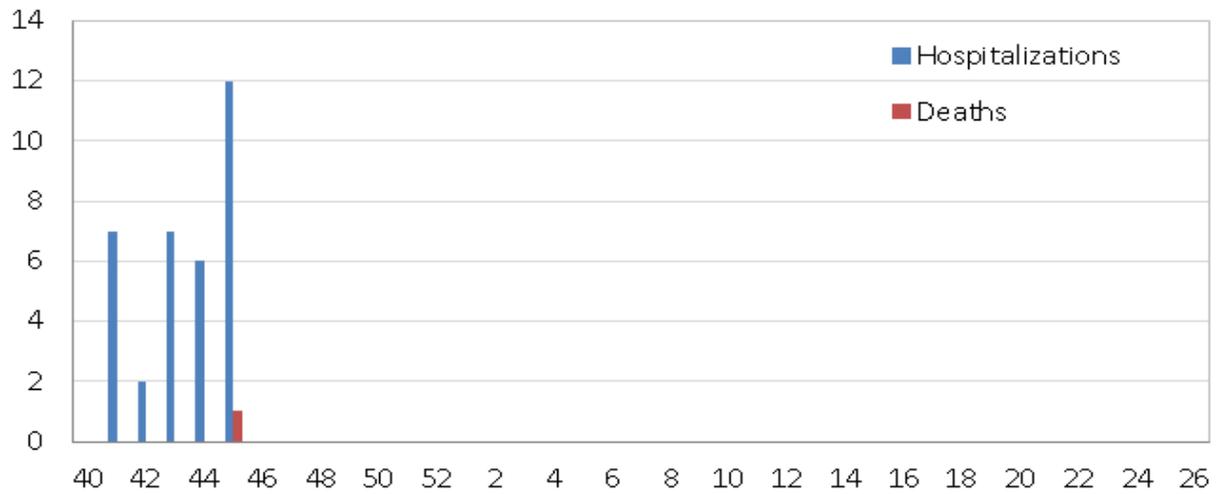
For the current MMWR reporting week, 12 lab confirmed influenza hospitalizations were reported. No lab confirmed influenza deaths were reported.\*

	Total number*	
Number of Reporting Hospitals (Current week)	42	
	<i>Current MMWR Week (10/27/13-11/2/13)</i>	<i>Cumulative (since 09/29/13)</i>
Hospitalizations	12	34
Deaths	1	1

\* 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 29, 2013 - November 9, 2013**



**Lab Confirmed Influenza Deaths by County  
September 29, 2013 – November 9, 2013**

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

## V. 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.

## VI. 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 CHES 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: **Kelly Johnson at 803-898-1588 or [johnsok@dhec.sc.gov](mailto:johnsok@dhec.sc.gov)**.

## VII. National Surveillance MMWR Week 44 (10/27-11/2)

During week 44 (October 27-November 2, 2013), influenza activity remained low in the United States.

- **Viral Surveillance:** Of 4,118 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 44, 201 (4.9%) 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:** Two influenza-associated pediatric deaths that occurred during the 2012-2013 season were reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 1.4%, below the national baseline of 2.0%. All 10 regions reported ILI below region-specific baseline levels. One state experienced moderate ILI activity, three states experienced low ILI activity, 46 states and New York City experienced minimal ILI activity and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza:** The geographic spread of influenza in two states was reported as regional; Puerto Rico and 4 states reported local influenza activity; the District of Columbia, Guam and 34 states reported sporadic influenza activity; 10 states reported no influenza activity, and the U.S. Virgin Islands did not report.

A description of surveillance methods is available at: <http://www.cdc.gov/flu/weekly/overview.htm>

