

## South Carolina Department of Health and Environmental Control

### Division of Acute Disease Epidemiology

Week Ending December 21, 2013 (MMWR Week 51)

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

#### MMWR Week 51 at a Glance:

##### Influenza Activity Level: REGIONAL

Note: Activity level definitions are found on page 14

**ILI Activity Status (South Carolina baseline is 2.05%\*):** The state ILI percentage was 2.31%. These data reflect reports from 11 (35.5%) providers.

**SC Viral Isolate and RT-PCR Activity:** 38 positive specimens were reported. Since 9/29/13, 144 positive specimens have been reported.

**Positive Rapid Flu Test Activity:** 2422 rapid tests were reported. Since 9/29/13, 9843 positive rapid tests have been reported.

**Hospitalizations:** 67 lab confirmed hospitalizations were reported. Since 9/29/13, 401 lab confirmed hospitalizations have been reported.

**Deaths:** No lab confirmed deaths were reported. Since 9/29/13, six lab confirmed deaths have been reported.

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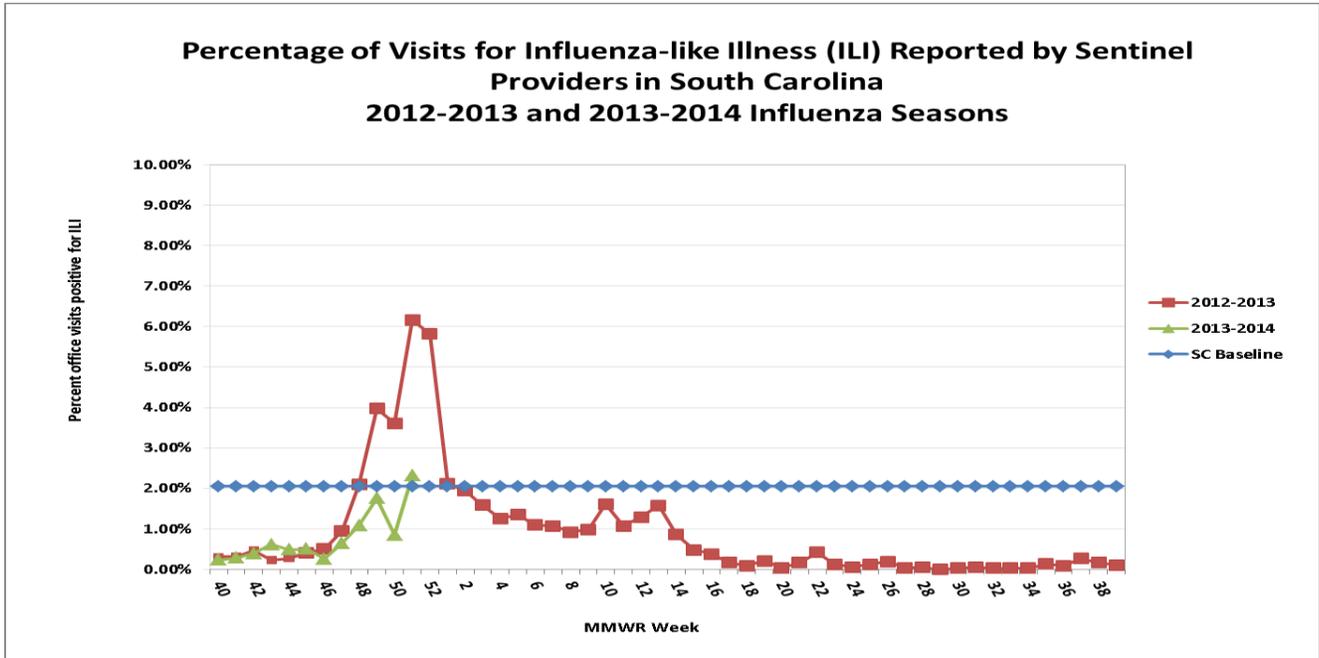
# Flu Watch

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	2.31%	.85%	▲ 1.46%
Percent of fever-flu ER visits reported by hospitals	-	6.89%	
Number of positive confirmatory tests	38	29	▲ 9
Number of lab confirmed flu hospitalizations	67	74	▼ 7
Number of lab confirmed flu deaths	0	0	0

## I. ILINet Influenza-Like Illness Surveillance

During the most recent MMWR week, 2.31 % of patient visits to SC ILINet providers were due to ILI. This is below the state baseline (2.05%). This ILI percentage compares to 6.16 % this time last year. Reports were received from providers in 11 counties, representing 3 of the 4 regions.

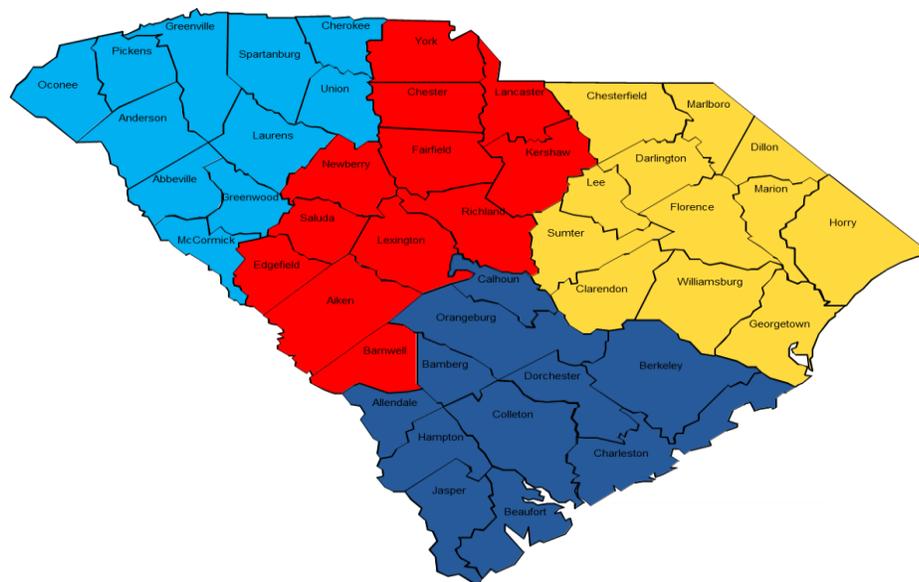


\*The SC baseline is the mean percentage of patient visits for ILI during non-influenza weeks (weeks when percent of positive lab tests was below 20%) for the previous three seasons plus two standard deviations.

## Influenza-Like Illness Reported by Sentinel Providers December 15, 2013 – December 21, 2013

County	ILI %	County	ILI %
Abbeville	---	Greenwood	NR
Aiken	.29%	Hampton	NR
Allendale	---	Horry	NR
Anderson	NR	Jasper	NR
Bamberg	---	Kershaw	NR
Barnwell	---	Lancaster	---
Beaufort	NR	Laurens	NR
Berkeley	NR	Lee	---
Calhoun	---	Lexington	NR
Charleston	NR	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	.85%
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	NR
Dillon	NR	Richland	.43%
Dorchester	NR	Saluda	1.48%
Edgefield	---	Spartanburg	.28%
Fairfield	---	Sumter	NR
Florence	2.20%	Union	---
Georgetown	4.88%	Williamsburg	---
Greenville	2.59%	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 (12/15/13 – 12/21/13)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	24	-
<b>Number of positive specimens</b>	15	23
<b>Influenza A unsubtype</b>		1
<b>Influenza A H1N1</b>	15	22
<b>Influenza A H3N2</b>		
<b>Influenza B</b>		
<b>Other</b>		
Includes culture, RT-PCR, DFA, and IFA		

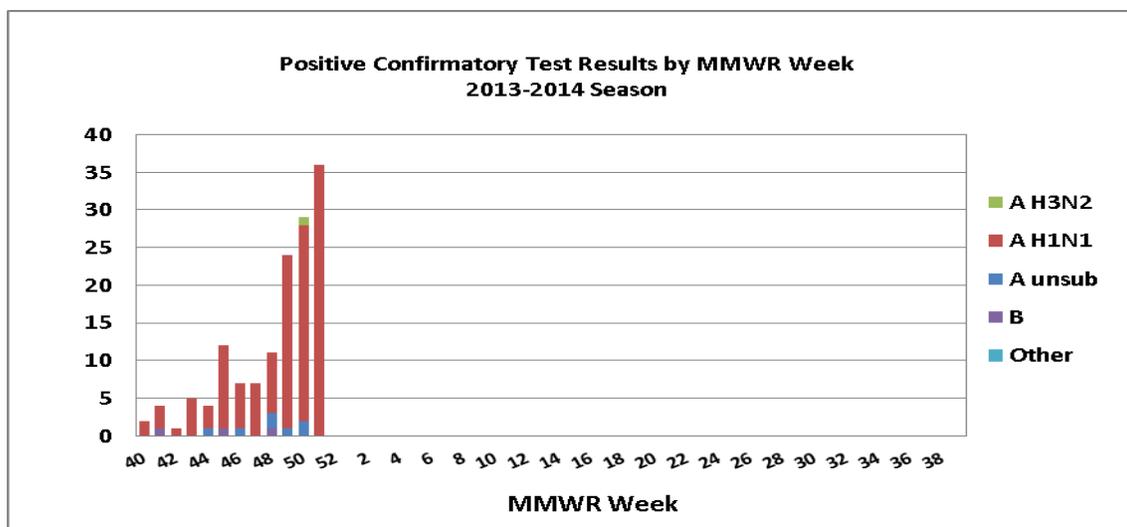
For the current MMWR reporting week, 38 positive specimens were reported.

<i>Positive confirmatory influenza test results*</i> <i>Cumulative (09/29/13 – 12/21/13)</i>		
	<b>BOL</b>	<b>Other clinical labs</b>
<b>Number of specimens tested</b>	108	NA
<b>Number of positive specimens</b>	45 (41.7%)	99
<b>Influenza A unsubtype</b>		8 (8.1%)
<b>Influenza A H1N1</b>	44 (97.8%)	88 (88.9%)
<b>Influenza A H3N2</b>	1 (2.3%)	
<b>Influenza B</b>		3 (3.0%)
<b>Other</b>		
Includes culture, RT-PCR, DFA, and IFA		



**Positive Confirmatory Tests by County and Type  
Cumulative 9/29/13 - 12/21/13**

	A H1N1	A H3N2	B	A Unsub	Unk		A H1N1	A H3N2	B	A Unsub	Unk
<b>Upstate</b>											
Abbeville						McCormick					
Anderson	8					Oconee					
Cherokee						Pickens	2				
Greenwood	7					Spartanburg	1			1	
Greenville				1		Union					
Laurens											
<b>Midlands</b>											
Aiken	23					Lancaster					
Barnwell	2					Lexington	2				
Chester	1					Newberry					
Edgefield	1					Richland	9			1	
Fairfield						Saluda	1				
Kershaw	3					York	2				
<b>Pee Dee</b>											
Chesterfield						Horry	9				
Clarendon						Lee					
Darlington						Marion					
Dillon						Marlboro					
Florence				1		Sumter	1				
Georgetown	1					Williamsburg					
<b>Low Country</b>											
Allendale						Colleton	1				
Bamberg						Dorchester	7			1	
Beaufort	6	1	1			Hampton	1				
Berkeley	4			1		Jasper					
Calhoun						Orangeburg	3				
Charleston	37		2	2							
<b>Unknown County</b>											

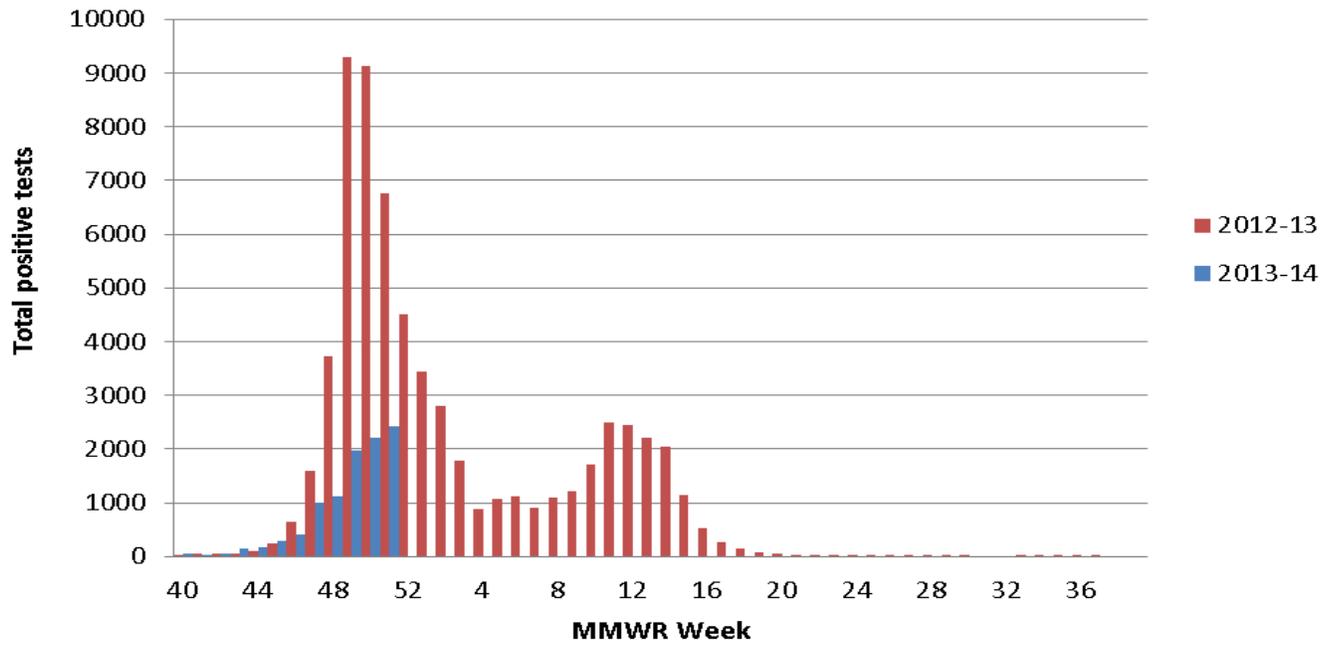


### III. Positive Rapid Antigen Tests

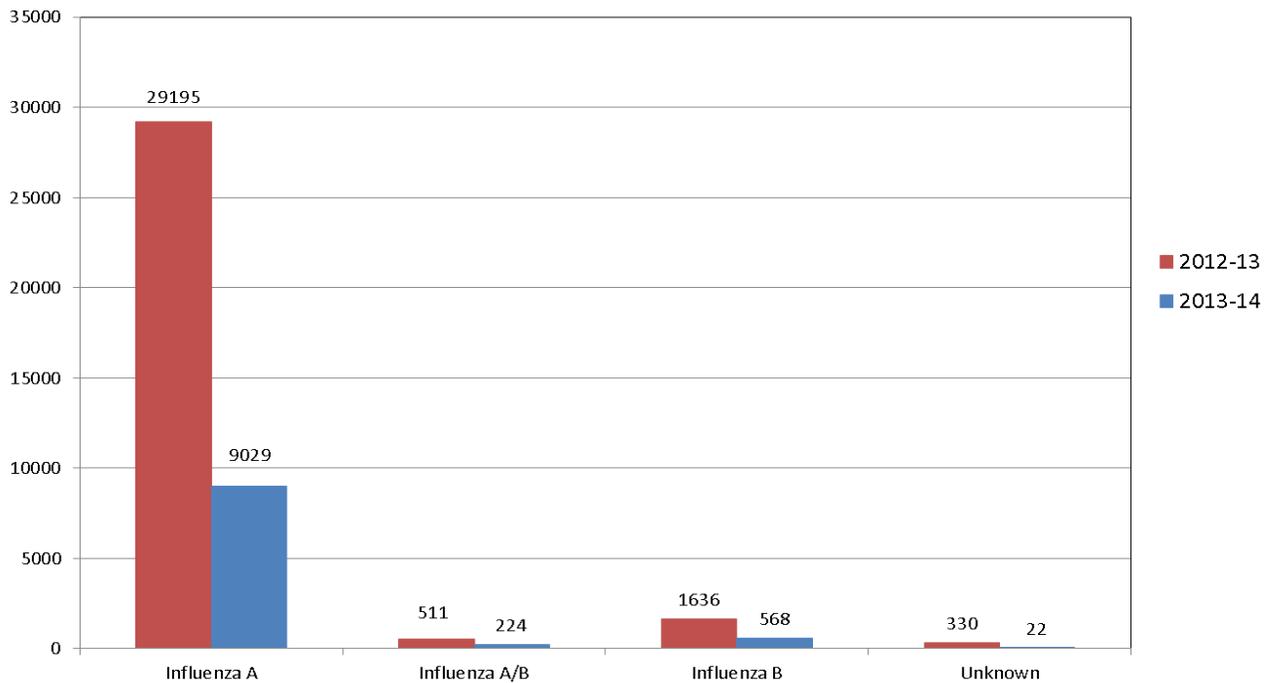
For the current MMWR reporting week, 2422 positive rapid antigen tests were reported. Of these, 2213 were influenza A, 73 were influenza A/B, 135 were influenza B, and 1 was unknown. This compares to 6761 this time last year.

Positive Rapid Flu Tests by County Current Week (12/15/13 – 12/21/13)					
County	Positive Tests	County	Positive Tests	County	Positive Tests
Abbeville	11	Dillon		Lexington	291
Aiken	18	Dorchester	81	Marion	46
Allendale		Edgefield		Marlboro	32
Anderson		Fairfield	1	McCormick	
Bamberg		Florence	147	Newberry	6
Barnwell	1	Georgetown	1	Oconee	12
Beaufort		Greenville	257	Orangeburg	45
Berkeley	79	Greenwood	121	Pickens	38
Calhoun		Hampton	6	Richland	235
Charleston	276	Horry	1	Saluda	
Cherokee	62	Jasper		Spartanburg	278
Chester	2	Kershaw	83	Sumter	38
Chesterfield		Lancaster	1	Union	10
Clarendon	19	Laurens	9	Williamsburg	2
Colleton	1	Lee	2	York	98
Darlington	112				

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



## Positive Rapid Tests by Type 2012-13 vs 2013-14 September 29, 2013 - December 21, 2013



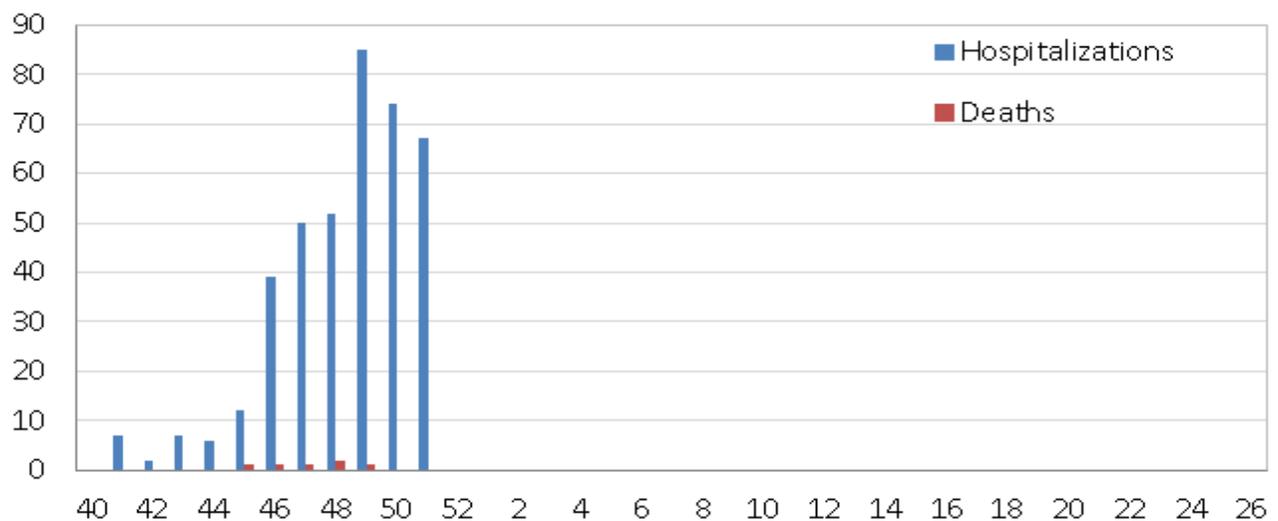
## IV. Influenza hospitalizations and deaths

For the current MMWR reporting week, 67 lab confirmed influenza hospitalizations were reported. No lab confirmed influenza deaths were reported.\*

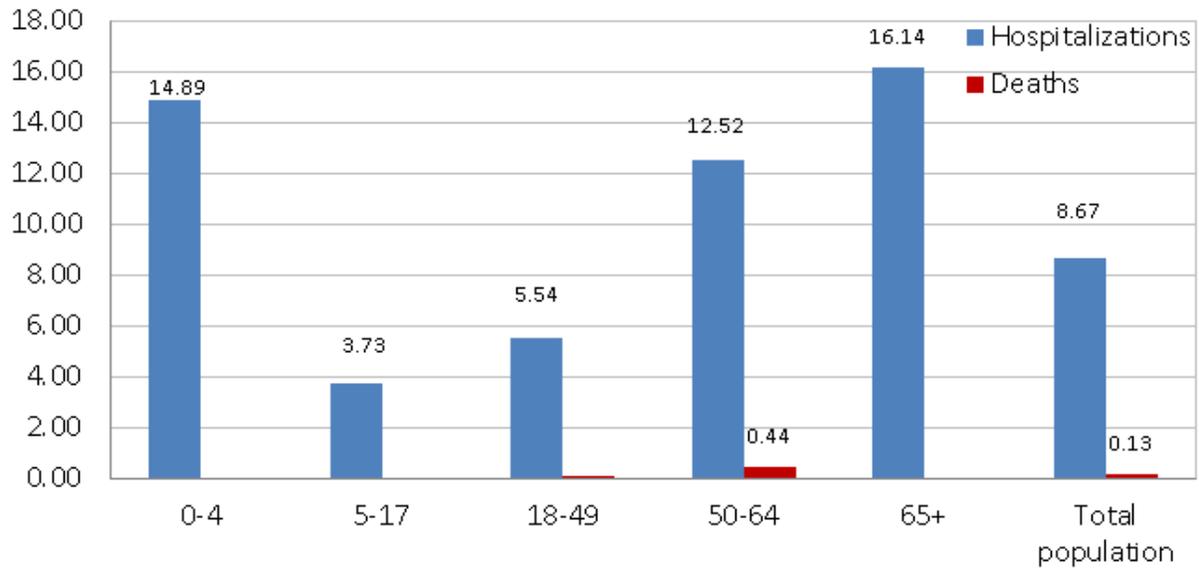
	Total number*	
Number of Reporting Hospitals (Current week)	35	
	<i>Current MMWR Week (12/15/13-12/21/13)</i>	<i>Cumulative (since 09/29/13)</i>
Hospitalizations	67	401
Deaths	0	6

\* 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 - December 21, 2013**



**Laboratory Confirmed Influenza Case rate/100,000  
Hospitalizations (n=401) and Deaths (n=6) by age group  
September 29, 2013 - December 21, 2013**



**Lab Confirmed Influenza Deaths by County  
September 29, 2013 – December 21, 2013**

County	Deaths
Berkeley	1
Charleston	3
Dorchester	1
Richland	1
<b>Total Deaths</b>	<b>6</b>

## 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>Local</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>Regional</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
	<b>OR</b>		
<b>Widespread</b>	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 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  $U \geq U100^{\circ}\text{F}$ ) 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.

#### 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 50 (12/8 – 12/14)

During week 50 (December 8-14, 2013), influenza activity continued to increase in the United States.

- **Viral Surveillance:** Of 7,294 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 50, 1,301 (17.8%) 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 were reported, one of which occurred during the 2012-13 season.
- **Influenza-associated Hospitalizations:** A cumulative rate for the season of 3.0 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 2.3%, above the national baseline of 2.0%. Five regions reported ILI at or above region-specific baseline levels. Four states experienced high ILI activity, one state experienced moderate ILI activity; six states and New York City experienced low ILI activity, 37 states experienced minimal ILI activity and the District of Columbia and two states had insufficient data.
- **Geographic Spread of Influenza:** The geographic spread of influenza in 4 states was reported as widespread; 20 states reported regional influenza activity; 17 states reported local influenza activity; the District of Columbia, Guam, Puerto Rico, and 8 states reported sporadic influenza activity; one state 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>

