



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 February 26, 2011 (MMWR Week 8)

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

Highlights:

Influenza Activity Level: Widespread

Note: Activity level definitions are found on page 12

ILI Activity Status (South Carolina baseline is 2.05%*): Above baseline in the Upstate (5.40%), Midlands (3.24%), and along the Coast (13.08%). The state ILI percentage was 5.32%. These data reflect reports from 20 (51.3%) providers.

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

SC Viral Isolate and RT-PCR Activity: Thirty-two positive specimens were reported by the Bureau of Labs (BOL). Thirty-one positive specimens were reported by outside labs. Since October 3, 2010, 472 positive specimens have been reported.

Positive Rapid Flu Test Activity: There were 4619 positive rapid tests reported.

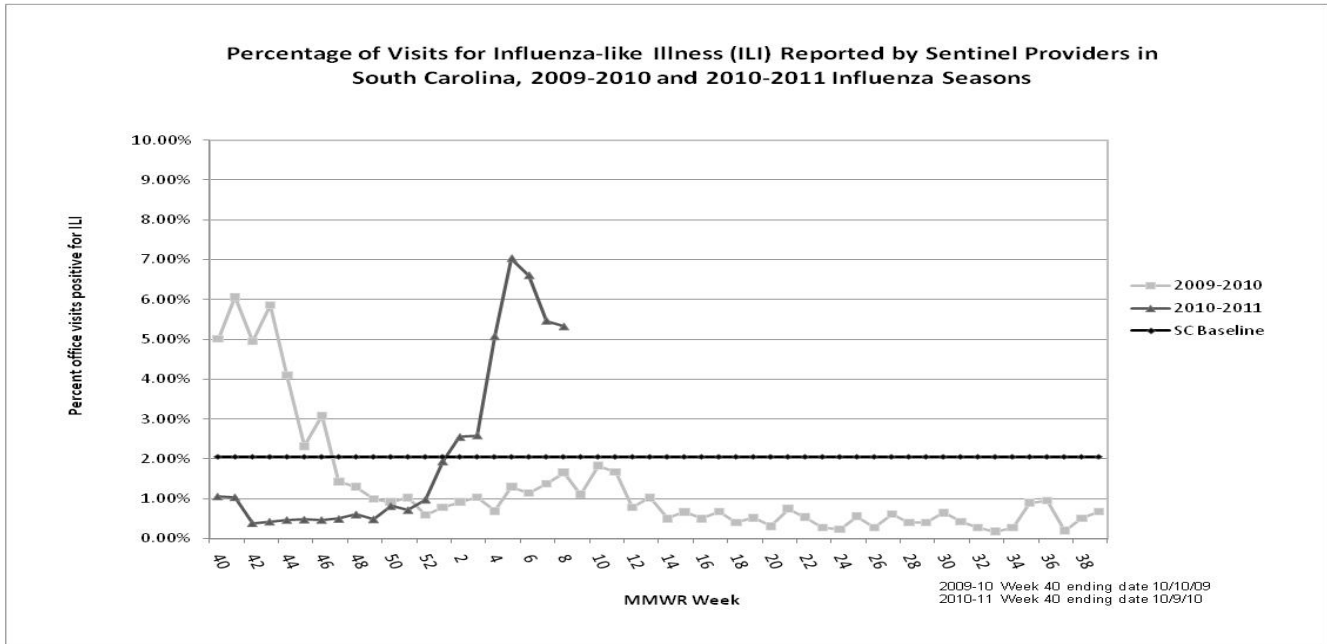
Hospitalizations: One hundred twenty-three lab confirmed hospitalizations were reported. Lab confirmation includes culture, PCR, DFA, IFA, and rapid tests. There have been 848 reported this season.

Deaths: One lab confirmed death was reported. Lab confirmation includes culture, PCR, DFA, IFA, rapid tests, and autopsy results consistent with influenza. Fourteen have been reported this season.

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I. ILINet Influenza-Like Illness Surveillance

During MMWR week 8 ending February 26, 2011, 5.32% of patient visits to SC ILINet providers were due to ILI. This is above the state baseline (2.05%). This ILI percentage compares to 1.66% this time last year. Reports were received from providers in 15 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
February 20, 2011-February 26, 2011

County	ILI %	County	ILI %
Abbeville	---	Greenwood	NR
Aiken	2.52%	Hampton	NR
Allendale	---	Horry	NR
Anderson	7.25%	Jasper	NR
Bamberg	---	Kershaw	1.39%
Barnwell	---	Lancaster	---
Beaufort	NR	Laurens	NR
Berkeley	24.32%	Lee	---
Calhoun	---	Lexington	3.73%
Charleston	NR	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	1.40%
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	7.14%
Dillon	NR	Richland	2.66%
Dorchester	NR	Saluda	0%
Edgefield	---	Spartanburg	1.68%
Fairfield	11.47%	Sumter	NR
Florence	6.05%	Union	---
Georgetown	1.71%	Williamsburg	---
Greenville	7.72%	York	6.05%

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



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1-2	5.40	10
Midlands-Regions 3-5	3.24	8
Coastal-Regions 6-8	13.08	2

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

II. Virologic Surveillance

During the past MMWR week (2/20-2/26), Thirty-two positive specimens were reported by the BOL. Thirty-one positive specimens were reported by outside labs. An additional 40 positive specimens were reported for previous MMWR weeks. So far this season, 472 positive specimens have been reported.

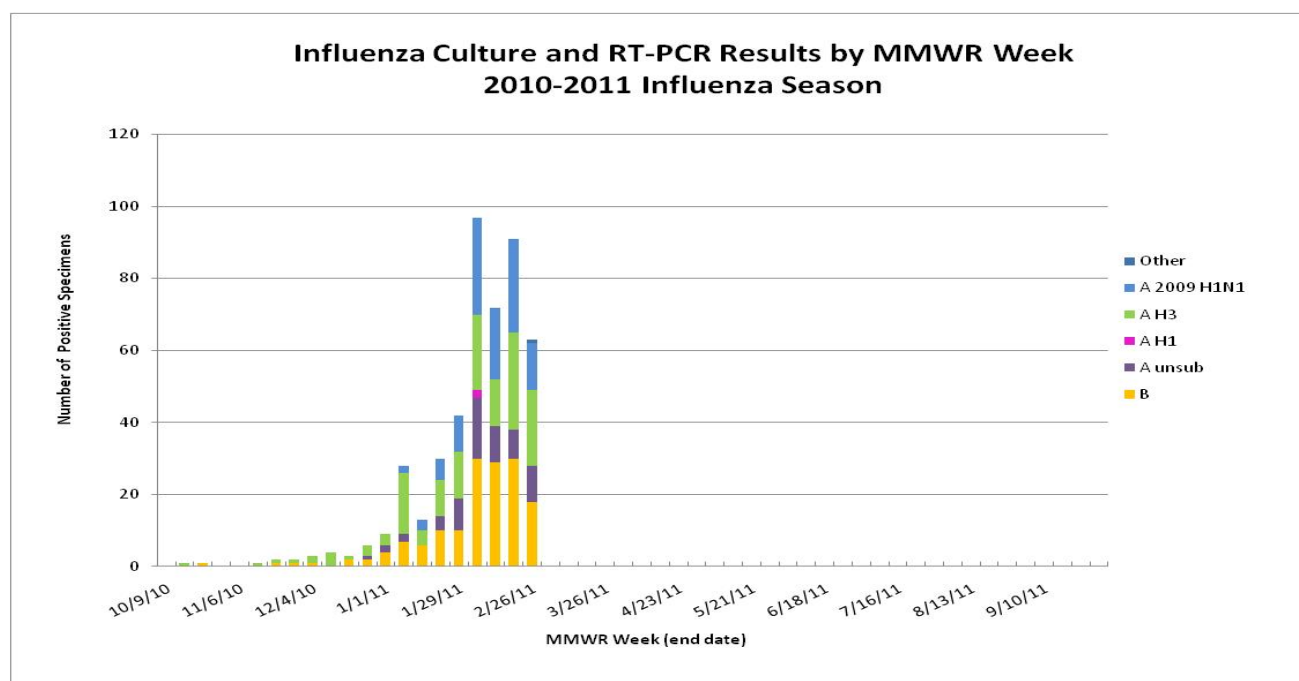
Positive confirmatory influenza test results* Current MMWR Week (2/20-2/26/11)		
	BOL	Other clinical labs
Number of specimens tested	61	-
Number of positive specimens	32	31
Positive specimens by type/subtype		
A (H1)		
A (H3)	15	6
A (unsubtyped)		10
A (2009 H1N1)	5	8
Influenza B	11	7
Other	1	
*Culture and/or RT-PCR		

Positive confirmatory influenza test results* Cumulative (10/3/10-2/26/11)		
	BOL	Other clinical labs
Number of specimens tested	552	-
Number of positive specimens	284 (51.4%)	188
Positive specimens by type/subtype		
Influenza A		
A (H1)	1	1
A (H3)	108	36
A (unsubtyped)	2	61
A (2009 H1N1)	76	35
Influenza B	96	55
Unk		
Other	1	
*Culture and/or RT-PCR		

Positive Cultures and PCRs by County (2010-11)*
October 3, 2010-February 26, 2011

County	Total	County	Total
Abbeville	2	Hampton	3
Aiken	7	Horry	8
Allendale	1	Jasper	
Anderson	7	Kershaw	3
Bamberg	8	Lancaster	2
Barnwell	3	Laurens	11
Beaufort	32	Lee	4
Berkeley	13	Lexington	3
Calhoun		Marion	
Charleston	61	Marlboro	2
Cherokee	1	McCormick	4
Chester	2	Newberry	1
Chesterfield	5	Oconee	4
Clarendon	8	Orangeburg	2
Colleton	2	Pickens	2
Darlington	13	Richland	42
Dillon	5	Saluda	
Dorchester	13	Spartanburg	15
Edgefield		Sumter	54
Fairfield		Union	
Florence	6	Williamsburg	1
Georgetown	3	York	36
Greenville	7	Unknown	57
Greenwood	16	Other	3

*These data are provisional.



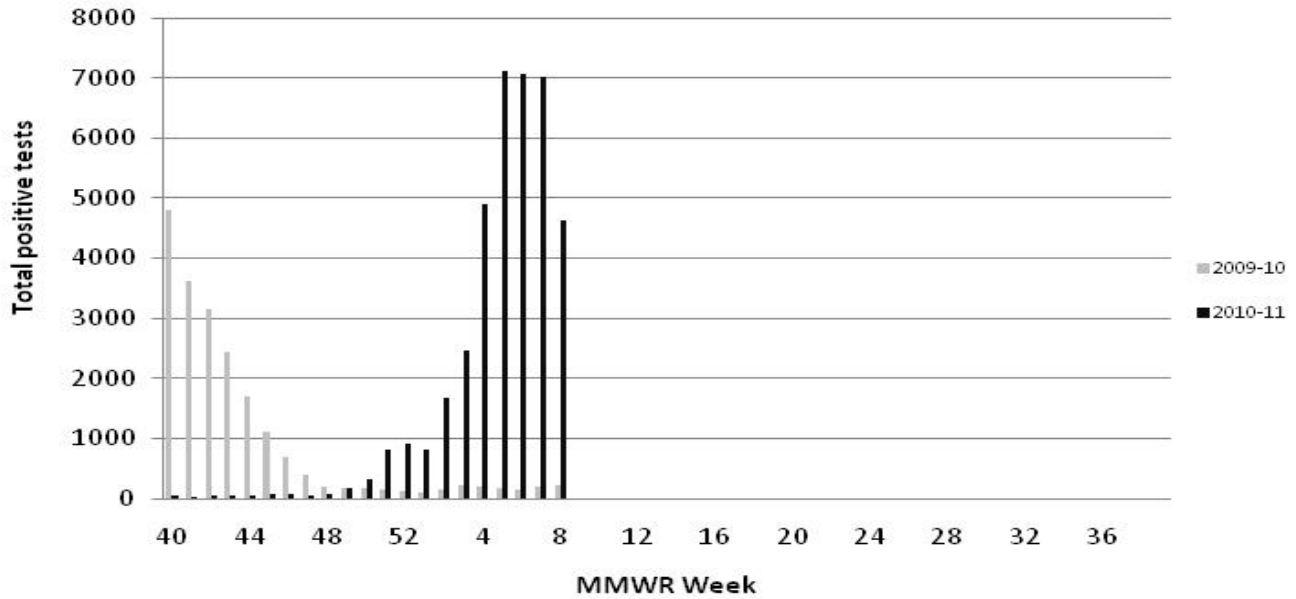
III. Positive Rapid Antigen Tests

There were 4619 positive rapid antigen tests reported for the week ending February 26, 2011. Of these, 2810 were influenza A, 295 were influenza A/B and 1509 were influenza B. There were 5 with unknown type. Since the beginning of the season, 38,390 positive rapid tests have been reported. This compares to 20,621 this time last year.

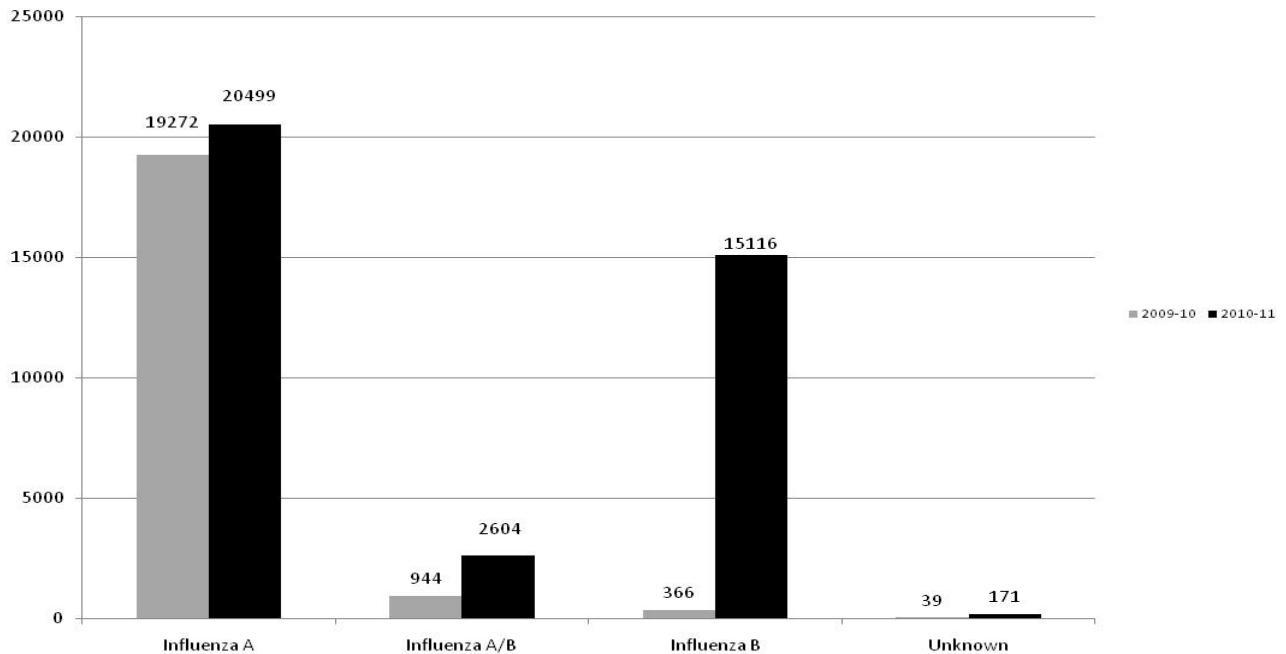
Positive Rapid Flu Tests by County
February 20, 2011 – February 26, 2011

County	Positive Tests	County	Positive Tests
Abbeville	22	Greenwood	75
Aiken	62	Hampton	
Allendale	5	Horry	342
Anderson	215	Jasper	3
Bamberg	4	Kershaw	79
Barnwell	9	Lancaster	84
Beaufort	59	Laurens	21
Berkeley	54	Lee	10
Calhoun		Lexington	193
Charleston	307	Marion	42
Cherokee	39	Marlboro	
Chester	21	McCormick	
Chesterfield	10	Newberry	6
Clarendon	14	Oconee	88
Colleton	14	Orangeburg	132
Darlington	153	Pickens	54
Dillon		Richland	596
Dorchester	111	Saluda	
Edgefield	19	Spartanburg	220
Fairfield	11	Sumter	136
Florence	203	Union	24
Georgetown	176	Williamsburg	32
Greenville	694	York	280

Positive Rapid Tests by MMWR Week 2009-10 vs 2010-11



Positive Rapid Tests by Type 2009-10 vs 2010-11 MMWR Week 40 through 8

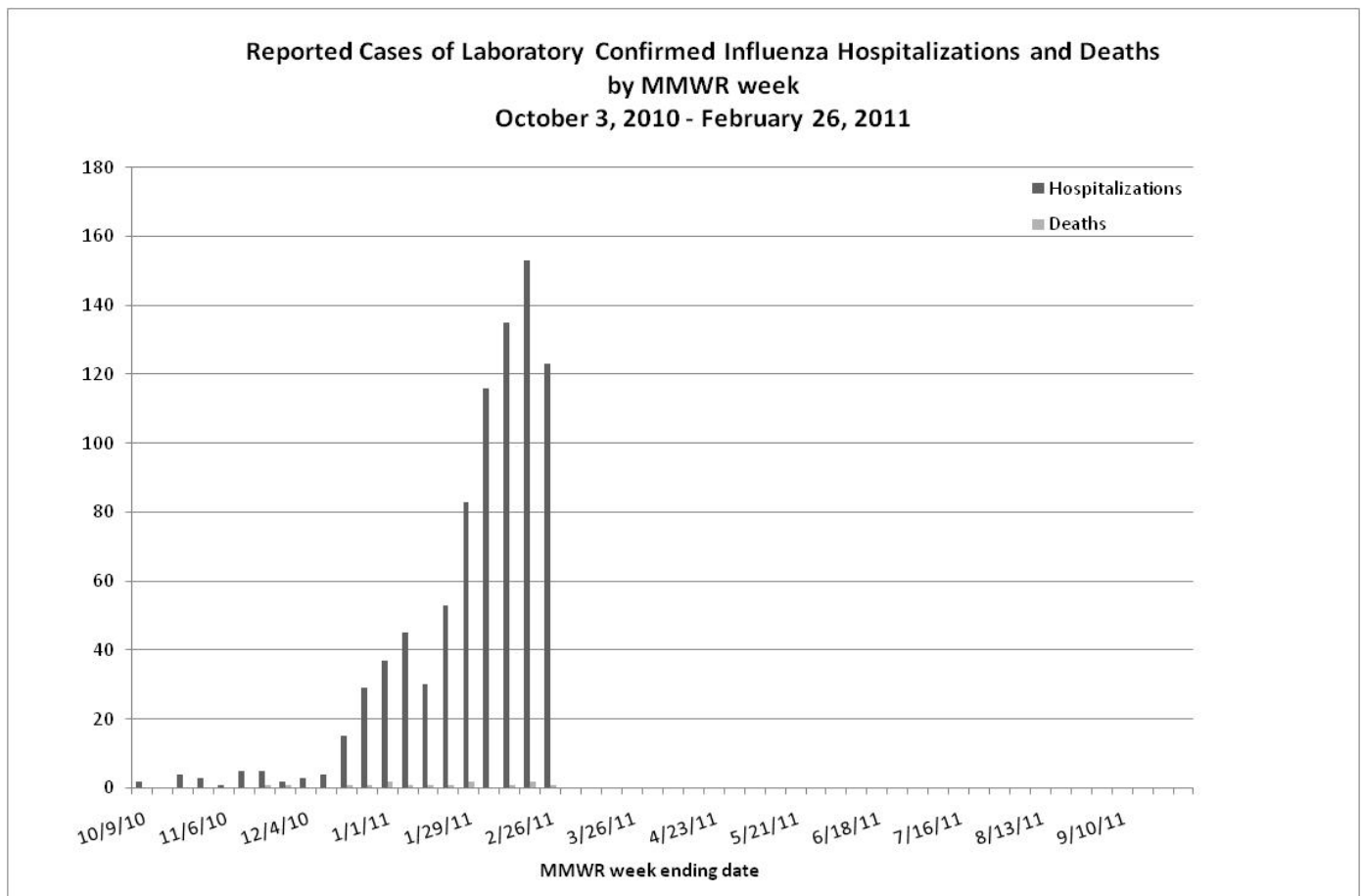


IV. Influenza hospitalizations and deaths

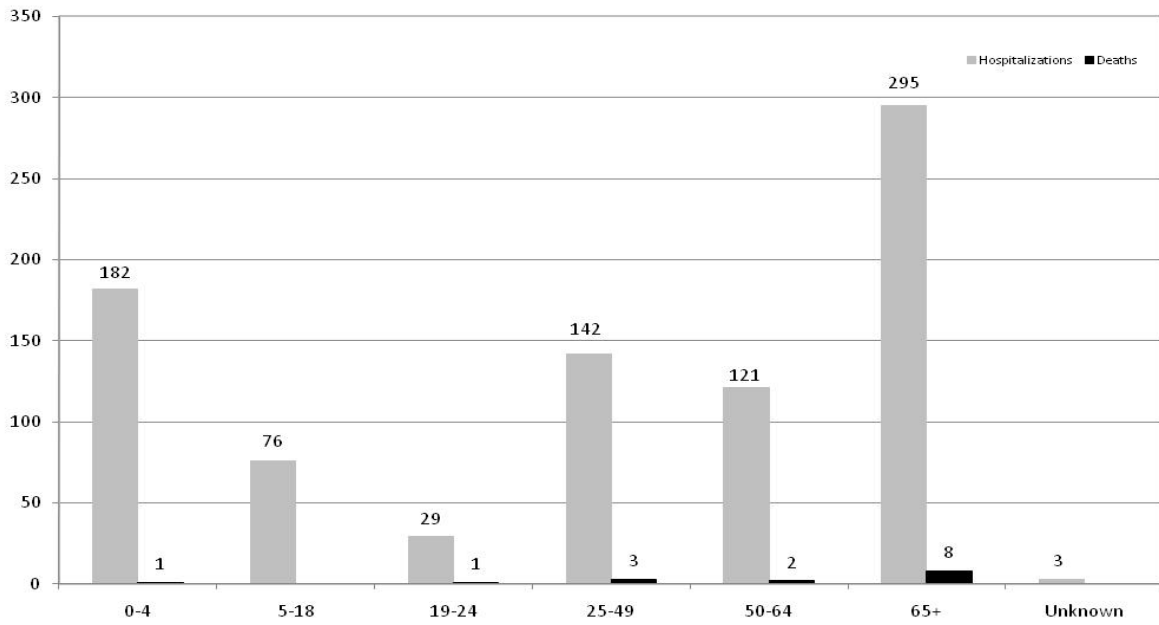
One hundred twenty-three* lab confirmed influenza hospitalizations were reported for the past week. One lab confirmed death was reported.

	Total number*	
Number of Hospitals Reporting (current week)	52	
	<i>Previous MMWR (2/20-2/26/11)</i>	<i>Cumulative (since 10/3/10)</i>
Hospitalizations	123	848
Deaths	1	15

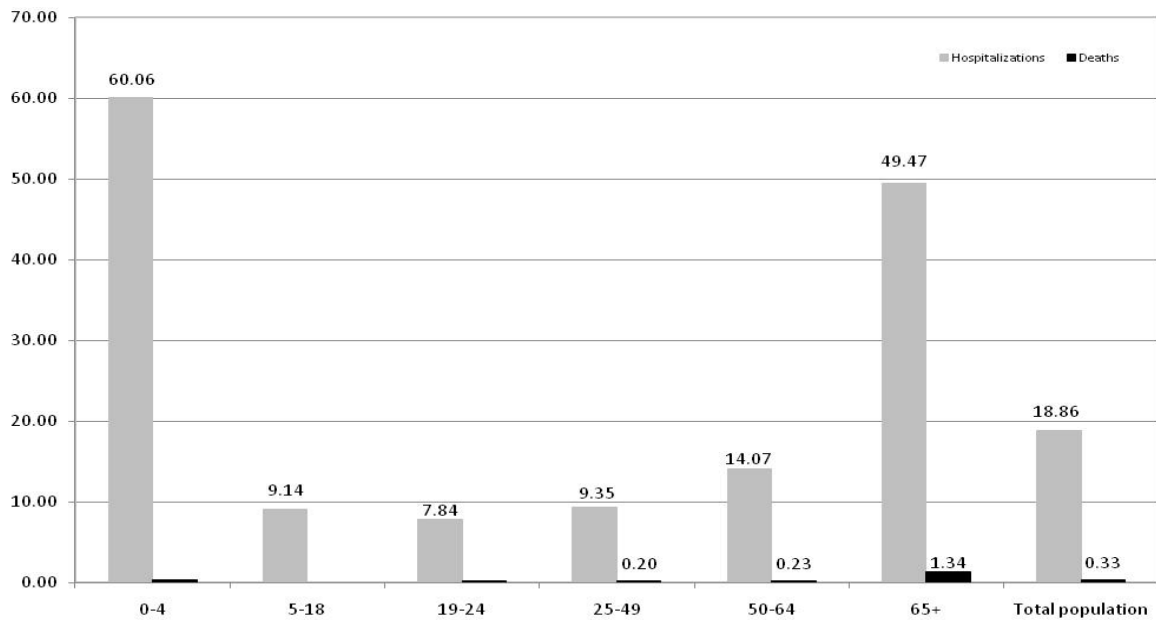
*These data are provisional. Lab confirmation for hospitalizations and deaths includes culture, PCR, DFA, IFA, and rapid test.



**Reported Cases of Laboratory Confirmed Influenza
Hospitalizations (n=848) and Deaths (n=15)
October 3, 2010 - February 26, 2011**



**Laboratory Confirmed Influenza Case rate/100,000
Hospitalizations (n=848) and Deaths (n=15) by age group
October 3, 2010 - February 26, 2011**



*Case rates exclude 3 hospitalizations with unknown age

V. National influenza update (MMWR Week 7: 2/13-2/19)

During the week of **February 13-February 19**, 2,866 (31.3%) specimens tested by WHO and NREVSS labs were positive for influenza. The proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold for the fourth consecutive week. Six influenza-associated pediatric deaths were reported bringing to season total to 41. Three of these deaths were associated with an influenza B virus, one was associated with an influenza A (H3) virus, one was associated with a 2009 influenza A (H1N1) virus, and one was associated with an influenza A virus for which the subtype was not determined.

The proportion of outpatient visits for influenza-like illness (ILI) was 4.9%, which is above the national baseline of 2.5%. All 10 regions reported ILI above region-specific baseline levels. Twenty-one states experienced high ILI activity; six states experienced moderate ILI activity; New York City and 16 states experienced low ILI activity; seven states experienced minimal ILI activity, and the District of Columbia had insufficient data. The geographic spread of influenza in 44 states was reported as widespread; four states reported regional influenza activity; the District of Columbia reported local influenza activity; Puerto Rico, the U.S. Virgin Islands, and two states reported sporadic influenza activity, and Guam reported no influenza activity.

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

VI. 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 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.

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**.

VII. 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.