



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 March 26, 2011 (MMWR Week 12)

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

Highlights:

Influenza Activity Level: Regional

Note: Activity level definitions are found on page 12

ILI Activity Status (South Carolina baseline is 2.05%*): Below baseline in the Upstate (.07%), Midlands (.73%) and along the Coast (1.97%). The state ILI percentage was .81%. These data reflect reports from 18 (48.6%) providers.

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

SC Viral Isolate and RT-PCR Activity: Six positive specimens were reported by the Bureau of Labs (BOL). Three positive specimens were reported by outside labs. Since October 3, 2010, 593 positive specimens have been reported.

Positive Rapid Flu Test Activity: There were 276 positive rapid tests reported.

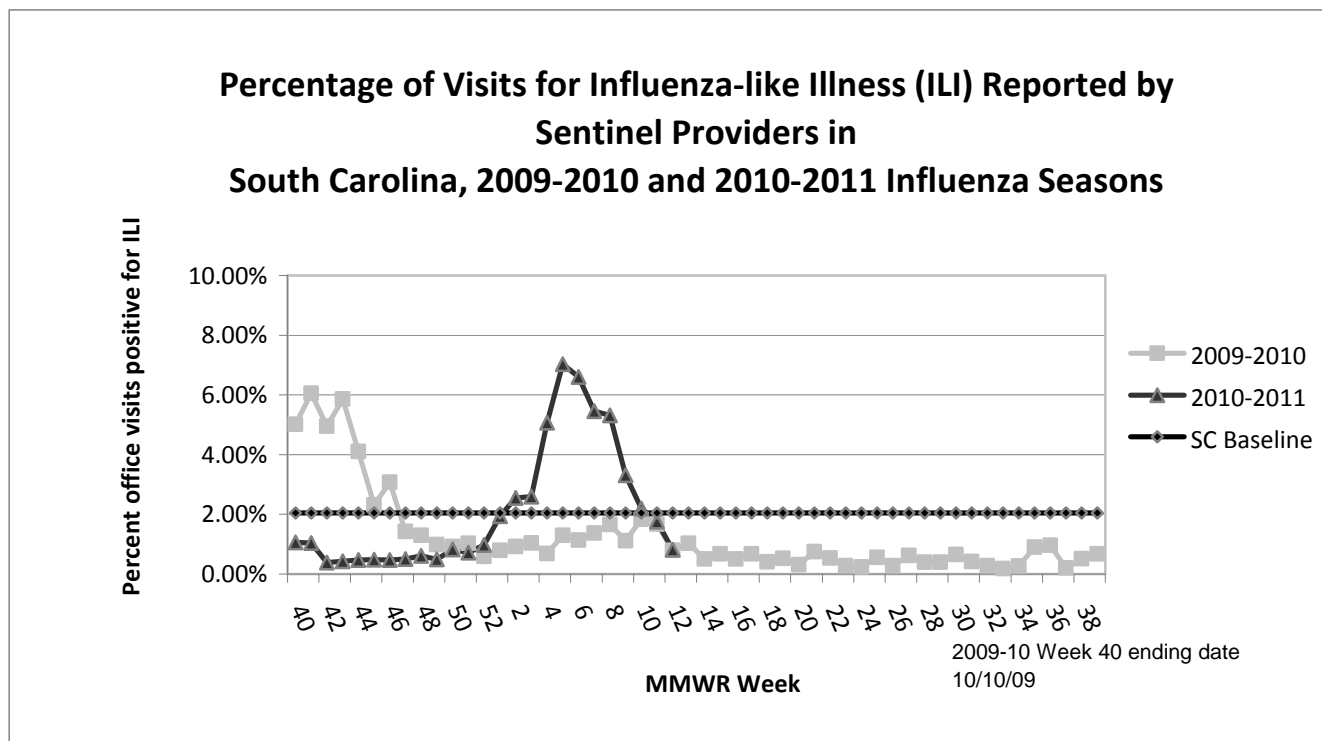
Hospitalizations: Twelve confirmed hospitalizations were reported. Lab confirmation includes culture, PCR, DFA, IFA, and rapid tests. There have been 978 reported this season.

Deaths: No lab confirmed deaths were reported. Lab confirmation includes culture, PCR, DFA, IFA, rapid tests, and autopsy results consistent with influenza. Twenty have been reported this season.

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I. ILINet Influenza-Like Illness Surveillance

During MMWR week 12 (3/20-3/26), .81% of patient visits to SC ILINet providers were due to ILI. This is below the state baseline (2.05%). This ILI percentage compares to .79% this time last year. Reports were received from providers in 14 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
March 20, 2011-March 26, 2011

County	ILI %	County	ILI %
Abbeville	---	Greenwood	NR
Aiken	.99%	Hampton	NR
Allendale	---	Horry	NR
Anderson	NR	Jasper	NR
Bamberg	---	Kershaw	.49%
Barnwell	---	Lancaster	---
Beaufort	NR	Laurens	NR
Berkeley	1.72%	Lee	---
Calhoun	---	Lexington	NR
Charleston	1.82%	Marion	---
Cherokee	---	Marlboro	---
Chester	---	McCormick	0%
Chesterfield	---	Newberry	---
Clarendon	---	Oconee	---
Colleton	---	Orangeburg	---
Darlington	---	Pickens	NR
Dillon	NR	Richland	.67%
Dorchester	3.87%	Saluda	0%
Edgefield	---	Spartanburg	0%
Fairfield	1.37%	Sumter	NR
Florence	.42%	Union	---
Georgetown	.98%	Williamsburg	---
Greenville	.13%	York	1.06%

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



Geographic Region	ILI %	# of Reporters
Upstate-Regions 1-2	.07	7
Midlands-Regions 3-5	.73	7
Coastal-Regions 6-8	1.97	4

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

II. Virologic Surveillance

During MMWR week 12 (3/20-3/26), six positive specimens were reported by the BOL. Three positive specimens were reported by outside labs. So far this season, 593 positive specimens have been reported.

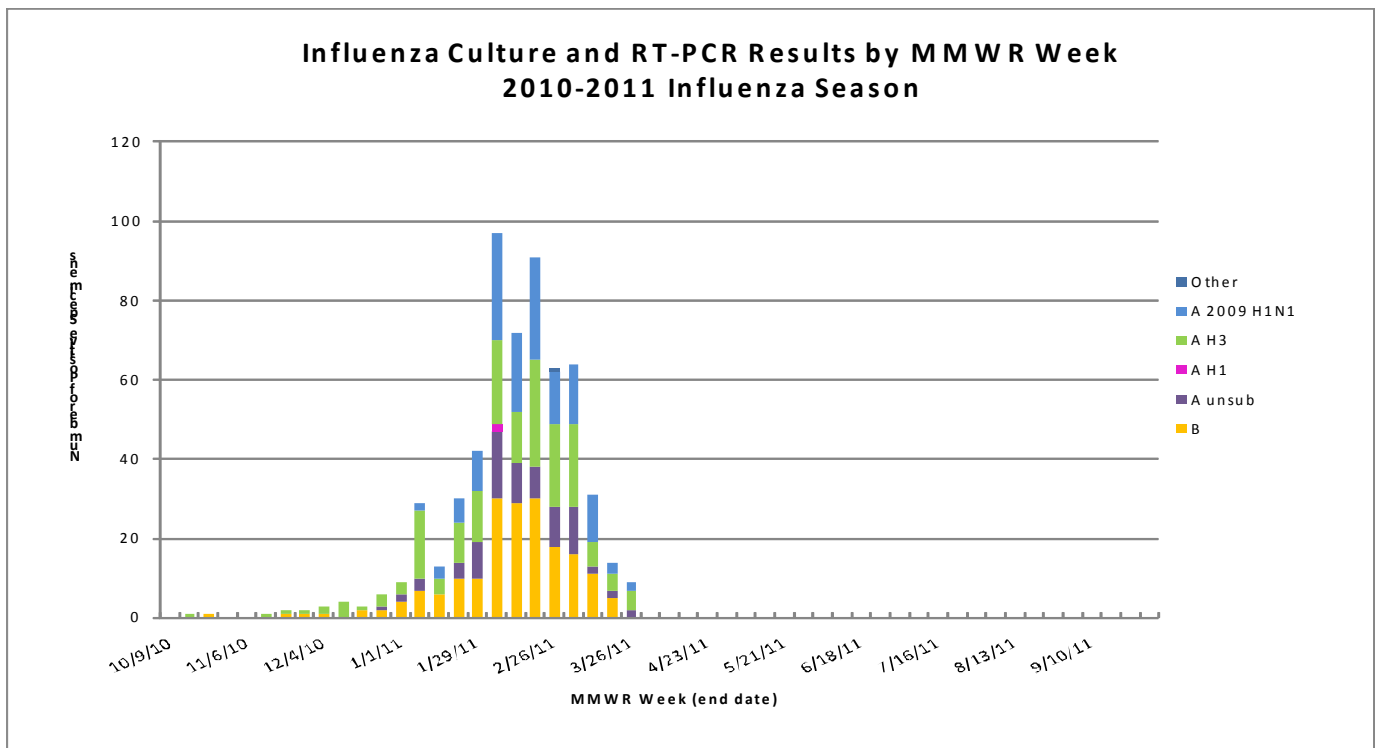
Positive confirmatory influenza test results* Current MMWR Week (3/20-3/26/11)		
	BOL	Other clinical labs
Number of specimens tested	21	-
Number of positive specimens	6	3
Positive specimens by type/subtype		
A (H1)		
A (H3)	5	
A (unsubtyped)		2
A (2009 H1N1)	1	1
Influenza B		
Other		
*Culture and/or RT-PCR		

Positive confirmatory influenza test results* Cumulative (10/3/10-3/26/11)		
	BOL	Other clinical labs
Number of specimens tested	766	-
Number of positive specimens	353 (46.0%)	240
Positive specimens by type/subtype		
Influenza A		
A (H1)	1	1
A (H3)	136	44
A (unsubtyped)	2	79
A (2009 H1N1)	98	45
Influenza B	115	71
Unk		
Other	1	
*Culture and/or RT-PCR		

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

County	Total	County	Total
Abbeville	2	Hampton	3
Aiken	12	Horry	13
Allendale	1	Jasper	
Anderson	7	Kershaw	6
Bamberg	9	Lancaster	7
Barnwell	4	Laurens	13
Beaufort	41	Lee	4
Berkeley	16	Lexington	4
Calhoun		Marion	1
Charleston	76	Marlboro	3
Cherokee	1	McCormick	4
Chester	5	Newberry	1
Chesterfield	6	Oconee	5
Clarendon	8	Orangeburg	3
Colleton	4	Pickens	2
Darlington	19	Richland	44
Dillon	10	Saluda	
Dorchester	15	Spartanburg	23
Edgefield	1	Sumter	55
Fairfield		Union	
Florence	10	Williamsburg	1
Georgetown	3	York	46
Greenville	11	Unknown	73
Greenwood	17	Other	4

*These data are provisional.



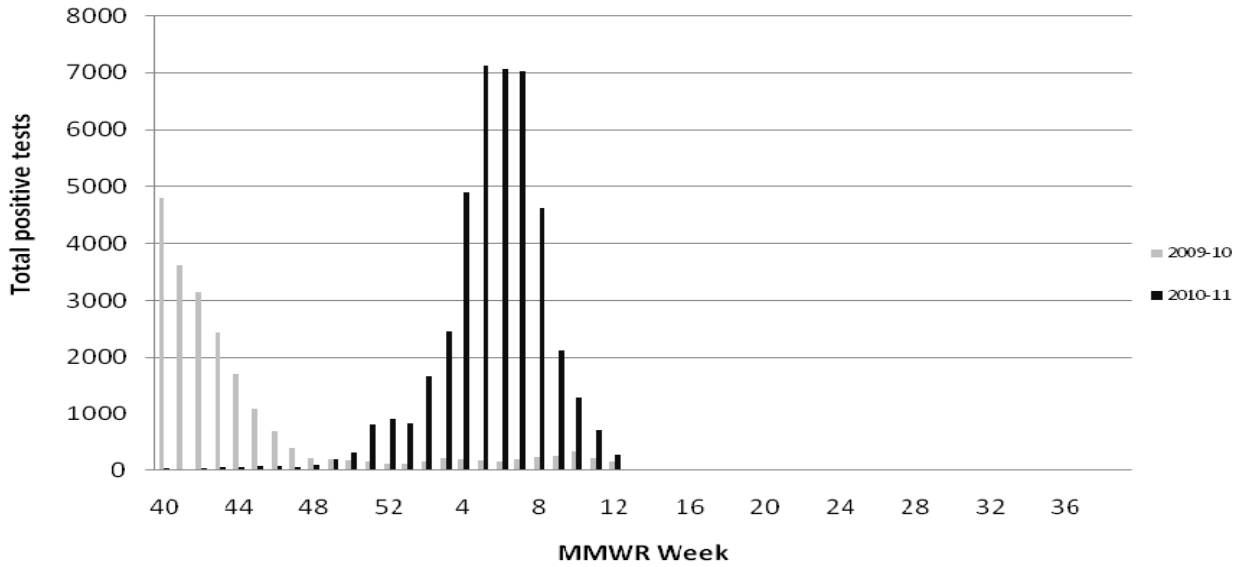
III. Positive Rapid Antigen Tests

During MMWR week 12 (3/20-3/26), 276 positive rapid antigen tests were reported. Of these, 179 were influenza A, 15 were influenza A/B and 82 were influenza B. Since the beginning of the season, 42,776 positive rapid tests have been reported. This compares to 21,572 this time last year.

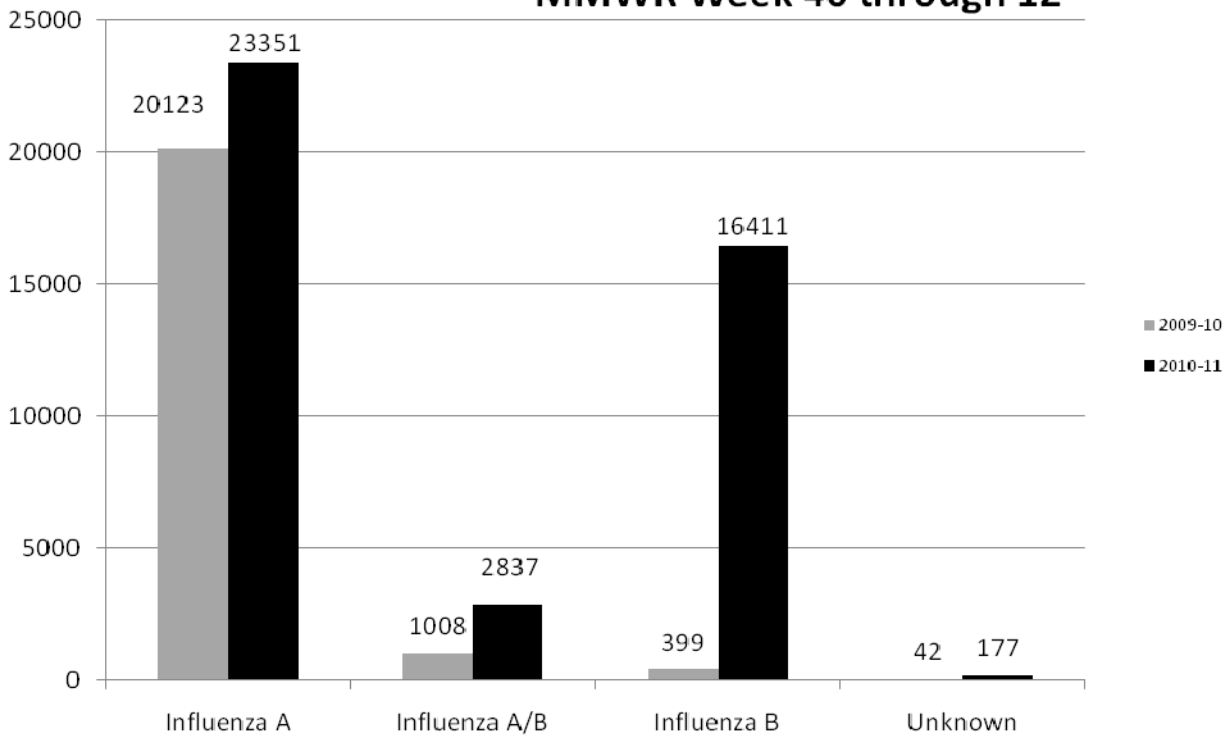
Positive Rapid Flu Tests by County March 20, 2011 – March 26, 2011

County	Positive Tests	County	Positive Tests
Abbeville		Greenwood	4
Aiken		Hampton	
Allendale		Horry	23
Anderson	2	Jasper	
Bamberg		Kershaw	6
Barnwell		Lancaster	
Beaufort	4	Laurens	3
Berkeley	4	Lee	
Calhoun		Lexington	14
Charleston	21	Marion	
Cherokee	1	Marlboro	
Chester		McCormick	
Chesterfield		Newberry	
Clarendon	1	Oconee	10
Colleton	3	Orangeburg	6
Darlington	4	Pickens	9
Dillon		Richland	56
Dorchester	6	Saluda	
Edgefield		Spartanburg	17
Fairfield		Sumter	31
Florence	12	Union	6
Georgetown	1	Williamsburg	2
Greenville	30	York	

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 12

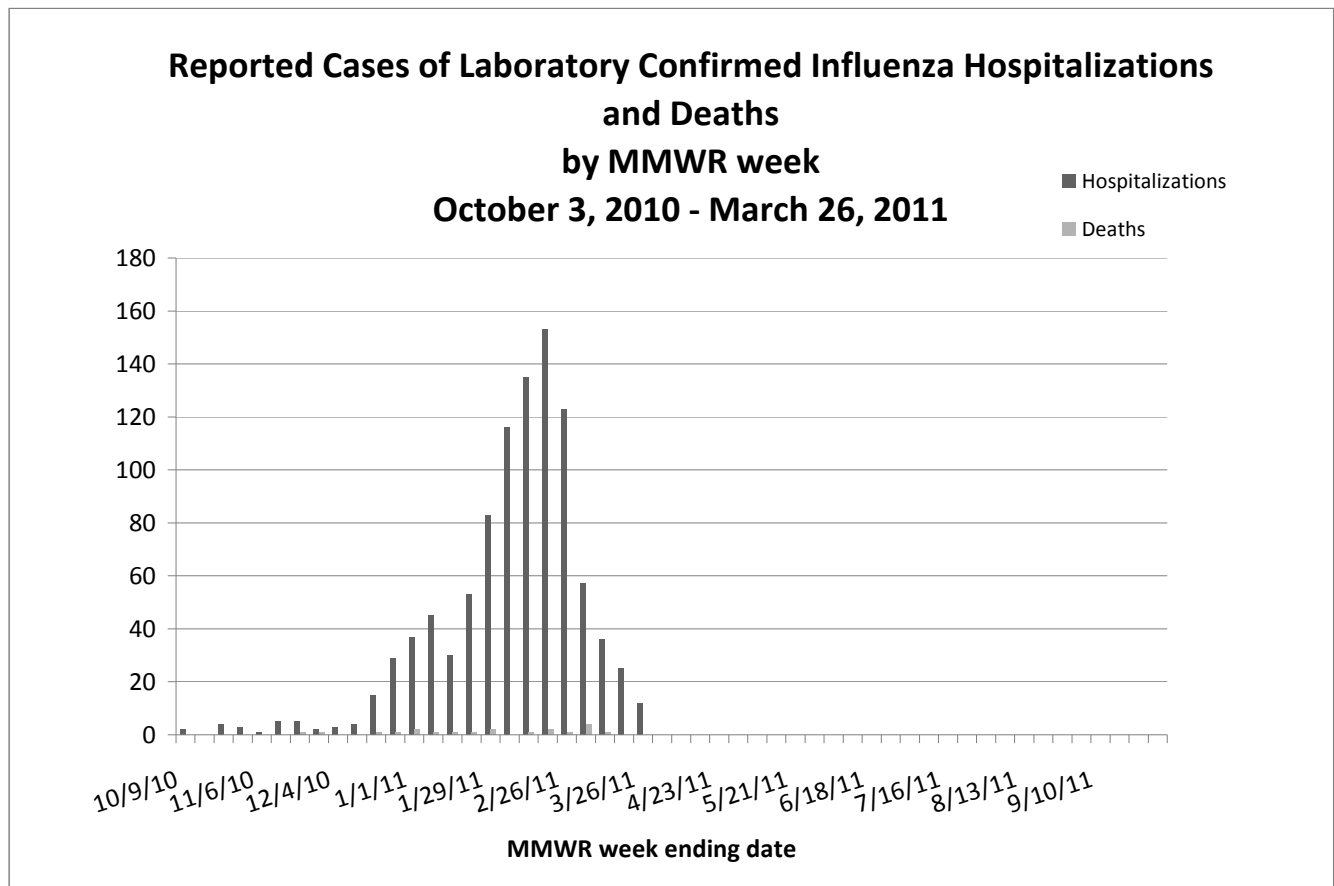


IV. Influenza hospitalizations and deaths

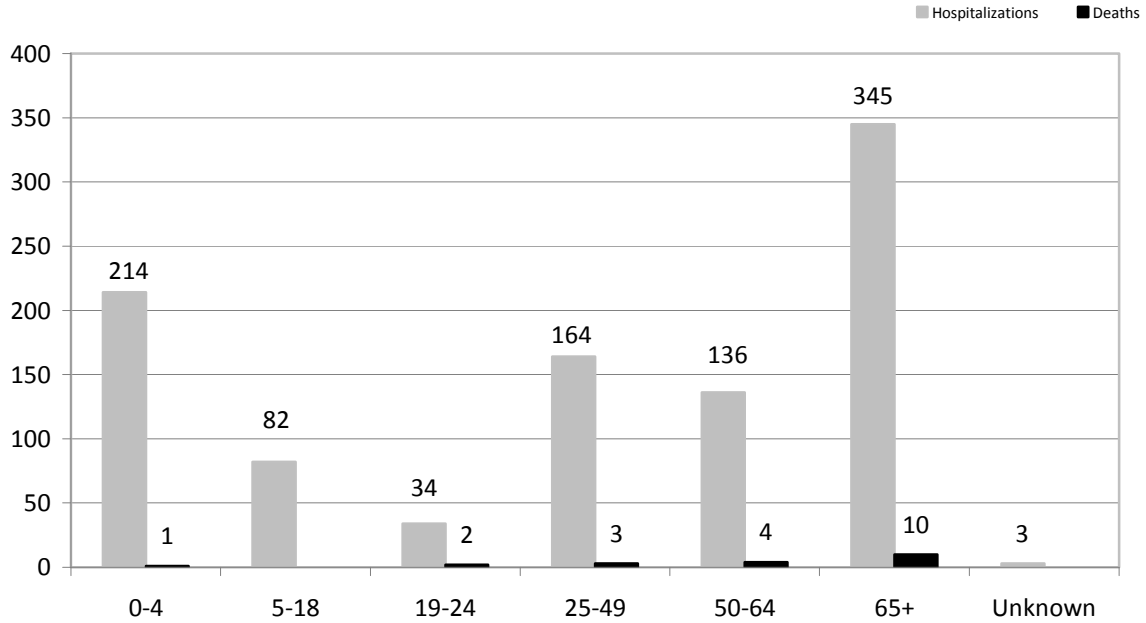
During MMWR week 12 (3/20-3/26), 12 lab confirmed* influenza hospitalizations were reported. No lab confirmed deaths were reported.

	Total number*	
Number of Hospitals Reporting (current week)	46	
	<i>Previous MMWR (3/20-3/26/11)</i>	<i>Cumulative (since 10/3/10)</i>
Hospitalizations	12	978
Deaths	0	20

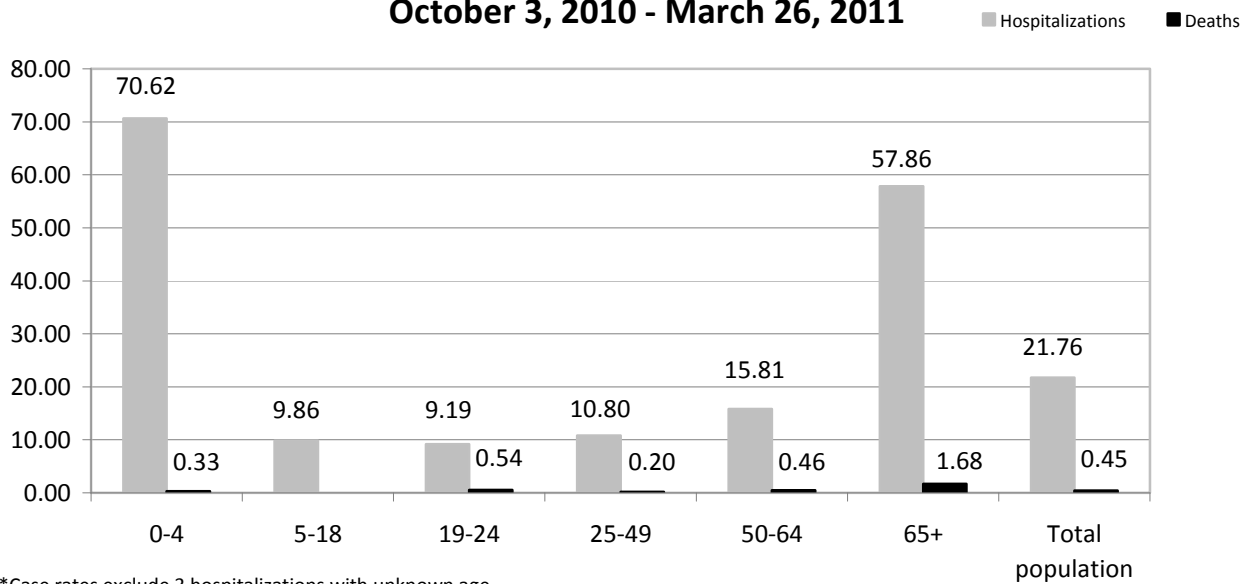
*These data are provisional. Lab confirmation for hospitalizations and deaths includes culture, PCR, DFA, IFA, and rapid test.



**Reported Cases of Laboratory Confirmed Influenza
Hospitalizations (n=978) and Deaths (n=20)
October 3, 2010 - March 26, 2011**



**Laboratory Confirmed Influenza Case rate/100,000
Hospitalizations (n=978) and Deaths (n=20) by age group
October 3, 2010 - March 26, 2011**



*Case rates exclude 3 hospitalizations with unknown age

V. National influenza update (MMWR Week 11: 3/13-3/19)

During week 11 **March 13-19, 2011**, influenza activity in the United States decreased. Of the 6,144 specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division, 1,158 (18.9%) were positive for influenza. The proportion of deaths attributed to pneumonia and influenza (P&I) was at or above the epidemic threshold for the eighth consecutive week. Six influenza-associated pediatric deaths were reported bringing the season total to 77. Two of these deaths were associated with influenza B viruses, two were associated with influenza A (H3N2) viruses, one was associated with 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 at the national baseline of 2.5%. Six of the 10 regions (Regions 1, 2, 5, 7, 8, and 10) reported ILI at or above region-specific baseline levels. One state experienced high ILI activity; two states experienced moderate ILI activity; 11 states experienced low ILI activity; 35 states and New York City experienced minimal ILI activity, and the District of Columbia and one state had insufficient data. The geographic spread of influenza in 18 states was reported as widespread; 22 states reported regional influenza activity; the District of Columbia and seven states reported local influenza activity; Guam, Puerto Rico, the U.S. Virgin Islands and three states reported sporadic 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 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.

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 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: Himel 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
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 least 4 of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the state.