

**New Jersey Department of Health and Senior Services**  
**Communicable Disease Service**  
**Influenza Activity Summary**  
**Week Ending December 12, 2009(MMWR Week 49)**

**Influenza Activity Level:**     **WIDESPREAD**

NOTE: One of three parameters are at or above state baseline. Seven counties have 2 of 3 parameters above state baseline and fourteen counties have culture/PCR positive samples in the last 3 weeks. Six counties had both positive culture/PCR and 2 of 3 parameters above baseline.

No Activity- At least 2 of 3 parameters at or below state baseline **AND** no lab confirmed cases

Sporadic – At least 2 of 3 parameters above state baseline **AND** confirmed laboratory cases anywhere in the state within previous 3 weeks **OR** at least one laboratory confirmed outbreak in an institution anywhere in the state

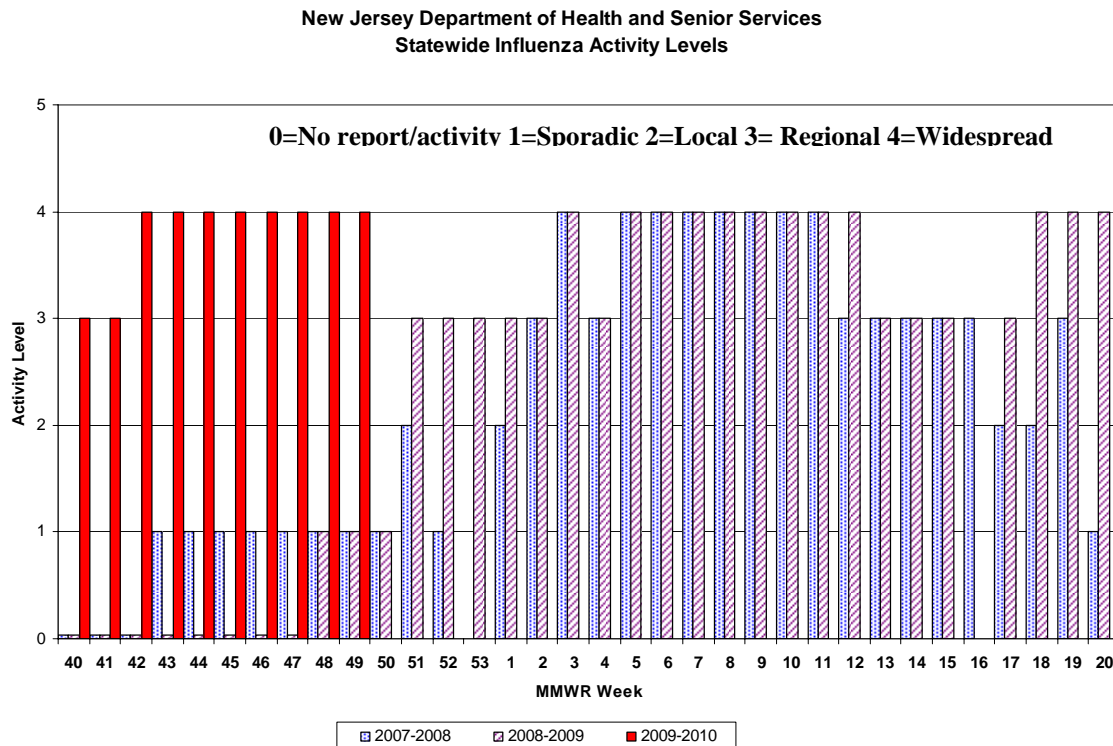
Local – At least 2 of 3 parameters above state baseline in a single county **AND** confirmed laboratory cases from that same county within the previous 3 weeks (other counties may be above baseline without lab confirmed cases) **OR** confirmed outbreaks in 2 or more institutions in a single county

Regional – At least 2 of 3 parameters above state baseline in  $\geq 2$  but  $\leq 10$  counties **AND** laboratory confirmed cases from these same counties in the past 3 weeks **OR** confirmed outbreaks institutions in  $\geq 2$  but  $\leq 10$  counties

Widespread – At least 2 of 3 parameters above state baseline in  $> 10$  counties **OR** institutional outbreaks in  $> 10$  counties **AND** lab confirmed influenza cases in previous 3 weeks.

Parameter = School, emergency department, or long term care weekly surveillance data

Off season baseline is calculated by taking the average of statewide percentages of ILI for a 4 year (2006, 2007, 2008, 2009) period during months when influenza is less likely to be circulating (May-August).



## **Regional Data**

<b>Region</b>	<b>Counties in Region</b>	<b>Activity Level</b>
NW Region	Morris, Passaic, Sussex, Warren	<b>REGIONAL</b>
NE Region	Bergen, Essex, Hudson	<b>REGIONAL</b>
CW Region	Hunterdon, Mercer, Somerset	<b>REGIONAL</b>
CE Region	Middlesex, Monmouth, Ocean, Union	<b>REGIONAL</b>
South Region	Atlantic, Burlington, Camden, Cape May, Salem, Cumberland, Gloucester	<b>REGIONAL</b>

No Activity- At least 2 of 3 parameters at or below state baseline **AND** no lab confirmed cases in the public health region

Sporadic – At least 2 of 3 parameters above state baseline **AND** confirmed laboratory cases anywhere in the public health region **OR** at least one laboratory confirmed outbreak in an institution anywhere in the public health region

Local – At least 2 of 3 parameters above state baseline in a single county of a public health region **AND** confirmed laboratory cases from that same county within the previous 3 weeks (other counties may be above baseline without lab confirmed cases) **OR** confirmed outbreaks in 2 or more institutions in a single county of a public health region

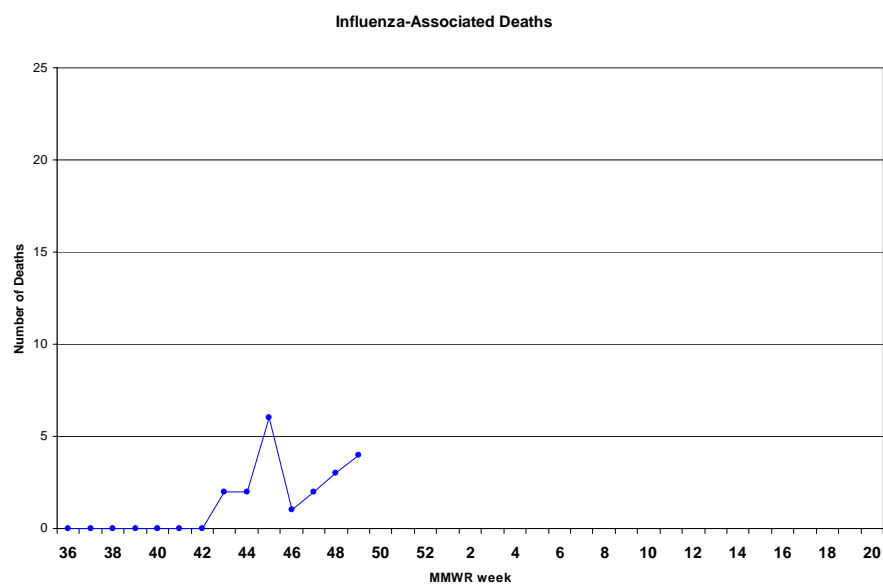
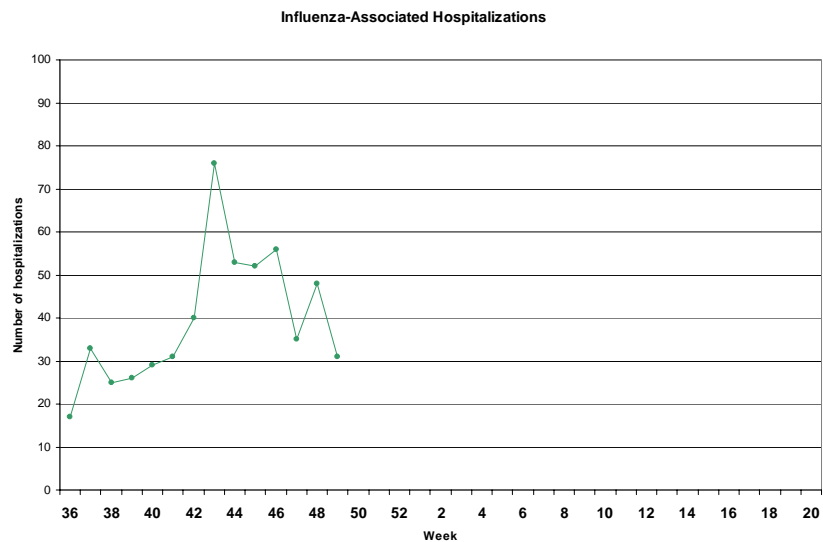
Regional – At least 2 of 3 parameters above state baseline in at least half of the counties of public health region **AND** laboratory confirmed cases from these same counties in the past 3 weeks **OR** confirmed outbreaks institutions in at least half of counties of public health region counties

Widespread – Not used for public health region data

## Influenza Hospitalizations/Deaths

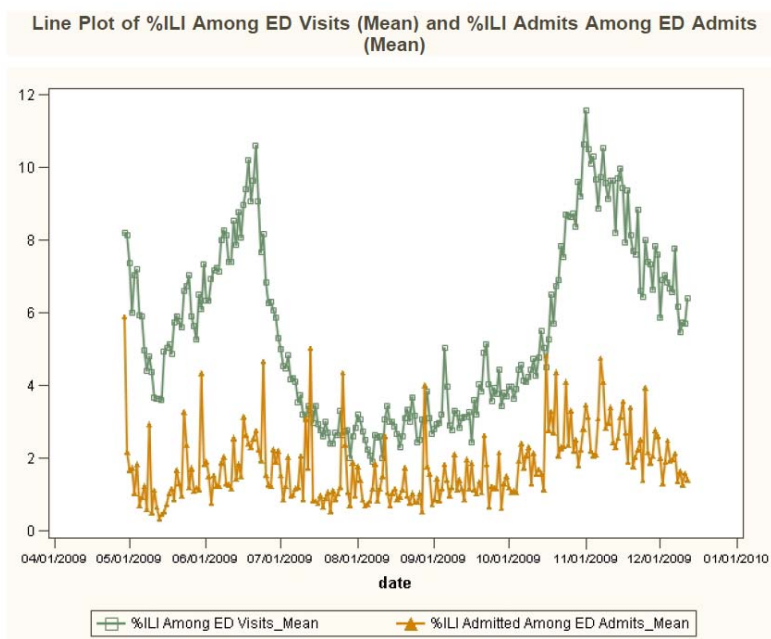
Influenza-associated hospitalizations are reported weekly from a subset of hospital facilities. Facilities report patients hospitalized with either laboratory-confirmed (rapid, PCR, culture) influenza or patients admitted with influenza-like illness. Data from influenza-associated deaths are extracted from CDRSS. Only deaths associated with laboratory-confirmed influenza are included in these statistics.

<b>NJ Influenza-Associated Hospitalizations and Deaths by Current MMWR week and Cumulative Total (Week 36 to present)</b>		
	<b>Hospitalizations</b>	<b>Deaths</b>
<b>Week 49</b>	31	4
<b>Cumulative</b>	552	20



## **Syndromic Surveillance – Enhanced Emergency Department (ED) Surveillance for Influenza-like Illness (ILI)**

**NOTE:** *The number of ED visits, hospital admissions, ED visits due to ILI, and hospital admissions due to ILI are reported each day by acute care facilities statewide. These data are captured via daily surveys sent using the Hippocrates system.*



### **Summary of Emergency Department (ED) Visits and Admits Surveillance**

Daily surveillance for ED visits and admissions from these hospital EDs resulted in three ED visit blips (Atlantic and Union) and two admission blips (Burlington and Newark) from 12/06/09 to 12/12/09. Three volume blip responses were received. None were ILI-related.

### **Summary of Enhanced Emergency Department (ED) Surveillance for Influenza-like Illness (ILI)**

During 12/06/09-12/12/09, 80 acute care facilities in NJ reported an aggregate total of 3,371 ED visits due to ILI (5.9% of total ED visits) and an aggregate total of 214 admissions due to ILI (6.3% of total ILI ED visits). These reports resulted in four ED ILI visit blips (Bergen, Gloucester, Mercer, and Middlesex). There was a decrease in ILI activity for the week ending 12/12/09 when compared to the previous week ending 12/05/09 ( $p = 0.05$ ). The mean percentage of ED visits for ILI during the week ending 12/12/09 was 5.9%, compared to 7% for the previous week. The mean percentage of ED visits due to ILI ranged from 5.5% to 7.8% during 12/06/09 – 12/12/09. The mean percentage of ED visits due to ILI (averaged over the previous four influenza seasons) for this same week (MMWR Week 49) was approximately 6%.

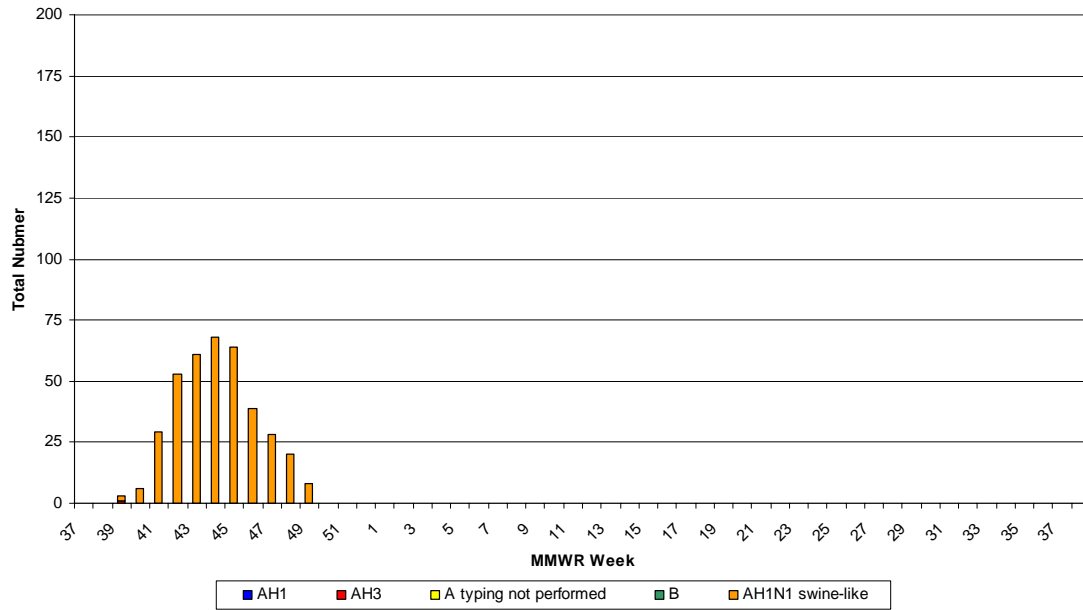
## **Laboratory Surveillance**

As of week 49, 376 samples were found to be positive by viral culture or PCR for influenza AH1, AH3, novel AH1N1 or influenza B. Please see graph on next page for weekly distribution. Numbers of specimens tested and total number positive by rapid influenza testing are displayed by county at the end of this report.

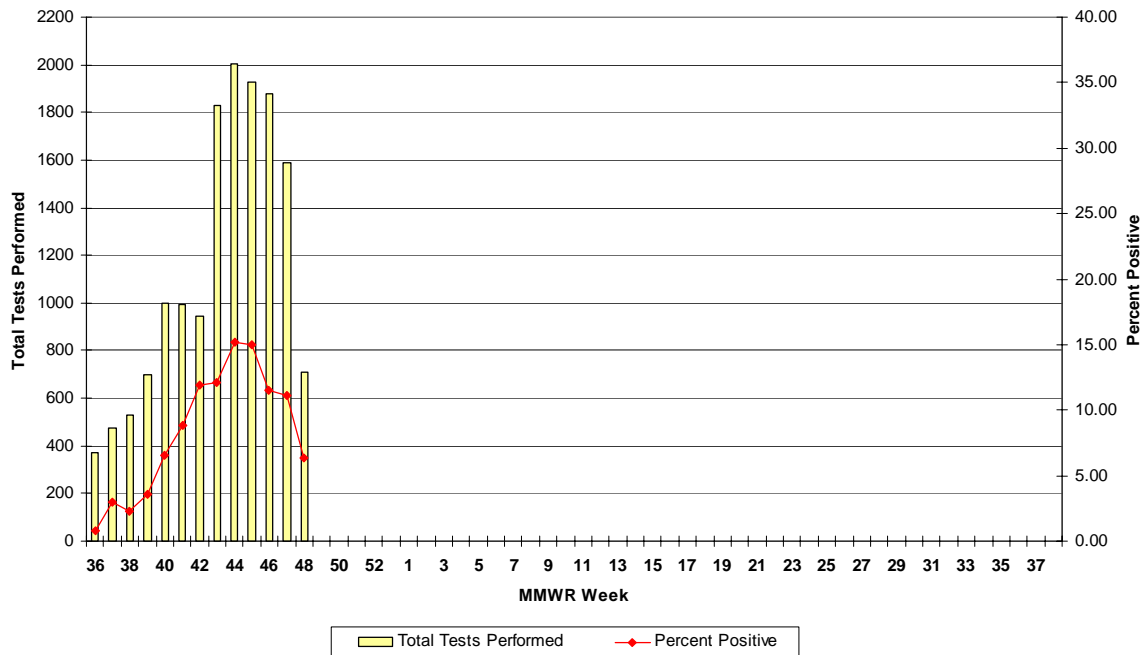
	MMWR Week 40 to present week					MMWR Week 47, 48, 49				
	A H1	A H3	A (subtyping not done)	B	2009 Influenza A H1N1	A H1	A H3	A (subtyping not done)	B	2009 Influenza A H1N1
<b>Atlantic County</b>	0	0	0	0	23	0	0	0	0	3
<b>Bergen County</b>	0	0	0	0	28	0	0	0	0	8
<b>Burlington County</b>	0	0	0	0	7	0	0	0	0	0
<b>Camden County</b>	0	0	0	0	45	0	0	0	0	2
<b>Cape May County</b>	0	0	0	0	18	0	0	0	0	0
<b>Cumberland County</b>	0	0	0	0	16	0	0	0	0	2
<b>Essex County</b>	0	0	0	0	5	0	0	0	0	2
<b>Gloucester County</b>	0	0	0	0	3	0	0	0	0	0
<b>Hudson County</b>	0	0	0	0	5	0	0	0	0	1
<b>Hunterdon County</b>	0	0	0	0	26	0	0	0	0	2
<b>Mercer County</b>	0	0	0	0	27	0	0	0	0	4
<b>Middlesex County</b>	0	0	0	0	41	0	0	0	0	9
<b>Monmouth County</b>	0	0	0	0	19	0	0	0	0	3
<b>Morris County</b>	0	0	0	0	36	0	0	0	0	11
<b>Ocean County</b>	0	0	0	0	4	0	0	0	0	1
<b>Passaic County</b>	0	0	0	0	13	0	0	0	0	1
<b>Salem County</b>	0	0	0	0	8	0	0	0	0	0
<b>Somerset County</b>	0	0	0	0	2	0	0	0	0	0
<b>Sussex County</b>	0	0	0	0	40	0	0	0	0	0
<b>Union County</b>	0	0	0	0	0	0	0	0	0	7
<b>Warren County</b>	0	0	0	0	10	0	0	0	0	0
<b>Unknown</b>	0	0	0	0	0	0	0	0	0	0
<b>State Total</b>	0	0	0	0	376	0	0	0	0	56

\*Rapid influenza test data is acquired from facilities reporting rapid influenza tests via NREVSS or CDRSS ILI module. Culture/PCR results are obtained from the LIMS system at PHEL or hospital viral culture laboratories via NREVSS. County of residence as provided by the laboratory is used to assign culture results to a county. If county of residence is not available, the county of the facility reporting is utilized.

**Influenza Laboratory Report  
Positive Specimens by PCR and Culture by Week  
2009-2010 Influenza Season**



**Influenza Rapid Antigen Tests  
Total and Percent Positive  
2008-2009 Influenza Season**

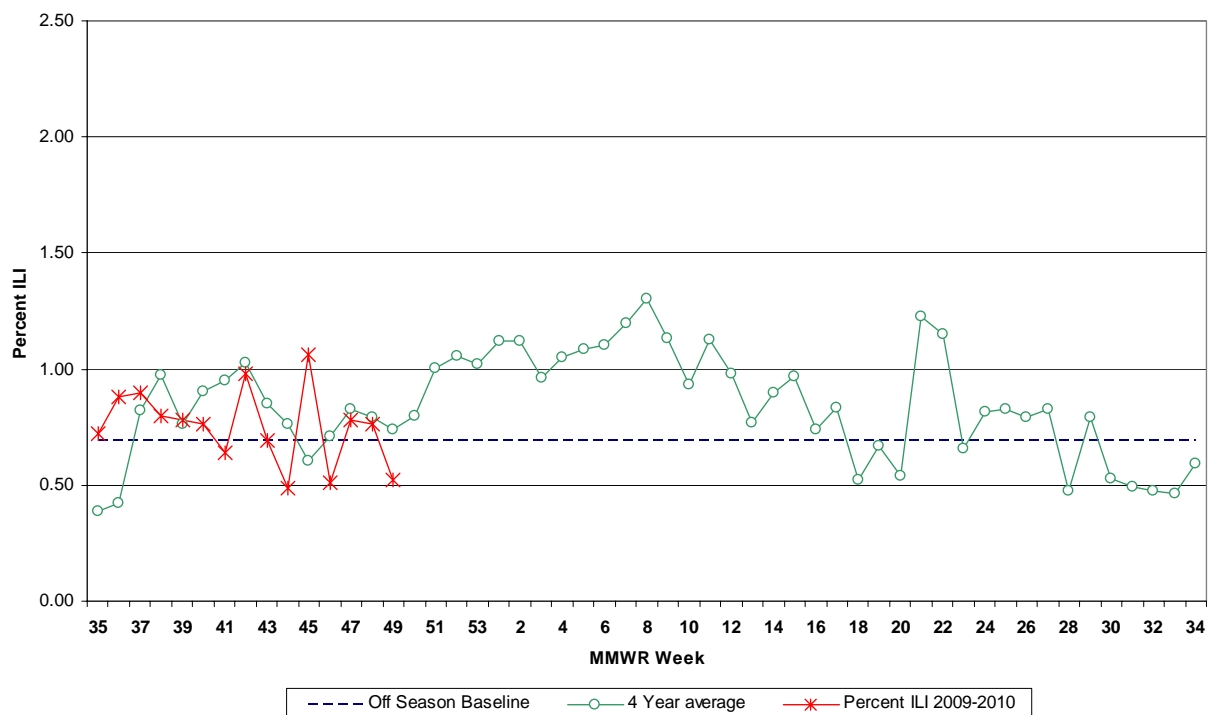


## Influenza-like Illness (ILI) Surveillance\*

### Long-term Care Facilities

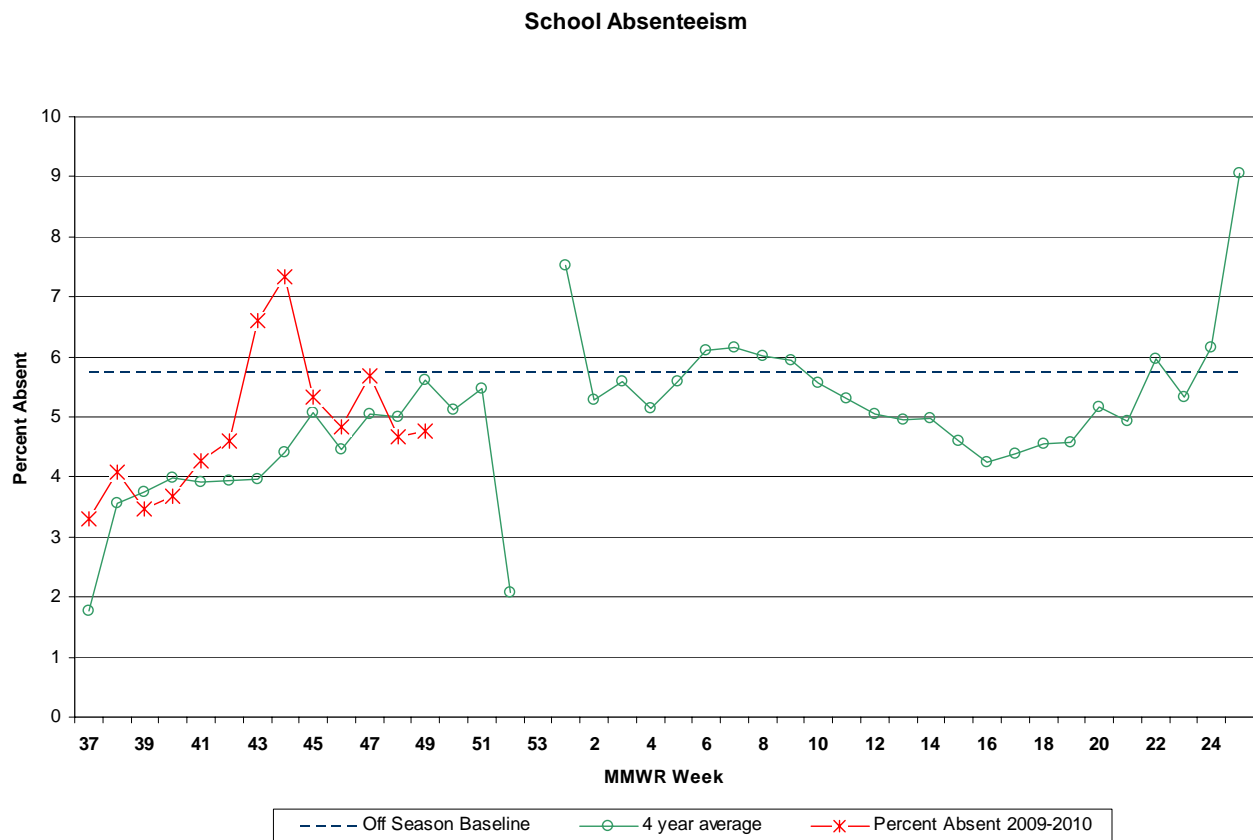
During week 49, 0.52% ILI was reported statewide from long term care facilities. This is a decrease compared to the previous week (0.76%). The percent ILI for each county ranged from 0.00% to 1.41%. The percent ILI for this same week last year was 0.67% in long-term care facilities. The percent ILI for the northwest (0.77%) and northeast (0.88%) public health regions were above the state baseline (0.69%). No new reports of respiratory outbreaks in an institutional setting were received in week 49.

Influenza-like Activity - Long Term Care Facilities



## School Absenteeism

During week 49, schools reported 4.77% absenteeism. This is an increase compared to the previous week (4.66%). The percent absenteeism for each county ranged from 2.89% to 6.84%. The percent absent for this same week last year was 4.55%. The percent absenteeism for no public health regions were found to be at or above the state baseline (5.73%).

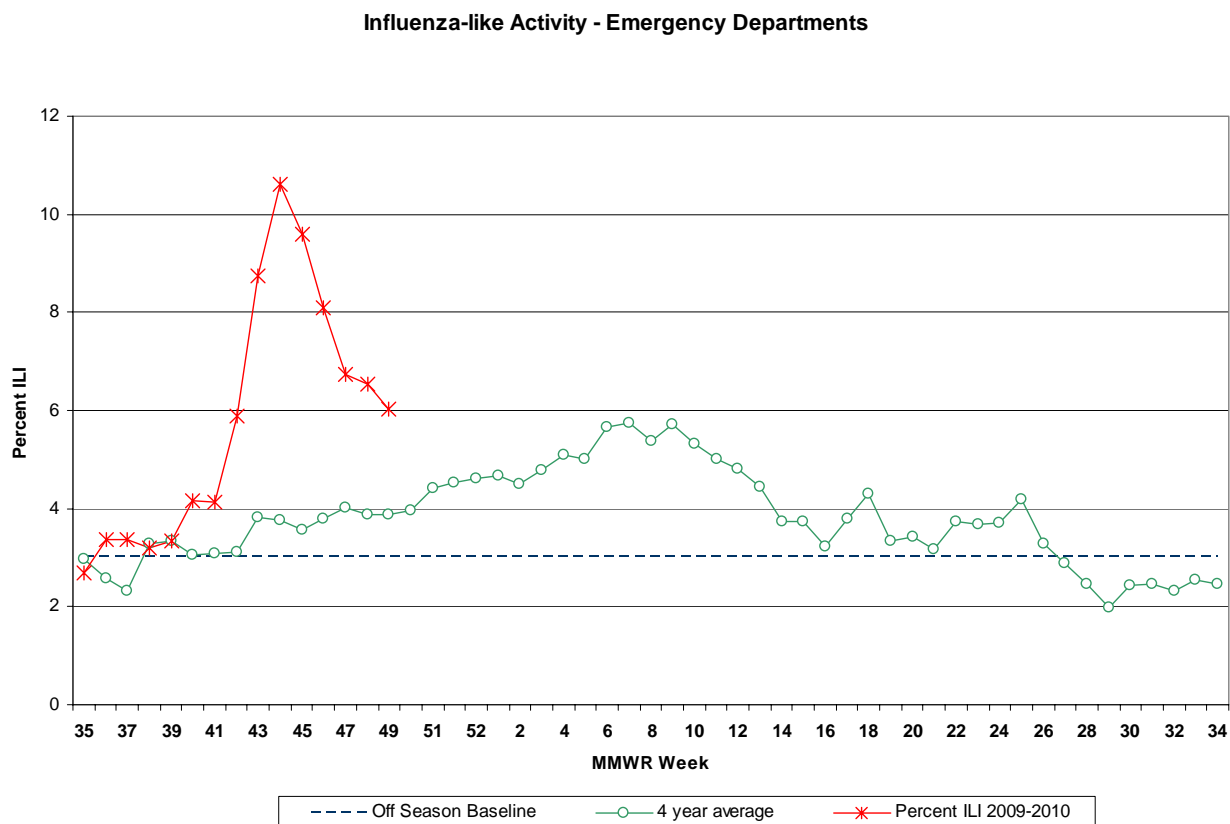




## Emergency Departments

**NOTE:** Data presented below is from daily ED data extracted from Hippocrates survey responses for Tuesday of each week. Because this data only represents one day of data, it is likely less accurate for detecting true trends than the syndromic data presented above.

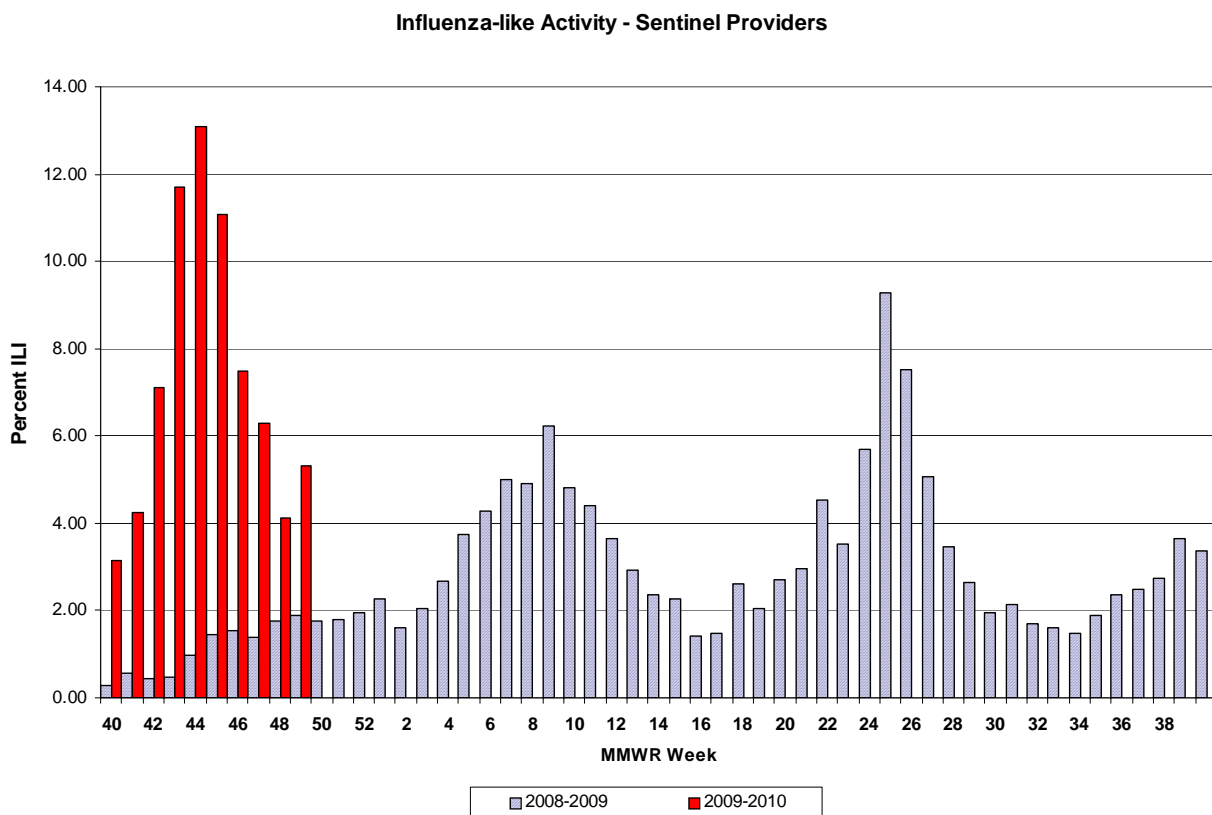
During week 49, 6.04% of ILI was reported statewide from emergency departments. This is a decrease compared to the previous week (6.55%). The percent ILI for each county ranged from 0.00% to 19.13%. The percent ILI for this same week last year was 3.29% in emergency departments. The percent ILI for the northwest (8.10%), northeast (4.56%), central west (7.34%), central east (8.45%) and south (3.27%) public health regions were found to be above the state baseline (3.04%).



## **Sentinel Provider Surveillance**

During week 49, 5.32% of sentinel provider patient visits were due to ILI. These data reflect reports from seventeen (24%) of the 70 enrolled sentinel providers.

During week 48, 4.13% of sentinel provider patient visits were due to ILI. These data reflect reports from thirty-two (46%) of the 70 enrolled sentinel providers.



## **Pediatric Influenza Surveillance**

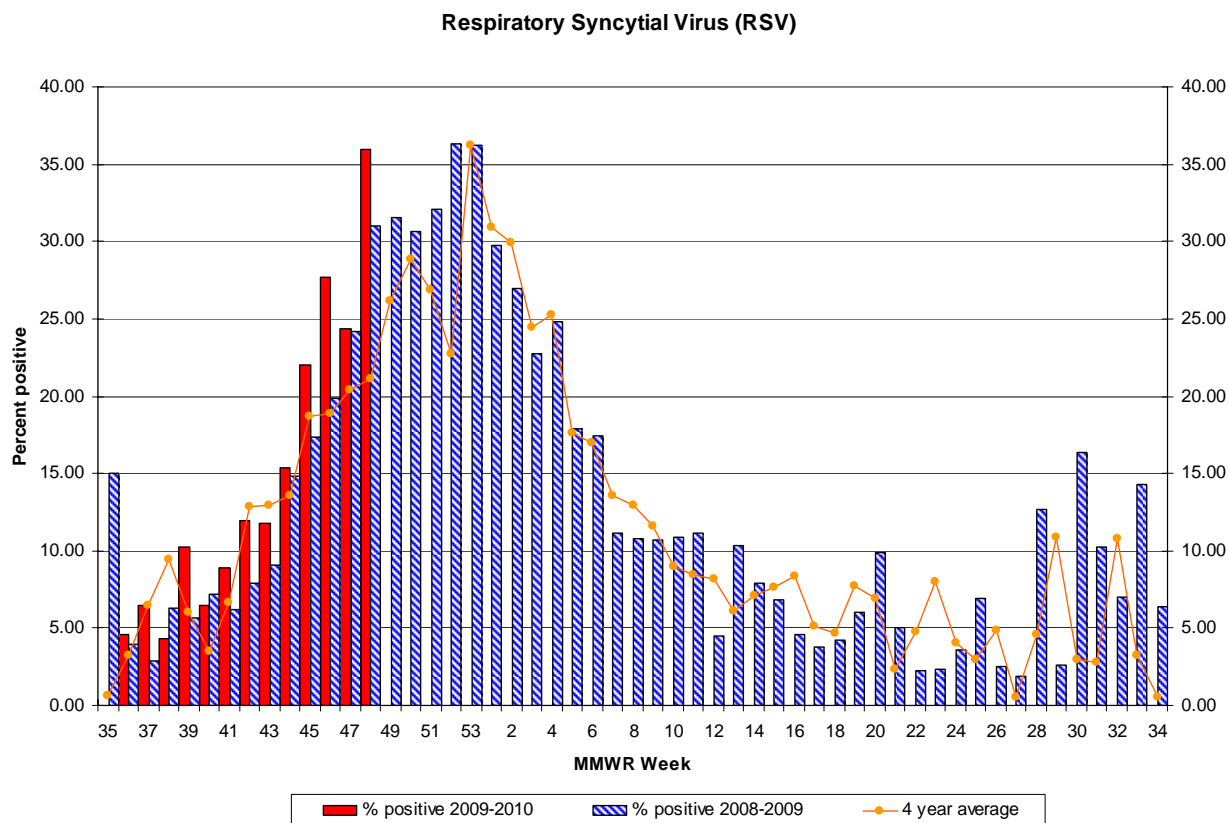
To date, NJDHSS has received 37 reports of pediatric influenza meeting the case definition.

### **122 City Mortality Report**

During week 48, 5.88% of all deaths reported by the vital statistics offices in 6 New Jersey cities (i.e., Camden, Elizabeth, Jersey City, Newark, Paterson, Trenton) were due to pneumonia or influenza. This is an increase compared to the previous week (4.49%). The percentage of death due to pneumonia or influenza for this same week last year was 5.88%.

## **RSV Reports**

During week 48, 35.94% of all RSV samples tested were positive. This is an increase over the previous week 24.32%. The percent of samples positive for RSV for this same week last year was 31.00%.



## **Additional Information**

For additional information regarding influenza surveillance please visit the following websites.

<http://nj.gov/health/flu/surveillance.shtml>

<http://www.cdc.gov/flu/>

\* Off Season baseline is calculated by taking the average of statewide percentages of ILI for a 4 year (2006, 2007, 2008, 2009) period during months when influenza is less likely to be circulating (May-August).

\*\*Four year average is an average of the 2005-2006, 2006-2007, 2007-2008, 2008-2009 influenza seasons.



	Long Term Care			Schools			Hospital Emergency Department		
County	# Enrolled	# Reports Rec'd	% ILI	# Enrolled	# Reports Rec'd	% Absent	# Enrolled	# Reports Rec'd	% ILI
<b>December, 8, 2009 12:00 AM MMRW WEEK 49</b>									
ATLANTIC	4	2	1.41	19	12	5.97	4	4	2.56
BERGEN	3	1	0.00	25	6	4.24	6	4	5.34
BURLINGTON	6	2	0.00	115	73	4.54	3	3	2.38
CAMDEN	7	0	0.00	17	0	0.00	7	6	2.38
CAPE MAY	6	4	0.21	11	10	5.71	1	1	8.99
CUMBERLAND	6	2	0.87	19	8	6.84	3	3	4.84
ESSEX	18	3	0.70	45	15	2.93	11	9	3.36
GLOUCESTER	5	4	0.00	4	3	2.89	2	2	3.64
HUDSON	11	4	1.33	120	84	5.48	6	3	7.30
HUNTERDON	4	4	0.45	49	48	3.02	1	1	2.53
MERCER	11	8	0.24	26	22	5.43	5	5	7.95
MIDDLESEX	2	0	0.00	134	81	4.52	5	5	9.05
MONMOUTH	14	2	0.51	24	16	6.20	5	5	5.07
MORRIS	2	0	0.00	13	0	0.00	4	3	11.33
OCEAN	6	0	0.00	81	41	6.09	4	4	12.69
PASSAIC	9	0	0.00	28	1	0.00	6	1	2.01
SALEM	4	0	0.00	19	2	4.32	1	1	6.35
SOMERSET	6	2	0.00	82	43	3.97	2	0	0.00
SUSSEX	5	5	0.85	22	22	4.90	2	2	19.13
UNION	4	2	0.00	154	67	4.38	5	5	6.49
UNKNOWN	0	0	0.00	1	0	0.00	0	0	0.00
WARREN	8	2	0.00	36	18	4.84	2	2	4.79
<b>NW Region</b>	24	7	0.77	99	41	4.84	14	8	8.10
<b>NE Region</b>	32	8	0.88	190	105	5.19	23	16	4.56
<b>CW Region</b>	21	14	0.27	157	113	3.99	8	6	7.34
<b>CE Region</b>	26	4	0.14	393	205	4.92	19	19	8.45
<b>South Region</b>	38	14	0.49	204	108	4.93	21	20	3.27
<b>State Total</b>	<b>141</b>	<b>47</b>	<b>0.52</b>	<b>1043</b>	<b>572</b>	<b>4.77</b>	<b>85</b>	<b>69</b>	<b>6.04</b>



	RSV Tests		Flu Tests		
County	# Positive	Total Tests Performed	# Positive	Total Tests Performed	
<b>December, 8, 2009 12:00 AM MMRW WEEK 49</b>					
ATLANTIC	4	17	1	37	
BERGEN	8	19	4	70	
BURLINGTON	4	22	1	54	
CAMDEN	0	0	0	0	
CAPE MAY	1	3	1	23	
CUMBERLAND	8	18	0	0	
ESSEX	28	65	8	146	
GLOUCESTER	3	8	0	0	
HUDSON	6	15	0	0	
HUNTERDON	5	9	2	32	
MERCER	15	38	0	0	
MIDDLESEX	6	19	0	0	
MONMOUTH	6	33	11	148	
MORRIS	0	0	7	76	
OCEAN	4	5	0	0	
PASSAIC	0	0	0	0	
SALEM	0	3	0	3	
SOMERSET	1	6	0	0	
SUSSEX	0	1	7	86	
UNION	25	64	3	36	
WARREN	0	0	0	0	
NW Region	0	1	14	162	
NE Region	42	99	12	216	
CW Region	21	53	2	32	
CE Region	41	121	14	184	
South Region	20	71	3	117	
<b>State Total</b>	<b>124</b>	<b>345</b>	<b>45</b>	<b>711</b>	