

**New Jersey Department of Health and Senior Services**  
**Communicable Disease Service**  
**Influenza Activity Summary**  
**Week Ending October 17, 2009(MMWR Week 41)**

**Influenza Activity Level:**     **REGIONAL**

NOTE: Two of three reporting parameters are above state baseline. Four counties have 2 of 3 parameters above state baseline and 4 counties have had culture/PCR positive samples in the last 3 weeks. Two counties have 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

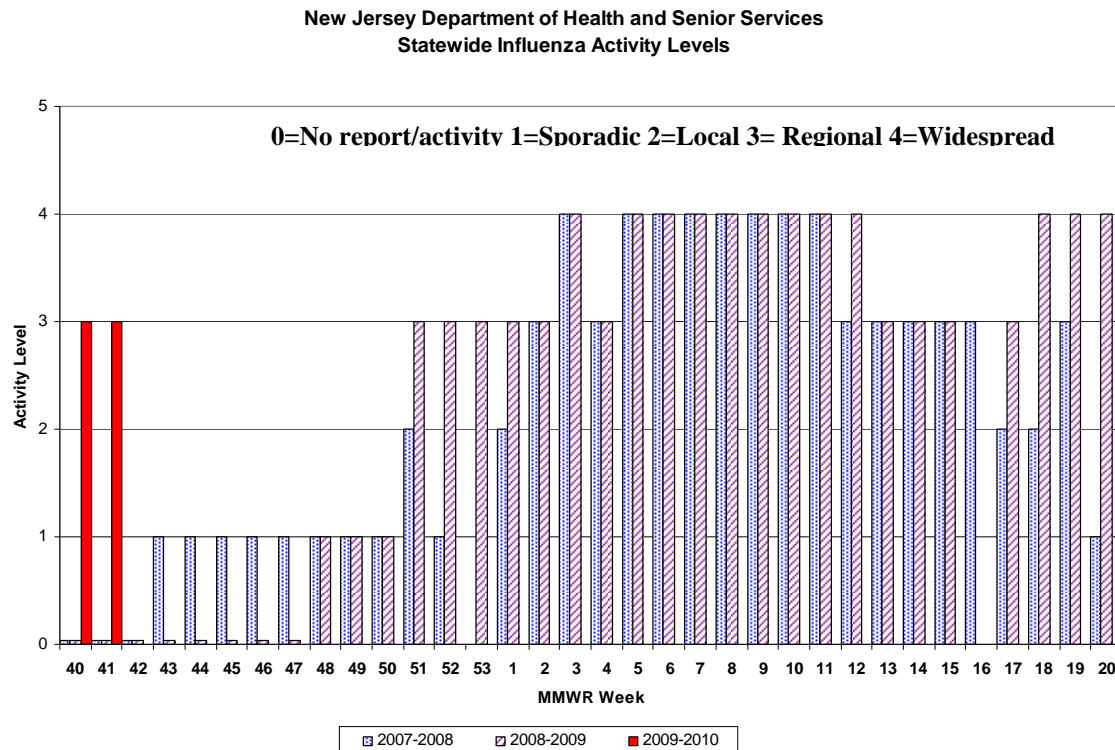
Local – At least 2 of 3 parameters above state baseline in a single county **AND** confirmed laboratory cases from that same county within the previous 3 weeks (other counties may be above baseline without lab confirmed cases) **OR** confirmed outbreaks in 2 or more institutions in a single county

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>NO ACTIVITY</b>
NE Region	Bergen, Essex, Hudson	<b>LOCAL</b>
CW Region	Hunterdon, Mercer, Somerset	<b>SPORADIC</b>
CE Region	Middlesex, Monmouth, Ocean, Union	<b>SPORADIC</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

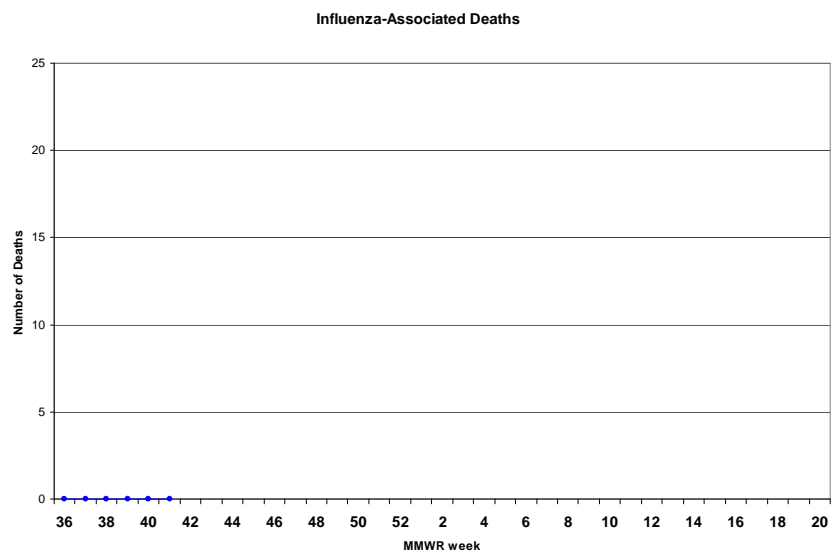
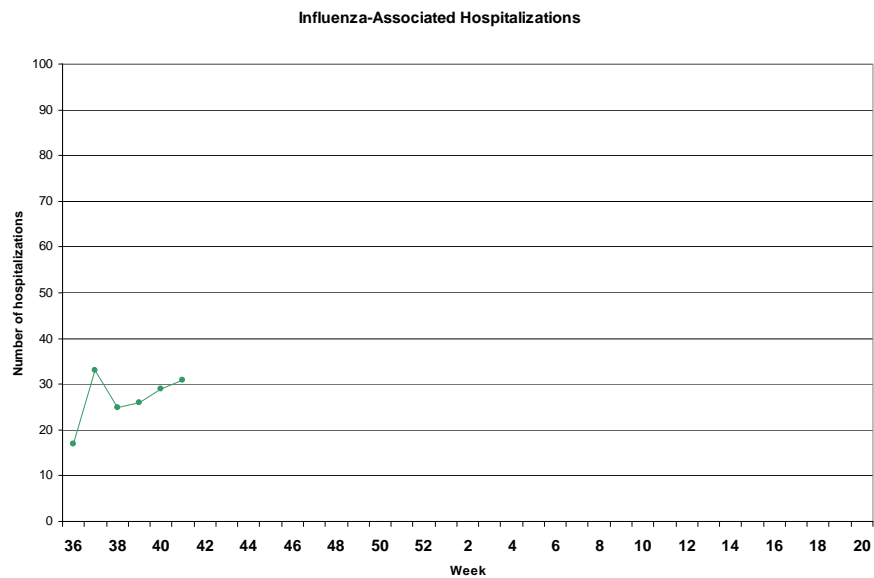
Regional – At least 2 of 3 parameters above state baseline in at least half of the counties of public health region **AND** laboratory confirmed cases from these same counties in the past 3 weeks **OR** confirmed outbreaks institutions in at least half of counties of public health region counties

Widespread – Not used for public health region data

## Influenza Hospitalizations/Deaths

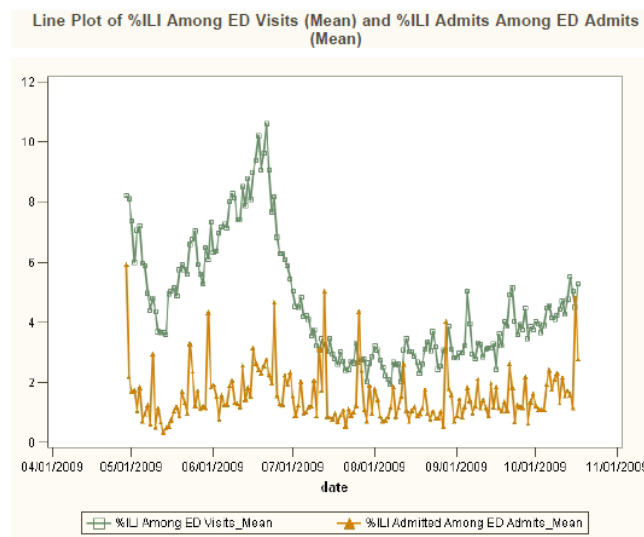
Influenza-associated hospitalizations are reported weekly from a subset of hospital facilities. Facilities report patients hospitalized with either laboratory-confirmed (rapid, PCR, culture) influenza or patients admitted with influenza-like illness. Data from influenza-associated deaths are extracted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

Hospitalizations	Deaths
31	0



## Syndromic Surveillance

**NOTE:** ED visits, admits, ILI visits, and ILI admits are reported each day and captured via surveys sent using the Hippocrates system.



## Summary of ED Visits and Admits Surveillance

Daily surveillance for ED visits and admissions from NJ hospital EDs had three ED volume blips (Mercer and Newark) and three admission blips (Gloucester, Mercer and Ocean) from 10/11/09 to 10/17/09. Four blip responses were received and two of them were ILI-related.

## Summary of ED ILI Activities

Daily ED ILI surveillance through Hippocrates survey from 80 hospital EDs had 13 ED ILI blips from 10/11/09 to 10/17/09. The enhanced ED surveillance had 2,679 ILI ED visits (5% of total ED visits), and 206 with ILI symptoms admitted (8% of total ILI ED visits) from 10/11/09 to 10/17/09. 15 of 80 facilities reported ED ILI admissions by age group.

The ED ILI activity statewide was increase slightly from the Hippocrates survey response. By comparing the ED ILI visits for this week (10/11/09 to 10/17/09) to the ED ILI visits from previous week (10/4/09 to 10/10/09), a mean increase of 0.6% (95% CI: 0.1%-1.1%) was detected between the mean %ILI ED visits this week and that in the previous week ( $p=0.02$  for mean). The %ILI average ED visits (mean value) ranged from 4.3% to 5.5% from 10/11/09 to 10/17/09. The previous four years' ILI ED visits for the same week was around 3% (mean value).

## Summary of EpiCenter Anomalies and Influenza Related Illness for UASI/Atlantic Areas

EpiCenter generated 91 new blips (19 vomiting, 16 respiratory, 12 hemorrhaging, 10 neurological, 8 fever, 7 constitutional, 5 GI, 4 cough, 4 botulinic, 4 vision, and 2 rash) from 10/11/09 to 10/17/09 in UASI/Atlantic areas. A closer look for the influenza related illness (fever+ILI symptoms and ILI specified complaints) indicated similar levels of daily ED visits (related to ILI) in UASI/Atlantic areas from 10/11/09 to 10/17/09 comparing to those from 10/4/09 to 10/10/09. In general, all areas had low levels of ILIs based on the CUSUM analysis at the County level.

## Laboratory Surveillance

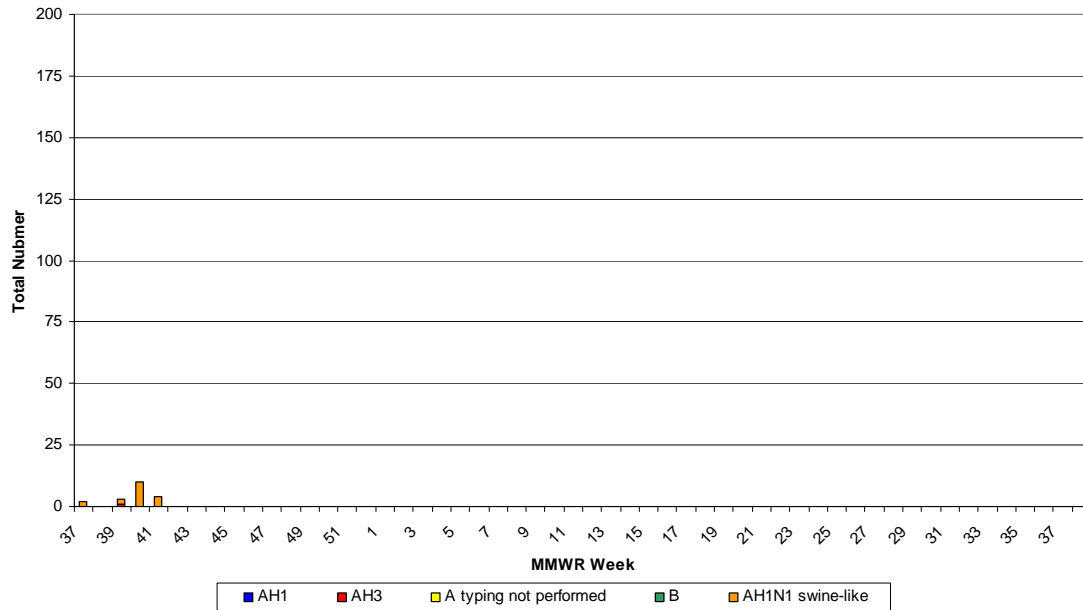
As of week 41, 14 samples were found to be positive by viral culture or PCR for influenza AH1, AH3, novel AH1N1 and influenza B. Please see graph on next page for weekly distribution. Numbers of specimens tested and total number positive by rapid influenza testing are displayed by county at the end of this report.

**NOTE:** The 3 week total presented on the right side of the chart below has more positive samples because it includes data from 1 additional week (39) not included on the left side of the chart (weeks 40 and 41 only).

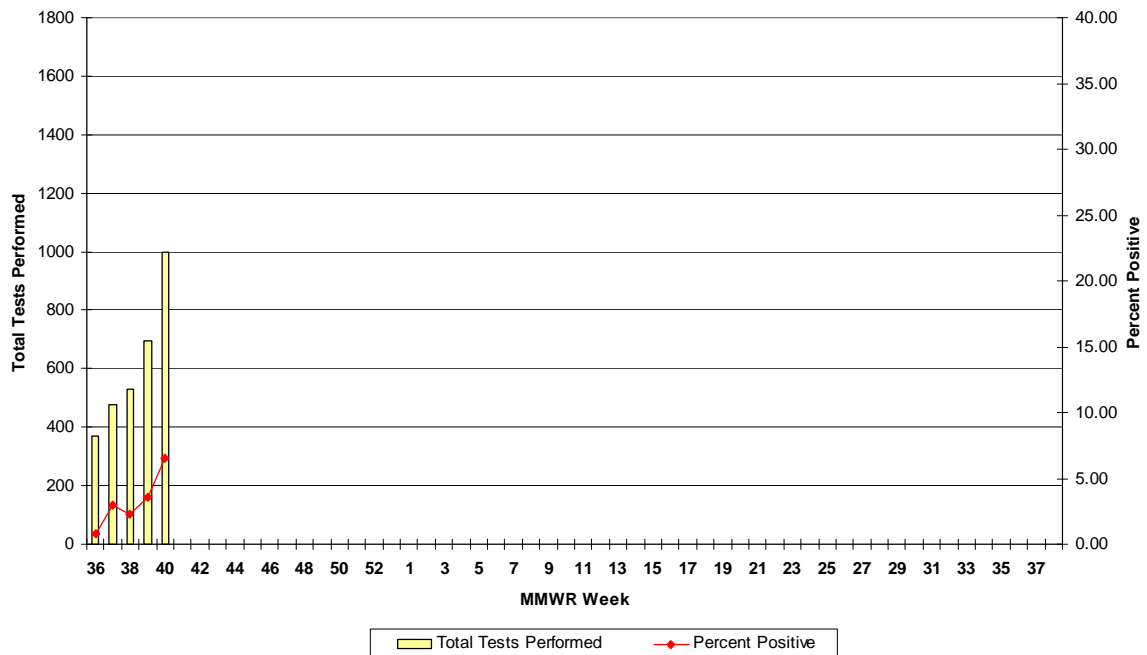
	MMWR Week 40 to present week					MMWR Week 40, 41 (2009-2010 season); Week 39 (2008-2009 season)				
	A H1	A H3	A (subtyping not done)	B	2009 Influenza A H1N1	A H1	A H3	A (subtyping not done)	B	2009 Influenza A H1N1
Atlantic County	0	0	0	0	4	0	0	0	0	4
Bergen County	0	0	0	0	1	0	0	0	0	1
Burlington County	0	0	0	0	0	0	0	0	0	0
Camden County	0	0	0	0	1	0	0	0	0	1
Cape May County	0	0	0	0	3	0	1	0	0	3
Cumberland County	0	0	0	0	0	0	0	0	0	0
Essex County	0	0	0	0	0	0	0	0	0	0
Gloucester County	0	0	0	0	0	0	0	0	0	0
Hudson County	0	0	0	0	0	0	0	0	0	0
Hunterdon County	0	0	0	0	4	0	0	0	0	5
Mercer County	0	0	0	0	0	0	0	0	0	0
Middlesex County	0	0	0	0	1	0	0	0	0	2
Monmouth County	0	0	0	0	0	0	0	0	0	0
Morris County	0	0	0	0	0	0	0	0	0	0
Ocean County	0	0	0	0	0	0	0	0	0	0
Passaic County	0	0	0	0	0	0	0	0	0	0
Salem County	0	0	0	0	0	0	0	0	0	0
Somerset County	0	0	0	0	0	0	0	0	0	0
Sussex County	0	0	0	0	0	0	0	0	0	0
Union County	0	0	0	0	0	0	0	0	0	0
Warren County	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0
<b>State Total</b>	0	0	0	0	14	0	1	0	0	16

\*Rapid 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**

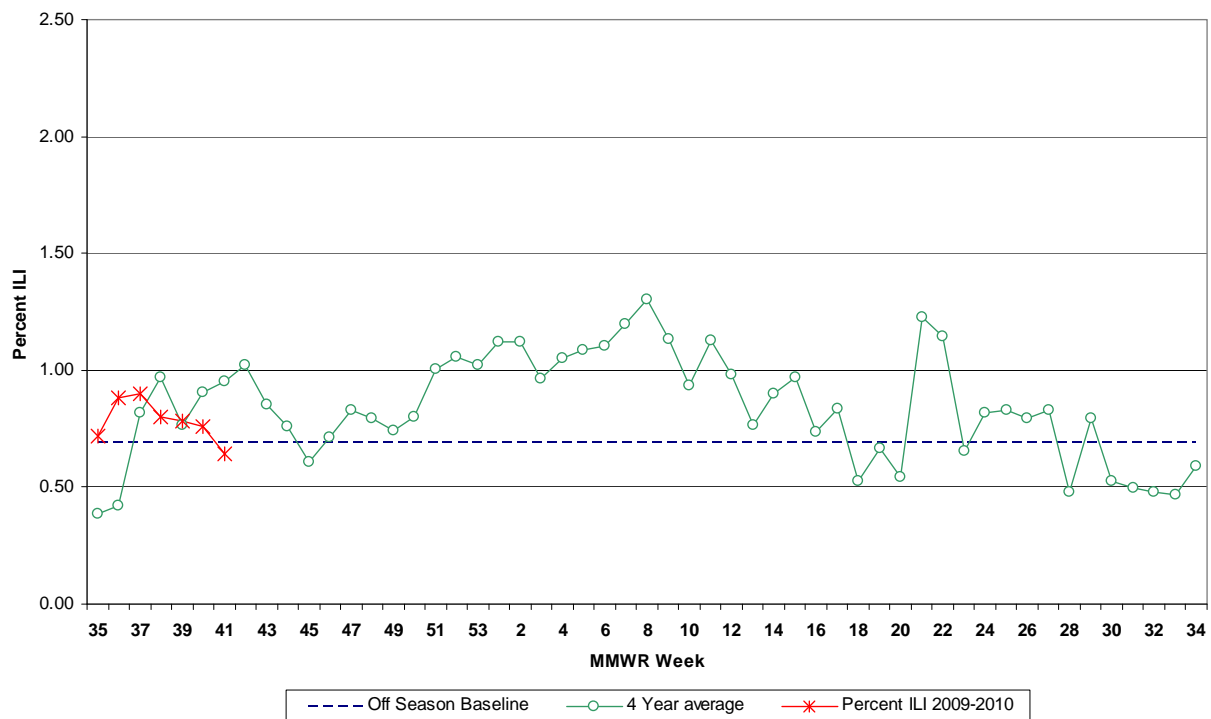


## Influenza-like Illness (ILI) Surveillance\*

### Long-term Care Facilities

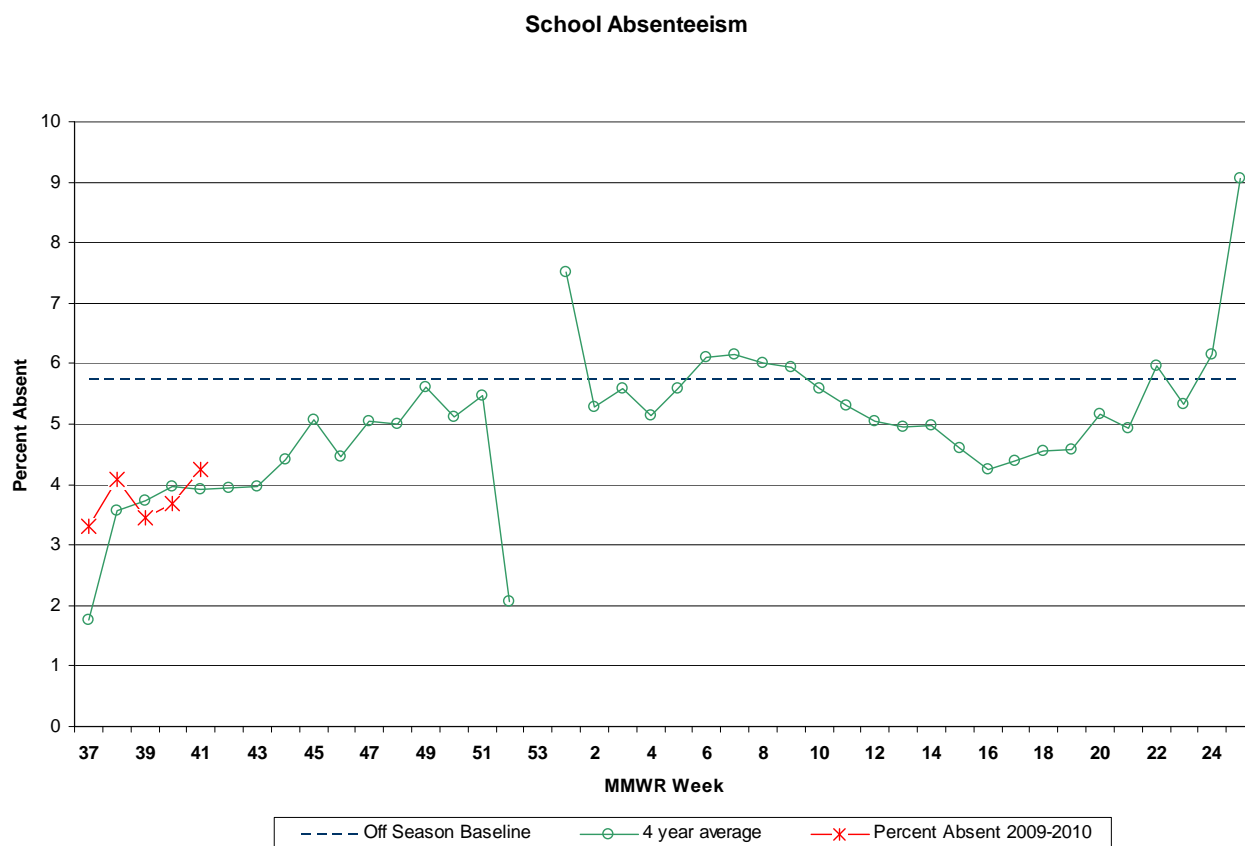
During week 41, 0.64% ILI was reported statewide from long term care facilities. This is a decrease over the previous week (0.76%). The percent ILI for each county ranged from 0.00% to 5.22%. The percent ILI for this same week last year was 0.90% in long-term care facilities. The percent ILI for the northeast (1.05%) and south (0.79%) public health regions were above the state baseline (0.69%). No new respiratory outbreaks in long term care facilities were received in week 41.

Influenza-like Activity - Long Term Care Facilities



## School Absenteeism

During week 41, schools reported 4.26% absenteeism. This is an increase over the previous week (3.68%). The percent ILI for each county ranged from 1.21 to 7.35%. The percent absent for this same week last year was 3.69%. No public health regions were found to be above the state baseline (5.73%).



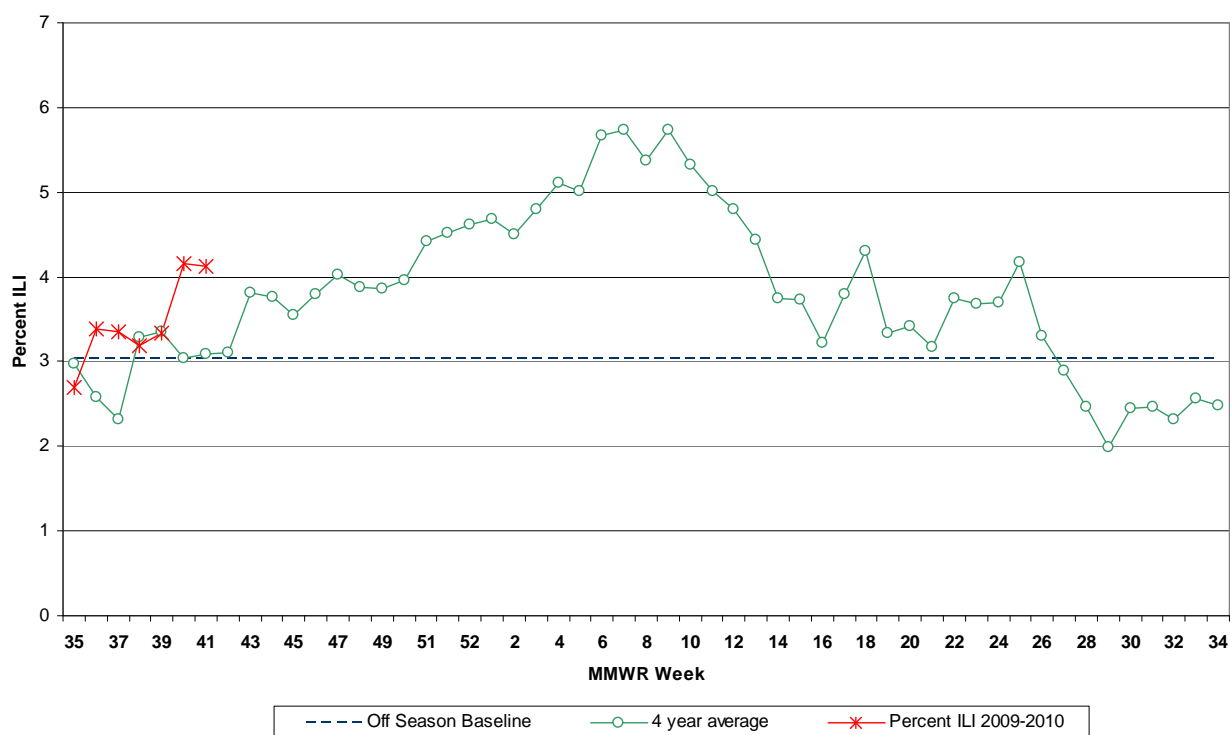


## Emergency Departments

**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 41, 4.13% of ILI was reported statewide from emergency departments. This is a slight decrease over the previous week (4.15%). The percent ILI for each county ranged from 0.00 to 18.18%. The percent ILI for this same week last year was 2.13% in emergency departments. The percent ILI for the northwest (7.45%), northeast (3.14%), central west (5.04%), central east (4.79%), and south (3.17%) public health regions were above the state baseline (3.04%).

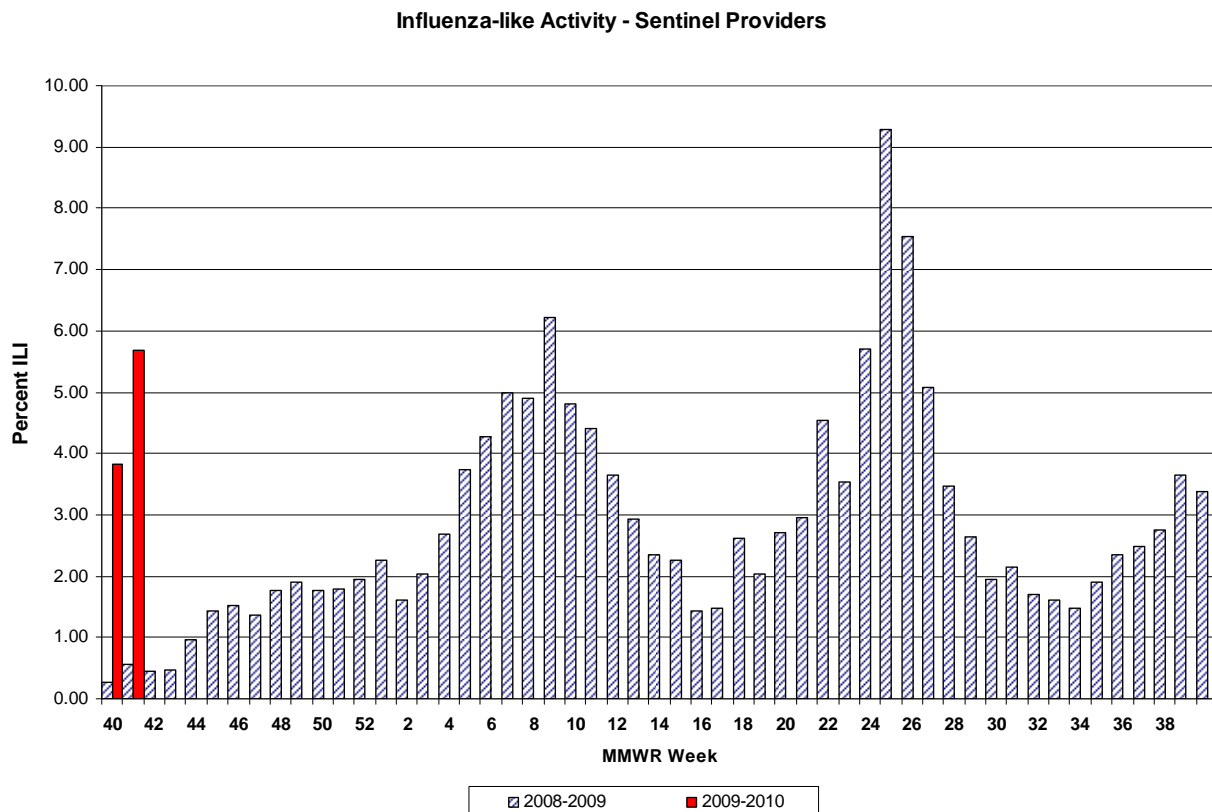
Influenza-like Activity - Emergency Departments



## **Sentinel Provider Surveillance**

During week 41, 5.68% of sentinel provider patient visits were due to ILI. These data reflect reports from fourteen (22%) of the enrolled sentinel providers.

During week 40, 3.82% of sentinel provider patient visits were due to ILI. These data reflect reports from twenty (31%) of the enrolled sentinel providers.



## **Pediatric Influenza Surveillance**

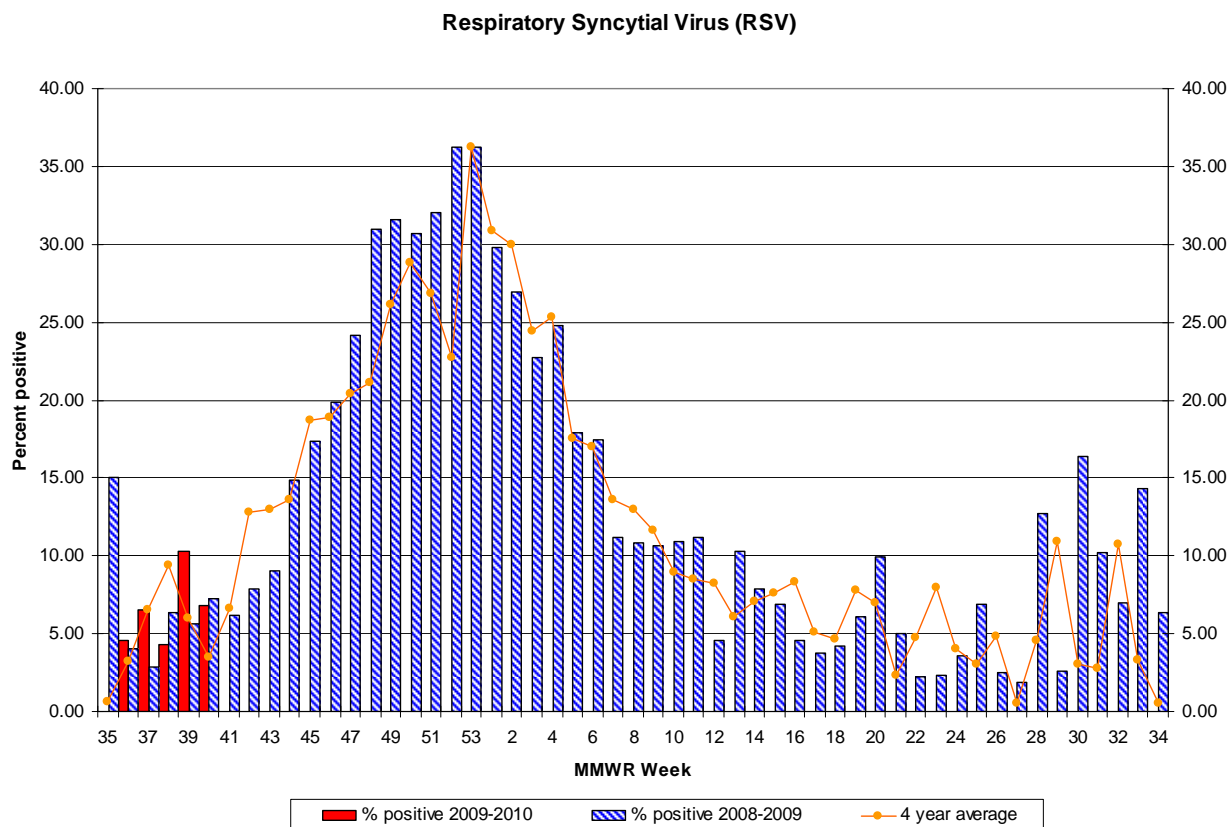
To date, NJDHSS has received 4 reports of pediatric influenza meeting the case definition.

## **122 City Mortality Report**

During week 40, 5.71% 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 a decrease over the previous week (7.30%). The percentage of death due to pneumonia or influenza for this same week last year was 3.67%.

## **RSV Reports**

During week 40, 3.47% of all RSV samples tested were positive. This is a decrease over the previous week 6.02%. The percent of samples positive for RSV for this same week last year was 7.32%.



## **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 3 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>October, 13, 2009 12:00 AM MMRW WEEK 41</b>									
ATLANTIC	4	1	2.37	19	11	7.35	4	4	2.43
BERGEN	3	1	0.00	25	3	2.83	6	6	3.02
BURLINGTON	6	3	0.00	115	83	4.73	3	3	2.19
CAMDEN	7	0	0.00	17	0	0.00	7	6	2.45
CAPE MAY	6	5	0.00	11	10	3.04	1	1	16.96
CUMBERLAND	6	2	2.58	18	7	5.89	3	3	2.31
ESSEX	18	6	0.88	45	13	2.90	11	9	2.99
GLOUCESTER	5	4	0.29	4	4	3.22	2	2	3.14
HUDSON	10	1	5.22	106	71	4.75	6	4	3.82
HUNTERDON	4	4	0.66	49	49	2.82	1	1	4.44
MERCER	11	7	0.00	26	24	4.31	5	5	6.27
MIDDLESEX	2	0	0.00	100	11	3.58	5	4	4.06
MONMOUTH	14	2	0.00	24	11	4.04	5	5	3.01
MORRIS	2	0	0.00	13	13	2.13	4	2	14.04
OCEAN	6	1	0.00	67	45	5.50	4	3	7.14
PASSAIC	9	0	0.00	28	6	1.21	6	1	2.51
SALEM	4	0	0.00	5	2	4.53	1	1	3.66
SOMERSET	6	3	0.85	76	58	3.33	2	1	0.00
SUSSEX	5	5	0.60	23	22	5.10	2	1	18.18
UNION	4	1	0.00	142	0	0.00	5	5	6.24
UNKNOWN	0	0	0.00	1	0	0.00	0	0	0.00
WARREN	8	1	0.00	24	20	5.62	2	2	10.00
NW Region	24	6	0.58	88	61	4.33	14	6	7.45
NE Region	31	8	1.05	176	87	4.47	23	19	3.14
CW Region	21	14	0.39	151	131	3.39	8	7	5.04
CE Region	26	4	0.00	333	67	4.87	19	17	4.79
South Region	38	15	0.79	189	117	4.78	21	20	3.17
<b>State Total</b>	<b>140</b>	<b>47</b>	<b>0.64</b>	<b>937</b>	<b>463</b>	<b>4.26</b>	<b>85</b>	<b>69</b>	<b>4.13</b>

	RSV Tests		Flu Tests		
County	# Positive	Total Tests Performed	# Positive	Total Tests Performed	
October, 13, 2009 12:00 AM	MMRW WEEK 41				
ATLANTIC	0	15	3	48	
BERGEN	0	8	2	53	
BURLINGTON	3	10	5	60	
CAMDEN	0	0	0	0	
CAPE MAY	0	5	0	25	
CUMBERLAND	0	9	0	0	
ESSEX	10	65	6	169	
GLOUCESTER	0	11	0	0	
HUDSON	1	12	2	36	
HUNTERDON	2	8	4	42	
MERCER	0	11	0	5	
MIDDLESEX	0	45	0	16	
MONMOUTH	0	38	13	296	
MORRIS	0	12	0	30	
OCEAN	1	6	0	0	
PASSAIC	3	30	4	41	
SALEM	0	0	1	8	
SOMERSET	0	1	0	0	
SUSSEX	0	4	1	52	
UNION	0	6	0	15	
WARREN	0	0	24	101	
NW Region	3	46	29	224	
NE Region	11	85	10	258	
CW Region	2	20	4	47	
CE Region	1	95	13	327	
South Region	3	50	9	141	
State Total	20	296	65	997	