

New Jersey Department of Health and Senior Services
Communicable Disease Service
Influenza Activity Summary
Week Ending October 10, 2009(MMWR Week 40)

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

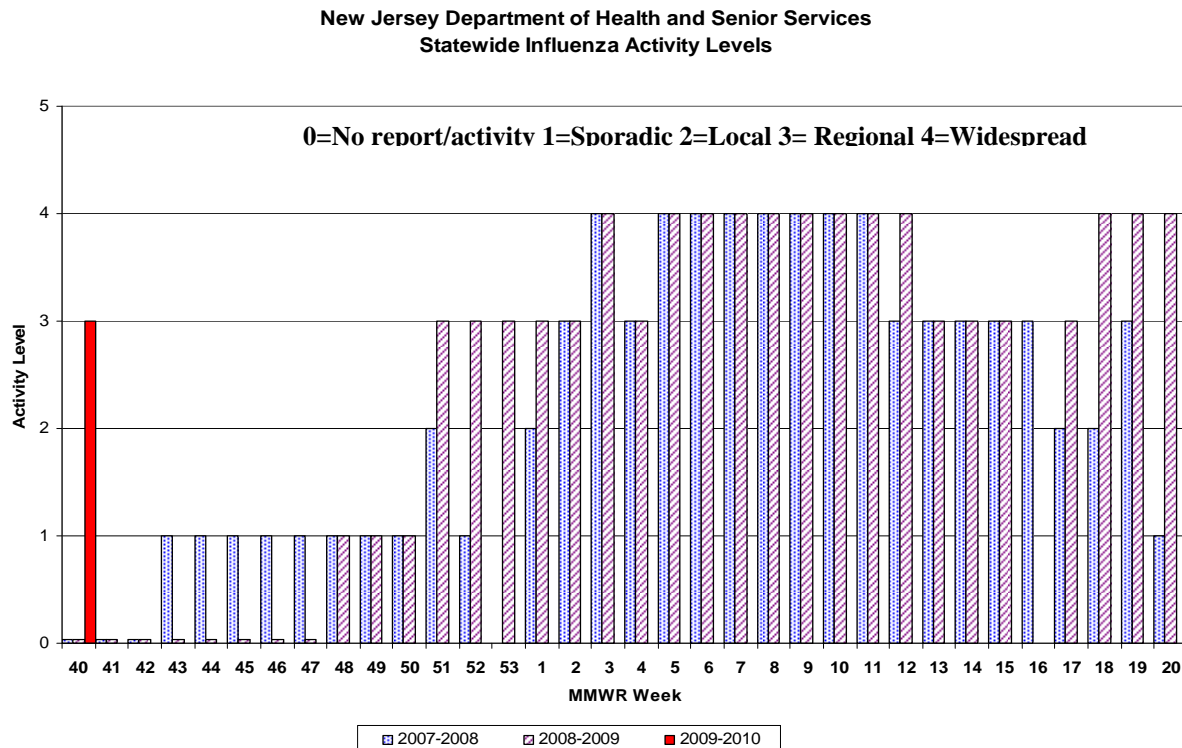
Local – At least 2 of 3 parameters above state baseline in a single county **AND** confirmed laboratory cases from that same county within the previous 3 weeks (other counties may be above baseline without lab confirmed cases) **OR** confirmed outbreaks in 2 or more institutions in a single county

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

Region	Counties in Region	Activity Level
NW Region	Morris, Passaic, Sussex, Warren	LOCAL
NE Region	Bergen, Essex, Hudson	SPORADIC
CW Region	Hunterdon, Mercer, Somerset	NO ACTIVITY
CE Region	Middlesex, Monmouth, Ocean, Union	SPORADIC
South Region	Atlantic, Burlington, Camden, Cape May, Salem, Cumberland, Gloucester	REGIONAL

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

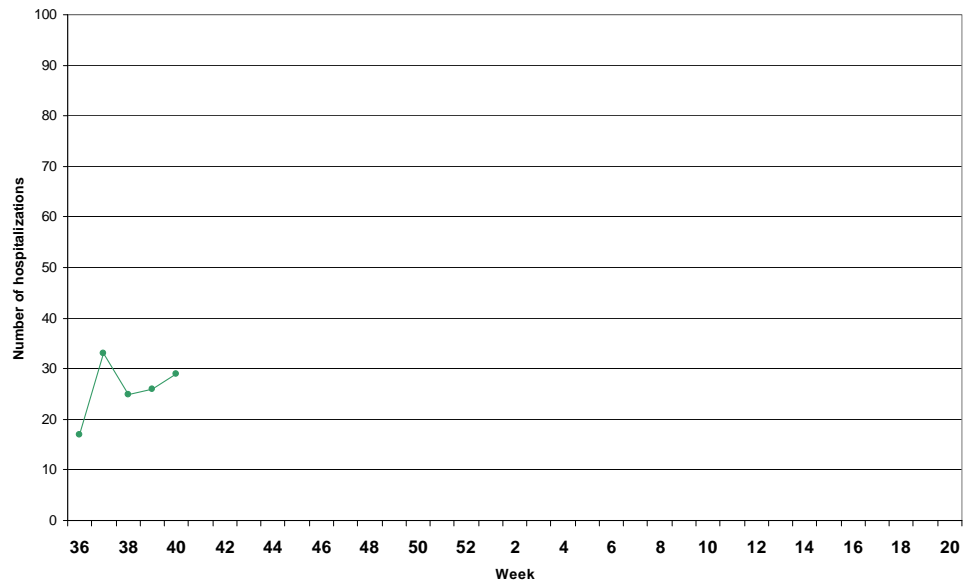
Widespread – Not used for public health region data

Influenza-associated Hospitalizations/Deaths

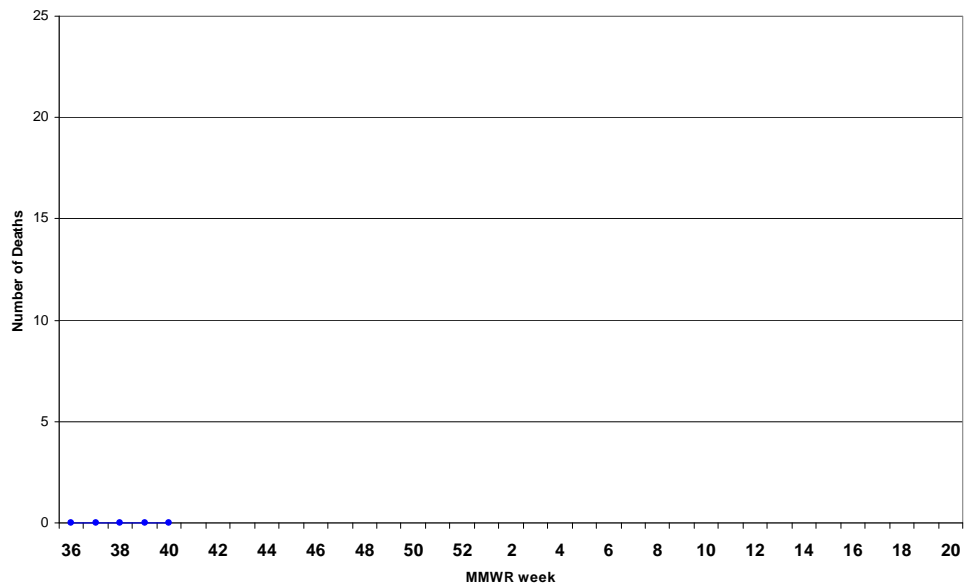
Influenza-associated hospitalizations are reported weekly from a subset of hospital facilities. Facilities report patients hospitalized with either laboratory-confirmed (rapid, PCR, culture) influenza or patients admitted with influenza-like illness. Data from influenza-associated deaths are extracted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

Hospitalizations	Deaths
29	0

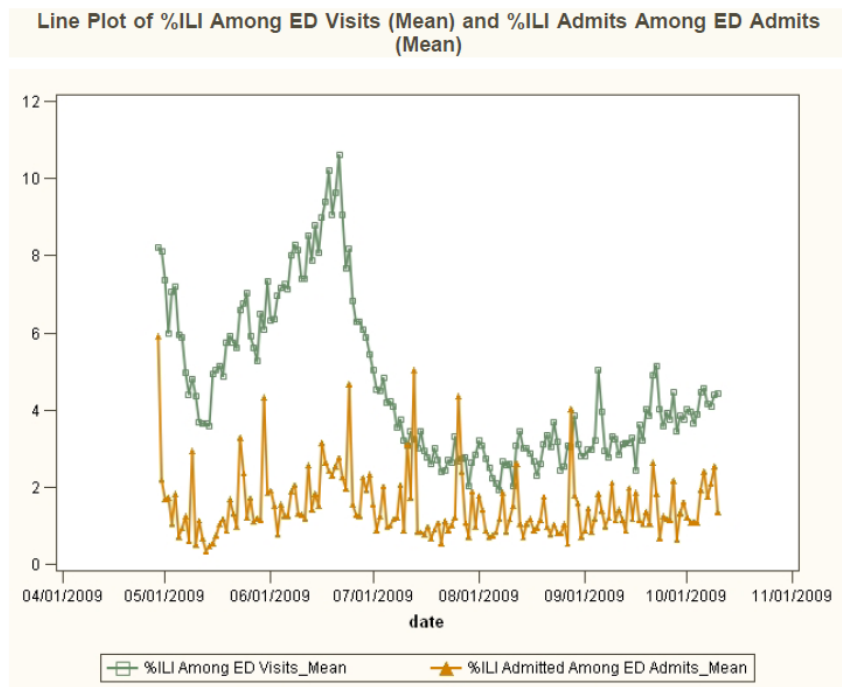
Influenza-Associated Hospitalizations



Influenza-Associated Deaths



Syndromic Surveillance



Summary of ED Visits and Admits Surveillance

Daily surveillance for ED visits and admissions from NJ hospital EDs had 2 ED volume blips (Middlesex and Monmouth) and 5 admission blips (Bergen, Camden, Hudson, Middlesex and Union) from 10/4/09 to 10/10/09. Five blip responses were received, none was ILI-related.

Summary of ED ILI Activities

Daily ED ILI surveillance through Hippocrates survey from 80 hospital EDs had 10 ED ILI blips from 10/4/09 to 10/10/09. The enhanced ED surveillance had 2528 ILI ED visits (4% of total ED visits), and 224 with ILI symptom admitted (9% of total ILI ED visits) from 10/4/09 to 10/10/09. 15 of 80 facilities reported ED ILI admissions by age group (see attached).

The ED ILI activity statewide has been stable at the low levels (see attached) from Hippocrates survey response. By comparing the ED ILI visits for this week (10/4/09 to 10/10/09) to the ED ILI visits from previous week (9/27/09 to 10/3/09), no statistically significant difference was detected between mean %ILI ED visits this week and that in the previous week ($p=0.08$ for mean). The %ILI average ED visits (mean value) ranged from 3.9% to 4.6% from 10/4/09 to 10/10/09. The previous three years' seasonal flu ILI ED visits from the same week was around 4% (mean value).

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

EpiCenter generated 32 new blips (7 respiratory, 6 constitutional, 6 fever, 5 diarrhea, 3 vomiting, 2 arthralgia, 2 rash, and 1 neurological) from 10/4/09 to 10/10/09 in UASI area. 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 10/4/09 to 10/10/09 comparing to those from 9/27/09 to 10/3/09. In general, all areas had low levels of ILIs based on the CUSUM analysis.

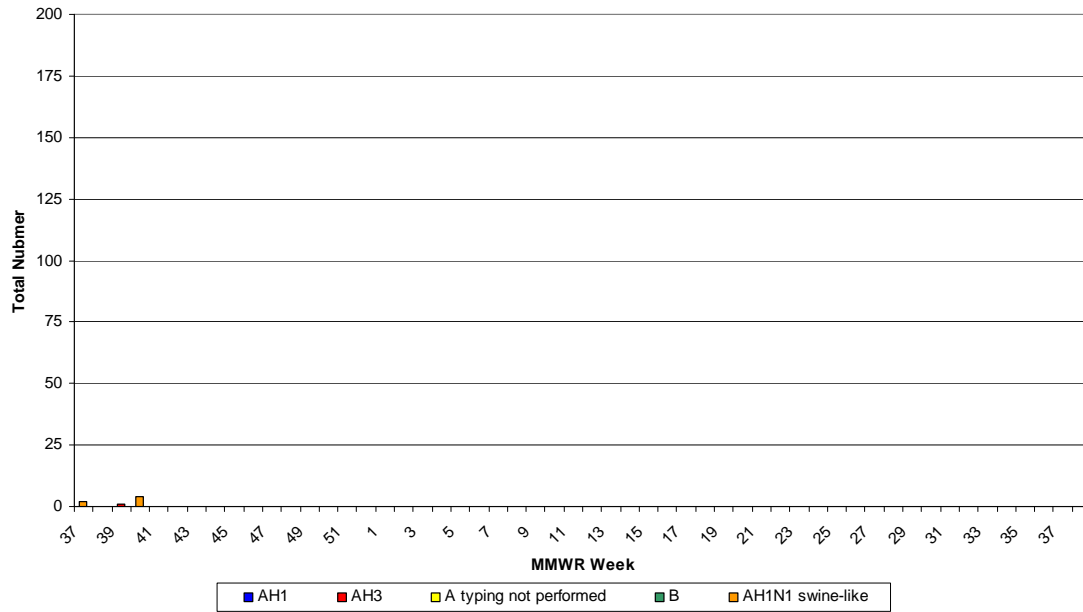
Laboratory Surveillance

As of week 40, 4 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.

	MMWR Week 40					MMWR Week 40 (2009-2010 season); Week 38,39 (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	2	0	0	0	0	2
Bergen County	0	0	0	0	0	0	0	0	0	0
Burlington County	0	0	0	0	0	0	0	0	0	0
Camden County	0	0	0	0	0	0	0	0	0	0
Cape May County	0	0	0	0	0	0	1	0	0	0
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	0	0	0	0	0	0
Mercer County	0	0	0	0	0	0	0	0	0	0
Middlesex County	0	0	0	0	1	0	0	0	0	1
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	1	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0
State Total	0	0	0	0	4	0	1	0	0	4

*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**

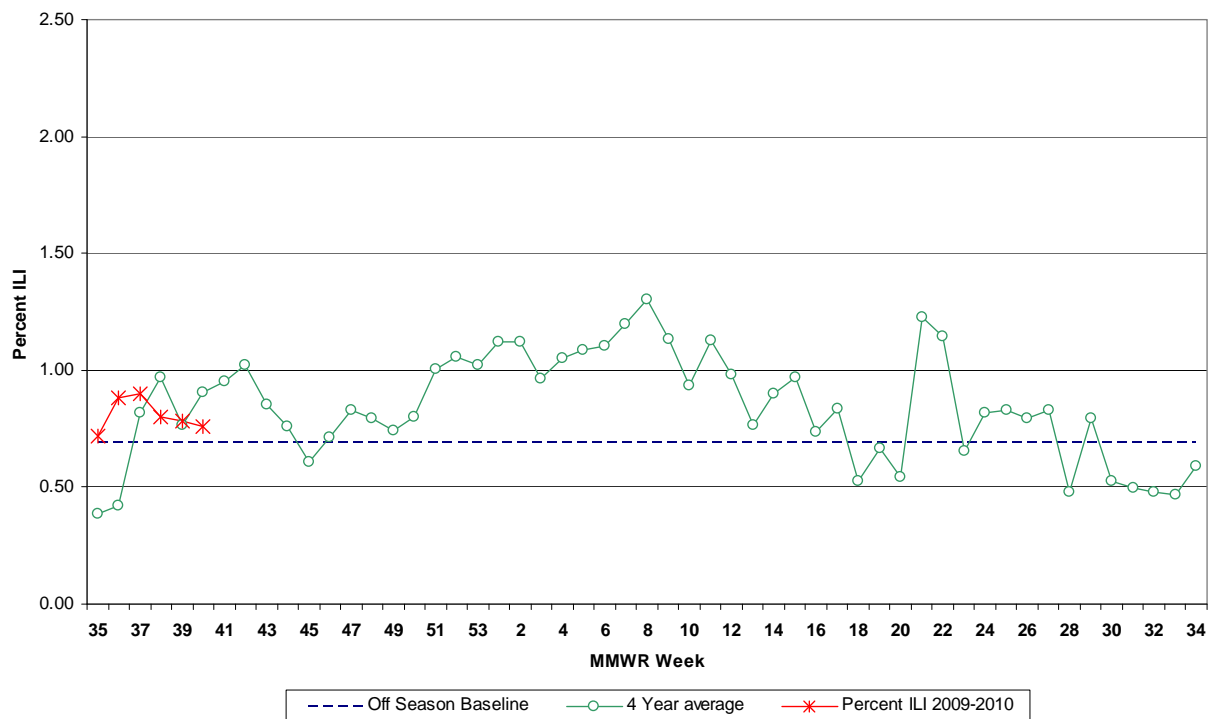


Influenza-like Illness (ILI) Surveillance*

Long-term Care Facilities

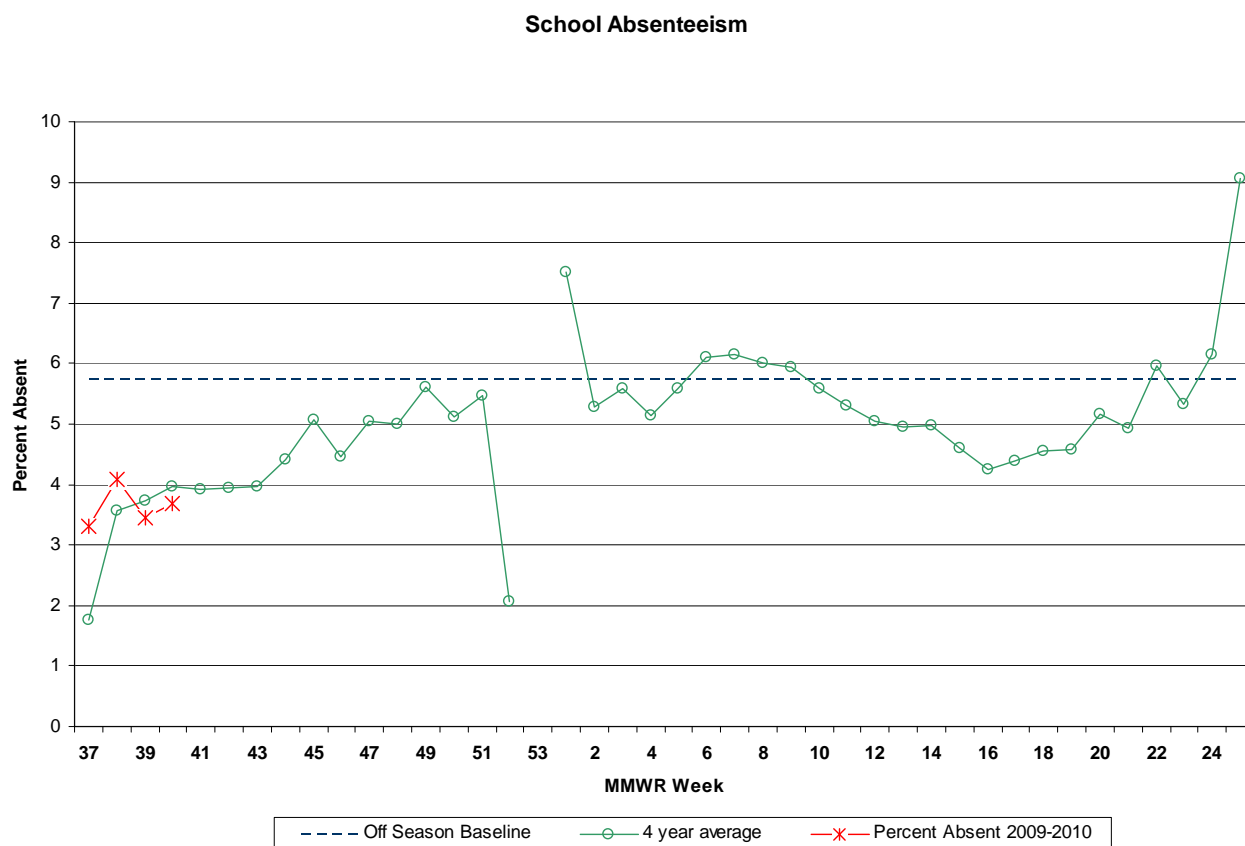
During week 40, 0.76% ILI was reported statewide from long term care facilities. This is a decrease over the previous week (0.78%). The percent ILI for each county ranged from 0.00% to 5.31%. The percent ILI for this same week last year was 1.02% in long-term care facilities. The percent ILI for the northwest (1.09%), northeast (1.07%) and central west (0.82%) public health regions were above the state baseline (0.69%). No new respiratory outbreaks in long term care facilities were received in week 40.

Influenza-like Activity - Long Term Care Facilities



School Absenteeism

During week 40, schools reported 3.68% absenteeism. This is an increase over the previous week (3.46%). The percent ILI for each county ranged from 1.89 to 7.19%. The percent absent for this same week last year was 4.49%. No public health regions were found to be above the state baseline (5.73%).

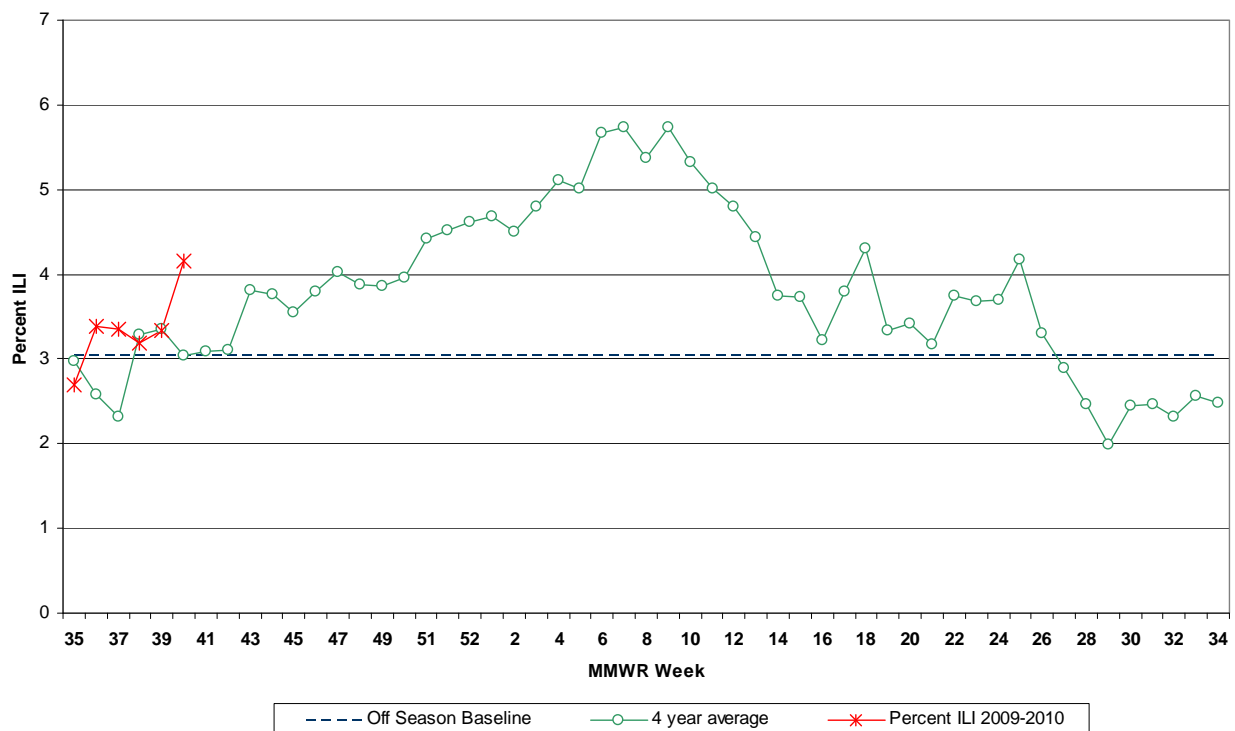


Emergency Departments

(NOTE: Data presented below is from daily ED data extracted from Hippocrates survey responses for Tuesday of each week)

During week 40, 4.15% of ILI was reported statewide from emergency departments. This is an increase over the previous week (2.55%). The percent ILI for each county ranged from 0.00 to 12.22%. The percent ILI for this same week last year was 2.55% in emergency departments. The percent ILI for the northwest (7.02%), central west (4.78%), central east (5.06%), and south (3.12%) public health regions were above the state baseline (3.04%).

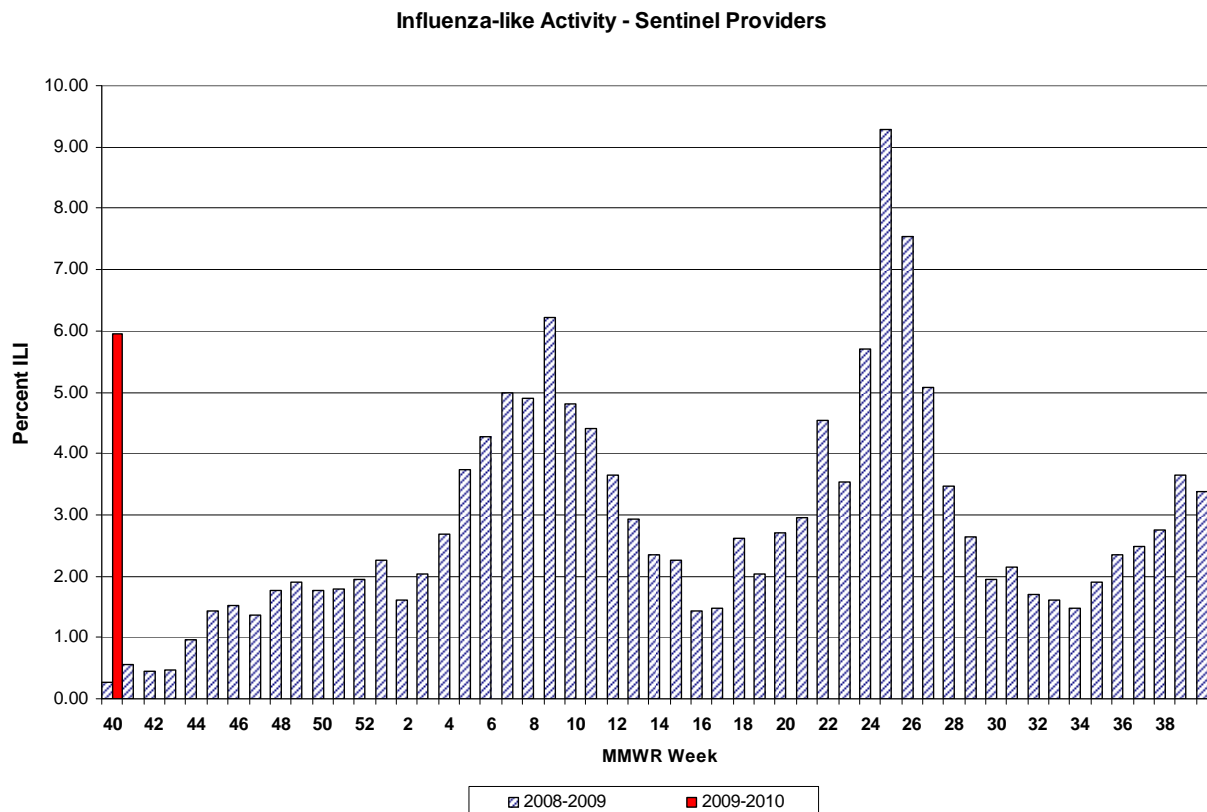
Influenza-like Activity - Emergency Departments



Sentinel Provider Surveillance

During week 40, 5.96% of sentinel provider patient visits were due to ILI. These data reflect reports from eleven (22%) of the enrolled sentinel providers.

During week 39, 3.17% of sentinel provider patient visits were due to ILI. These data reflect reports from fifteen (30%) of the enrolled sentinel providers.



Pediatric Influenza Surveillance

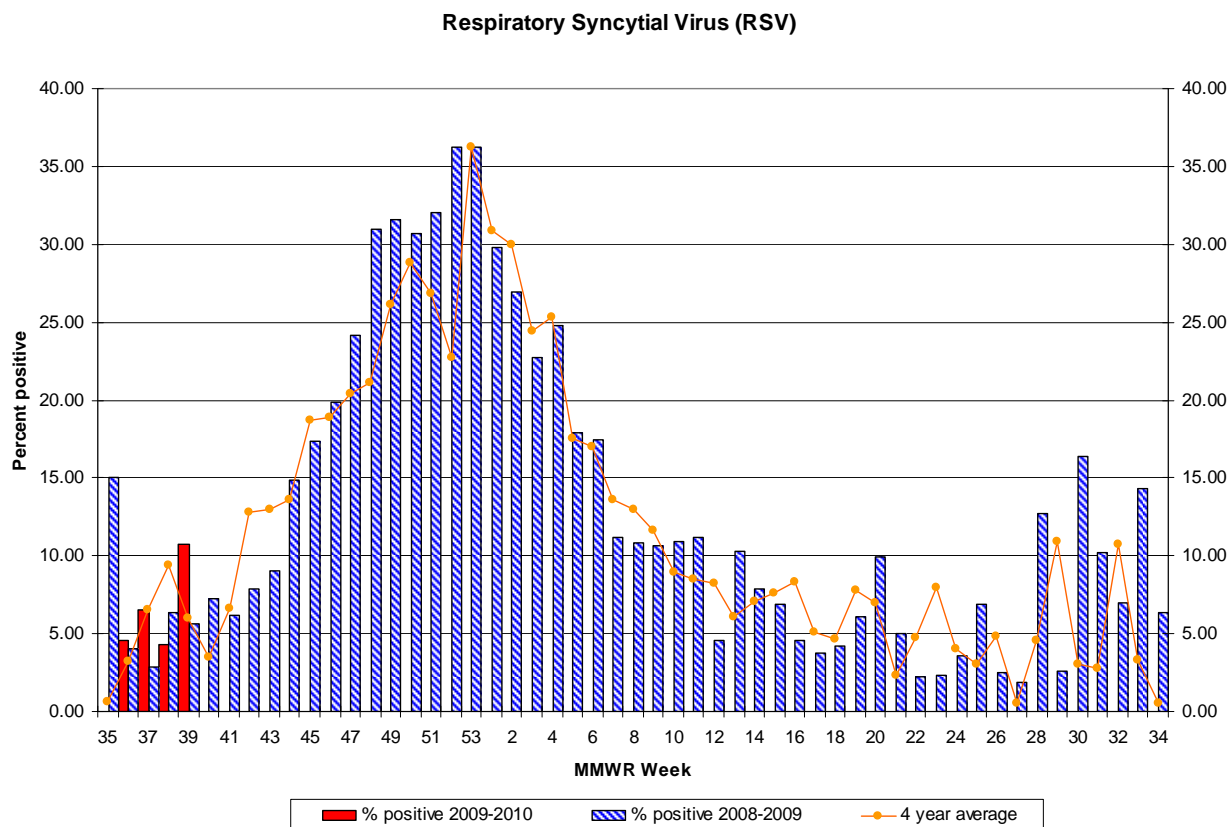
To date, NJDHSS has received two reports of pediatric illness meeting the case definition.

122 City Mortality Report

During week 40, 7.30% 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 over the previous week (5.04%). The percentage of death due to pneumonia or influenza for this same week last year was 7.63%.

RSV Reports

During week 40, 10.70% of all RSV samples tested were positive. This is an increase over the previous week 4.29%. The percent of samples positive for RSV for this same week last year was 5.67%.



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
October, 6, 2009 12:00 AM MMRW WEEK 40									
ATLANTIC	4	1	1.18	19	10	7.19	4	4	1.51
BERGEN	3	0	0.00	25	0	0.00	6	5	2.81
BURLINGTON	6	1	0.00	115	77	3.68	3	3	1.02
CAMDEN	7	0	0.00	17	0	0.00	7	7	3.70
CAPE MAY	6	4	1.38	11	10	3.59	1	1	9.38
CUMBERLAND	6	2	0.49	18	8	5.97	3	3	2.69
ESSEX	18	6	0.67	45	14	2.84	11	10	2.19
GLOUCESTER	5	4	0.00	4	3	3.34	2	2	5.59
HUDSON	10	1	5.31	106	65	4.74	6	5	4.15
HUNTERDON	4	4	0.22	48	47	2.24	1	1	3.13
MERCER	11	6	0.61	26	24	3.78	5	3	7.23
MIDDLESEX	2	0	0.00	100	13	2.57	5	5	4.37
MONMOUTH	14	2	0.00	24	8	3.26	5	5	4.89
MORRIS	2	0	0.00	13	13	1.89	4	3	12.22
OCEAN	6	1	0.00	67	55	4.52	4	3	8.67
PASSAIC	9	2	0.38	28	9	3.19	6	2	2.82
SALEM	4	3	0.33	5	2	4.42	1	1	0.00
SOMERSET	6	4	1.72	72	51	2.66	2	1	0.00
SUSSEX	5	5	1.30	23	22	4.23	2	2	3.39
UNION	4	0	0.00	142	59	3.17	5	5	2.25
UNKNOWN	0	0	0.00	1	0	0.00	0	0	0.00
WARREN	8	3	1.17	24	11	3.57	2	2	6.54
NW Region	24	10	1.09	88	55	3.42	14	9	7.02
NE Region	31	7	1.07	176	79	4.53	23	20	2.79
CW Region	21	14	0.82	146	122	2.79	8	5	4.78
CE Region	26	3	0.00	333	135	3.67	19	18	5.06
South Region	38	15	0.56	189	110	4.20	21	21	3.12
State Total	140	49	0.76	932	501	3.68	85	73	4.15



	RSV Tests		Flu Tests		
County	# Positive	Total Tests Performed	# Positive	Total Tests Performed	
October, 6, 2009 12:00 AM	MMRW WEEK 40				
ATLANTIC	2	22	2	35	
BERGEN	0	7	0	66	
BURLINGTON	0	5	2	55	
CAMDEN	0	25	0	0	
CAPE MAY	0	6	1	23	
CUMBERLAND	0	8	0	0	
ESSEX	10	58	2	69	
GLOUCESTER	0	3	0	0	
HUDSON	2	9	0	19	
HUNTERDON	2	5	4	29	
MERCER	1	20	2	11	
MIDDLESEX	1	4	0	22	
MONMOUTH	0	14	6	183	
MORRIS	0	4	0	23	
OCEAN	0	5	0	0	
PASSAIC	6	25	1	45	
SALEM	0	2	0	5	
SOMERSET	0	3	0	0	
SUSSEX	0	4	1	56	
UNION	2	13	0	5	
WARREN	0	1	4	51	
NW Region	6	34	6	175	
NE Region	12	74	2	154	
CW Region	3	28	6	40	
CE Region	3	36	6	210	
South Region	2	71	5	118	
State Total	26	243	25	697	