

New Jersey Department of Health and Senior Services
Communicable Disease Service
Influenza Activity Summary
Week Ending October 31, 2009(MMWR Week 43)

Influenza Activity Level: **WIDESPREAD**

NOTE: Three of three reporting parameters are at or above state baseline. Twelve counties have 2 of 3 parameters above state baseline and 15 counties have had culture/PCR positive samples in the last 3 weeks. Six 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

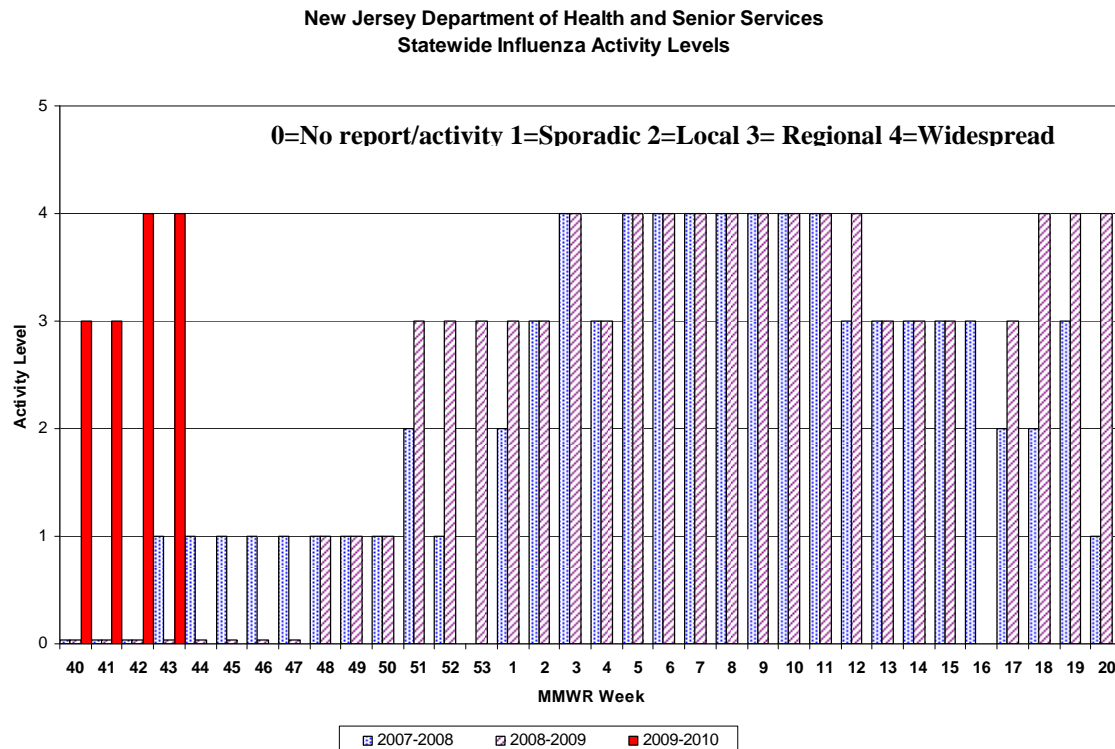
Local – At least 2 of 3 parameters above state baseline in a single county **AND** confirmed laboratory cases from that same county within the previous 3 weeks (other counties may be above baseline without lab confirmed cases) **OR** confirmed outbreaks in 2 or more institutions in a single county

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	REGIONAL
NE Region	Bergen, Essex, Hudson	REGIONAL
CW Region	Hunterdon, Mercer, Somerset	REGIONAL
CE Region	Middlesex, Monmouth, Ocean, Union	REGIONAL
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

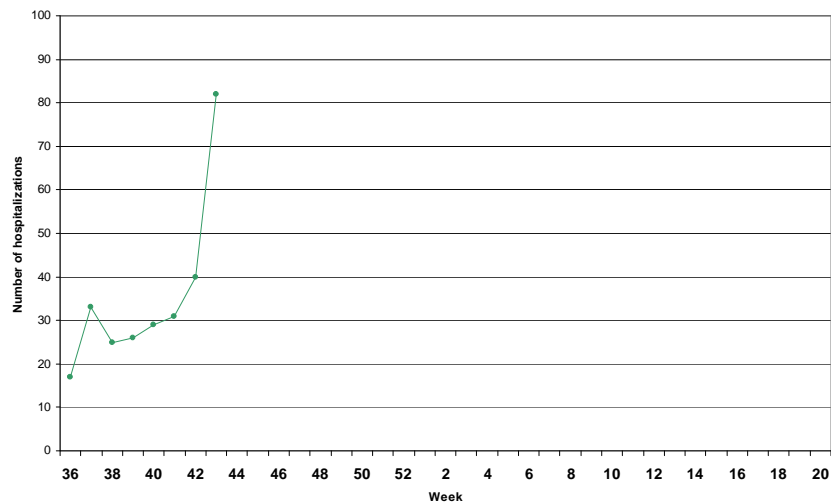
Widespread – Not used for public health region data

Influenza Hospitalizations/Deaths

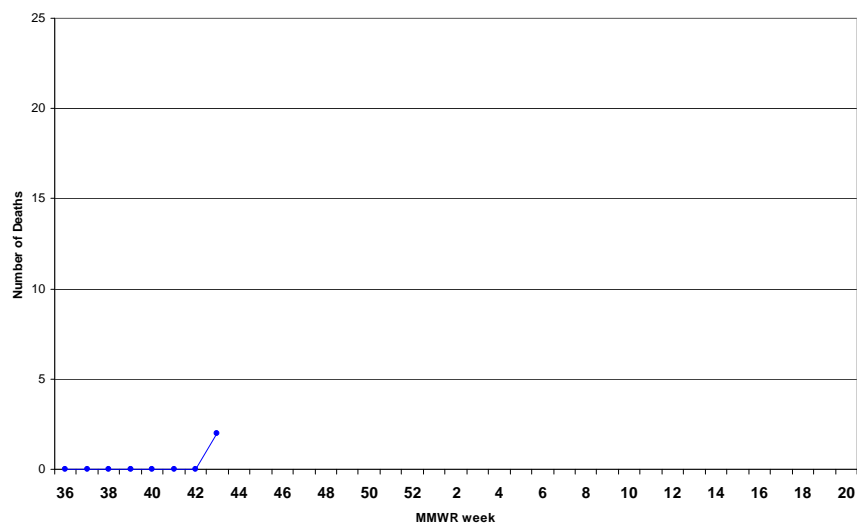
Influenza-associated hospitalizations are reported weekly from a subset of hospital facilities. Facilities report patients hospitalized with either laboratory-confirmed (rapid, PCR, culture) influenza or patients admitted with influenza-like illness. Data from influenza-associated deaths are extracted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

NJ Influenza-Associated Hospitalizations and Deaths by Current MMWR week and Cumulative Total (Week 36 to present)		
	Hospitalizations	Deaths
Week 43	82	2
Cumulative	283	2

Influenza-Associated Hospitalizations

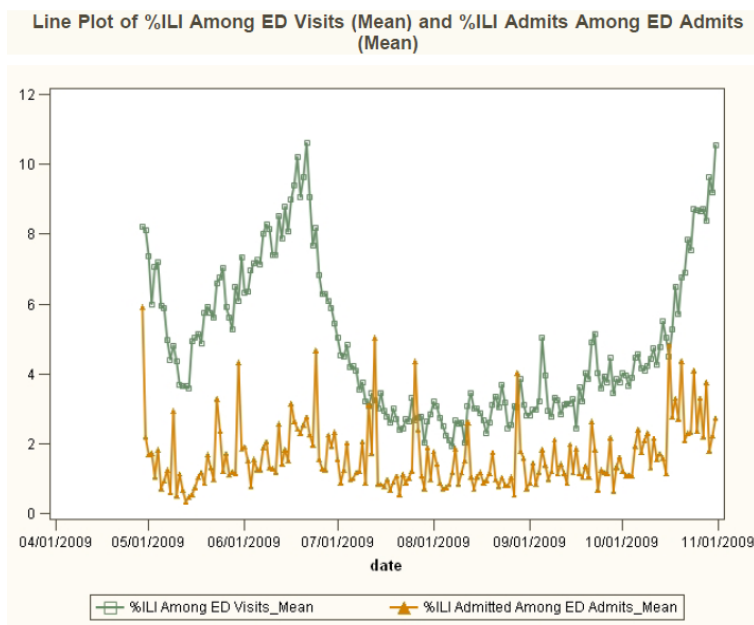


Influenza-Associated Deaths



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

The number of ED visits and hospital admissions are reported each day by New Jersey acute care facilities statewide via daily surveys sent using the Hippocrates system. Daily surveillance for ED visits and admissions from these hospital EDs resulted in ten ED volume blips (Bergen, Burlington, Cape May, Middlesex, Newark, Salem-Cumberland and Somerset) and two admission blips (Bergen and Cape May) from 10/25/09 to 10/31/09. Nine blip responses received and three were associated with increased ILI activities.

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

During 10/25/09 – 10/31/09, 80 acute care facilities in NJ reported an aggregate total of 6,218 ED visits due to ILI (9% of total ED visits) and an aggregate total of 314 admissions due to ILI (5% of total ILI ED visits). These reports resulted in 27 ED ILI visit blips (Atlantic, Bergen, Camden, Essex, Hunterdon, Mercer, Middlesex, Monmouth, Newark, Ocean, Passaic, Sussex and Warren). Compared to the previous week ending 10/24/09, ILI activity for the week ending 10/31/09 has been increasing. The mean percentage of ED visits for ILI during the week ending 10/31/09 was 9.1%, compared to 7.1% for the previous week ending 10/24/09 ($p < 0.0001$). The mean percentage of ED visits due to ILI ranged from 8.4% to 11% during 10/25/09 – 10/31/09. The mean percentage of ED visits due to ILI (averaged over the previous four influenza seasons) for this same week (MMWR Week 43) was approximately 4%.

Laboratory Surveillance

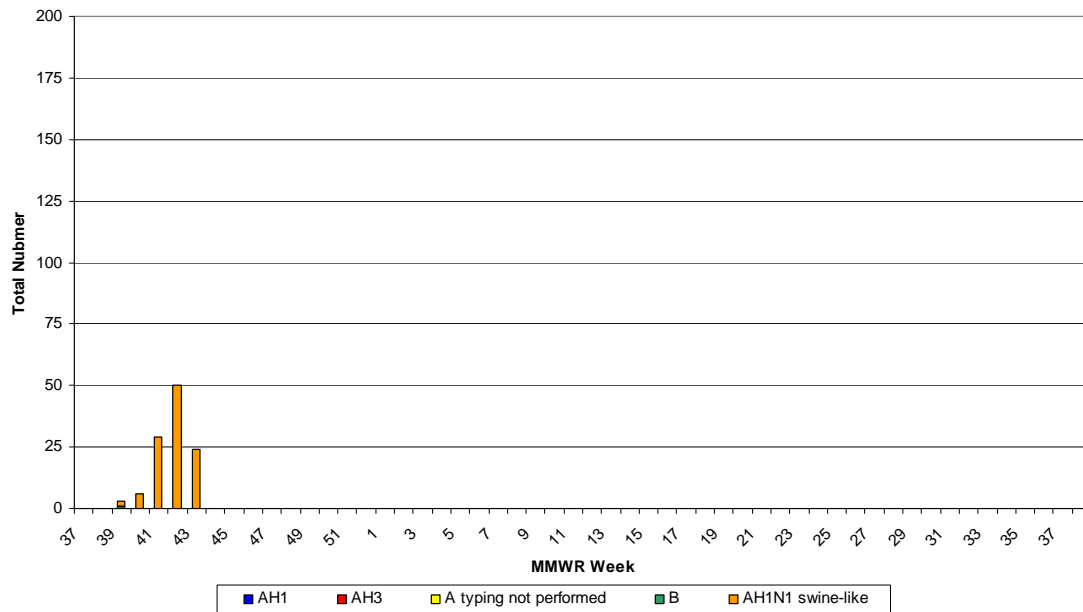
As of week 43, 109 samples were found to be positive by viral culture or PCR for influenza AH1, AH3, novel AH1N1 and influenza B. Please see graph on next page for weekly distribution. Numbers of specimens tested and total number positive by rapid influenza testing are displayed by county at the end of this report.

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

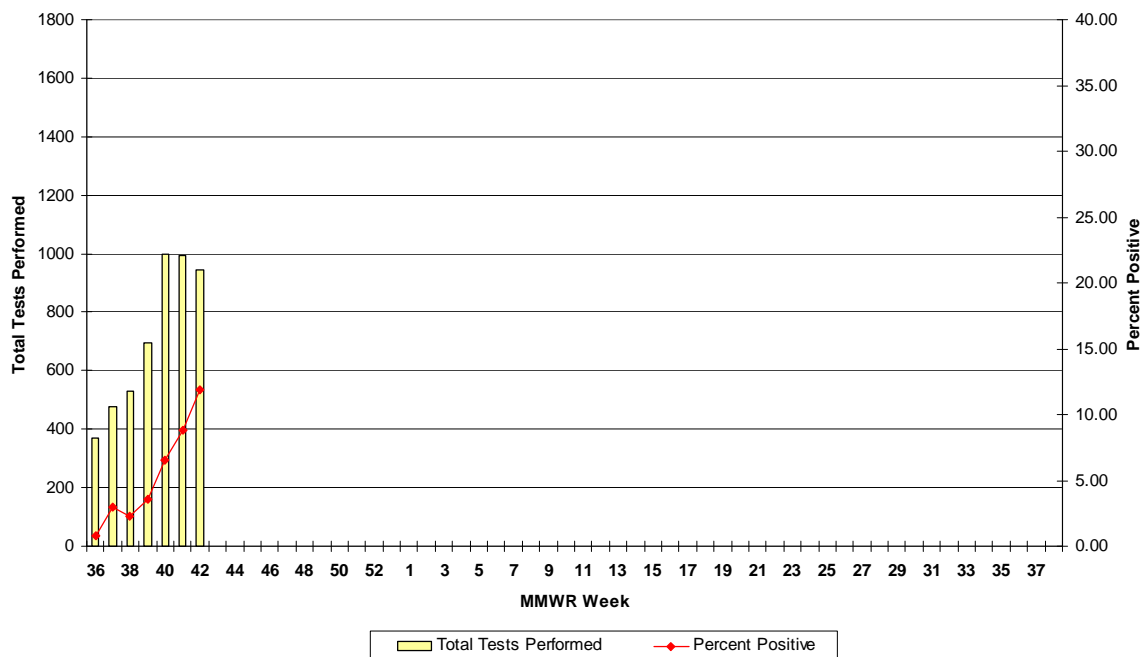
	MMWR Week 40 to present week					MMWR Week 41, 42, 43				
	A H1	A H3	A (subtyping not done)	B	2009 Influenza A H1N1	A H1	A H3	A (subtyping not done)	B	2009 Influenza A H1N1
Atlantic County	0	0	0	0	10	0	0	0	0	8
Bergen County	0	0	0	0	4	0	0	0	0	4
Burlington County	0	0	0	0	3	0	0	0	0	3
Camden County	0	0	0	0	19	0	0	0	0	19
Cape May County	0	0	0	0	3	0	0	0	0	3
Cumberland County	0	0	0	0	0	0	0	0	0	0
Essex County	0	0	0	0	2	0	0	0	0	2
Gloucester County	0	0	0	0	0	0	0	0	0	0
Hudson County	0	0	0	0	16	0	0	0	0	0
Hunterdon County	0	0	0	0	0	0	0	0	0	13
Mercer County	0	0	0	0	13	0	0	0	0	13
Middlesex County	0	0	0	0	12	0	0	0	0	11
Monmouth County	0	0	0	0	4	0	0	0	0	4
Morris County	0	0	0	0	7	0	0	0	0	7
Ocean County	0	0	0	0	0	0	0	0	0	0
Passaic County	0	0	0	0	1	0	0	0	0	1
Salem County	0	0	0	0	0	0	0	0	0	0
Somerset County	0	0	0	0	3	0	0	0	0	3
Sussex County	0	0	0	0	0	0	0	0	0	0
Union County	0	0	0	0	5	0	0	0	0	5
Warren County	0	0	0	0	7	0	0	0	0	7
Unknown	0	0	0	0	0	0	0	0	0	0
State Total	0	0	0	0	109	0	0	0	0	103

*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**

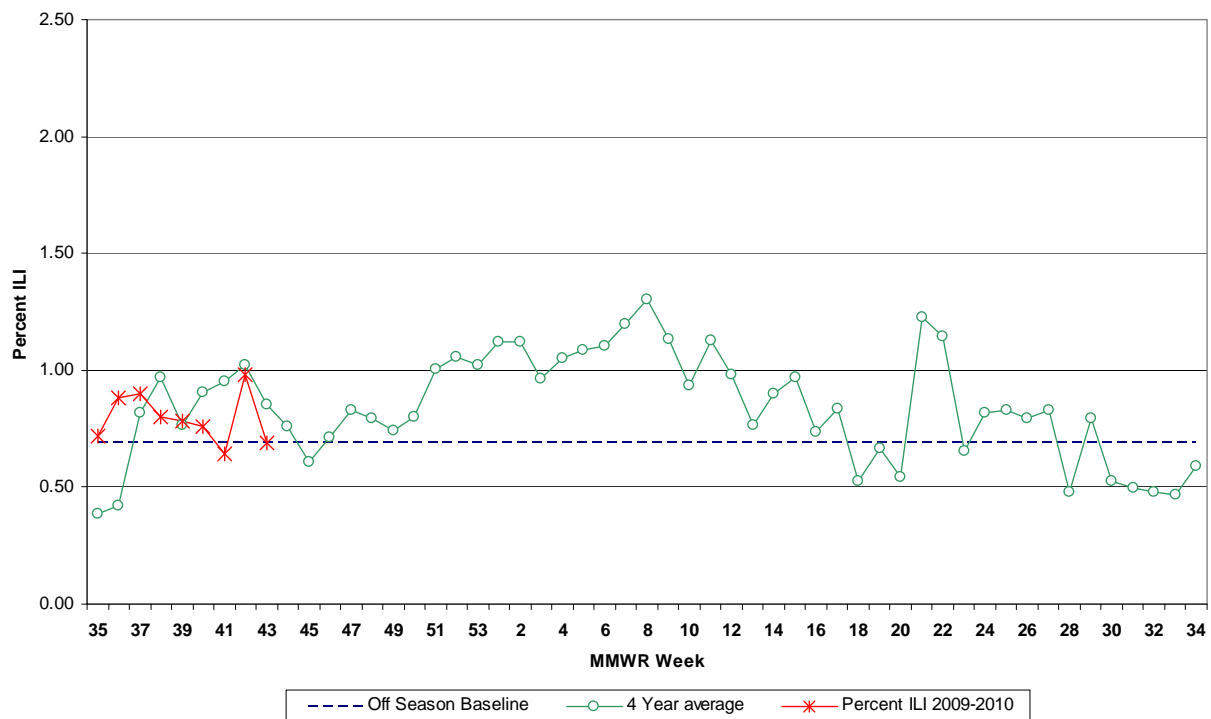


Influenza-like Illness (ILI) Surveillance*

Long-term Care Facilities

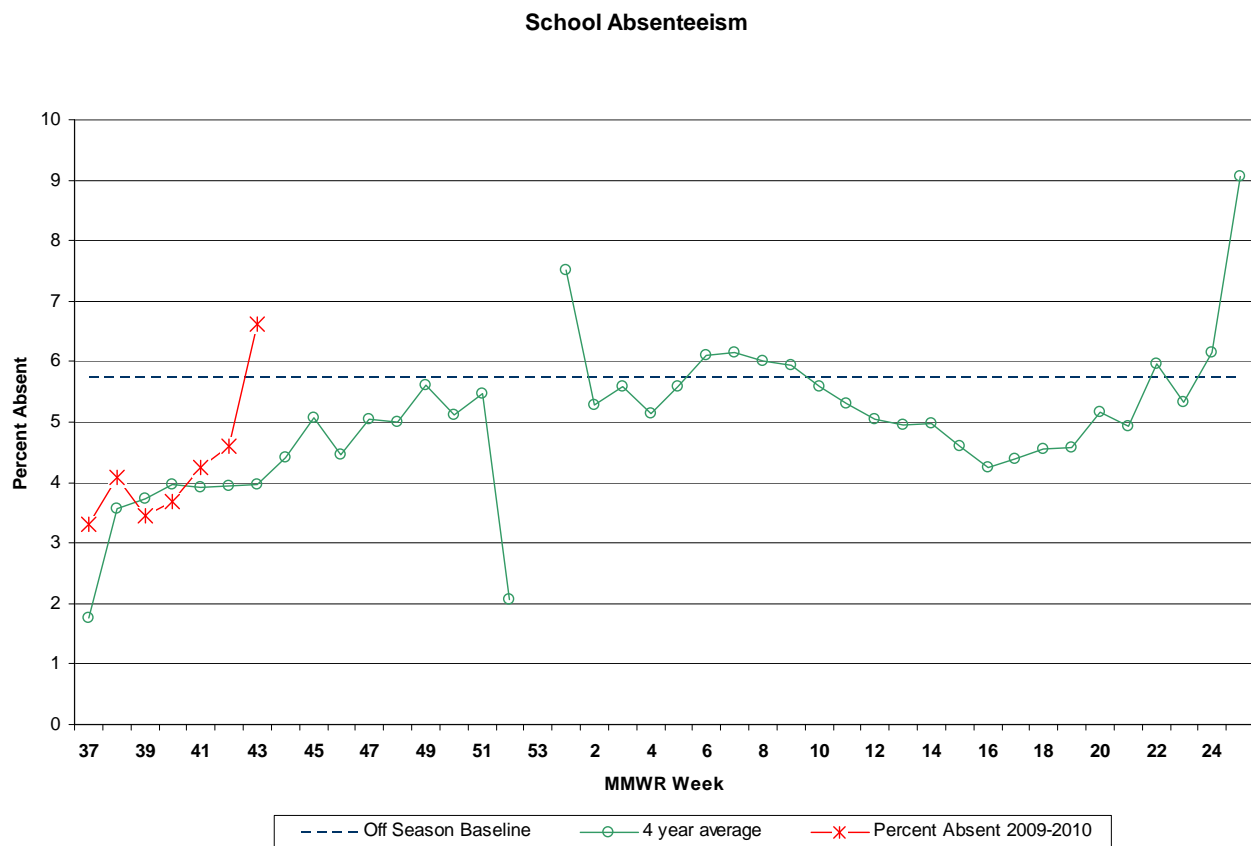
During week 43, 0.69% ILI was reported statewide from long term care facilities. This is an increase over the previous week (0.98%). The percent ILI for each county ranged from 0.00% to 2.88%. The percent ILI for this same week last year was 0.62% in long-term care facilities. The percent ILI for the northwest (1.05%), northeast (0.83%), and south (0.96%) public health regions were above the state baseline (0.69%). Two respiratory outbreaks in an institutional setting were received in week 43.

Influenza-like Activity - Long Term Care Facilities



School Absenteeism

During week 43, schools reported 6.61% absenteeism. This is an increase over the previous week (4.60%). The percent ILI for each county ranged from 3.54 to 11.36%. The percent absent for this same week last year was 3.88%. The percent ILI for the northwest (6.56), central west (6.83) south (9.63%) public health region was found to be above the state baseline (5.73%).

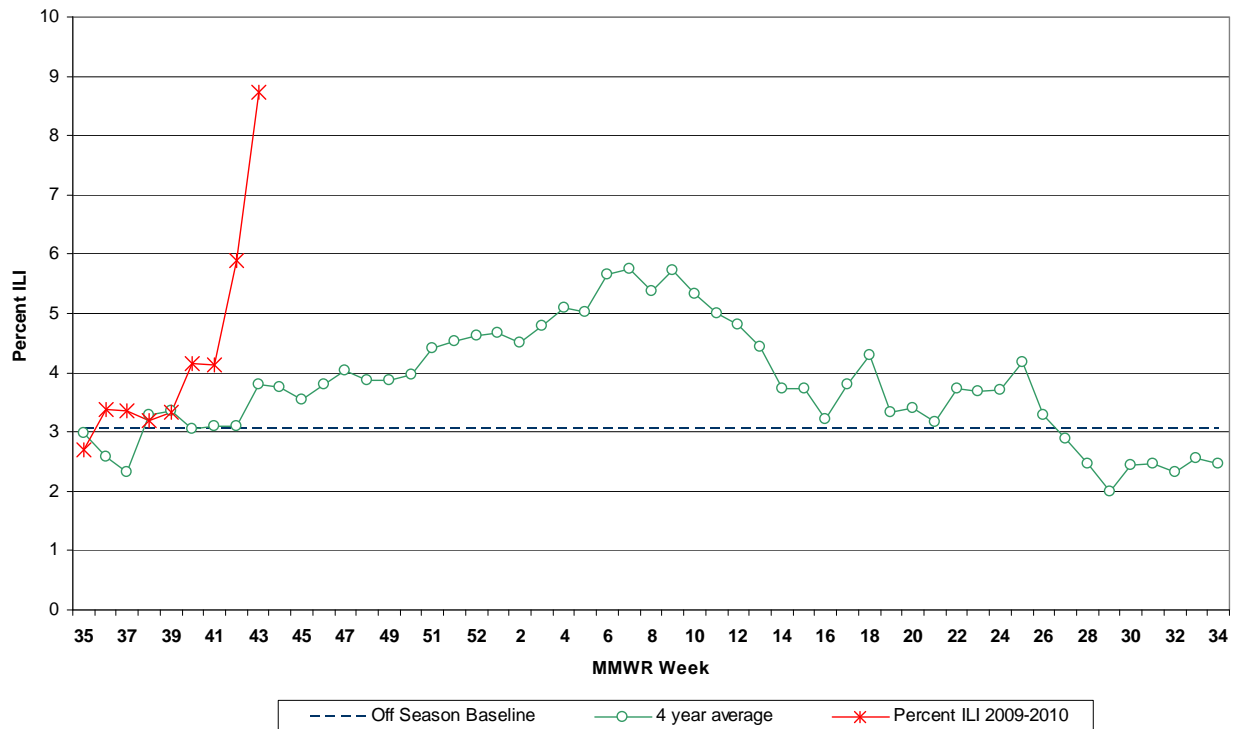


Emergency Departments

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 43, 8.74% of ILI was reported statewide from emergency departments. This is an increase over the previous week (5.89%). The percent ILI for each county ranged from 1.78 to 22.83%. The percent ILI for this same week last year was 3.17% in emergency departments. The percent ILI for the northwest (8.41%), northeast (4.82%), central west (12.27%), central east (8.50%), and south (11.64%) public health regions were above the state baseline (3.04%).

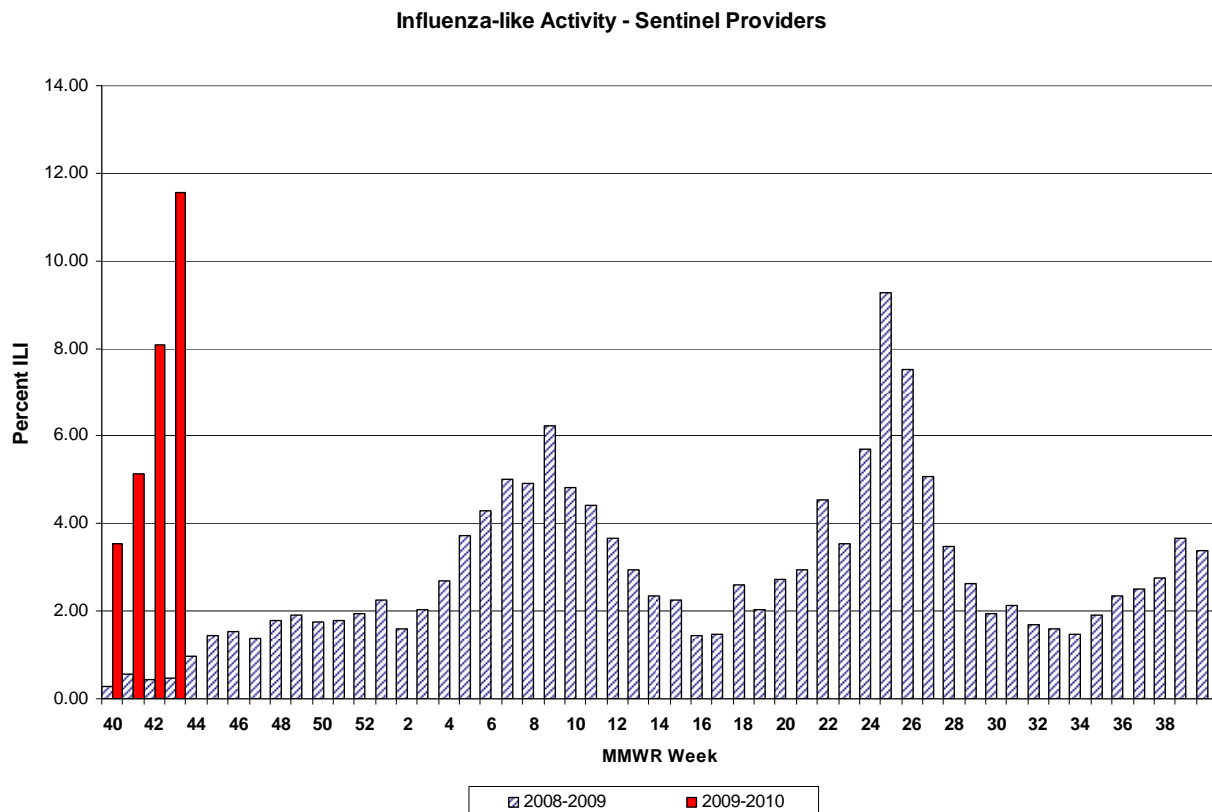
Influenza-like Activity - Emergency Departments



Sentinel Provider Surveillance

During week 43, 11.55% of sentinel provider patient visits were due to ILI. These data reflect reports from twenty-two (31%) of the enrolled sentinel providers.

During week 42, 8.08% of sentinel provider patient visits were due to ILI. These data reflect reports from twenty-seven (39%) of the enrolled sentinel providers.



Pediatric Influenza Surveillance

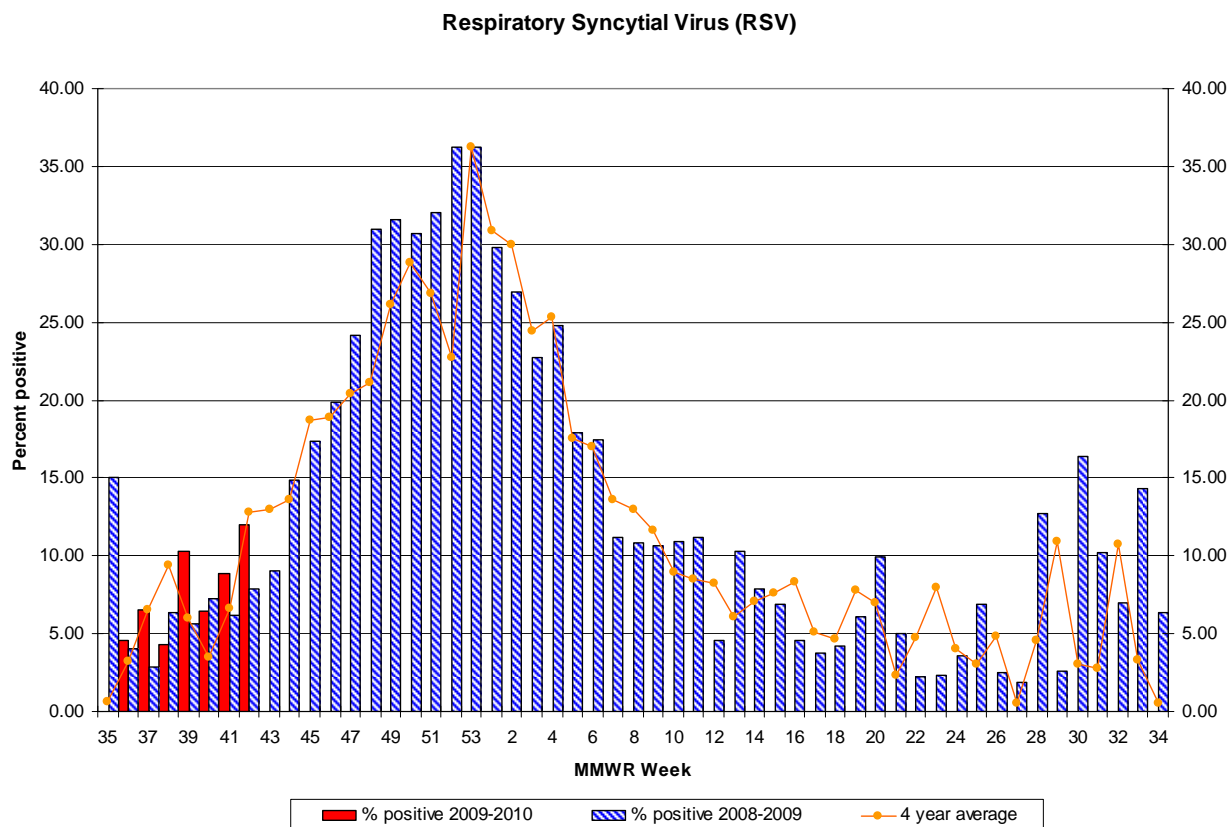
To date, NJDHSS has received 5 reports of pediatric influenza meeting the case definition.

122 City Mortality Report

During week 42, 3.31% 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 (3.61%). The percentage of death due to pneumonia or influenza for this same week last year was 4.10%.

RSV Reports

During week 42, 11.96% of all RSV samples tested were positive. This is an increase over the previous week 6.64%. The percent of samples positive for RSV for this same week last year was 7.89%.



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, 27, 2009 12:00 AM MMRW WEEK 43									
ATLANTIC	4	1	1.20	19	11	11.36	4	4	6.74
BERGEN	3	0	0.00	25	0	0.00	6	6	4.50
BURLINGTON	6	2	0.00	115	89	9.15	3	3	11.88
CAMDEN	7	0	0.00	17	0	0.00	7	6	10.73
CAPE MAY	6	0	0.00	11	10	10.63	1	1	18.40
CUMBERLAND	6	2	2.88	19	10	11.06	3	3	10.27
ESSEX	18	5	0.36	45	16	3.89	11	10	4.96
GLOUCESTER	5	5	0.48	4	3	9.16	2	2	16.20
HUDSON	10	2	1.74	114	84	5.25	6	5	5.03
HUNTERDON	4	4	0.66	49	49	9.27	1	1	8.86
MERCER	11	5	0.25	26	23	8.26	5	5	15.02
MIDDLESEX	2	0	0.00	100	44	3.98	5	5	6.70
MONMOUTH	14	4	0.21	24	18	6.30	5	5	6.94
MORRIS	2	0	0.00	13	12	3.54	4	3	12.33
OCEAN	6	1	0.00	70	52	6.84	4	4	14.29
PASSAIC	9	1	2.01	28	5	4.41	6	2	1.78
SALEM	4	4	0.28	19	1	6.35	1	1	22.83
SOMERSET	6	4	0.21	78	42	4.26	2	1	2.21
SUSSEX	5	5	0.72	22	22	6.03	2	2	8.53
UNION	4	2	0.00	132	63	4.48	5	5	4.88
UNKNOWN	0	0	0.00	1	0	0.00	0	0	0.00
WARREN	8	3	1.54	36	26	9.18	2	1	19.44
NW Region	24	9	1.05	99	65	6.56	14	8	8.41
NE Region	31	7	0.83	184	100	5.09	23	21	4.82
CW Region	21	13	0.38	153	114	6.83	8	7	12.27
CE Region	26	7	0.09	326	177	5.25	19	19	8.50
South Region	38	14	0.96	204	124	9.63	21	20	11.64
State Total	140	50	0.69	966	580	6.61	85	75	8.74



	RSV Tests		Flu Tests		
County	# Positive	Total Tests Performed	# Positive	Total Tests Performed	
October, 27, 2009 12:00 AM	MMRW WEEK 43				
ATLANTIC	3	28	0	0	
BERGEN	0	4	5	73	
BURLINGTON	0	1	17	119	
CAMDEN	2	22	0	0	
CAPE MAY	0	0	0	0	
CUMBERLAND	0	9	0	0	
ESSEX	2	16	11	102	
GLOUCESTER	0	4	0	0	
HUDSON	7	34	6	71	
HUNTERDON	3	7	24	97	
MERCER	1	28	8	26	
MIDDLESEX	6	38	0	32	
MONMOUTH	3	25	19	219	
MORRIS	2	23	4	57	
OCEAN	1	4	0	0	
PASSAIC	0	0	0	0	
SALEM	0	1	9	35	
SOMERSET	0	1	0	0	
SUSSEX	0	4	6	82	
UNION	3	27	3	31	
WARREN	0	0	0	0	
NW Region	2	27	10	139	
NE Region	9	54	22	246	
CW Region	4	36	32	123	
CE Region	13	94	22	282	
South Region	5	65	26	154	
State Total	33	276	112	944	