Respiratory Virus Surveillance Report[1]

New Jersey Department of Health
Communicable Disease Service

Week ending October 20, 2012 (MMWR week 42)

SYNOPSIS

Influenza Activity Level[2]	
State Activity Week ending 10/20: **LOW**	
Current week Last year: LOW	
Regional[3] Data	
Northwest	**LOW**
Northeast	**LOW**
Central West	**LOW**
Central East	**LOW**
South	**LOW**

ILI Activity[4]			
	Percent ILI/Absenteeism		**Baselines**
	Current week (range by county)	**Last week Current year**	**Current week Last year**	**Non-season[5] Season[6] (3 low, 3 high)**
Long Term Care Facilities	0.43 (0.00.0.94)	0.67	0.44	0.59 (0.62, 0.85)
Schools (absenteeism)	3.31 (1.11,5.26)	3.89	3.67	3.85 (4.75, 4.85)
Emergency Departments	2.48 (0.82,4.97)	3.06	2.37	2.59 (3.43, 4.34)

Viral Activity[7]	**Current Week**	**Past 3 Weeks**	**Cumulative Total**
Influenza H1N1 (2009)	0	0	0
Influenza H3N2	0	0	7
Influenza B	0	1	4
Respiratory Synctial Virus (RSV)	16	35	56
Rapid Influenza Tests	2	14	23

ILINet Providers			
Current Week		**Previous Week**	
#of reporters	**%ILI**	**#of reporters**	**%ILI**
7	3.62	14	1.36

Report also available at: http://nj.gov/health/flu/fluinfo.shtml

Virologic Surveillance[7]

Influenza Positive Specimens (PCR) - Result by Week

Influenza Positive (PCR)
By Week

Number Positive axis: 0, 5, 10, 15, 20, 25, 30

Week Ending axis: 9/1/12, 9/15/12, 9/29/12, 10/13/12, 10/27/12, 11/10/12, 11/24/12, 12/8/12, 12/22/12, 1/5/13, 1/19/13, 2/2/13, 2/16/13, 3/2/13, 3/16/13, 3/30/13, 4/13/13, 4/27/13, 5/11/13, 5/25/13, 6/8/13, 6/22/13, 7/6/13, 7/20/13, 8/3/13, 8/17/13, 8/31/13

Legend: ■ 2009 H1N1 ■ Type_AH3 ■ Type_B ■ A typing not performed
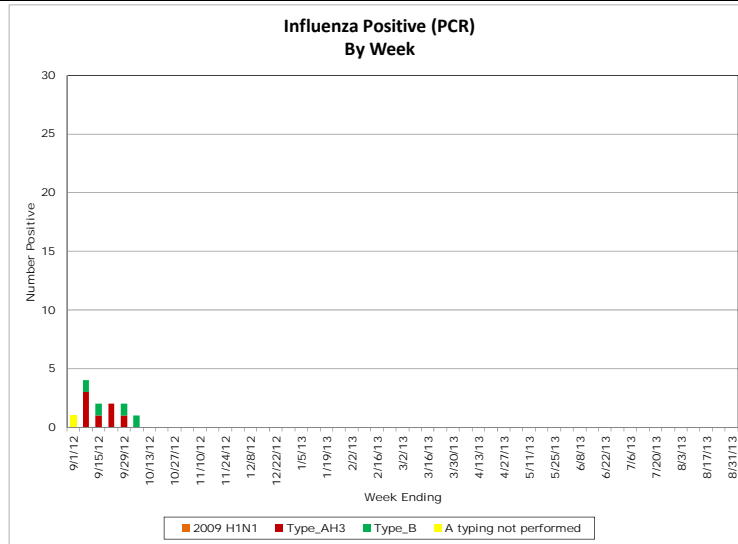
Influenza Positive Specimens (PCR)- Result by Region[3]

Positive Influenza

Number Positive axis: 0, 5, 10, 15, 20, 25, 30

	2009 H1N1	Type_AH3	Type_ANosub	Type_B	2009 H1N1	Type_AH3	Type_ANosub	Type_B
	2012-2013 Cumulative Total				3 week Totals			
■ Central East	0	2	1	2	0	0	0	1
■ Central West	0	4	0	1	0	0	0	0
■ Northeast	0	1	0	1	0	0	0	0
■ Northwest	0	0	0	0	0	0	0	0
■ South	0	0	0	0	0	0	0	0
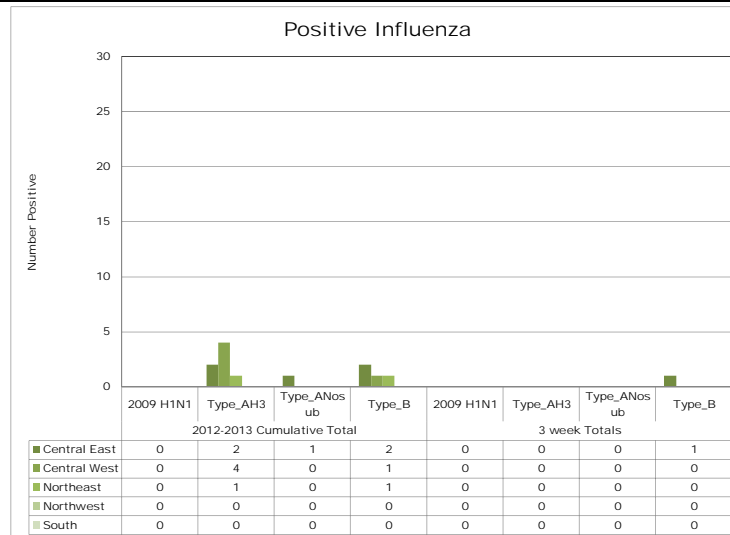
Influenza Rapid Antigen Result by Week

Rapid Influenza Tests
Total Tested and Percent Positive

Total Tests Performed axis: 0, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000
Percent Positive axis: 0.00, 5.00, 10.00, 15.00, 20.00, 25.00, 30.00, 35.00, 40.00, 45.00, 50.00

Week Ending axis: 9/1/12 ... 8/31/13

Legend: ■ Total Tests Performed ■ Percent Positive
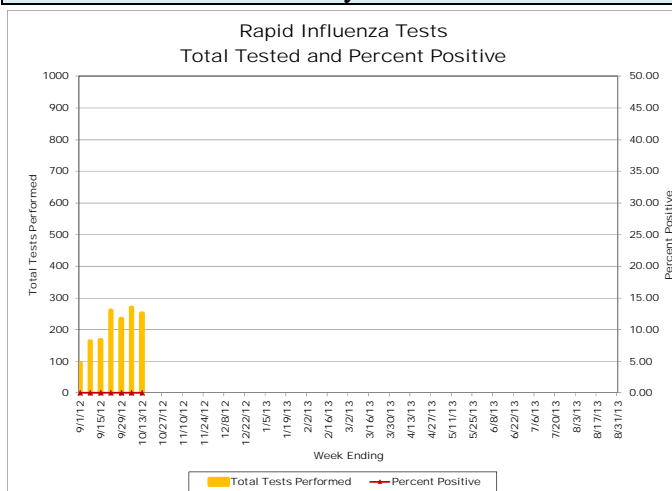
Respiratory Syncytial Virus (RSV) Results by Week

RSV
Percent Positive

Percent Positive axis: 0.00, 5.00, 10.00, 15.00, 20.00, 25.00, 30.00, 35.00, 40.00, 45.00
Percent Positive (5yr average) axis: 0.00, 5.00, 10.00, 15.00, 20.00, 25.00, 30.00, 35.00, 40.00, 45.00

Week Ending axis: 9/1/12 ... 8/31/13

Legend: ■ % positive 2012-2013 — % positive (5 year average)
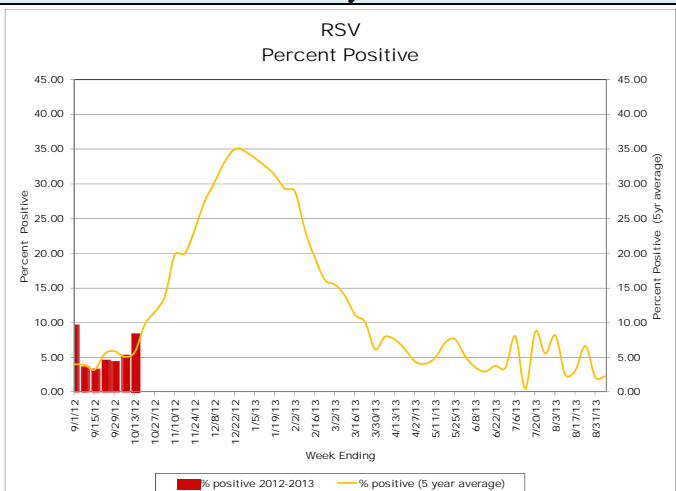
Influenza-like Illness Surveillance

Emergency Department[8]	
Daily Visits and Admission	Visits – Tuesday Only

ED
Percent ILI Visits and Admissions

Emergency Department
Percent ILI (Weekly)

School Absenteeism	Long Term Care Facilities
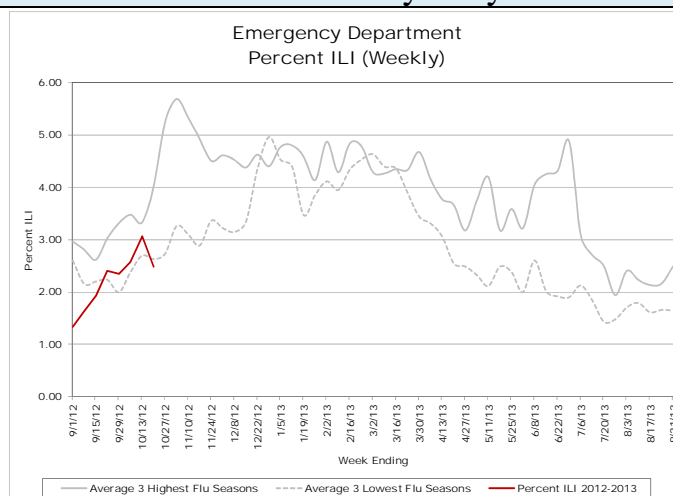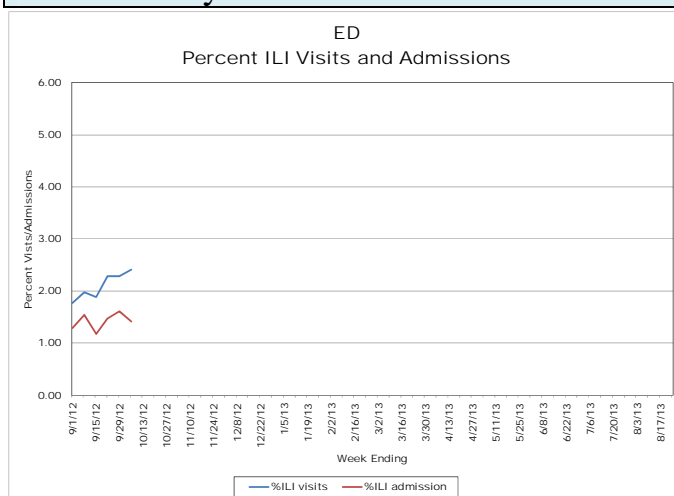
School
Percent Absenteeism

Long Term Care Facility
Percent ILI
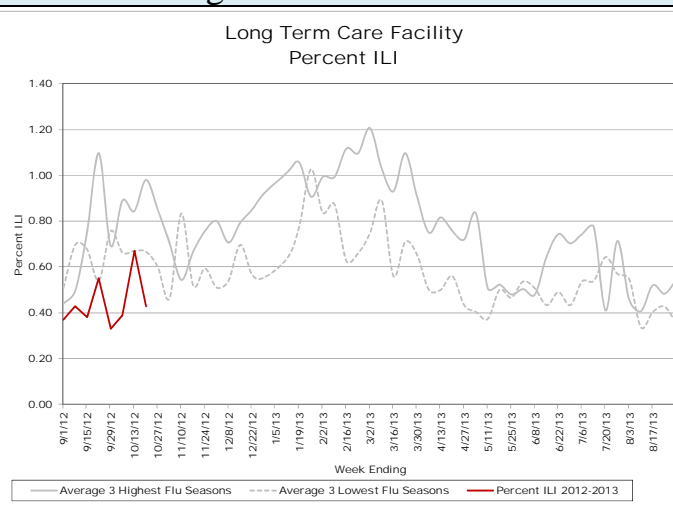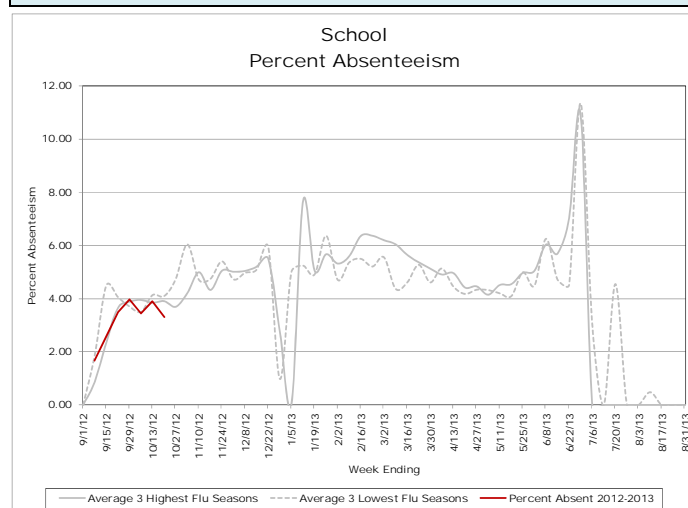
Respiratory Outbreaks in Long Term Care Facilities[9]

Cumulative outbreaks 2011-2012 season	3
No. outbreaks last 3 weeks	2
Regions with recent outbreaks	Central East

ILINet Provider
Percent ILI
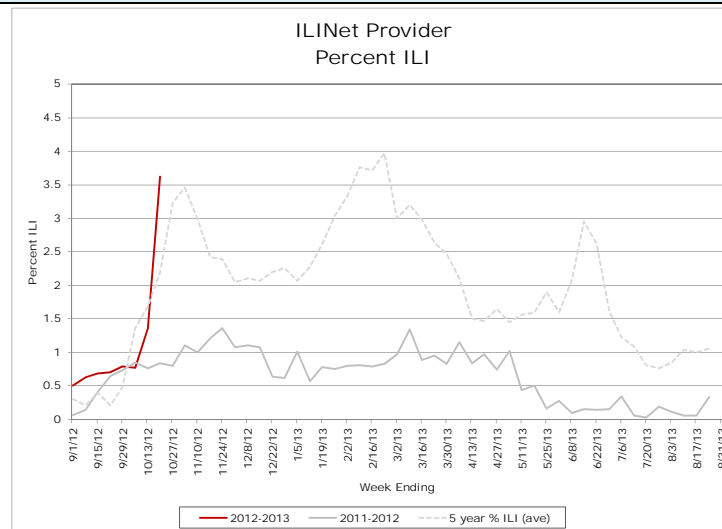
Additional Information

A second report containing information about age specific illness, hospitalization and deaths will be produced on a monthly basis or as needed when important information needs to be disseminated.
For additional information regarding influenza surveillance please visit the following websites.
http://nj.gov/health/flu/surveillance.shtml
http://www.cdc.gov/flu/

Footnotes:
1. This report represents activity occurring in New Jersey related to influenza and RSV. In addition, reports of other circulating respiratory viruses will be included when available.
2. Activity levels for the state and region are defined in Table 1 and 2 at the end of this document.
3. The following is a breakdown of counties contained within each public health region: Northwest: Morris, Passaic, Sussex, Warren; Northeast: Bergen, Essex, Hudson; Central west: Hunterdon, Mercer, Somerset; Central East: Middlesex, Monmouth, Ocean, Union; South: Atlantic, Burlington, Camden, Cape May, Salem, Cumberland, Gloucester
4. Influenza-like illness (ILI) is defined as fever (> 100°F [37.8°C], oral or equivalent) and cough and/or sore throat (in the absence of a known cause other than influenza). For long term care facilities, fever is defined as 2° above baseline temperature.
5. Non-season baseline is calculated by taking the average of statewide percentages of ILI for a 7 year (2006, 2007, 2008, 2009, 2010, 2011, 2012) period during months when influenza is less likely to be circulating (May-August).
6. Three year seasonal averages are determined by calculating the average percent ILI/absenteeism for each influenza season (October to May). These averages are ranked and the three highest and lowest overall season averages were selected. The three highest and lowest numbers were then averaged to obtain a single high and single low value. The season which contribute to the high and low value vary by entity type and are as follows : LTCF (High: 06-07, 07-08, 08-09; Low: 09-10, 10-11,11-12), ED (High: 06-07, 08-09, 09-10; Low: 07-08, 10-11, 11-12) and schools (High: 06-07, 07-08, 08-09 ;Low: 09-10, 10-11,11-12). A week by week average was also calculated using the average of the seasons listed above for each entity type.
7. Viral activity: Real-time polymerase chain reaction (PCR) results are obtained from electronic laboratory transmission submitted by acute care, commercial and public health laboratories to CDRSS. Rapid influenza test data and respiratory syncytial virus data are acquired from facilities reporting rapid influenza tests via the National Respiratory and Enteric Virus Surveillance System (NREVSS) or CDRSS ILI module. Counts for cumulative totals begin with week ending October 6, 2012. Three week count data includes current week and two prior weeks. Data presented for RSV and rapid influenza testing represent information for the week prior to the current report week.
8. Daily visits and admission associated with ILI from emergency department data is collected via EpiCenter and Hippocrates. Prior to these systems, data on ILI visits were only recorded one day per week usually on Tuesday. This system is maintained as a large amount of historical data allows for better seasonal comparisons.
9. Only LTCF outbreaks reported to NJDOH that received an outbreak number are recorded in this report.

Table 1 Influenza Activity Level – Definitions for State Activity				
NJ Level	**CSTE Level**	**Definition**		
		ILI Activity/Outbreaks		**Lab Activity**
Low	No Activity	ILI activity at or below baseline AND no detected outbreaks	AND	No lab confirmed cases
Low	Sporadic	Low ILI activity detected OR one lab confirmed outbreaks anywhere in the state	AND	Sporadic isolation of laboratory confirmed influenza
Moderate	Local	Increase in ILI activity OR two or more lab confirmed outbreaks in one public health region (Other regions not experiencing increased ILI activity)	AND	Recent (within 3 weeks) laboratory activity in the region with increased ILI
Moderate	Regional	Increase in ILI activity OR two or more lab confirmed outbreaks in at least 2 public health regions (Other regions not experiencing increased ILI activity)	AND	Recent (within 3 weeks) laboratory activity in the region with increased ILI
High	Widespread	Increase in ILI activity OR two or more lab confirmed outbreaks in > 2 public health regions	AND	Recent (within 3 weeks) laboratory activity in the region with increased ILI

Table 2 Influenza Activity Level – Definitions for Public Health Regions			
NJ Level	**Definition**		
	ILI Activity/Outbreaks		**Lab Activity**
Low	Low ILI activity detected OR one lab confirmed outbreaks anywhere in the region	AND	Sporadic isolation of laboratory confirmed influenza anywhere in the region
Moderate	Increased ILI activity in less than half of the counties in the region OR two lab confirmed outbreaks in the public health region	AND	Recent (within 3 weeks) laboratory activity in same counties of the region with increased ILI
High	Increased ILI activity in more than half of the counties in the region OR three or more lab confirmed outbreaks in the region	AND	Recent (within 3 weeks) laboratory activity in more than half of the counties in the region with increased ILI

Notes:
ILI activity: Systems used to detect increases in ILI activity include: ILINet (i.e., sentinel providers), school absenteeism data, ED ILI visits and admission collected via Hippocrates and EpiCenter systems, LTCF ILI data, LTCF outbreak data, and information on influenza mortality (122 city, influenza associated death report).
Lab Activity: Virologic surveillance data from PHEL and commercial laboratories will be used as the primary data source for the above levels. However, rapid influenza test data will also be considered when determining the appropriate activity levels.

County	Long Term Care			Schools			Hospital Emergency Department		
	# Enrolled	# Reports Rec'd	% ILI	# Enrolled	# Reports Rec'd	% Absent	# Enrolled	# Reports Rec'd	% ILI
October, 16, 2012 12:00 AM MMRW WEEK 42									
ATLANTIC	4	0	0.00	14	0	0.00	5	4	0.82
BERGEN	6	2	0.00	36	15	2.66	5	5	2.82
BURLINGTON	6	2	0.00	115	55	3.16	4	3	2.06
CAMDEN	5	0	0.00	17	0	0.00	7	7	2.78
CAPE MAY	7	1	0.00	11	8	4.20	1	1	2.63
CUMBERLAND	2	1	0.00	11	9	5.26	3	3	3.16
ESSEX	25	2	0.39	47	3	2.13	11	8	2.48
GLOUCESTER	5	4	0.00	6	6	2.34	2	2	1.59
HUDSON	16	7	0.53	88	21	3.67	6	6	3.38
HUNTERDON	4	4	0.91	8	8	2.34	1	1	1.00
MERCER	10	1	0.00	27	18	3.05	5	5	1.51
MIDDLESEX	19	6	0.74	26	2	2.51	6	6	3.16
MONMOUTH	14	0	0.00	26	14	4.38	5	5	2.07
MORRIS	4	0	0.00	5	0	0.00	4	4	1.32
OCEAN	12	0	0.00	56	12	4.39	4	3	4.97
PASSAIC	9	3	0.94	48	22	3.28	3	3	2.60
SALEM	2	0	0.00	8	2	4.50	1	0	0.00
SOMERSET	6	0	0.00	87	14	1.90	2	1	2.58
SUSSEX	5	4	0.15	23	17	3.57	2	2	1.03
UNION	3	0	0.00	195	11	3.31	5	5	1.31
UNKNOWN	0	0	0.00	1	1	1.11	0	0	0.00
WARREN	4	0	0.00	27	0	0.00	2	2	2.80
NW Region	22	7	0.53	103	39	3.42	11	11	1.97
NE Region	47	11	0.38	171	39	3.26	22	19	2.79
CW Region	20	5	0.90	122	40	2.54	8	7	1.65
CE Region	48	6	0.74	303	39	4.03	20	19	2.86
South Region	31	8	0.00	182	80	3.42	23	20	2.21
State Total	**168**	**37**	**0.43**	**881**	**237**	**3.31**	**84**	**76**	**2.48**

County	RSV Tests		Flu Tests		
	# Positive	Total Tests Performed	# Positive	Total Tests Performed	
October, 16, 2012 12:00 AM MMRW WEEK 42					
ATLANTIC	0	12	0	23	
BERGEN	0	8	0	60	
BURLINGTON	1	7	2	24	
CAMDEN	1	26	0	12	
CAPE MAY	0	2	0	8	
CUMBERLAND	0	16	0	0	
ESSEX	3	39	0	40	
GLOUCESTER	0	0	0	0	
HUDSON	0	0	0	0	
HUNTERDON	1	4	0	18	
MERCER	0	7	0	1	
MIDDLESEX	9	58	0	0	
MONMOUTH	1	11	0	35	
MORRIS	0	0	0	0	
OCEAN	0	0	0	0	
PASSAIC	0	0	0	0	
SALEM	0	0	0	0	
SOMERSET	0	0	0	0	
SUSSEX	0	1	0	9	
UNION	0	5	0	4	
WARREN	0	2	0	17	
NW Region	0	3	0	26	
NE Region	3	47	0	100	
CW Region	1	11	0	19	
CE Region	10	74	0	39	
South Region	2	63	2	67	
State Total	**16**	**198**	**2**	**251**	