



Respiratory Virus Surveillance Report¹

New Jersey Department of Health
Communicable Disease Service



Week ending April 9, 2016 (MMWR week 14)

SYNOPSIS

Influenza Activity Level ²	
State Activity Week ending 4/9: MODERATE	
Current week Last year: MODERATE	
Regional ³ Data	
Northwest	MODERATE
Northeast	HIGH
Central West	MODERATE
Central East	HIGH
South	MODERATE

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	0.51 (0.00, 1.94)	0.42	0.22	0.58 (0.60, 0.77)
Schools (absenteeism)	4.52 (2.47, 10.34)	4.11	5.42	3.56 (4.49, 4.85)
Emergency Departments	3.32 (0.00, 5.33)	4.25	3.17	2.39 (3.21, 4.20)

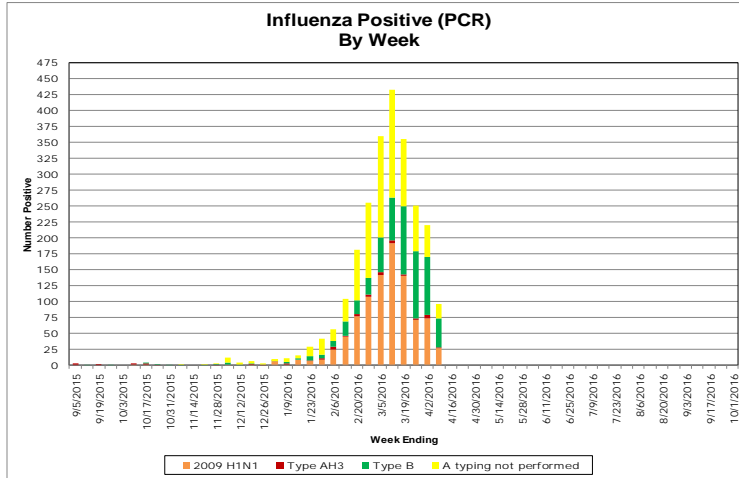
Viral Activity ⁷			
	Current Week	Past 3 Weeks	Cumulative Total
Influenza H1N1 (2009)	27	171	935
Influenza H3N2	1	9	45
Influenza B	45	242	578
Respiratory Syncytial Virus (RSV)	24	136	3184
Rapid Influenza Tests	344	1638	5451

ILINet Providers			
Current Week		Previous Week	
#of reporters	%ILI	#of reporters	%ILI
14	4.00	20	4.90

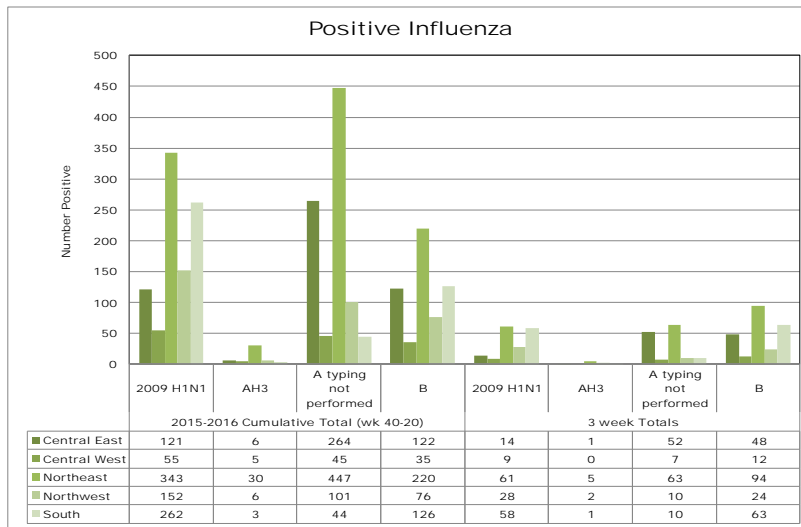
Report also available at: <http://nj.gov/health/flu/fluinfo.shtml>

Virologic Surveillance⁷

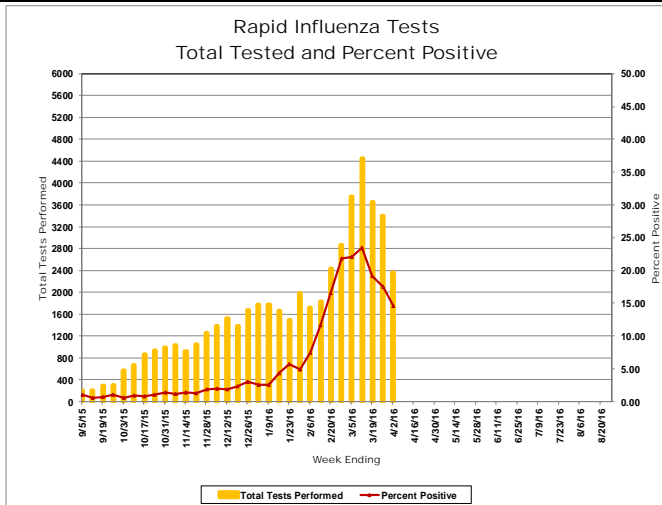
Influenza Positive Specimens (PCR) - Result by Week



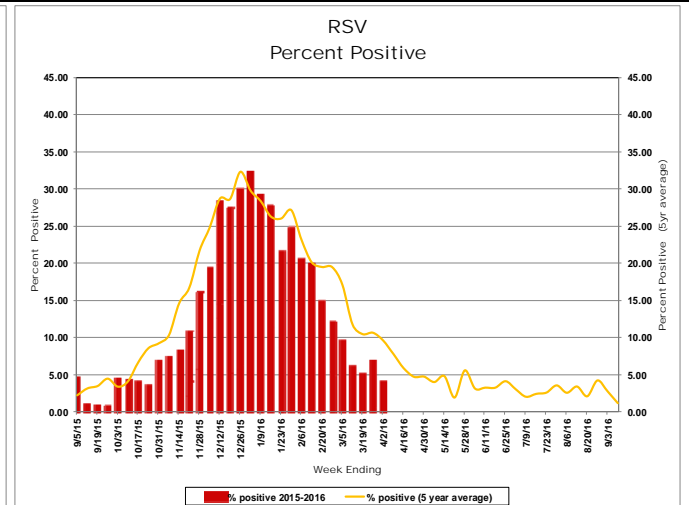
Influenza Positive Specimens (PCR)- Result by Region³



Influenza Rapid Antigen Result by Week



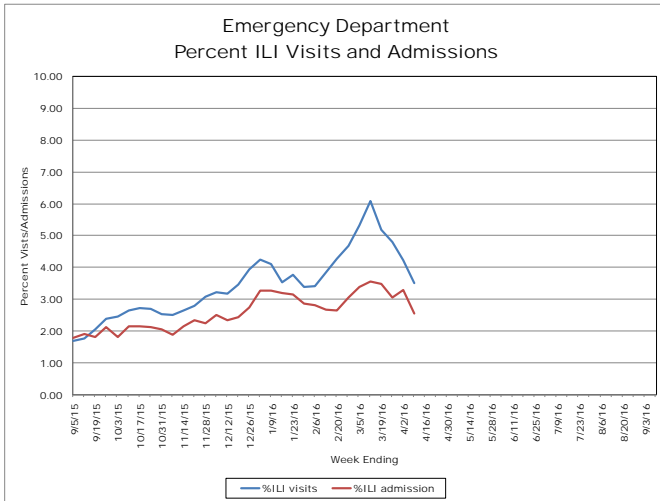
Respiratory Syncytial Virus (RSV) Results by Week



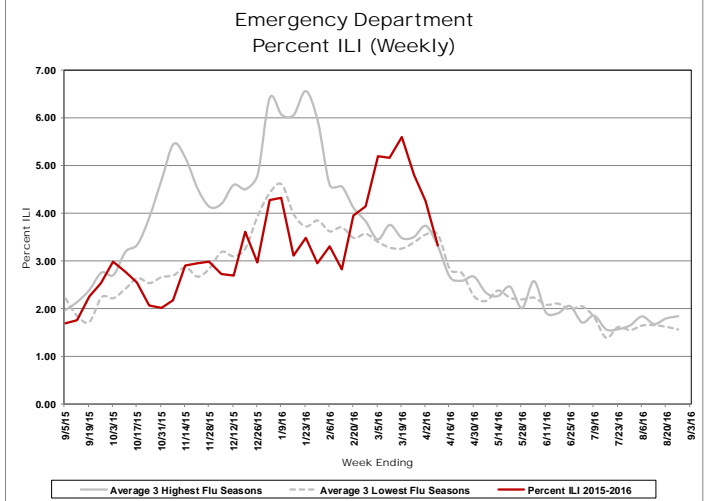
Influenza-like Illness Surveillance

Emergency Department⁸

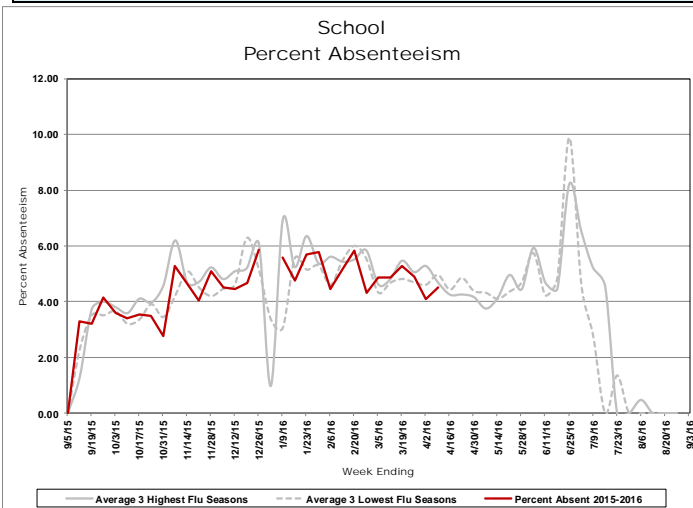
Daily Visits and Admission



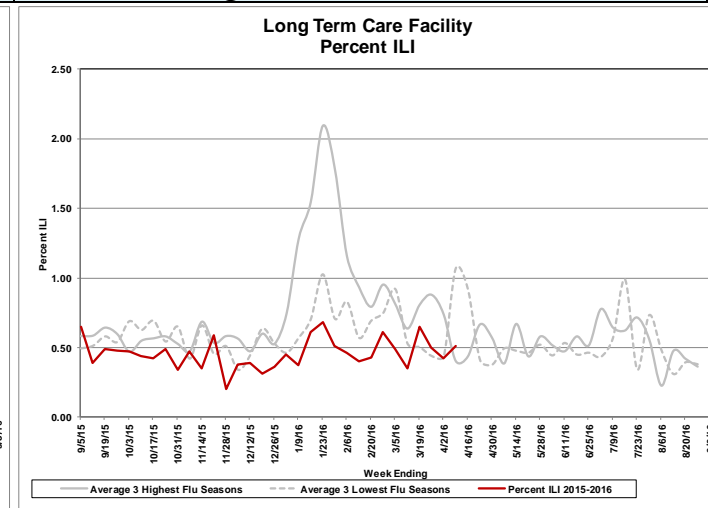
Visits – Tuesday Only



School Absenteeism



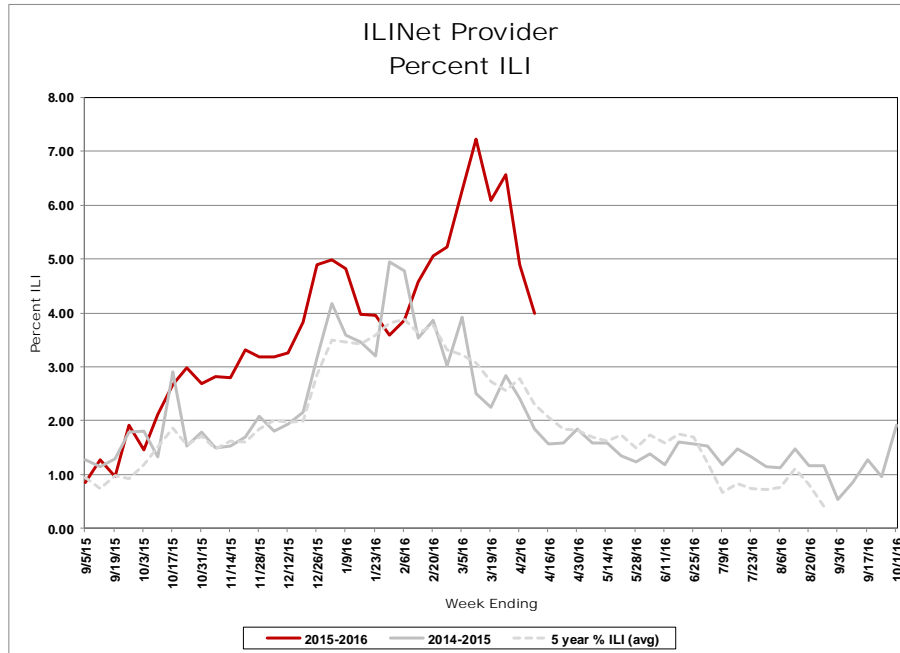
Long Term Care Facilities



Respiratory Outbreaks in Long Term Care Facilities⁹

Cumulative outbreaks 2015-2016 season	20
No. outbreaks last 3 weeks	4
Regions with recent outbreaks	CE, CW, S

ILINet Providers



Pediatric Influenza Mortality¹⁰

Influenza season	Number of Pediatric Influenza Deaths Reported to CDC	
	NJ	US (includes NJ)
2010-2011	4	123
2011-2012	1	35
2012-2013	7	171
2013-2014	6	108
2014-2015	1	146
2015-2016	1	40

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 or regarding illness severity (i.e., hospitalization) 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 ($> 100^{\circ}\text{F}$ [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 10 year (2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015) 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: 09-10, 12-13, 14-15; Low: 10-11,11-12,13-14), ED (High:09-10, 12-13, 14-15; Low: 10-11, 11-12,13-14) and schools (High: 09-10, 10-11, 12-13; Low: 11-12,13-14, 14-15). 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 10, 2015. 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 admissions 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 receive an outbreak number are recorded in this report.
10. Data presented for New Jersey are for cases confirmed as of the current reporting week. Data presented for the United States represent data reported for the prior MMWR week. This data can be viewed at: <http://www.cdc.gov/flu/weekly/>.

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
	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
	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 admissions 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.

INFLUENZA LABORATORY REPORTS BY COUNTY

**Counts represent total positive specimens
from week ending October 10, 2015 to current MMWR week**

Source: CDRSS

Frequency	COUNTY(COUNTY)	RESULT				Total
		Influenza A - Typing not performed	Influenza A 2009 H1N1	Influenza AH3	Influenza B	
	ATLANTIC	208	14	1	50	273
	BERGEN	482	239	22	199	942
	BURLINGTON	124	118	1	102	345
	CAMDEN	182	99	0	138	419
	CAPE MAY	15	3	0	4	22
	CUMBERLAND	8	1	0	1	10
	ESSEX	189	41	5	61	296
	GLOUCESTER	15	26	1	20	62
	HUDSON	124	69	3	78	274
	HUNTERDON	12	23	2	5	42
	MERCER	141	17	4	75	237
	MIDDLESEX	129	47	4	86	266
	MONMOUTH	406	8	0	172	586
	MORRIS	83	23	0	46	152
	OCEAN	230	11	1	164	406
	PASSAIC	159	102	2	88	351
	SALEM	2	2	0	0	4
	SOMERSET	36	17	1	14	68
	SUSSEX	21	4	2	8	35
	UNION	249	55	1	51	356
	WARREN	6	23	2	11	42
	Total	2821	942	52	1373	5188

INFLUENZA LABORATORY REPORTS BY REGION

**Counts represent total positive specimens
from week ending October 10, 2015 to current MMWR week**

Source: CDRSS

Frequency	Table of REGION by RESULT					
REGION	RESULT					Total
	Influenza A - Typing not performed	Influenza A 2009 H1N1	Influenza AH3	Influenza B		
Central East	1014	121	6	473	1614	
Central West	189	57	7	94	347	
Northeast	795	349	30	338	1512	
Northwest	269	152	6	153	580	
South	554	263	3	315	1135	
Total	2821	942	52	1373	5188	

*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*

SURVEILLANCE DATE: 04/05/2016



COUNTY	Long Term Care			Schools			Hospital Emergency Dept		
	# Enrolled	# Reports Rec'd	% ILI	# Enrolled	# Reports Rec'd	% Absent	# Enrolled	# Reports Rec'd	% ILI
April 5, 2016 MMWR WEEK 14									
ATLANTIC	6	0	0.00	42	27	7.51	4	4	1.04
BERGEN	4	1	0.00	35	19	3.89	5	5	3.82
BURLINGTON	6	3	0.00	79	47	4.18	4	4	2.36
CAMDEN	0	0	0.00	1	0	0.00	7	7	3.27
CAPE MAY	3	0	0.00	14	8	4.55	1	1	3.64
CUMBERLAND	5	4	1.94	11	9	9.44	3	3	4.07
ESSEX	2	1	0.00	4	2	2.47	8	7	4.29
GLOUCESTER	3	2	0.00	4	4	3.66	2	2	3.65
HUDSON	4	3	0.49	13	6	4.97	6	6	4.16
HUNTERDON	4	3	0.54	8	8	2.85	1	1	2.53
MERCER	3	0	0.00	22	13	3.93	5	4	3.31
MIDDLESEX	4	1	0.00	21	16	3.94	6	6	3.36
MONMOUTH	5	2	0.00	16	13	4.53	5	5	4.36
MORRIS	0	0	0.00	9	4	3.54	4	4	1.74
OCEAN	1	0	0.00	5	4	5.85	4	4	2.77
PASSAIC	7	4	0.21	26	14	2.76	3	3	3.85
SALEM	0	0	0.00	3	2	10.34	1	1	4.62
SOMERSET	3	0	0.00	22	14	2.91	1	1	5.33
SUSSEX	2	2	0.00	5	4	2.52	2	2	0.00
UNION	1	0	0.00	49	25	3.48	5	5	1.62
WARREN	4	1	0.00	20	10	3.99	2	2	2.84
NW Region	13	7	0.09	60	32	3.06	11	11	2.66
NE Region	10	5	0.36	52	27	4.08	19	18	4.12
CW Region	10	3	0.54	52	35	3.21	7	6	3.67
CE Region	11	3	0.00	91	58	4.05	20	20	3.12
South Region	23	9	1.12	154	97	5.72	22	22	2.93
State Total	67	27	0.51	409	249	4.52	79	77	3.32

SURVEILLANCE DATE: 04/05/2016



County	RSV Tests		Rapid Flu Tests	
	# Positive	Total Tests Performed	# Positive	Total Tests Performed
April 5, 2016 MMWR WEEK 14				
ATLANTIC	2	16	21	146
BERGEN	1	13	45	266
BURLINGTON	1	4	0	0
CAMDEN	0	7	15	150
CAPE MAY	0	6	0	0
CUMBERLAND	0	7	0	0
ESSEX	6	102	47	438
GLOUCESTER	0	7	15	89
HUDSON	0	4	7	30
HUNTERDON	1	8	10	83
MERCER	0	5	8	55
MIDDLESEX	2	37	9	73
MONMOUTH	2	75	88	581
MORRIS	6	159	0	8
OCEAN	0	5	36	179
PASSAIC	1	30	43	244
SALEM	0	0	0	0
SOMERSET	0	0	0	0
SUSSEX	0	0	0	0
UNION	2	132	0	12
WARREN	0	0	0	0
NW Region	7	189	43	252
NE Region	7	119	99	734
CW Region	1	13	18	138
CE Region	6	249	133	845
South Region	3	47	51	385
State Total	24	617	344	2354