



Respiratory Virus Surveillance Report¹


New Jersey Department of Health
Communicable Disease Service



Week ending March 26, 2016 (MMWR week 12)

SYNOPSIS

Influenza Activity Level ²	
State Activity Week ending 3/19:	HIGH
Current week Last year:	HIGH
Regional ³ Data	
Northwest	MODERATE
Northeast	HIGH
Central West	HIGH
Central East	HIGH
South	HIGH



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	0.50 (0.00, 1.29)	0.65	0.82	0.58 (0.60, 0.77)
Schools (absenteeism)	4.91 (2.67, 8.63)	5.28	4.97	3.56 (4.49, 4.85)
Emergency Departments	4.81 (0.94, 6.22)	5.59	3.29	2.39 (3.21, 4.20)

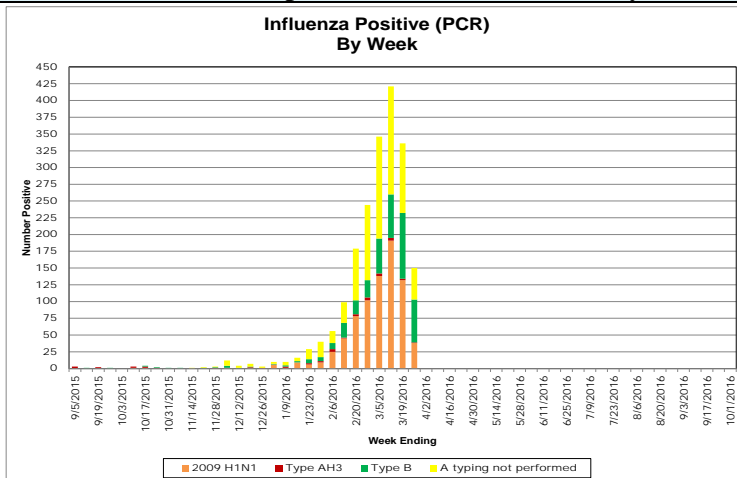
Viral Activity ⁷			
	Current Week	Past 3 Weeks	Cumulative Total
Influenza H1N1 (2009)	38	361	784
Influenza H3N2	1	7	37
Influenza B	64	227	385
Respiratory Syncytial Virus (RSV)	37	197	3082
Rapid Influenza Tests	693	2560	4506

ILINet Providers			
Current Week		Previous Week	
#of reporters	%ILI	#of reporters	%ILI
7	5.11	24	5.79

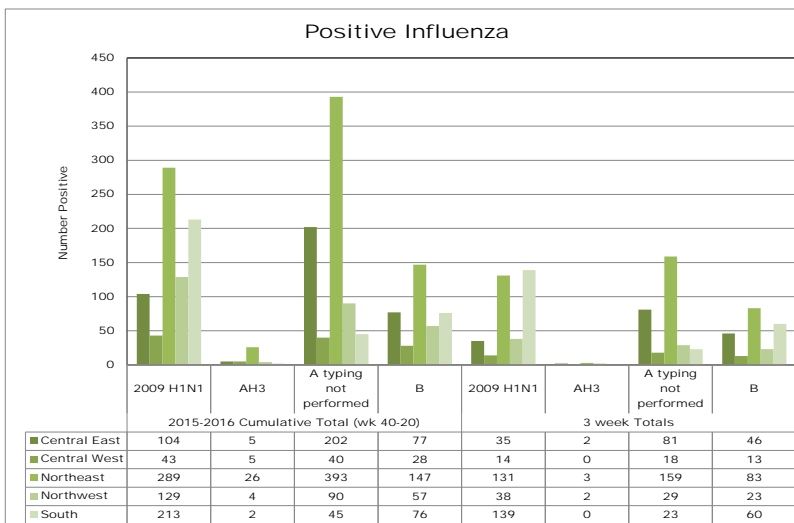
Report also available at: <http://nj.gov/health/flu/fluinfo.shtml>

Virologic Surveillance⁷

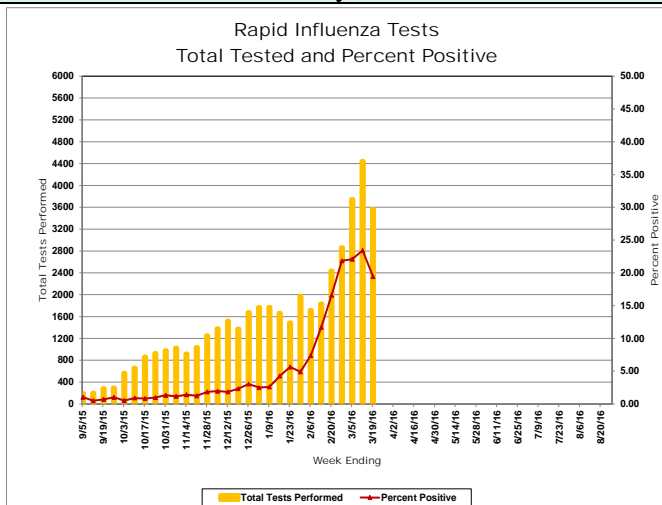
Influenza Positive Specimens (PCR) - Result by Week



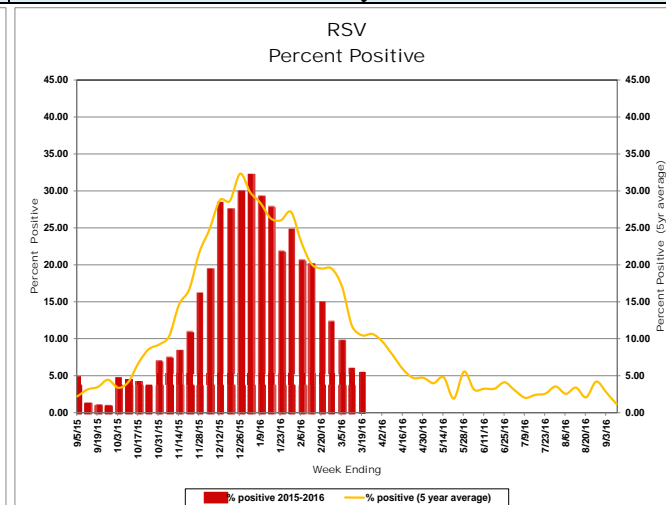
Influenza Positive Specimens (PCR)- Result by Region³



Influenza Rapid Antigen Result by Week



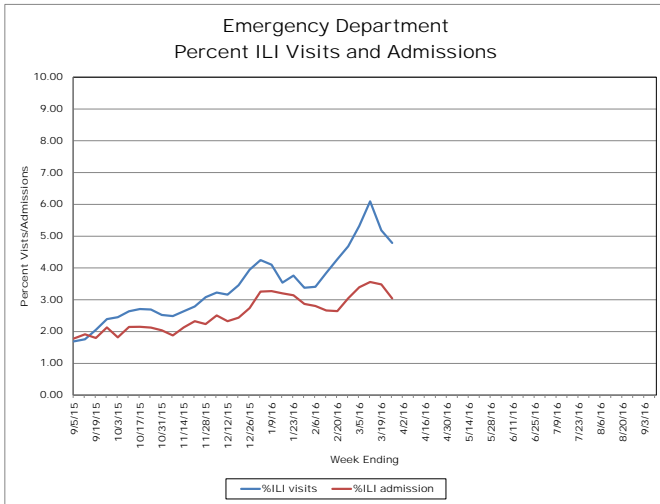
Respiratory Syncytial Virus (RSV) Results by Week



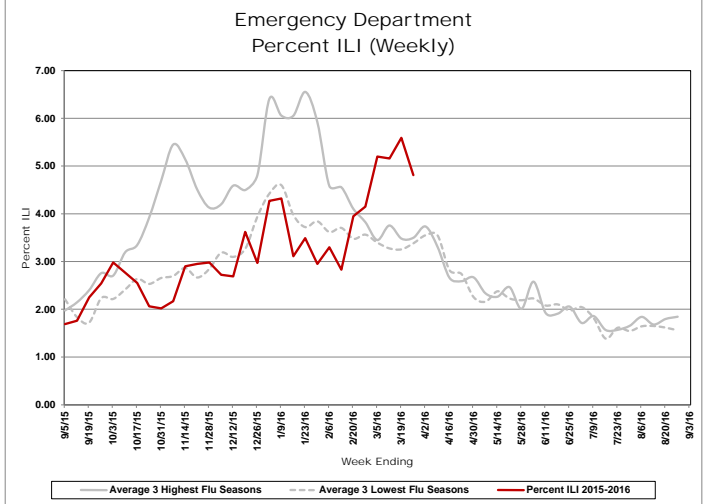
Influenza-like Illness Surveillance

Emergency Department⁸

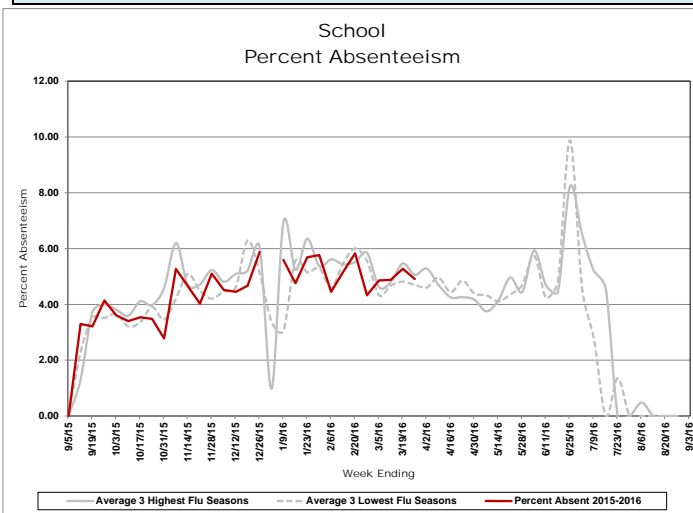
Daily Visits and Admission



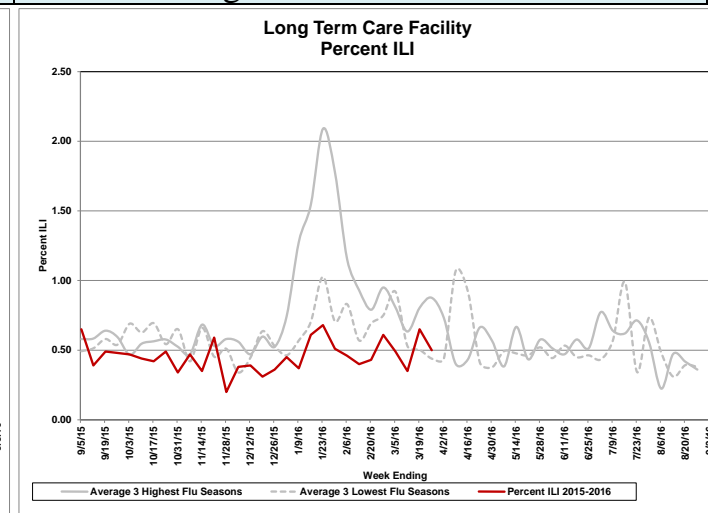
Visits – Tuesday Only



School Absenteeism



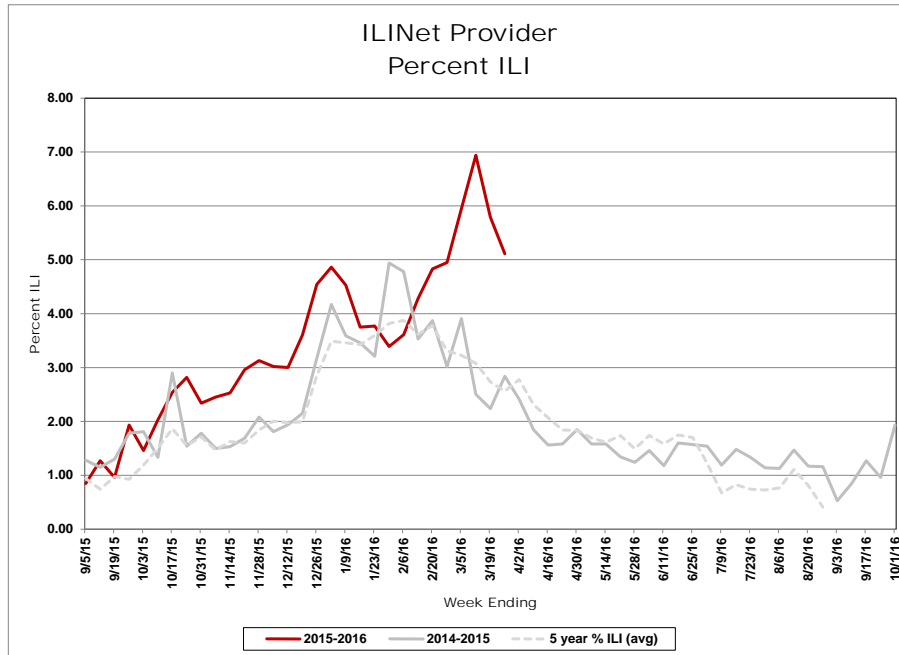
Long Term Care Facilities



Respiratory Outbreaks in Long Term Care Facilities⁹

Cumulative outbreaks 2015-2016 season	18
No. outbreaks last 3 weeks	6
Regions with recent outbreaks	NE/CW/S/CE

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	0	30

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	161	12	1	36	210
	BERGEN	437	198	18	148	801
	BURLINGTON	103	96	1	64	264
	CAMDEN	156	81	0	82	319
	CAPE MAY	8	1	0	3	12
	CUMBERLAND	8	1	0	1	10
	ESSEX	174	34	5	36	249
	GLOUCESTER	9	21	0	12	42
	HUDSON	111	61	3	59	234
	HUNTERDON	12	18	2	3	35
	MERCER	126	12	4	56	198
	MIDDLESEX	112	39	4	59	214
	MONMOUTH	352	7	0	135	494
	MORRIS	75	16	0	38	129
	OCEAN	201	10	1	119	331
	PASSAIC	156	91	2	65	314
	SALEM	1	2	0	0	3
	SOMERSET	32	13	1	10	56
	SUSSEX	18	2	1	7	28
	UNION	201	48	0	26	275
	WARREN	5	20	1	6	32
	Total	2458	783	44	965	4250

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	866	104	5	339	1314	
Central West	170	43	7	69	289	
Northeast	722	293	26	243	1284	
Northwest	254	129	4	116	503	
South	446	214	2	198	860	
Total	2458	783	44	965	4250	

*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: 03/22/2016



COUNTY	Long Term Care			Schools			Hospital Emergency Dept		
	# Enrolled	# Reports Rec'd	% ILI	# Enrolled	# Reports Rec'd	% Absent	# Enrolled	# Reports Rec'd	% ILI
March 22, 2016 MMWR WEEK 12									
ATLANTIC	6	1	0.00	42	29	7.41	4	4	1.08
BERGEN	4	1	0.00	34	23	3.93	5	5	3.47
BURLINGTON	6	2	0.00	79	41	5.01	4	4	3.65
CAMDEN	0	0	0.00	1	0	0.00	7	7	6.04
CAPE MAY	3	0	0.00	14	10	5.44	1	1	3.36
CUMBERLAND	5	4	1.29	11	9	8.63	3	3	6.99
ESSEX	2	1	0.00	4	4	3.43	8	7	5.14
GLOUCESTER	3	2	0.00	4	1	5.36	2	2	3.01
HUDSON	4	3	1.15	13	6	4.89	6	6	5.88
HUNTERDON	4	1	0.00	8	7	3.25	1	1	5.06
MERCER	3	1	0.00	22	12	4.21	5	4	5.44
MIDDLESEX	4	1	0.00	21	7	4.18	6	6	5.96
MONMOUTH	5	2	0.00	16	12	5.59	5	5	6.22
MORRIS	0	0	0.00	9	2	3.29	4	4	3.97
OCEAN	1	0	0.00	5	5	5.89	4	4	5.44
PASSAIC	7	3	0.00	26	13	2.67	3	3	5.83
SALEM	0	0	0.00	3	3	5.38	1	1	3.23
SOMERSET	3	1	0.00	22	7	3.59	1	1	4.32
SUSSEX	2	1	0.00	5	5	4.61	2	2	0.94
UNION	1	0	0.00	49	22	3.30	5	5	2.65
WARREN	4	1	0.00	20	9	4.95	2	2	2.94
NW Region	13	5	0.00	60	29	3.32	11	11	4.51
NE Region	10	5	0.84	51	33	4.11	19	18	4.83
CW Region	10	3	0.00	52	26	3.74	7	6	5.18
CE Region	11	3	0.00	91	46	4.34	20	20	5.25
South Region	23	9	0.82	154	93	6.16	22	22	4.38
State Total	67	25	0.50	408	227	4.91	79	77	4.81

SURVEILLANCE DATE: 03/22/2016



County	RSV Tests		Rapid Flu Tests	
	# Positive	Total Tests Performed	# Positive	Total Tests Performed
March 22, 2016 MMWR WEEK 12				
ATLANTIC	10	43	35	233
BERGEN	0	15	85	349
BURLINGTON	0	0	0	0
CAMDEN	0	16	72	536
CAPE MAY	0	5	2	35
CUMBERLAND	1	7	0	0
ESSEX	7	145	91	502
GLOUCESTER	0	12	21	164
HUDSON	0	7	13	59
HUNTERDON	1	10	13	77
MERCER	0	2	9	79
MIDDLESEX	0	16	24	94
MONMOUTH	10	86	111	585
MORRIS	0	0	0	0
OCEAN	1	21	97	371
PASSAIC	0	40	93	319
SALEM	0	0	0	0
SOMERSET	0	0	0	0
SUSSEX	1	83	18	83
UNION	5	170	2	13
WARREN	1	36	7	68
NW Region	2	159	118	470
NE Region	7	167	189	910
CW Region	1	12	22	156
CE Region	16	293	234	1063
South Region	11	83	130	968
State Total	37	714	693	3567