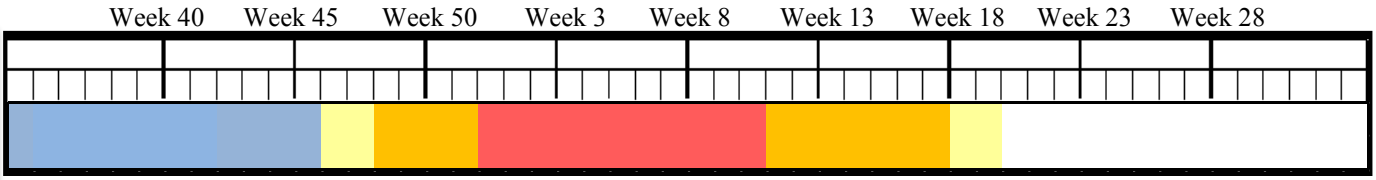
Respiratory Virus Surveillance Report[1]

New Jersey Department of Health

Communicable Disease Service

Week ending May 19, 2018 (MMWR week 20[2])

Influenza Activity Level[3]



No Activity | Sporadic | Local | Regional | Widespread

New Jersey Activity Level: MODERATE	
Current week last year: LOW	
Regional[4] Data	
Northwest:	**LOW**
Northeast:	**LOW**
Central West:	**LOW**
Central East:	**LOW**
South:	**LOW**

ILI[5] Activity

	Percent ILI/Absenteeism[5]			Baselines
	Current Week (range by county)	**Last week Current year**	**Current week Last year**	**Non-season[6] (Seasonal Average–low, high)[7]**
Long Term Care Facilities	0.48 (0.00, 15.38)	0.29	0.43	0.48 (0.45, 0.76)
Schools (absenteeism)	3.60 (1.74, 6.48)	3.65	4.25	3.36 (4.49, 4.86)
Emergency Departments	2.31 (0.28, 4.55)	2.30	2.70	2.21 (3.17, 3.92)

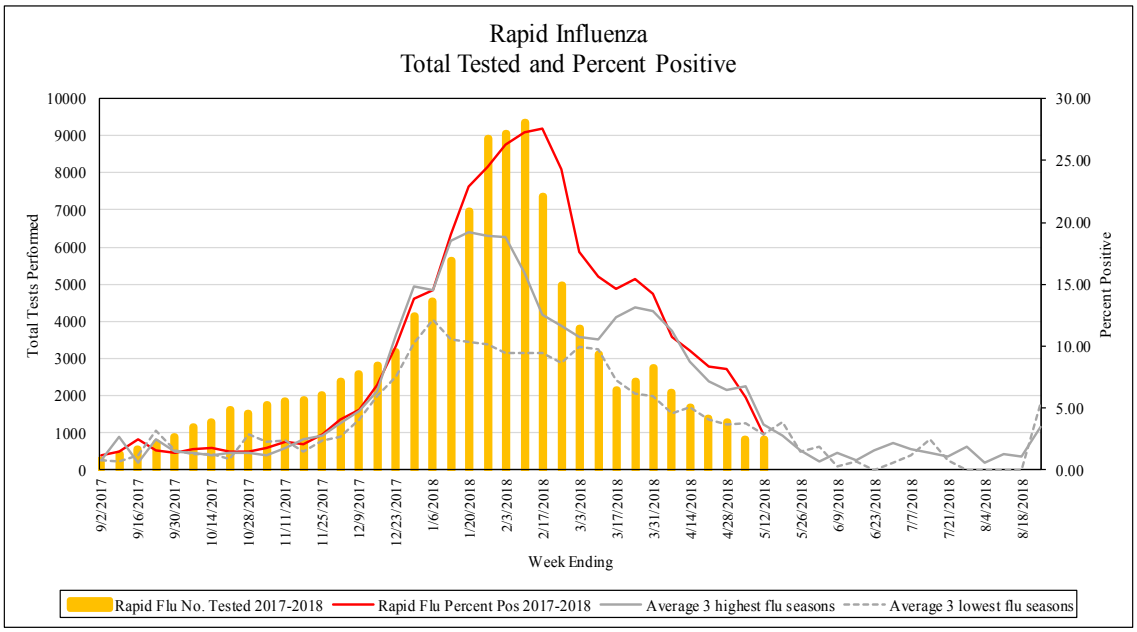
Laboratory Testing[8]

	Current Week	Past 3 Weeks	Cumulative Total
Influenza A H1N1 (2009)	1	5	529
Influenza A H3N2	2	4	1663
Influenza B	9	55	4261
Rapid Influenza Tests	23	176	18149

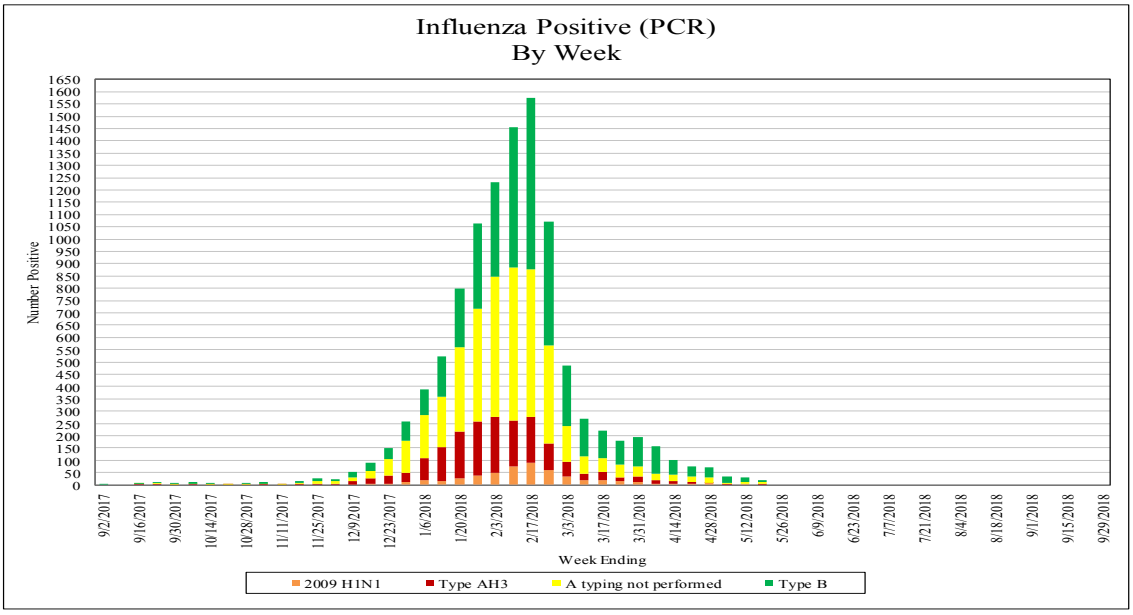
Report also available at http://nj.gov/health/cd/statistics/flu-stats/

Virologic Surveillance[8]

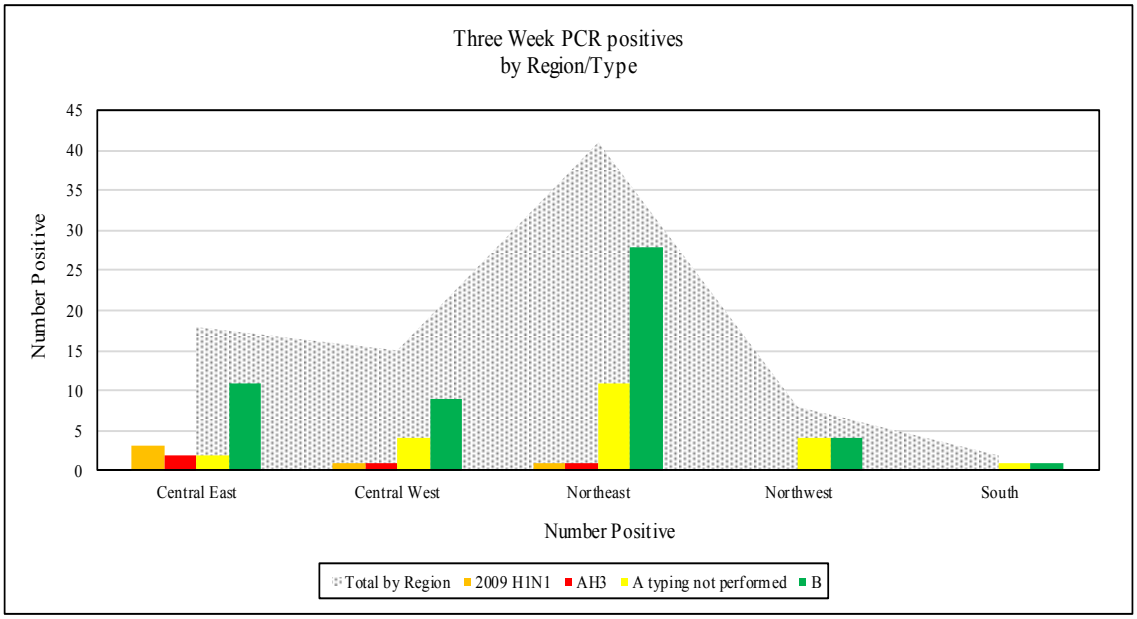
Influenza Rapid Antigen Result by Week



Influenza Positive Specimens (PCR)

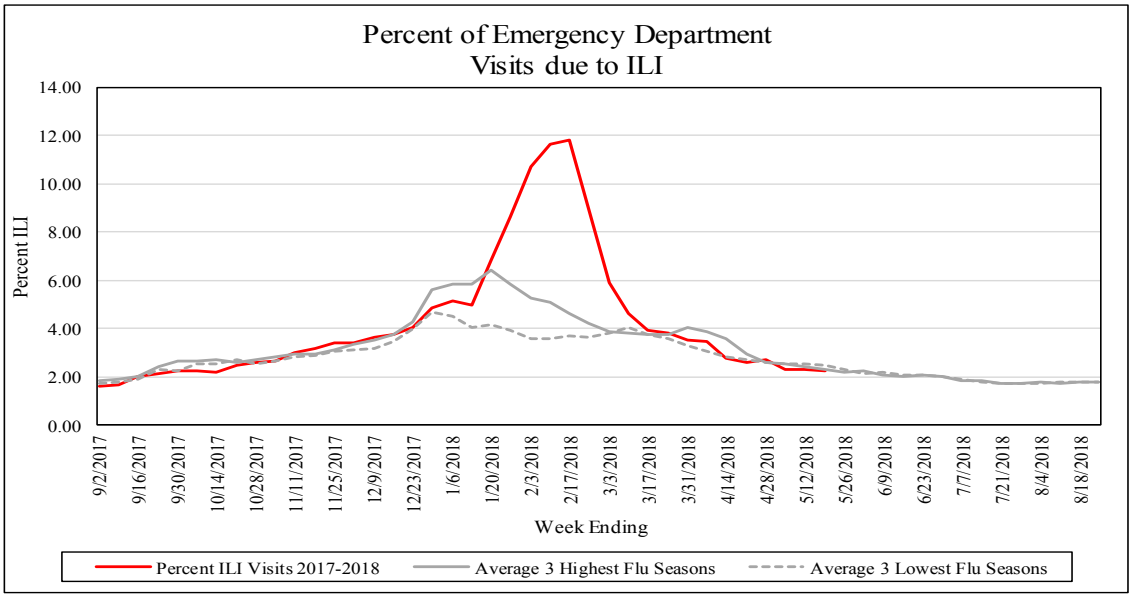


Influenza Positive Specimens (PCR) by Region[4]/Type

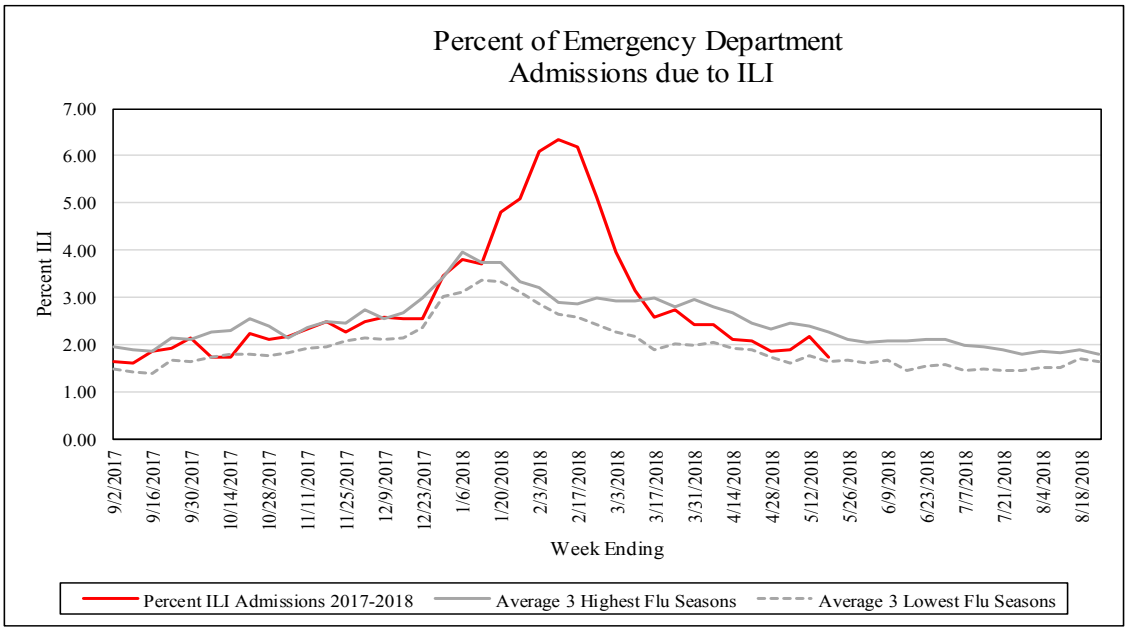


Influenza-Like Illness (ILI) Surveillance

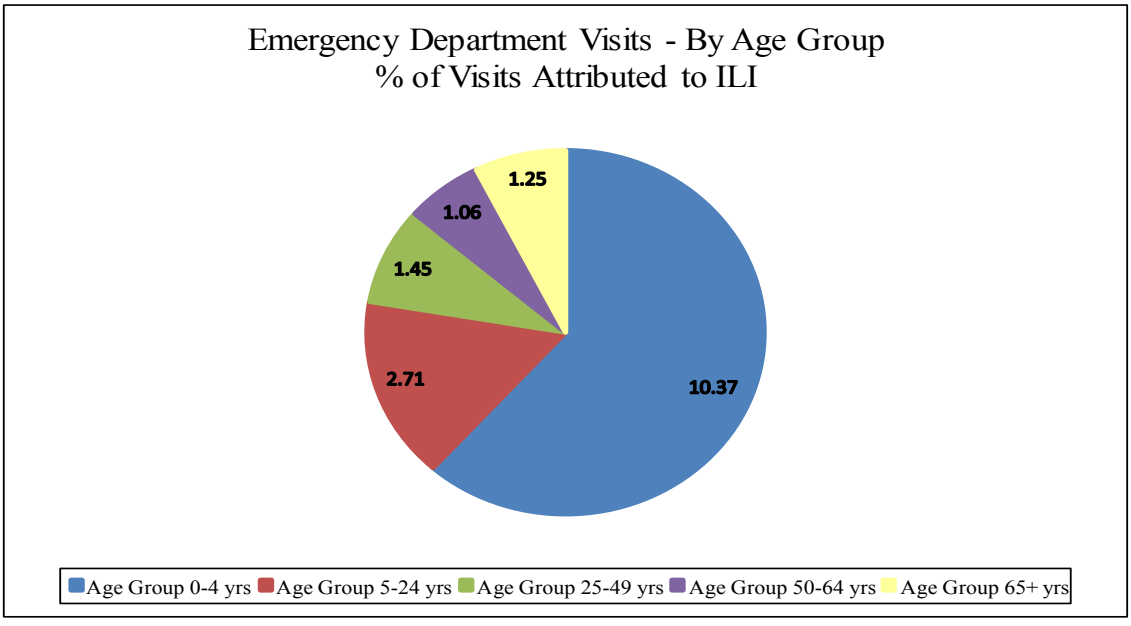
Emergency Department[9] Visits Percent due to ILI



Emergency Department[9] Percent of Admissions due to ILI

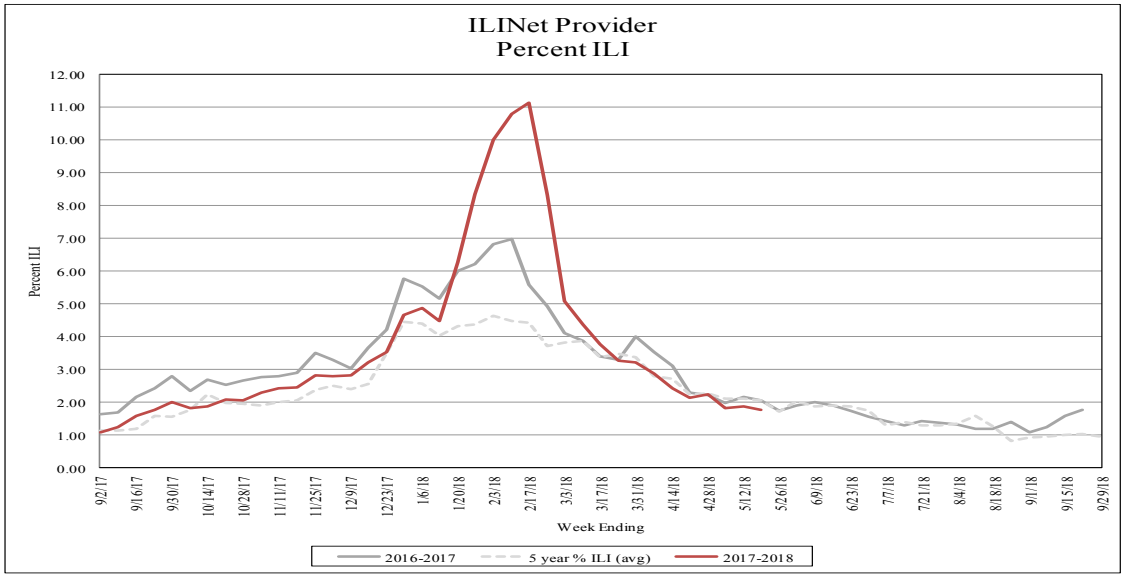


Emergency Department[9] Visits Percent of ILI By Age Group

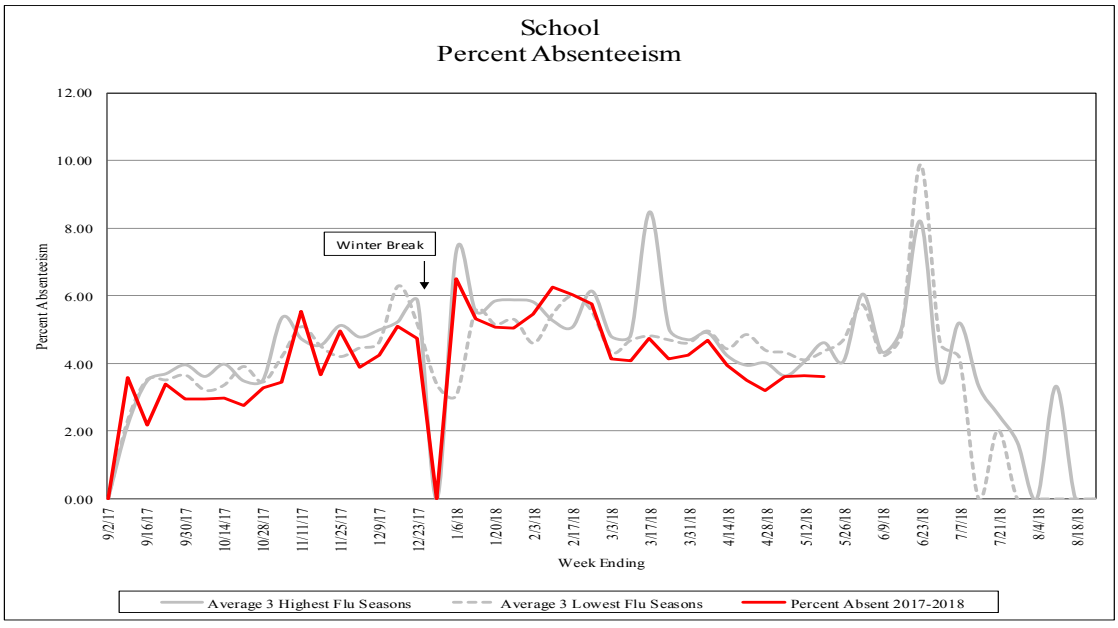


Influenza-Like Illness (ILI) Surveillance

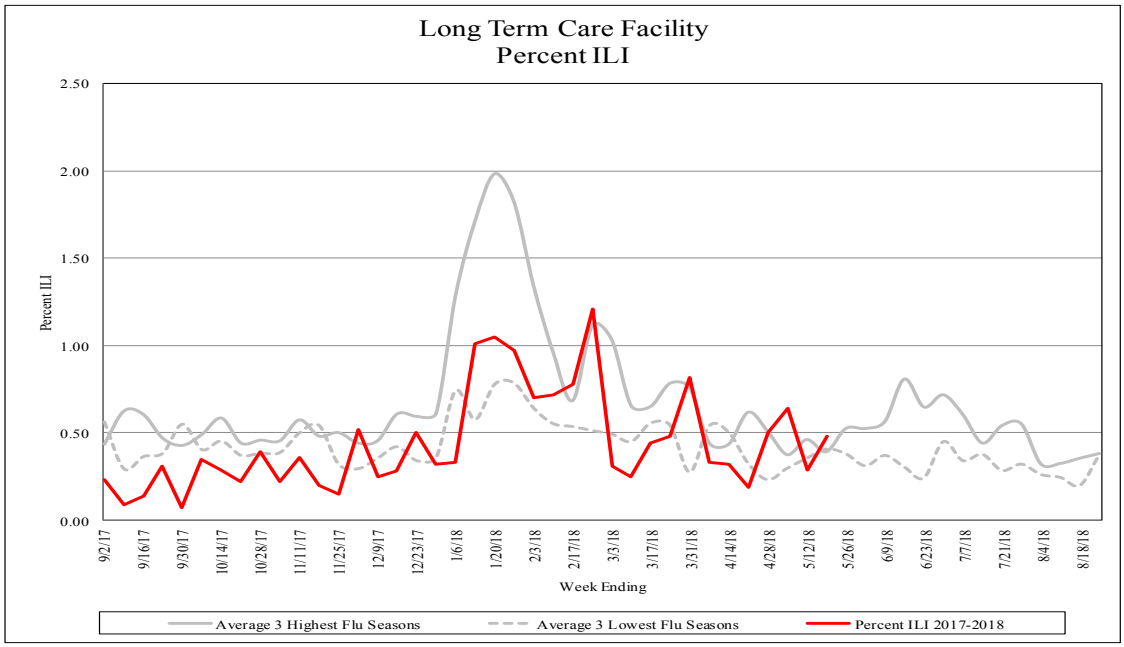
ILI Net Providers[5]



School Absenteeism[5]



Long Term Care Facilities[5]



Influenza-Like Illness (ILI) Surveillance

Long Term Care Outbreaks

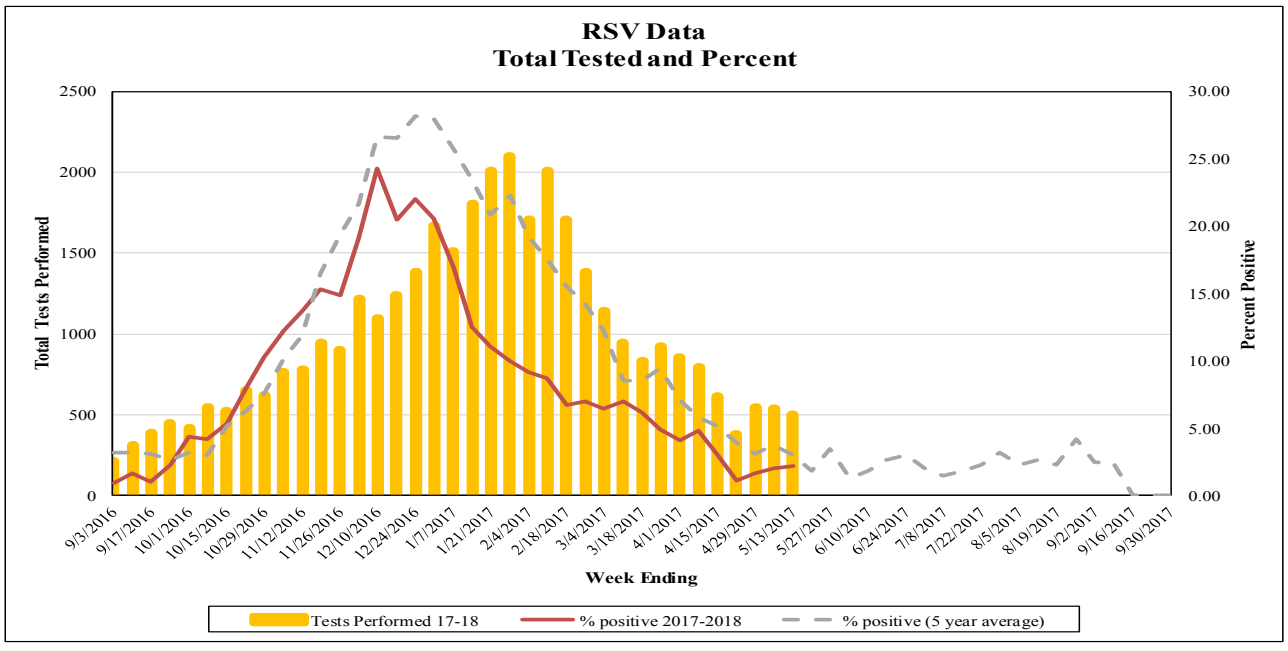
Respiratory Outbreaks in Long Term Care Facilities[10]	
Cumulative Outbreaks 2017-2018 Season	195
No. outbreaks last 3 weeks	1
Regions with recent outbreaks	NE

Pediatric Influenza Mortality[11]

Influenza Season	US (fatal)	NJ (severe)	NJ (fatal)
2012-2013	171	89	7
2013-2014	108	54	6
2014-2015	146	33	1
2015-2016	85	47	1
2016-2017	109	39	0
2017-2018	168	58	3

Viral Respiratory Surveillance Non-Influenza

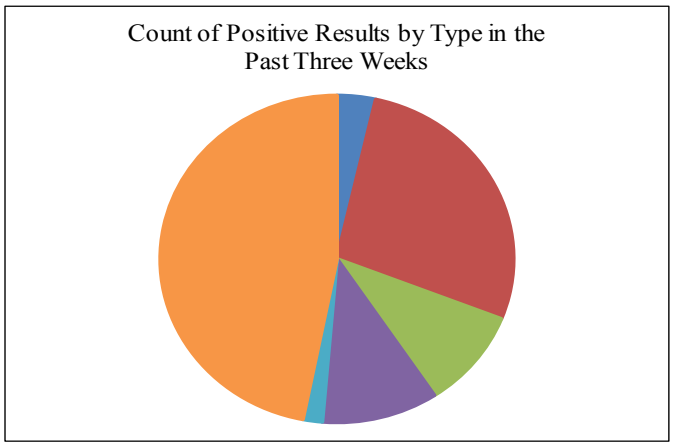
Respiratory Syncytial Virus Percent Positive

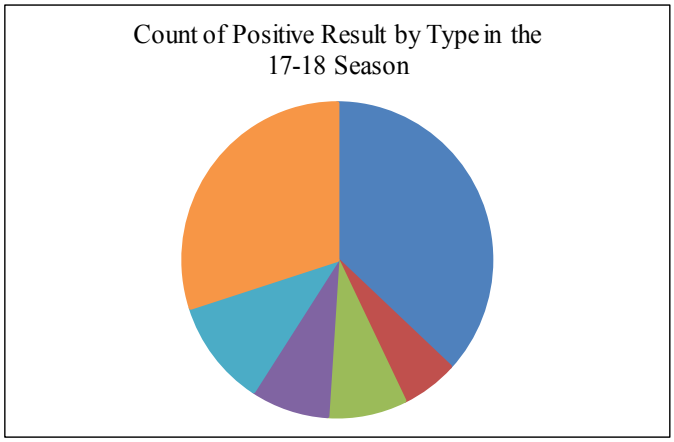


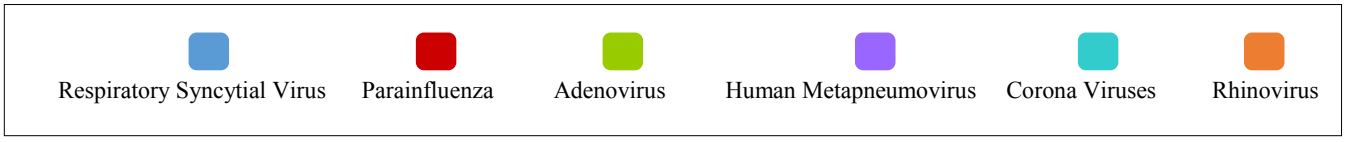
Viral Respiratory Surveillance
Non-Influenza

Positive Non-Influenza Tests[12]

Total Tests Positive for a Respiratory Virus Other than Influenza						
	Respiratory Syncytial Virus	**Parainfluenza**	**Adenovirus**	**Human Metapneumovirus**	**Corona Viruses**	**Rhinovirus**
Past Three Weeks	4	31	11	12	2	53
17-18 Season	891	142	198	196	263	722







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 contains surveillance information about influenza and other viral respiratory illnesses collected by the New Jersey Department of Health, Communicable Disease Service.
2. The Morbidity and Mortality Weekly Report (MMWR) week is the week of the epidemiologic year used by the Centers for Disease Control and Prevention (CDC) for disease reporting. is assigned by the reporting local or state health department for the purposes of MMWR disease incidence reporting and publishing. MMWR weeks begin on a Saturday and end on a Sunday and are assigned a numeric value ranging from 1 to 53, although most years consist of 52 weeks. Week ending dates and associated MMWR weeks can be found at: http://www.nj.gov/health/cd/documents/flu/mmwr_weeks.pdf
3. Activity levels for the state and region are defined in Tables 1 and 2 at the end of this document.
4. 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.
5. 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°F above baseline temperature. ILI Activity from long term care (LTC) facilities and absenteeism data from schools is collected in the ILI Module of the Communicable Disease Reporting and Surveillance System (CDRSS). LTCs and schools report their total census and number ill with ILI or number absent, respectively. Emergency department (ED) data is aggregate weekly totals of syndromic ILI visits and total ED registrations as recorded in EpiCenter (e.g., NJDOH syndromic surveillance system). Data presented represents information for the week prior to the current report week. Current week data presented on ED Chart on page 3.
6. Non-season baseline is calculated by taking the average of statewide percentages of ILI for a 10 year (2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017) period during months when influenza is less likely to be circulating (May-August).
7. Three year seasonal averages are determined by calculating the average percent ILI/absenteeism for each influenza season (October to May) beginning with the 2010-2011 season. 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: 10-11, 12-13, 14-15; Low: 11-12, 15-16, 16-17), ED (High: 12-13, 14-15, 16-17; Low: 10-11, 11-12, 15-16) and schools (High: 10-11, 12-13, 16-17; 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.
8. Laboratory testing: Real-time polymerase chain reaction (PCR) results for influenza (AH1N1, AH3N2, and B) 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 via the National Respiratory and Enteric Virus Surveillance System (NREVSS) or CDRSS ILI module. Counts for cumulative totals begin with week ending October 7, 2017. Three week count data includes current week and two prior weeks. Data presented for rapid influenza testing represents information for the week prior to the current report week. Three year seasonal averages for rapid influenza tests are determined by calculating the average percent positive for each influenza season (October to May) beginning with the 2010-2011 season. 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 for each week. The season which contribute to the high and low value for rapid influenza chart are as follows: High: 10-11, 11-12, 12-13; Low: 13-14, 15-16, 16-17.
9. Daily visits and admissions associated with ILI from emergency department data is collected via EpiCenter (i.e., NJDOH syndromic surveillance). Prior to 2017-2018 season, data on ILI visits were only recorded on one day per week usually on Tuesday. Beginning in the 2017-2018 season, weekly aggregate data is being recorded for ILI visits and admissions. Data presented represents the week prior to the current report week.
10. Only LTCF outbreaks reported to NJDOH that receive an outbreak number are recorded in this report.
11. 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 https://www.cdc.gov/flu/weekly/
12. Select laboratories in New Jersey report the total number of tests performed and the total positive for a number of non-influenza respiratory viruses through the National Respiratory and Enteric Virus Surveillance System (NREVSS) . Information about the CDC NREVSS system can be found at: https://www.cdc.gov/surveillance/nrevss/labs/index.html NREVSS data is combined with non-influenza test data from the NJDOH State Public Health and Environmental Laboratory (PHEL) and aggregate total for the season as well as those found positive in the last three weeks are displayed.

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 outbreak anywhere in the state	AND	Sporadic isolation of laboratory confirmed influenza
Moderate	Local	Increase in ILI activity OR ≥ 2 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 ≥ 2 lab confirmed outbreaks in at least 2 public health regions (Other regions not experiencing 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 outbreak 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 the same counties of the region with increased ILI
High	Increased ILI activity in more than half of the counties in the region OR ≥ 3 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 EpiCenter, LTCF ILI data, respiratory outbreak data and information on influenza mortality (National Center for Health Statistics).

Lab Activity: NJPHEL and commercial laboratories positive influenza tests identified by PCR and culture 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 7, 2017 to current MMWR week

Source: CDRSS

Frequency

COUNTY(COUNTY)	RESULT				
	Influenza A - Typing not performed	Influenza A 2009 H1N1	Influenza AH3	Influenza B	Total
ATLANTIC	813	8	12	516	1349
BERGEN	1765	68	236	1499	3568
BURLINGTON	643	0	7	409	1059
CAMDEN	1102	1	35	747	1885
CAPE MAY	326	0	0	146	472
CUMBERLAND	34	1	2	41	78
ESSEX	969	59	148	776	1952
GLOUCESTER	274	7	24	162	467
HUDSON	1483	35	71	782	2371
HUNTERDON	145	6	48	177	376
MERCER	383	14	30	491	918
MIDDLESEX	700	19	51	519	1289
MONMOUTH	1480	3	25	1017	2525
MORRIS	424	43	250	371	1088
OCEAN	1084	49	33	780	1946
PASSAIC	1066	39	102	812	2019
SALEM	12	3	1	11	27
SOMERSET	165	12	74	193	444
SUSSEX	86	22	74	106	288
UNION	460	136	440	679	1715
WARREN	82	5	14	34	135
Total	13496	530	1677	10268	25971

INFLUENZA LABORATORY REPORTS BY REGION

Counts represent total positive specimens from week ending October 7, 2017 to current MMWR week

Source: CDRSS

Frequency

Table of REGION by RESULT					
	RESULT				
REGION	Influenza A - Typing not performed	Influenza A 2009 H1N1	Influenza AH3	Influenza B	Total
Central East	3724	207	549	2995	7475
Central West	693	32	152	861	1738
Northeast	4217	162	455	3057	7891
Northwest	1658	109	440	1323	3530
South	3204	20	81	2032	5337
Total	13496	530	1677	10268	25971

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

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 05/15/2018

COUNTY	Long Term Care			Schools			Hospital Emergency Dept		
	# Enrolled	# Reports Rec'd	% ILI	# Enrolled	# Reports Rec'd	% Absent	# Enrolled	# Reports Rec'd	% ILI
May 15, 2018 MMWR WEEK 20									
ATLANTIC	2	0	0.00	36	9	3.30	4	4	1.14
BERGEN	11	3	0.15	34	7	1.81	6	6	2.12
BURLINGTON	7	3	0.00	101	49	3.77	4	4	1.86
CAMDEN	1	0	0.00	8	7	3.57	8	7	1.86
CAPE MAY	3	0	0.00	12	5	3.94	1	1	1.95
CUMBERLAND	5	4	0.41	12	10	6.48	3	3	2.33
ESSEX	9	1	0.00	4	0	0.00	8	7	3.18
GLOUCESTER	3	0	0.00	4	0	0.00	2	2	1.29
HUDSON	4	0	0.00	15	4	4.51	6	6	2.08
HUNTERDON	4	4	1.83	11	9	2.69	1	1	2.24
MERCER	1	0	0.00	31	12	1.95	5	4	2.57
MIDDLESEX	13	4	0.00	21	15	3.86	6	6	2.36
MONMOUTH	6	0	0.00	69	14	4.07	5	5	2.27
MORRIS	3	0	0.00	10	1	1.74	4	4	1.61
OCEAN	10	4	0.00	6	3	5.08	4	4	1.59
PASSAIC	10	1	0.00	30	10	4.00	3	3	3.17
SALEM	0	0	0.00	5	2	5.04	1	1	3.89
SOMERSET	5	0	0.00	23	11	2.41	1	1	2.37
SUSSEX	3	1	15.38	4	2	1.77	2	1	0.28
UNION	2	0	0.00	57	10	2.84	5	5	3.06
WARREN	6	0	0.00	19	7	3.86	2	2	4.55
NW Region	22	2	2.40	63	20	3.64	11	10	2.52
NE Region	24	4	0.13	53	11	3.00	20	19	2.60
CW Region	10	4	1.83	65	32	2.35	7	6	2.49
CE Region	31	8	0.00	153	42	3.77	20	20	2.33
South Region	21	7	0.32	178	82	4.17	23	22	1.77
State Total	**108**	**25**	**0.48**	**512**	**187**	**3.60**	**81**	**77**	**2.31**

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 05/15/2018

County	RSV Tests		Rapid Flu Tests	
	# Positive	Total Tests Performed	# Positive	Total Tests Performed
May 15, 2018 MMWR WEEK 20				
ATLANTIC	0	14	0	65
BERGEN	1	104	6	74
BURLINGTON	0	0	0	0
CAMDEN	0	0	0	14
CAPE MAY	0	2	0	29
CUMBERLAND	0	0	0	0
ESSEX	4	96	6	197
GLOUCESTER	0	0	0	0
HUDSON	0	1	0	27
HUNTERDON	0	47	1	47
MERCER	3	16	2	69
MIDDLESEX	0	40	1	44
MONMOUTH	3	63	5	150
MORRIS	0	17	1	44
OCEAN	0	6	4	61
PASSAIC	0	0	0	0
SALEM	0	0	0	0
SOMERSET	0	0	0	0
SUSSEX	0	0	0	0
UNION	0	90	0	0
WARREN	0	0	0	0
NW Region	0	17	1	44
NE Region	5	201	12	298
CW Region	3	63	3	116
CE Region	3	199	10	255
South Region	0	16	0	108
State Total	11	496	26	821