Respiratory Virus Surveillance Report[1]

New Jersey Department of Health
Communicable Disease Service

Week ending April 30, 2016 (MMWR week 17)

SYNOPSIS

Influenza Activity Level[2]	
State Activity Week ending 4/30: MODERATE	
Current week Last year: MODERATE	
Regional[3] Data	
Northwest	MODERATE
Northeast	LOW
Central West	LOW
Central East	MODERATE
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	0.28 (0.00, 0.93)	0.42	0.54	0.58 (0.60, 0.77)
Schools (absenteeism)	4.48 (2.01, 10.15)	4.10	4.06	3.56 (4.49, 4.85)
Emergency Departments	3.31 (0.00, 5.02)	3.02	2.42	2.39 (3.21, 4.20)

Viral Activity[7]	Current Week	Past 3 Weeks	Cumulative Total
Influenza H1N1 (2009)	9	39	984
Influenza H3N2	7	26	79
Influenza B	63	236	868
Respiratory Syncytial Virus (RSV)	8	40	3230
Rapid Influenza Tests	201	823	6389

ILINet Providers			
Current Week		**Previous Week**	
#of reporters	**%ILI**	**#of reporters**	**%ILI**
13	3.92	22	4.15

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

Legend: 2009 H1N1 | Type AH3 | Type B | A typing not performed
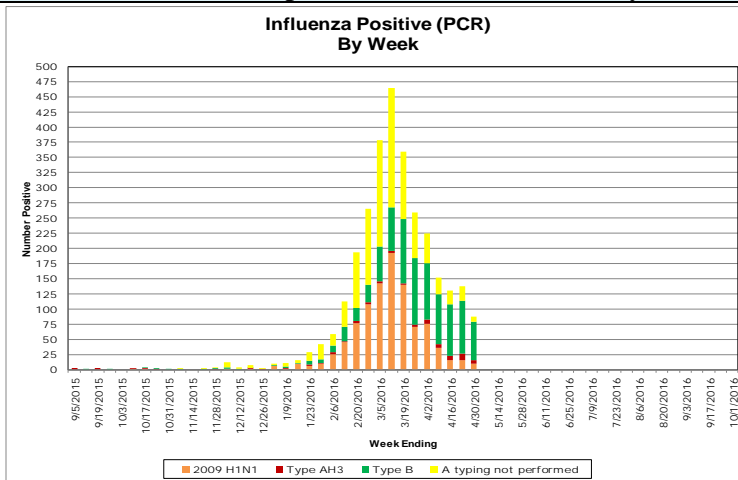
Influenza Positive Specimens (PCR)- Result by Region[3]

Positive Influenza

	2009 H1N1	AH3	A typing not performed	B	2009 H1N1	AH3	A typing not performed	B
	2015-2016 Cumulative Total (wk 40-20)				3 week Totals			
Central East	129	7	343	184	8	1	23	45
Central West	60	10	54	59	2	3	2	13
Northeast	359	36	473	323	10	3	10	91
Northwest	155	8	117	115	3	1	7	31
South	280	23	52	186	16	18	10	54
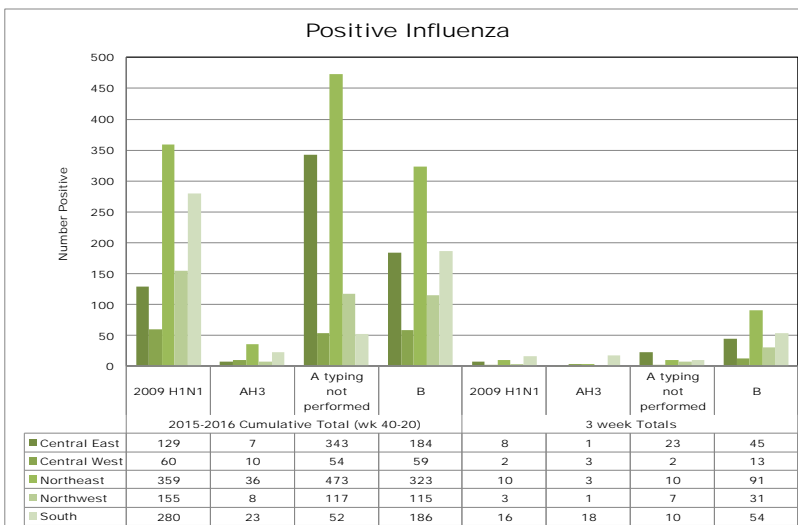
Influenza Rapid Antigen Result by Week

Rapid Influenza Tests Total Tested and Percent Positive

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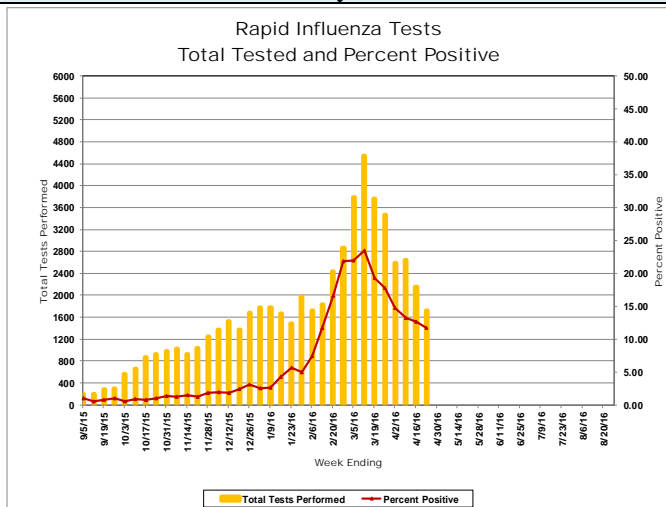
Respiratory Syncytial Virus (RSV) Results by Week

RSV Percent Positive

Legend: % positive 2015-2016 | % positive (5 year average)
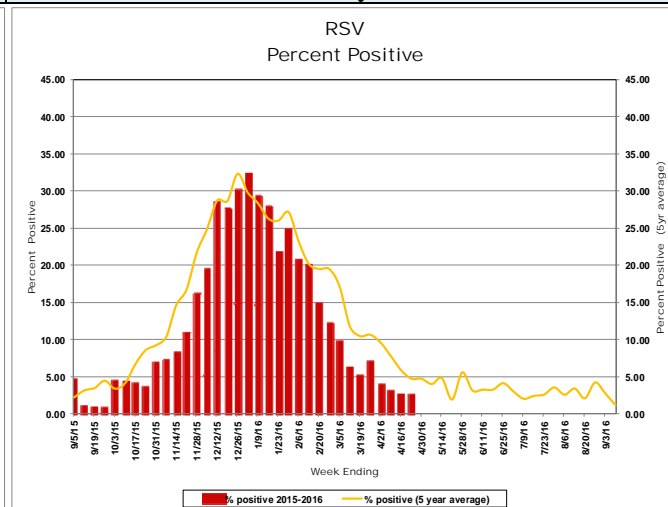
Influenza-like Illness Surveillance

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

Emergency Department
Percent ILI Visits and Admissions
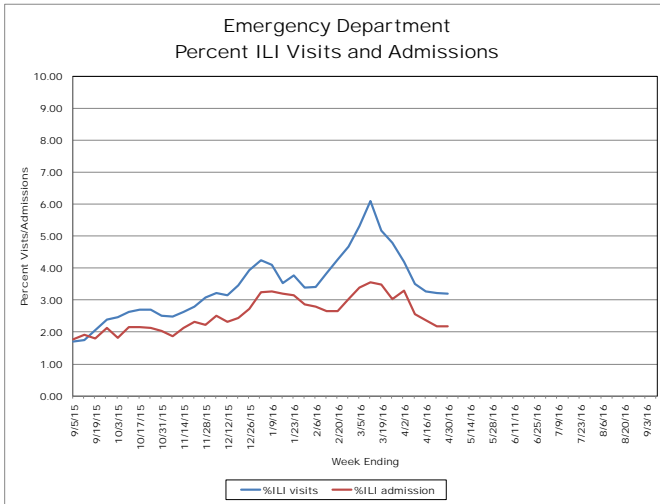
Emergency Department
Percent ILI (Weekly)

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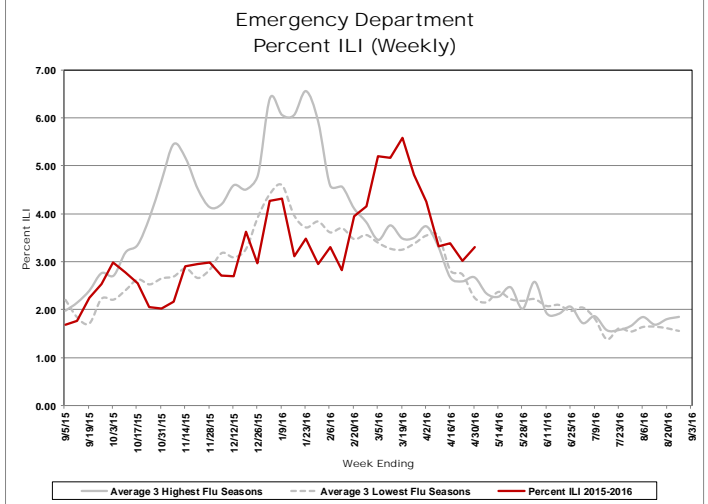
School
Percent Absenteeism
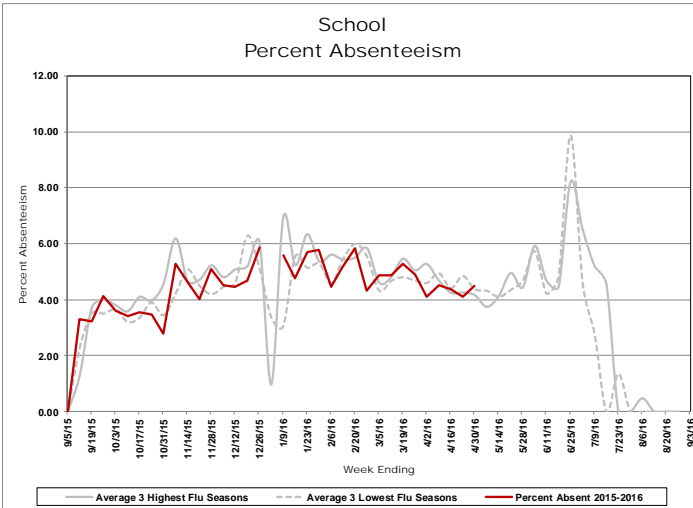
Long Term Care Facility
Percent ILI
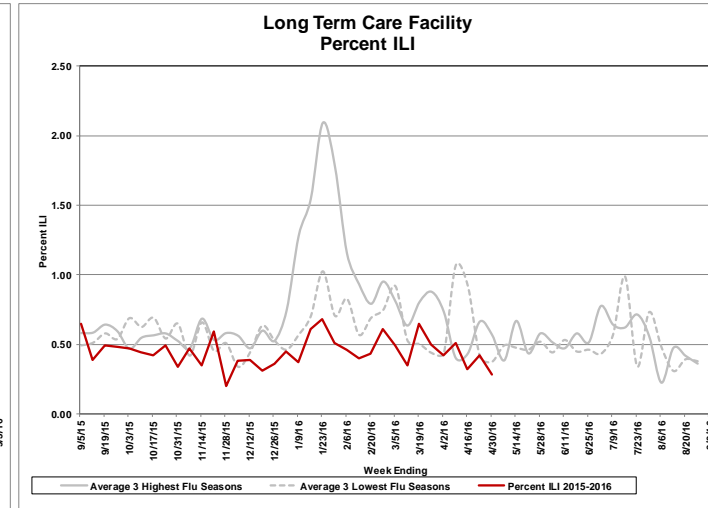
Respiratory Outbreaks in Long Term Care Facilities[9]

Cumulative outbreaks 2015-2016 season	27
No. outbreaks last 3 weeks	6
Regions with recent outbreaks	CE, NW, S

ILINet Providers

ILINet Provider Percent ILI
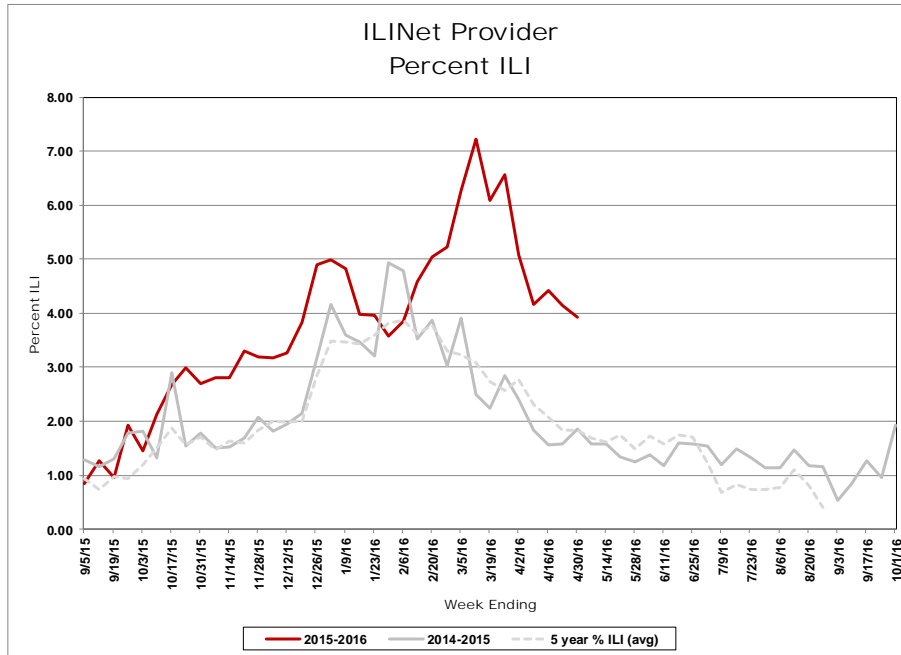
Pediatric Influenza Mortality[10]

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	60

For additional information regarding influenza surveillance please visit the following websites.
http://nj.gov/health/flu/surveillance.shtml
http://www.cdc.gov/flu/

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°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
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 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				
	Influenza A - Typing not performed	**Influenza A 2009 H1N1**	**Influenza AH3**	**Influenza B**	**Total**
ATLANTIC	219	14	1	91	325
BERGEN	489	248	25	284	1046
BURLINGTON	130	129	1	140	400
CAMDEN	202	101	1	188	492
CAPE MAY	15	3	0	4	22
CUMBERLAND	8	1	0	1	10
ESSEX	217	43	6	93	359
GLOUCESTER	18	31	20	29	98
HUDSON	126	74	5	101	306
HUNTERDON	16	27	3	8	54
MERCER	152	21	8	106	287
MIDDLESEX	140	50	4	110	304
MONMOUTH	422	9	0	216	647
MORRIS	96	23	0	60	179
OCEAN	257	14	1	188	460
PASSAIC	166	105	3	121	395
SALEM	2	2	0	1	5
SOMERSET	42	17	1	24	84
SUSSEX	22	4	3	10	39
UNION	323	56	2	98	479
WARREN	9	23	2	20	54
Total	3071	995	86	1893	6045

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					
	RESULT				
REGION	Influenza A - Typing not performed	Influenza A 2009 H1N1	Influenza AH3	Influenza B	Total
Central East	1142	129	7	612	1890
Central West	210	65	12	138	425
Northeast	832	365	36	478	1711
Northwest	293	155	8	211	667
South	594	281	23	454	1352
Total	3071	995	86	1893	6045

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: 04/26/2016

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NJ Health — New Jersey Department of Health

COUNTY	Long Term Care # Enrolled	Long Term Care # Reports Rec'd	Long Term Care % ILI	Schools # Enrolled	Schools # Reports Rec'd	Schools % Absent	Hospital Emergency Dept # Enrolled	Hospital Emergency Dept # Reports Rec'd	Hospital Emergency Dept % ILI
April 26, 2016 MMWR WEEK 17									
ATLANTIC	6	1	0.00	42	34	10.15	4	4	1.02
BERGEN	4	2	0.00	35	27	2.76	5	5	1.08
BURLINGTON	6	2	0.93	79	54	4.00	4	4	3.93
CAMDEN	0	0	0.00	1	0	0.00	7	7	4.56
CAPE MAY	3	0	0.00	14	9	3.53	1	1	2.30
CUMBERLAND	5	4	0.00	11	10	8.16	3	3	4.92
ESSEX	2	1	0.00	4	4	2.01	8	7	4.40
GLOUCESTER	3	2	0.00	4	1	3.64	2	2	2.62
HUDSON	4	2	0.26	13	6	4.08	6	5	4.21
HUNTERDON	4	4	0.67	8	7	3.18	1	1	4.71
MERCER	3	1	0.00	22	16	3.21	5	4	1.89
MIDDLESEX	4	1	0.00	21	18	3.72	6	6	2.91
MONMOUTH	5	3	0.72	16	15	4.39	5	5	3.75
MORRIS	0	0	0.00	9	6	2.01	4	4	2.08
OCEAN	1	0	0.00	5	5	4.79	4	4	2.74
PASSAIC	7	5	0.60	26	13	2.28	3	3	5.02
SALEM	0	0	0.00	3	3	4.93	1	1	1.43
SOMERSET	3	0	0.00	22	19	2.46	1	1	4.24
SUSSEX	2	1	0.00	5	5	2.84	2	2	0.00
UNION	1	0	0.00	49	26	3.14	5	5	3.14
WARREN	4	1	0.00	20	14	3.73	2	2	3.82
NW Region	13	7	0.49	60	38	2.65	11	11	3.45
NE Region	10	5	0.08	52	37	2.98	19	17	3.40
CW Region	10	5	0.55	52	42	2.82	7	6	2.70
CE Region	11	4	0.35	91	64	3.76	20	20	3.13
South Region	23	9	0.18	154	111	6.47	22	22	3.51
State Total	**67**	**30**	**0.28**	**409**	**292**	**4.48**	**79**	**76**	**3.31**

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 04/26/2016

County	RSV Tests		Rapid Flu Tests	
	# Positive	Total Tests Performed	# Positive	Total Tests Performed
April 26, 2016 MMWR WEEK 17				
ATLANTIC	1	22	15	136
BERGEN	0	13	22	162
BURLINGTON	0	0	0	0
CAMDEN	0	7	23	241
CAPE MAY	2	3	1	20
CUMBERLAND	0	4	0	0
ESSEX	0	10	8	152
GLOUCESTER	2	15	23	159
HUDSON	0	4	1	19
HUNTERDON	0	5	11	59
MERCER	0	4	6	49
MIDDLESEX	1	24	5	44
MONMOUTH	1	48	41	375
MORRIS	0	11	1	11
OCEAN	0	3	12	137
PASSAIC	0	13	23	100
SALEM	0	0	0	0
SOMERSET	0	0	0	0
SUSSEX	0	49	6	49
UNION	1	99	3	9
WARREN	0	0	0	0
NW Region	0	73	30	160
NE Region	0	27	31	333
CW Region	0	9	17	108
CE Region	3	174	61	565
South Region	5	51	62	556
State Total	8	334	201	1722