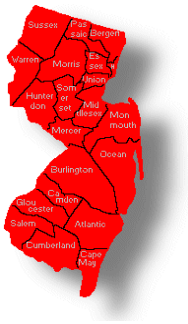
Respiratory Virus Surveillance Report[1]

New Jersey Department of Health

Communicable Disease Service

Week ending March 5, 2016 (MMWR week 9)

SYNOPSIS

Influenza Activity Level[2]	
State Activity Week ending 3/5: HIGH	
Current week Last year: HIGH	
Regional[3] Data	
Northwest	HIGH
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	0.49 (0.00, 1.44)	0.61	0.47	0.58 (0.60, 0.77)
Schools (absenteeism)	4.86 (3.41, 8.89)	4.33	4.25	3.56 (4.49, 4.85)
Emergency Departments	5.20 (0.00, 8.63)	4.15	3.10	2.39 (3.21, 4.20)

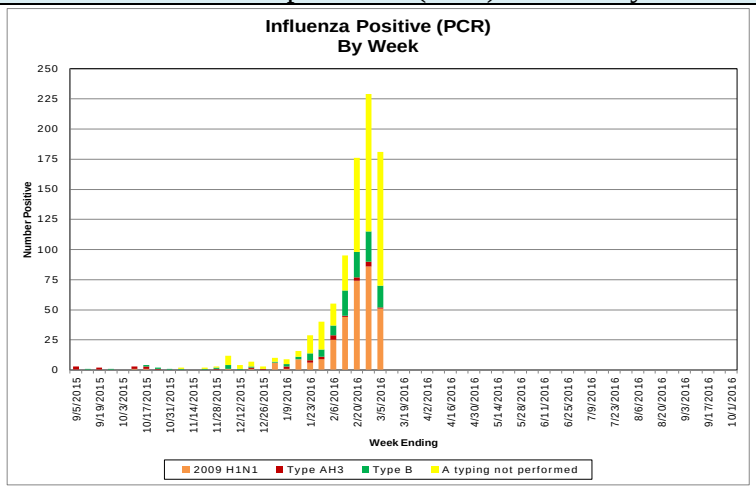
Viral Activity[7]			
	Current Week	Past 3 Weeks	Cumulative Total
Influenza H1N1 (2009)	51	211	315
Influenza H3N2	1	8	27
Influenza B	18	64	121
Respiratory Syncytial Virus (RSV)	113	433	2825
Rapid Influenza Tests	508	1024	1724

ILINet Providers			
Current Week		Previous Week	
#of reporters	%ILI	#of reporters	%ILI
14	6.20	23	5.19

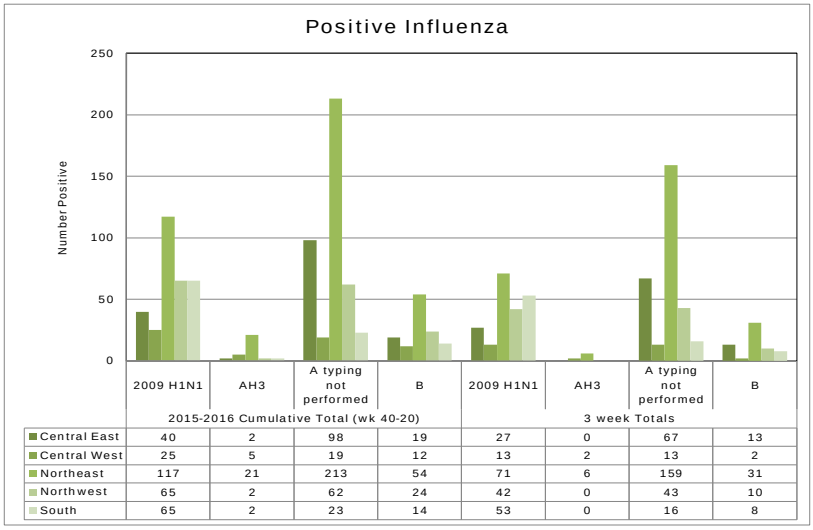
Report also available at: http://nj.gov/health/flu/fluinfo.shtml

Virologic Surveillance[7]

Influenza Positive Specimens (PCR) - Result by Week

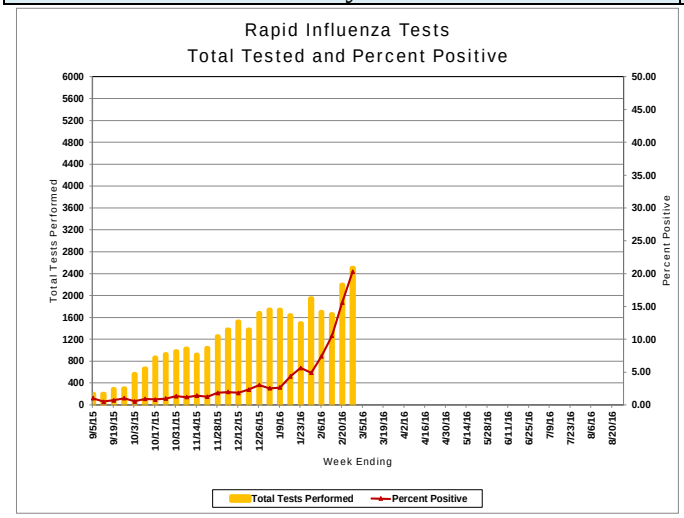


Influenza Positive Specimens (PCR)- Result by Region[3]

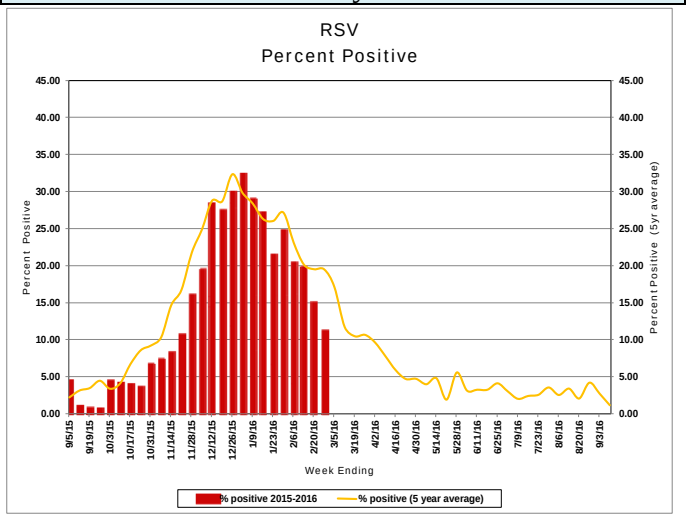


	2015-2016 Cumulative Total (wk 40-20)				3 week Totals			
	2009 H1N1	AH3	A typing not performed	B	2009 H1N1	AH3	A typing not performed	B
Central East	40	2	98	19	27	0	67	13
Central West	25	5	19	12	13	2	13	2
Northeast	117	21	213	54	71	6	159	31
Northwest	65	2	62	24	42	0	43	10
South	65	2	23	14	53	0	16	8

Influenza Rapid Antigen Result by Week



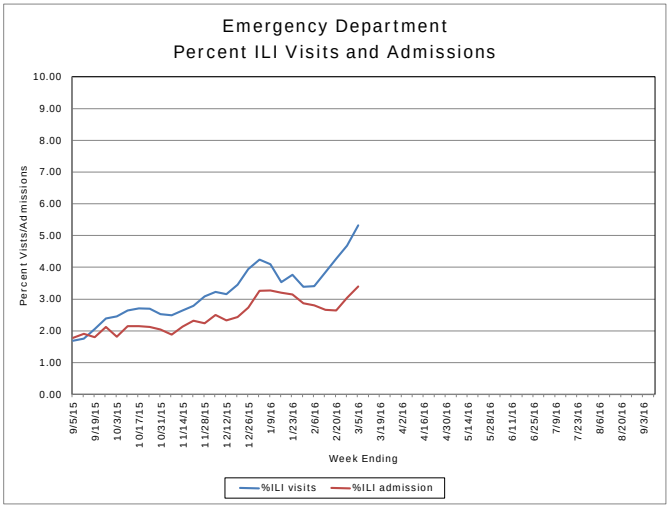
Respiratory Syncytial Virus (RSV) Results by Week



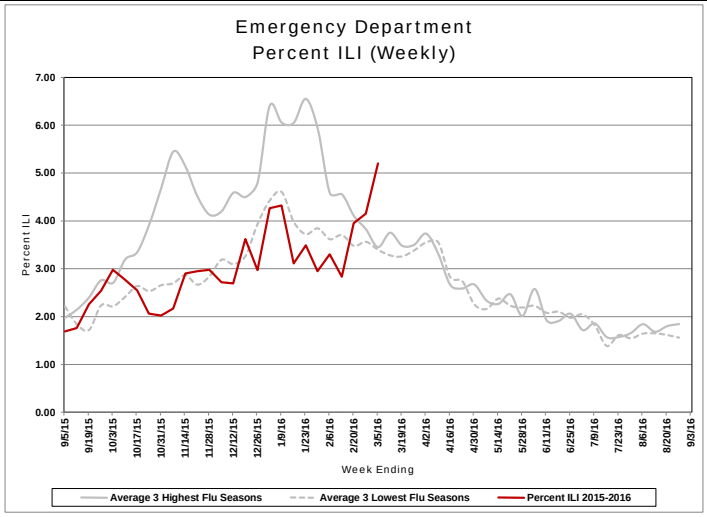
Influenza-like Illness Surveillance

Emergency Department[8]

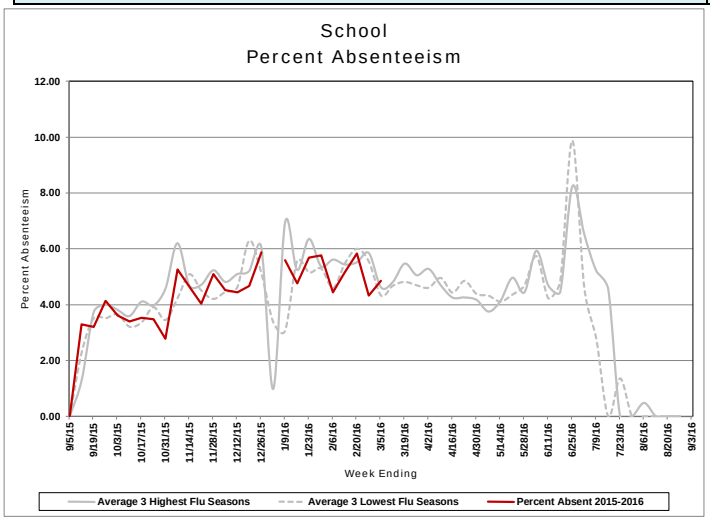
Daily Visits and Admission



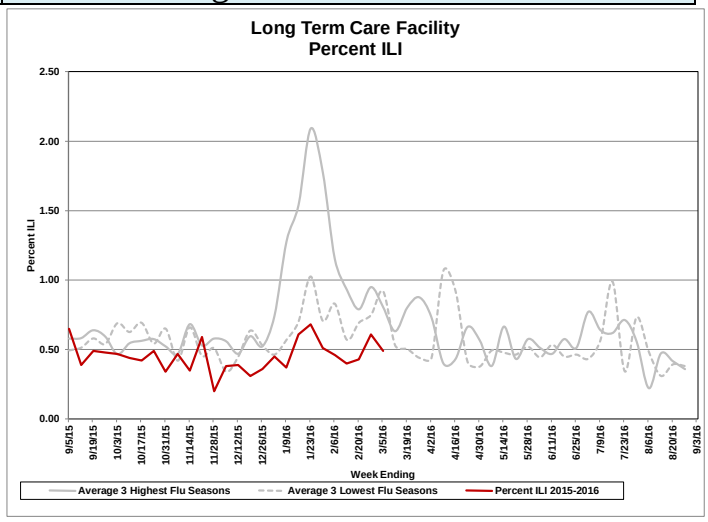
Visits – Tuesday Only



School Absenteeism



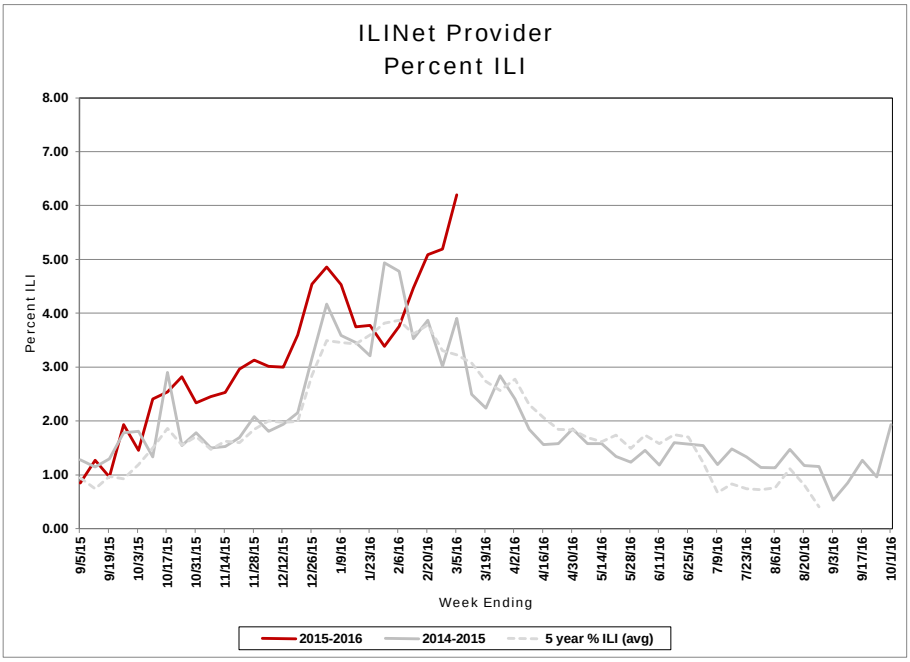
Long Term Care Facilities



Respiratory Outbreaks in Long Term Care Facilities[9]

Cumulative outbreaks 2015-2016 season	11
No. outbreaks last 3 weeks	3
Regions with recent outbreaks	NE/NW

ILINet Providers



Pediatric Influenza Mortality[10]

	Number of Pediatric Influenza Deaths Reported to CDC	
Influenza season	**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	18

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°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				
	Influenza A - Typing not performed	Influenza A 2009 H1N1	Influenza AH3	Influenza B	Total
ATLANTIC	61	7	1	5	74
BERGEN	218	86	14	54	372
BURLINGTON	56	33	1	16	106
CAMDEN	56	21	0	16	93
CAPE MAY	1	1	0	0	2
CUMBERLAND	1	0	0	0	1
ESSEX	94	12	5	8	119
GLOUCESTER	0	2	0	7	9
HUDSON	50	21	2	20	93
HUNTERDON	5	9	2	3	19
MERCER	49	7	4	17	77
MIDDLESEX	55	12	1	14	82
MONMOUTH	188	4	0	69	261
MORRIS	32	10	0	17	59
OCEAN	88	2	1	25	116
PASSAIC	100	41	1	20	162
SALEM	0	1	0	0	1
SOMERSET	19	9	1	2	31
SUSSEX	9	2	0	3	14
UNION	103	22	0	6	131
WARREN	4	12	1	4	21
Total	1189	314	34	306	1843

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	434	40	2	114	590
Central West	73	25	7	22	127
Northeast	362	119	21	82	584
Northwest	145	65	2	44	256
South	175	65	2	44	286
Total	1189	314	34	306	1843

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: 03/01/2016

COUNTY	Long Term Care			Schools			Hospital Emergency Dept		
	# Enrolled	# Reports Rec'd	% ILI	# Enrolled	# Reports Rec'd	% Absent	# Enrolled	# Reports Rec'd	% ILI
March 1, 2016 MMWR WEEK 9									
ATLANTIC	6	1	0.00	42	34	6.53	4	4	0.00
BERGEN	4	2	0.00	34	27	3.82	5	5	4.62
BURLINGTON	6	4	0.00	79	50	4.99	4	4	8.63
CAMDEN	0	0	0.00	1	0	0.00	7	7	4.20
CAPE MAY	3	0	0.00	14	10	4.42	1	1	4.88
CUMBERLAND	5	5	1.37	11	9	8.89	3	3	5.36
ESSEX	2	1	0.00	4	4	3.77	8	7	6.11
GLOUCESTER	3	2	0.00	4	2	7.58	2	2	5.96
HUDSON	4	3	0.97	13	7	3.41	6	6	4.25
HUNTERDON	4	3	0.00	8	7	6.20	1	1	2.94
MERCER	3	0	0.00	22	17	4.01	5	4	8.00
MIDDLESEX	4	2	0.00	21	19	3.63	6	6	4.12
MONMOUTH	5	3	1.44	16	16	5.76	5	5	7.59
MORRIS	0	0	0.00	9	7	5.14	4	4	3.21
OCEAN	1	0	0.00	5	4	7.14	4	4	3.66
PASSAIC	7	4	0.32	26	17	3.53	3	3	7.48
SALEM	0	0	0.00	3	3	4.78	1	1	5.26
SOMERSET	3	1	0.00	22	19	4.37	1	1	8.43
SUSSEX	2	1	0.00	5	5	4.92	2	2	0.00
UNION	1	0	0.00	49	31	3.60	5	5	4.23
WARREN	4	1	0.00	20	17	4.87	2	2	2.70
NW Region	13	6	0.26	60	46	4.24	11	11	5.16
NE Region	10	6	0.43	51	38	3.71	19	18	5.26
CW Region	10	4	0.00	52	43	4.54	7	6	7.60
CE Region	11	5	0.59	91	70	4.31	20	20	4.93
South Region	23	12	0.75	154	108	5.78	22	22	4.70
State Total	**67**	**33**	**0.49**	**408**	**305**	**4.86**	**79**	**77**	**5.20**

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 03/01/2016

County	RSV Tests		Rapid Flu Tests	
	# Positive	Total Tests Performed	# Positive	Total Tests Performed
March 1, 2016 MMWR WEEK 9				
ATLANTIC	8	34	17	158
BERGEN	4	17	95	299
BURLINGTON	0	2	0	0
CAMDEN	0	7	10	78
CAPE MAY	1	6	3	29
CUMBERLAND	6	13	0	0
ESSEX	10	118	88	538
GLOUCESTER	1	16	14	70
HUDSON	1	10	13	51
HUNTERDON	3	23	26	114
MERCER	0	7	16	100
MIDDLESEX	11	82	15	75
MONMOUTH	28	149	120	660
MORRIS	17	237	0	0
OCEAN	2	17	31	148
PASSAIC	0	3	29	63
SALEM	0	0	0	0
SOMERSET	0	0	0	0
SUSSEX	10	102	30	102
UNION	11	170	1	18
WARREN	0	0	0	0
NW Region	27	342	59	165
NE Region	15	145	196	888
CW Region	3	30	42	214
CE Region	52	418	167	901
South Region	16	78	44	335
State Total	113	1013	508	2503