



Respiratory Virus Surveillance Report¹

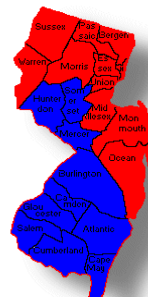
New Jersey Department of Health
Communicable Disease Service



Week ending April 16, 2016 (MMWR week 15)

SYNOPSIS

| Influenza Activity Level ² | |
|---------------------------------------|-----------------|
| State Activity Week ending 4/16: | MODERATE |
| Current week Last year: | MODERATE |
| Regional ³ Data | |
| Northwest | HIGH |
| 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 | 0.32 (0.00, 2.24) | 0.51 | 0.28 | 0.58 (0.60, 0.77) |
| Schools (absenteeism) | 4.37 (2.07, 8.91) | 4.52 | 4.55 | 3.56 (4.49, 4.85) |
| Emergency Departments | 3.38 (0.00, 5.50) | 3.32 | 2.81 | 2.39 (3.21, 4.20) |

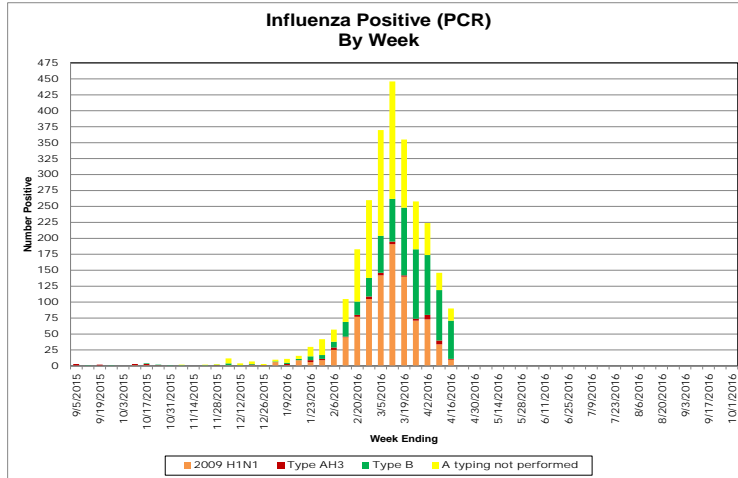
| Viral Activity ⁷ | | | |
|-----------------------------------|-----------------|-----------------|---------------------|
| | Current Week | Past 3 Weeks | Cumulative Total |
| Influenza H1N1 (2009) | 10 | 117 | 948 |
| Influenza H3N2 | 1 | 14 | 54 |
| Influenza B | 60 | 233 | 683 |
| Respiratory Syncytial Virus (RSV) | 19 | 112 | 3209 |
| Rapid Influenza Tests | 325 | 1316 | 5889 |

| ILINet Providers | | | |
|------------------|------|---------------|------|
| Current Week | | Previous Week | |
| #of reporters | %ILI | #of reporters | %ILI |
| 14 | 4.35 | 20 | 4.22 |

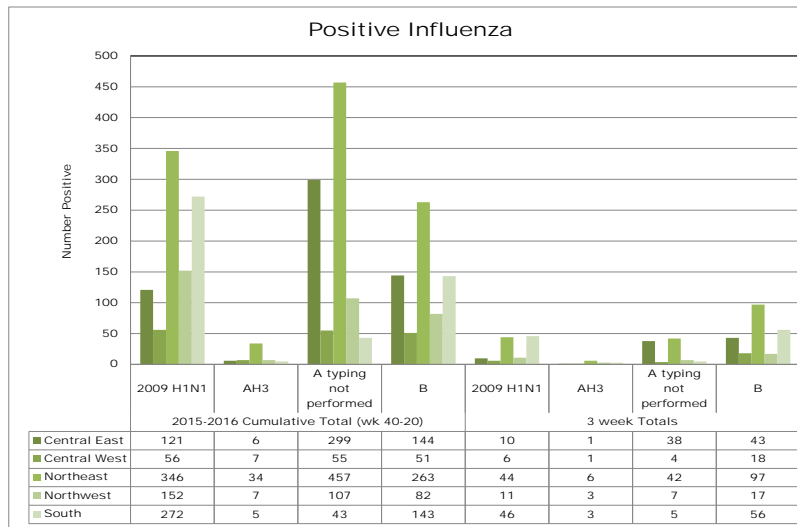
Report also available at: <http://nj.gov/health/flu/fluinfo.shtml>

Virologic Surveillance⁷

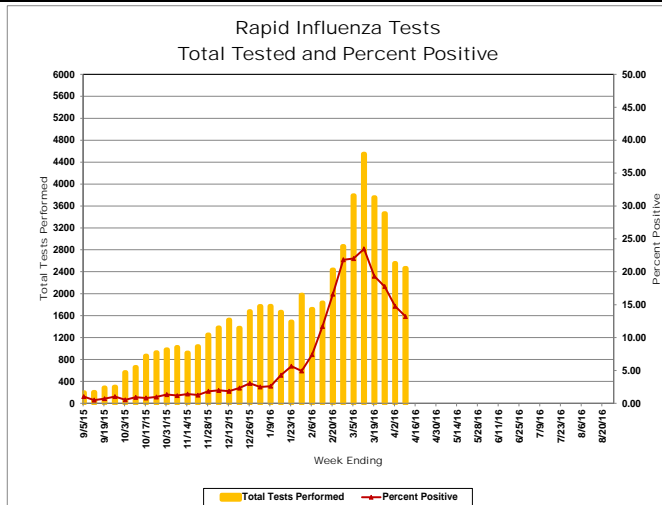
Influenza Positive Specimens (PCR) - Result by Week



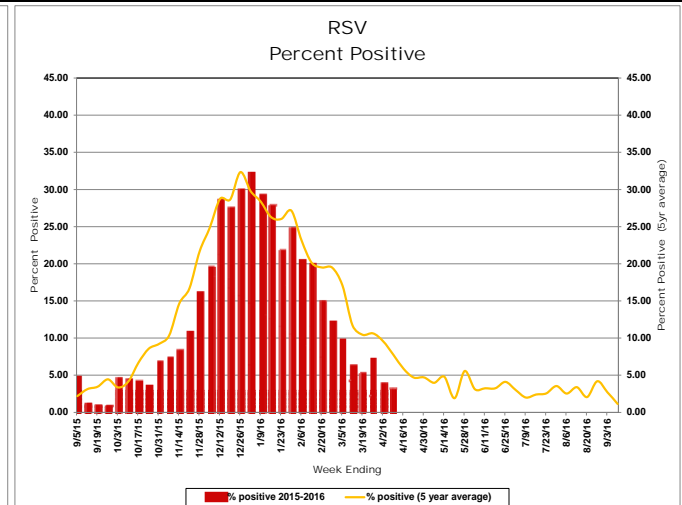
Influenza Positive Specimens (PCR)- Result by Region³



Influenza Rapid Antigen Result by Week



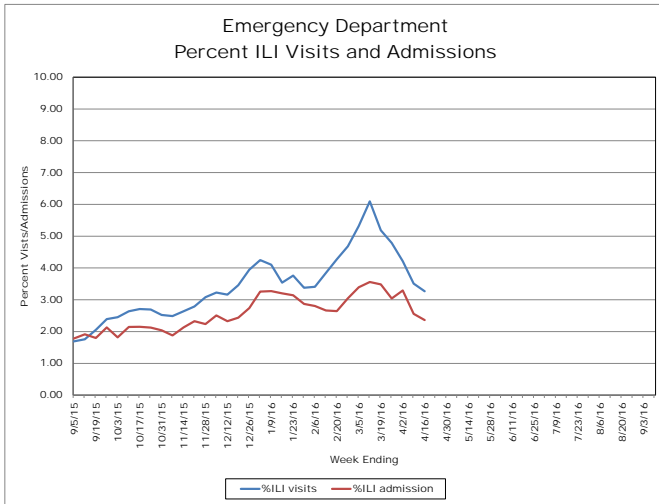
Respiratory Syncytial Virus (RSV) Results by Week



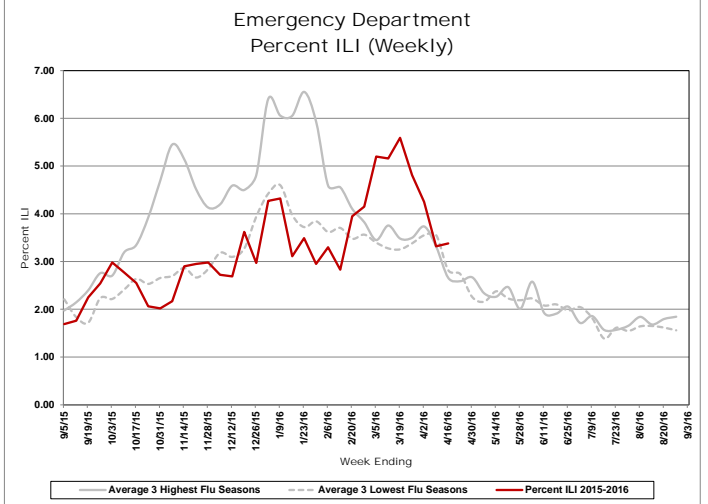
Influenza-like Illness Surveillance

Emergency Department⁸

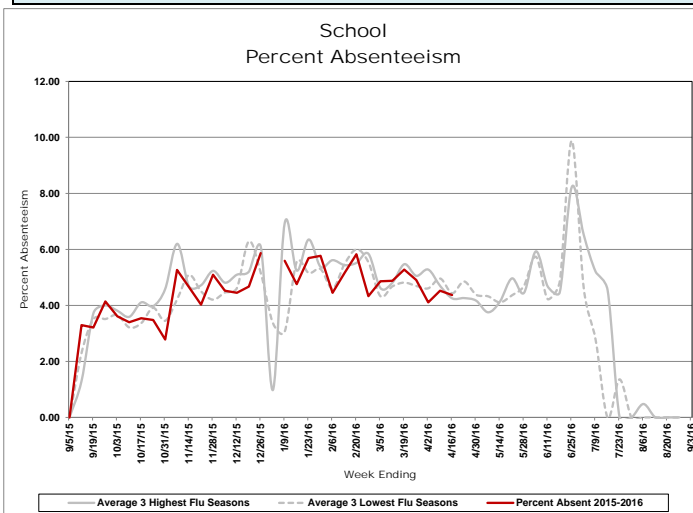
Daily Visits and Admission



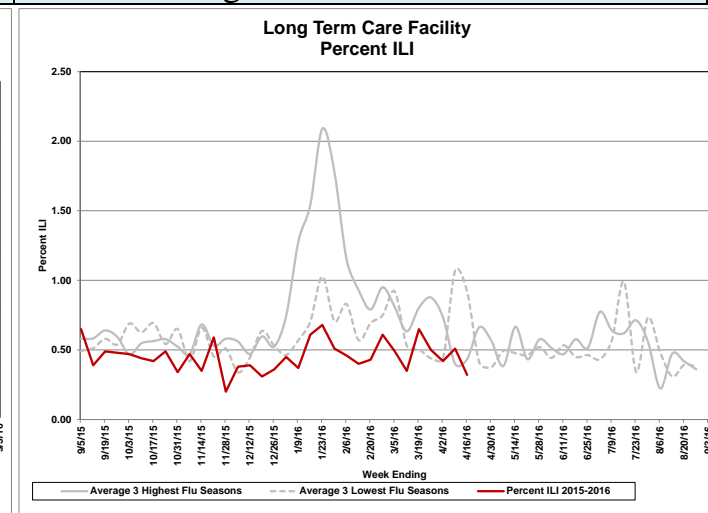
Visits – Tuesday Only



School Absenteeism



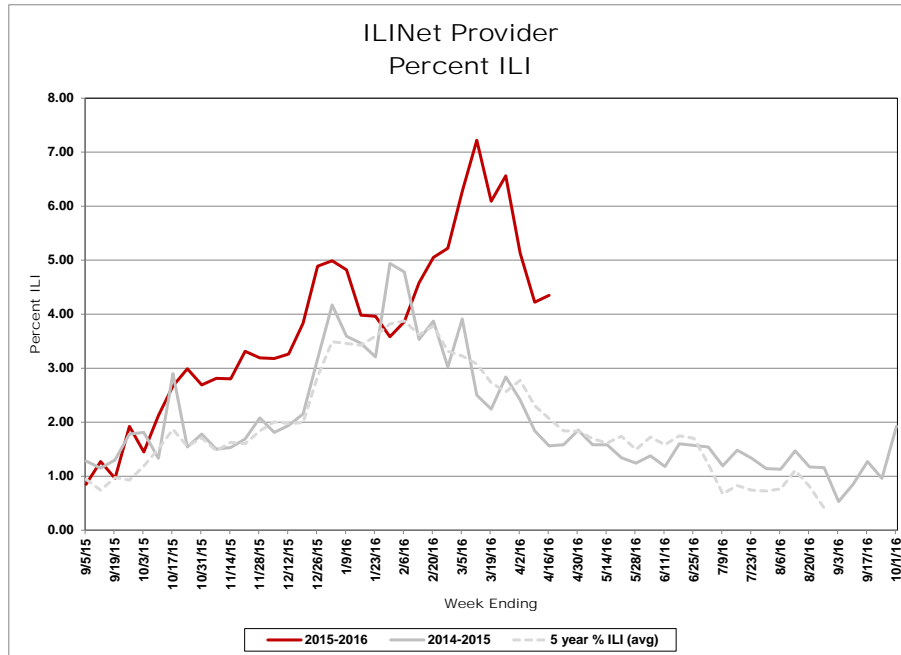
Long Term Care Facilities



Respiratory Outbreaks in Long Term Care Facilities⁹

| | |
|--|---------|
| Cumulative outbreaks 2015-2016 season | 23 |
| No. outbreaks last 3 weeks | 5 |
| 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 | 50 |

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 | | | | |
| <u>NJ Level</u> | <u>CSTE Level</u> | <u>Definition</u> | | |
| | | <u>ILI Activity/Outbreaks</u> | | <u>Lab Activity</u> |
| 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 | | | |
| <u>NJ Level</u> | <u>Definition</u> | | |
| | <u>ILI Activity/Outbreaks</u> | | <u>Lab Activity</u> |
| 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 | 215 | 14 | 1 | 66 | 296 |
| | BERGEN | 490 | 242 | 24 | 240 | 996 |
| | BURLINGTON | 125 | 124 | 1 | 114 | 364 |
| | CAMDEN | 188 | 100 | 0 | 146 | 434 |
| | CAPE MAY | 15 | 3 | 0 | 4 | 22 |
| | CUMBERLAND | 8 | 1 | 0 | 1 | 10 |
| | ESSEX | 199 | 42 | 6 | 72 | 319 |
| | GLOUCESTER | 17 | 29 | 3 | 22 | 71 |
| | HUDSON | 125 | 71 | 4 | 87 | 287 |
| | HUNTERDON | 14 | 25 | 2 | 7 | 48 |
| | MERCER | 144 | 17 | 5 | 86 | 252 |
| | MIDDLESEX | 135 | 47 | 4 | 98 | 284 |
| | MONMOUTH | 416 | 8 | 0 | 190 | 614 |
| | MORRIS | 86 | 23 | 0 | 48 | 157 |
| | OCEAN | 244 | 12 | 1 | 178 | 435 |
| | PASSAIC | 163 | 102 | 2 | 96 | 363 |
| | SALEM | 2 | 2 | 0 | 0 | 4 |
| | SOMERSET | 38 | 17 | 1 | 19 | 75 |
| | SUSSEX | 21 | 4 | 3 | 10 | 38 |
| | UNION | 281 | 55 | 1 | 64 | 401 |
| | WARREN | 7 | 23 | 2 | 12 | 44 |
| | Total | 2933 | 961 | 60 | 1560 | 5514 |

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 | 1076 | 122 | 6 | 530 | 1734 | |
| Central West | 196 | 59 | 8 | 112 | 375 | |
| Northeast | 814 | 355 | 34 | 399 | 1602 | |
| Northwest | 277 | 152 | 7 | 166 | 602 | |
| South | 570 | 273 | 5 | 353 | 1201 | |
| Total | 2933 | 961 | 60 | 1560 | 5514 | |

***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: 04/12/2016



| COUNTY | Long Term Care | | | Schools | | | Hospital Emergency Dept | | |
|------------------------------------|----------------|-----------------|-------------|------------|-----------------|-------------|-------------------------|-----------------|-------------|
| | # Enrolled | # Reports Rec'd | % ILI | # Enrolled | # Reports Rec'd | % Absent | # Enrolled | # Reports Rec'd | % ILI |
| April 12, 2016 MMWR WEEK 15 | | | | | | | | | |
| ATLANTIC | 6 | 2 | 0.00 | 42 | 34 | 6.38 | 4 | 4 | 2.46 |
| BERGEN | 4 | 2 | 0.00 | 35 | 12 | 3.70 | 5 | 5 | 2.52 |
| BURLINGTON | 6 | 3 | 0.00 | 79 | 45 | 3.92 | 4 | 4 | 3.06 |
| CAMDEN | 0 | 0 | 0.00 | 1 | 0 | 0.00 | 7 | 7 | 3.59 |
| CAPE MAY | 3 | 0 | 0.00 | 14 | 9 | 4.19 | 1 | 1 | 0.00 |
| CUMBERLAND | 5 | 4 | 1.03 | 11 | 11 | 8.91 | 3 | 3 | 3.19 |
| ESSEX | 2 | 1 | 0.00 | 4 | 1 | 5.17 | 8 | 7 | 4.18 |
| GLOUCESTER | 3 | 2 | 0.00 | 4 | 4 | 4.16 | 2 | 2 | 3.11 |
| HUDSON | 4 | 1 | 0.88 | 13 | 7 | 4.02 | 6 | 6 | 3.40 |
| HUNTERDON | 4 | 4 | 0.23 | 8 | 7 | 2.58 | 1 | 1 | 3.41 |
| MERCER | 3 | 1 | 0.00 | 22 | 17 | 3.08 | 5 | 4 | 3.39 |
| MIDDLESEX | 4 | 1 | 0.00 | 21 | 18 | 3.65 | 6 | 6 | 3.28 |
| MONMOUTH | 5 | 2 | 0.00 | 16 | 16 | 5.33 | 5 | 5 | 3.65 |
| MORRIS | 0 | 0 | 0.00 | 9 | 7 | 3.65 | 4 | 4 | 2.15 |
| OCEAN | 1 | 0 | 0.00 | 5 | 5 | 5.85 | 4 | 4 | 3.96 |
| PASSAIC | 7 | 3 | 0.00 | 26 | 5 | 3.90 | 3 | 3 | 5.50 |
| SALEM | 0 | 0 | 0.00 | 3 | 3 | 5.71 | 1 | 1 | 1.64 |
| SOMERSET | 3 | 1 | 2.24 | 22 | 12 | 2.99 | 1 | 1 | 5.29 |
| SUSSEX | 2 | 2 | 0.00 | 5 | 5 | 2.90 | 2 | 2 | 0.00 |
| UNION | 1 | 0 | 0.00 | 49 | 16 | 3.65 | 5 | 5 | 2.79 |
| WARREN | 4 | 1 | 0.88 | 20 | 14 | 2.07 | 2 | 2 | 3.03 |
| NW Region | 13 | 6 | 0.10 | 60 | 31 | 2.92 | 11 | 11 | 3.58 |
| NE Region | 10 | 4 | 0.11 | 52 | 20 | 3.86 | 19 | 18 | 3.50 |
| CW Region | 10 | 6 | 0.60 | 52 | 36 | 2.93 | 7 | 6 | 3.82 |
| CE Region | 11 | 3 | 0.00 | 91 | 55 | 4.30 | 20 | 20 | 3.40 |
| South Region | 23 | 11 | 0.56 | 154 | 106 | 5.35 | 22 | 22 | 3.01 |
| State Total | 67 | 30 | 0.32 | 409 | 248 | 4.37 | 79 | 77 | 3.38 |

SURVEILLANCE DATE: 04/12/2016



| County | RSV Tests | | Rapid Flu Tests | |
|-----------------------------|------------|-----------------------|-----------------|-----------------------|
| | # Positive | Total Tests Performed | # Positive | Total Tests Performed |
| April 12, 2016 MMWR WEEK 15 | | | | |
| ATLANTIC | 1 | 28 | 16 | 167 |
| BERGEN | 1 | 25 | 40 | 221 |
| BURLINGTON | 0 | 0 | 0 | 0 |
| CAMDEN | 0 | 10 | 42 | 406 |
| CAPE MAY | 0 | 5 | 2 | 37 |
| CUMBERLAND | 0 | 0 | 0 | 0 |
| ESSEX | 3 | 107 | 52 | 392 |
| GLOUCESTER | 1 | 10 | 36 | 195 |
| HUDSON | 0 | 3 | 4 | 33 |
| HUNTERDON | 1 | 6 | 3 | 64 |
| MERCER | 0 | 2 | 16 | 106 |
| MIDDLESEX | 0 | 33 | 5 | 59 |
| MONMOUTH | 4 | 89 | 69 | 506 |
| MORRIS | 1 | 147 | 0 | 7 |
| OCEAN | 0 | 7 | 36 | 203 |
| PASSAIC | 0 | 0 | 0 | 0 |
| SALEM | 0 | 0 | 0 | 0 |
| SOMERSET | 0 | 0 | 0 | 0 |
| SUSSEX | 3 | 62 | 4 | 62 |
| UNION | 4 | 131 | 0 | 6 |
| WARREN | 0 | 0 | 0 | 0 |
| NW Region | 4 | 209 | 4 | 69 |
| NE Region | 4 | 135 | 96 | 646 |
| CW Region | 1 | 8 | 19 | 170 |
| CE Region | 8 | 260 | 110 | 774 |
| South Region | 2 | 53 | 96 | 805 |
| State Total | 19 | 665 | 325 | 2464 |