Overall Summary

Influenza activity in the DON appears to have peaked during weeks 7 and 8; however, there was an increase in laboratory positive cases and dispensed antivirals from the prior week. Laboratory positive cases exceeded baseline levels by more than two standard deviations.

Key Findings

### Influenza Activity and Surveillance

#### Laboratory
- Laboratory-positive influenza cases were above baseline.
- 240 laboratory cases identified. [Details](#)

#### Antivirals (AVs)
- Dispensed AVs were above baseline.
- 353 AVs dispensed. [Details](#)

#### Influenza-Like Illness (ILI)
- ILI outpatient encounters were at baseline at 4.2% of outpatient medical encounters. [Details](#)

### Severity Indicators

#### Inpatient
- Two inpatient laboratory-positive cases identified.
- 16 inpatient AVs dispensed, above baseline.
- Seven influenza cases reported to DRSi. [Details](#)

#### Coinfections
- 20 bacterial coinfections among laboratory-positive cases were identified from upper respiratory (13), lower respiratory (2), and non-respiratory (5) specimens.
- 11 positive rapid strep tests were identified among influenza cases. [Details](#)

### Select Populations

#### Active Duty
- 32 laboratory-positive cases identified.
- 57 AVs dispensed. [Details](#)

#### Recruits
- Two laboratory-positive cases identified.
- Two AVs dispensed. [Details](#)

#### Children
- Laboratory cases among children exceeded two standard deviations above baseline levels with 120 laboratory-positive cases identified. [Details](#)

### Active Duty Vaccination Rates

Navy .................... 95.4%
Marine Corps ............ 96.3%
US Fleet Forces ........... 97.9%

[View Table](#)
Overall Burden*
- The weekly burden of influenza in the DON was 494 cases, identified in one or more data sources.
- Pharmacy captured the highest proportion of cases (70.9%).
- 46 cases were identified in all three sources.
- 8,276 DON cases have been identified since Week 40.

*Note: The estimated burden of influenza across the DON combines three major sources of data: certified laboratory results, antiviral pharmacy transactions, and medical encounters with influenza-specific diagnoses.

Laboratory Cases
- Laboratory-positive cases were substantially above baseline levels with 240 cases.
- Influenza case types: A (129), B (109), AB (1), and unknown (1).
- Facilities with the greatest number of cases:
  - Current week: NH Jacksonville (35), NH Camp Lejeune (31), and NMC Portsmouth (24).
  - Season: NH Camp Lejeune (554), NMC San Diego (269), and NH Jacksonville (262).

Specimen Positivity
- 23.2% of all influenza specimens tested during Week 12 were positive, above last season (19.3%).
- When grouped by parent facility, 16 (57.1%) locations tested more than ten specimens.

<table>
<thead>
<tr>
<th>Test Types among Positive Influenza Specimens, n (%)</th>
<th>Rapid</th>
<th>Culture</th>
<th>PCR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 10</td>
<td>248(75.4)</td>
<td>21(6.4)</td>
<td>60(18.2)</td>
<td>329</td>
</tr>
<tr>
<td>Week 11</td>
<td>150(68.2)</td>
<td>15(6.8)</td>
<td>55(25.0)</td>
<td>220</td>
</tr>
<tr>
<td>Week 12</td>
<td>197(81.4)</td>
<td>7(2.9)</td>
<td>38(15.7)</td>
<td>242</td>
</tr>
<tr>
<td>Season</td>
<td>2,501(69.1)</td>
<td>276(7.6)</td>
<td>844(23.3)</td>
<td>3,621</td>
</tr>
</tbody>
</table>

Antiviral Prescriptions
- 353 AVs were dispensed (exceeding first standard deviation levels above baseline).
- AVs dispensed: Oseltamivir (353).
- Facilities dispensing the most AVs this week: NH Camp Lejeune (43), NMC Portsmouth (39), and NH Jacksonville (31).

<table>
<thead>
<tr>
<th>Antiviral Medications Dispensed to DON Beneficiaries, n (%)</th>
<th>Amantadine</th>
<th>Oseltamivir</th>
<th>Rimantadine</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 10</td>
<td>1(0.3)</td>
<td>363(99.7)</td>
<td>0(0.0)</td>
<td>364</td>
</tr>
<tr>
<td>Week 11</td>
<td>1(0.3)</td>
<td>331(99.7)</td>
<td>0(0.0)</td>
<td>332</td>
</tr>
<tr>
<td>Week 12</td>
<td>0(0.0)</td>
<td>353(100.0)</td>
<td>0(0.0)</td>
<td>353</td>
</tr>
<tr>
<td>Season</td>
<td>37(0.8)</td>
<td>4,988(99.2)</td>
<td>1(0.0)</td>
<td>5,026</td>
</tr>
</tbody>
</table>
Syndromic Surveillance

Influenza-Like Illness (ILI) *
- The percentage of medical encounters that included an ILI diagnosis:
  - 4.2% of outpatient encounters (at baseline).
  - 14.7% of ER encounters (below baseline).
- 16 DON facilities (57.1%) reported an increase in the proportion of outpatient ILI visits from the prior week.
  - Four facilities had an increase of 25% or higher.
  - NH Guantanamo Bay had the greatest increase (71.7%) in the percentage of ILI visits.

*For Week 11, lagged due to data availability.

Severity Indicators

Inpatient Laboratory
- Two inpatient laboratory cases were identified, below baseline.
- Cases were identified among retirees (1), and spouses (1).
- Cases were identified at NH Jacksonville (1) and NMC Portsmouth (1).

Inpatient Pharmacy
- The percentage of inpatient AVs (4.5% of all influenza AVs) was above baseline; 16 inpatient AVs were dispensed.
- AVs were most frequently dispensed at NH Jacksonville (5), NMC Portsmouth (4), and NMC San Diego (2).
- AVs were dispensed to spouses (6), non-active duty sponsors (4), children (3), active duty (2), and recruits (1).

Influenza-AssOCIated Hospitalization Reports
- Seven influenza-associated hospitalizations were reported to DRSi. All seven cases were also identified through laboratory-positive records and pharmacy transactions.

Bacterial Coinfections
- 20 coinfections were identified; 15 Streptococcus (13 upper respiratory, 2 non-respiratory), 3 other non-respiratory, and 2 lower respiratory infections. Details.
- 11 positive rapid strep tests were identified among influenza cases.

| Bacterial Coinfections by Specimen Source and as a Percent of Laboratory Cases, 2016-2017 Season |
|---------------------------------------------------------------|---------------------------------------------------------------|
| Coinfections by Specimen Source, n (%)                        | Lab Cases with Bacterial Coinfection (%)                      |
| Upper Respiratory                                             | Lower Respiratory                                            | Non-Respiratory                                             |
| Current Season (n=156)                                        | 73(46.8)                                                     | 14(9)                                                      | 69(44.2)                                                  | 4.1                                          |
| Cumulative Baseline* (n=97.8)                                 | 38.2(39.0)                                                   | 9.5(9.7)                                                   | 50.2(51.3)                                                | 4.2                                          |

* Cumulative baseline calculated as a weighted average over three years and may not represent whole numbers.

Note: Table does not include Group A Streptococcus identified from rapid diagnostic tests.

< Back to Key Findings
Active Duty

- 32 laboratory-positive influenza cases were identified among active duty service members, 26 Navy and 6 Marine Corps (26 Type A, 6 Type B).
- Facilities with the greatest number of active duty cases identified included: NMC Portsmouth (4), NMC San Diego (3), NH Pensacola (3), NH Jacksonville (3), and Naval Health Clinic Charleston (3).
- 57 active duty service members (40 Navy, 17 Marine Corps) were dispensed AVs (all Oseltamivir).

Recruits

- Two laboratory-positive influenza cases were identified among Navy (1) and Marine Corps (1) recruits.
- Two AVs were dispensed to Navy (1), and Marine Corps (1) recruits.

<table>
<thead>
<tr>
<th>Case Type</th>
<th>Active Duty</th>
<th>Recruits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Navy</td>
<td>Marine Corps</td>
</tr>
<tr>
<td>Laboratory</td>
<td>297</td>
<td>113</td>
</tr>
<tr>
<td>Antiviral</td>
<td>519</td>
<td>186</td>
</tr>
</tbody>
</table>

Children

- Laboratory cases among children exceeded two standard deviations above baseline levels; 120 laboratory-positive influenza cases were identified.
  - Facilities with the greatest number of outpatient cases identified: NH Camp Lejeune (24), Ft. Belvoir Community Hosp-FBC (18), and NHC Quantico (14).
  - No cases were identified from an inpatient setting.
- AVs dispensed to children were above baseline levels; 145 AVs were dispensed (all Oseltamivir).
  - Locations with most AVs dispensed: NH Camp Lejeune (20), Ft. Belvoir Community Hosp-FBC (16), NH Jacksonville (13), and NMC Portsmouth (13).
  - Three AVs were dispensed in the inpatient setting.

In the News

- The CDC reports that although influenza activity is declining, it remains elevated. Details
- A study published in Clinical Infectious Diseases reinforces current recommendations for annual influenza vaccination despite recent reports of negative impacts of serial vaccination on vaccine effectiveness. Details