Overall Summary

Laboratory-identified influenza cases and dispensed antivirals decreased from prior week. While overall influenza activity remains below baseline levels, bacterial coinfections were slightly above baseline. Six coinfections from respiratory sources were identified among laboratory-identified cases; specifically, five *Streptococcus* (upper respiratory), and one *Staphylococcus* (lower respiratory).

Key Findings

### Influenza Activity and Surveillance

**Laboratory**
- Laboratory-positive influenza cases were still below baseline but above a few previous season trends.
- 143 laboratory cases identified. [Details]

**Antivirals (AVs)**
- Dispensed AVs were below baseline levels; 221 AVs dispensed. [Details]

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

### Severity Indicators

**Inpatient**
- No inpatient laboratory-positive cases identified.
- 12 inpatient AVs dispensed, below baseline.
- No influenza cases reported to DRSi. [Details]

**Coinfections**
- Six bacterial coinfections among laboratory-positive cases were identified from respiratory specimens, four were identified from non-respiratory specimens.
- Three rapid strep tests were identified among influenza cases. [Details]

### Select Populations

**Active Duty**
- 23 laboratory-positive cases identified.
- 34 AVs dispensed. [Details]

**Recruits**
- No laboratory-positive case identified.
- One AV dispensed. [Details]
- Febrile respiratory illness rates were elevated at MCRD San Diego. [NHRC Report]

**Children**
- Laboratory cases among children were below baseline levels with 64 laboratory-positive cases among children identified. [Details]

### Active Duty Vaccination Rates

<table>
<thead>
<tr>
<th>Service</th>
<th>Vaccination Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navy</td>
<td>93.1%</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>93.8%</td>
</tr>
<tr>
<td>US Fleet Forces</td>
<td>96.0%</td>
</tr>
</tbody>
</table>

[View Table]

Data source: MRRS, current as of 23 Jan 2017.
**Overall Burden***
- The weekly burden of influenza in the DON was 292 cases, identified in one or more data sources.
- Pharmacy captured the highest proportion of cases (74.3%).
- 15 cases were identified in all three sources.
- 2,173 DON cases 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 similar to the prior week, but were below baseline with 143 cases.
- Influenza case types: A (117), B (24), and AB (2).
- Facilities with the greatest number of cases:
  - Current week: NH Camp Lejeune (20), Ft Belvoir Community Hosp-FBC (17), NMC San Diego (12), and NH Bremerton (11).
  - Season: NMC San Diego (97), NH Bremerton (70), and NH Camp Lejeune (68).

**Specimen Positivity**
- 20.6% of all influenza specimens tested during Week 3 were positive, above last season (9.4%).
- When grouped by parent facility, 13 (46.4%) 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 1</td>
<td>76(64.4)</td>
<td>7(5.9)</td>
<td>35(29.7)</td>
<td>118</td>
</tr>
<tr>
<td>Week 2</td>
<td>95(61.7)</td>
<td>15(9.7)</td>
<td>44(28.6)</td>
<td>154</td>
</tr>
<tr>
<td>Week 3</td>
<td>109(73.6)</td>
<td>8(5.4)</td>
<td>31(20.9)</td>
<td>148</td>
</tr>
<tr>
<td>Season</td>
<td>531(64.1)</td>
<td>71(8.6)</td>
<td>227(27.4)</td>
<td>829</td>
</tr>
</tbody>
</table>

**Antiviral Prescriptions**
- 221 AVs were dispensed (below baseline levels), which was a slight decrease from the prior week.
- AVs dispensed: Amantadine (1), and Oseltamivir (220).
- Facilities dispensing most AVs this week: NH Bremerton (41), NMC San Diego (23), and NH Camp Lejeune (20).

<table>
<thead>
<tr>
<th>Antiviral Medications Dispensed to DON Beneficiaries, n (%)</th>
<th>Amantadine</th>
<th>Oseltamivir</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>1(0.5)</td>
<td>190(99.5)</td>
<td>191</td>
</tr>
<tr>
<td>Week 2</td>
<td>2(0.9)</td>
<td>229(99.1)</td>
<td>231</td>
</tr>
<tr>
<td>Week 3</td>
<td>1(0.5)</td>
<td>220(99.5)</td>
<td>221</td>
</tr>
<tr>
<td>Season</td>
<td>28(2.0)</td>
<td>1,381(98.0)</td>
<td>1,409</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 (slightly below baseline).
  - 13.4% of ER admissions (below baseline).
- Six DON facilities (21.4%) reported an increase in the proportion of outpatient ILI visits from the prior week.
  - No facilities had an increase of 25% or higher.
  - Naval Health Clinic Charleston had the greatest increase (18.2%) in the percent of ILI visits.

*For Week 2, lagged due to data availability

Severity Indicators

Inpatient Laboratory
- No inpatient laboratory cases were identified in Week 3.

Inpatient Pharmacy
- The percentage of inpatient AVs (5.4% of all influenza AVs) was below baseline (6.0%); 12 inpatient AVs were dispensed.
- AVs were most frequently dispensed at NMC San Diego (3), and 99th Med Grp-O’Callaghan Hospital (2).
- AVs were dispensed to spouses (6), non-active duty sponsors (4), and children (2).

Influenza-Associated Hospitalization Reports
- There were no influenza cases reported to DRSi for influenza-associated hospitalizations in Week 3.

Bacterial Coinfections
- Ten coinfections were identified; five *Streptococcus* (upper respiratory), one *Staphylococcus* (lower respiratory), and 4 infections from non-respiratory specimens. Details.
- Three positive rapid strep tests were identified among influenza cases.

<table>
<thead>
<tr>
<th>Bacterial Coinfections by Specimen Source and as a Percent of Laboratory Cases, 2016-2017 Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coinfections by Specimen Source, n (%)</td>
</tr>
<tr>
<td>Upper Respiratory</td>
</tr>
<tr>
<td>14(31.8)</td>
</tr>
</tbody>
</table>

* 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.

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Week 3: Page 3 of 4
Active Duty
- 23 laboratory-positive influenza cases were identified among active duty service members, 18 Navy and 5 Marine Corps (21 Type A, 2 Type B).
  - Vaccination records were available for 18 cases.
- Facilities with the greatest number of active duty cases identified: NH Oak Harbor (4); NHC Quantico (3); NH Jacksonville, NH Camp Lejeune, and NH Bremerton (all with 2).
- 34 active duty service members (27 Navy, 7 Marine Corps) were dispensed AVs (all Oseltamivir).

Recruits
- No laboratory-positive influenza cases were identified among recruits.
- One AV (Oseltamivir) was dispensed to a Marine Corps recruit at NH Beaufort.

| Number of DON Active Duty and Recruit Cases since Week 40, 2016-2017 Season |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|
|                             | Active Duty      | Recruits        | Total           |                 |
|                             | Navy            | Marine Corps    | Navy            | Marine Corps    |
| Laboratory                  | 80              | 34              | 1               | 2               | 89              |
| Antiviral                   | 171             | 64              | 1               | 4               | 240             |

Children
- Laboratory cases were below baseline levels; 64 laboratory-positive influenza cases were identified.
  - No cases were identified from an inpatient setting.
- Facilities with the greatest number of outpatient cases identified: NH Camp Lejeune (14), Ft Belvoir Community Hosp-FBC (10), NH Bremerton (6), and NMC San Diego (6).
- AVs dispensed to children were below baseline levels; 81 AVs were dispensed (all Oseltamivir).
  - One AV was dispensed in the inpatient setting.
- Locations with most AVs dispensed: NH Bremerton (17), Ft Belvoir Community Hosp-FBC (9), NH Camp Lejeune (9) and NMC San Diego (7).

<table>
<thead>
<tr>
<th>Number of Influenza Laboratory Cases and AV Cases, DON Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>0-4 years</td>
</tr>
<tr>
<td>5-17 years</td>
</tr>
</tbody>
</table>

In the News
- Study estimates annual economic burden of seasonal influenza on the US Veterans Affairs population to be $1.2 billion. [Details]
- CDC reports that flu activity continues to rise. This week they reported an additional 2 pediatric deaths, raising the pediatric death toll to a total of 5 children for the 2016-2017 season. [Details]