Overall Summary
The number of laboratory positive cases and antiviral prescriptions remain above seasonal baselines, but with a continued decreasing trend. The rates of influenza cases among children remain above baseline.

Key Findings

### Influenza Activity and Surveillance

#### Laboratory
124 laboratory positive influenza cases were identified during Week 13, slightly above baseline. [Details]

#### Antivirals (AVs)
198 AV medications were dispensed in Week 13, slightly above baseline. [Details]

#### Influenza-Like Illness (ILI)
Overall, 4.1% of outpatient medical encounters were due to ILI, comparable to baseline. [Details]

### Severity Indicators

#### Inpatient
This week, there were three inpatient laboratory positive cases and 11 inpatient antiviral prescriptions. There were two influenza cases reported to DRSi. [Details]

#### Coinfections
There were two bacterial coinfections identified among laboratory positive cases during Week 13. [Details]

### Select Populations

#### Active Duty and Recruits
In Week 13, there were 24 laboratory positive cases and 32 AV prescriptions dispensed to active duty personnel. Among recruits, there were three laboratory positive cases and no AV prescriptions. [Details]

NHRC surveillance reports febrile respiratory illness rates were substantially elevated at MCRD San Diego, and at or below expected values at MCRD Parris Island and NRTC Great Lakes for Week 12. [Details]

#### Children
Influenza positive laboratory cases and AVs prescriptions among children were above baseline. [Details]

### Active Duty Vaccination Rates

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navy</td>
<td>94.5%</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>96.4%</td>
</tr>
<tr>
<td>US Fleet Forces</td>
<td>99.2%</td>
</tr>
</tbody>
</table>

View Table
Data source: MRRS, current as of 04 Apr 2016.

Prepared by the EpiData Center (email; web)
**Influenza Activity and Surveillance**

**Overall Burden**
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.

- During Week 13, there were 277 DON cases identified in one or more data sources; pharmacy captured the highest proportion of cases (71.5%). No cases were identified in all three sources.
- Since Week 40, there have been 5,479 DON cases identified in at least one of the three data sources.

**Laboratory Cases**

- 124 laboratory positive influenza cases were identified during Week 13 (74 type A, 45 type B, 4 type A & B, 1 non-specific); slightly above baseline.
  - Top three facilities this week: NH Jacksonville (15), NH Camp Lejeune (11), NMC San Diego (9).
- Since Week 40, 1,931 laboratory positive cases were identified among DON beneficiaries. Top three facilities thus far: NMC San Diego (417), NH Jacksonville (191), NH Camp Pendleton (154).

**Specimen Positivity**

- 18.8% of all influenza specimens tested during Week 13 were positive, **double** the same time last season (9.1%).
- When grouped by parent facility, 18 locations (64.3%) tested more than ten specimens. The facilities with the highest specimen positivity were NHC Hawaii (52.6%) and NH Guam-Agana (36.4%).

| Test Types among Positive Influenza Specimens, n (%) |
|----------------|------------|------------|\_|
|               | Rapid      | Culture    | PCR        | Total     |
| Week 11       | 136 (55.5)| 31 (12.7)  | 78 (31.8)  | 245       |
| Week 12       | 93 (62.4)  | 21 (14.1)  | 35 (23.5)  | 149       |
| Week 13       | 90 (68.2)  | 11 (8.3)   | 31 (23.5)  | 132       |
| Season        | 1,228 (57.8) | 212 (10.0) | 685 (32.2) | 2,125     |

**Antiviral Prescriptions**

- 198 antiviral prescriptions (all oseltamivir) were dispensed during Week 13. AV prescriptions remain above baseline, with a continuing declining trend.
- Top three facilities this week: NH Camp Lejeune (32), NMC San Diego (26), WRNMMC (17).
- Since Week 40, the majority (99.2%) of prescriptions were for oseltamivir.

| Antiviral Medications Dispensed to DON Beneficiaries, n (%) |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| Amantadine | Oseltamivir | Rimantadine | Zanamivir | Total |
| Week 13 | 0 (0.0) | 198 (100) | 0 (0.0) | 0 (0.0) | 198 |
| Season | 27 (0.8) | 3,482 (99.2) | 0 (0.0) | 0 (0.0) | 3,509 |
**Syndromic Surveillance**

**Influenza-Like Illness (ILI)**
- The percent of medical encounters that included an ILI diagnosis during Week 12 (lagged due to data availability):
  - 4.1% of outpatient encounters (comparable to baseline)
  - 13.0% of ER admissions (below baseline)
- When grouped by parent facility, 9 DON facilities (32.1%) experienced an increase in the proportion of outpatient ILI visits during Week 12. None experienced an increase above 25%; NH Yokosuka (24.7%) experienced the highest increase.

**Severity Indicators**

**Inpatient Laboratory**
- Three influenza positive laboratory cases (2.4% of all laboratory cases) were identified in the inpatient setting during Week 13.
- This week’s cases were two female Navy spouses ages 45+ at NH Guam-Agana (type A positive) and NMC San Diego (type B positive), and a male Navy retired sponsor age 45+ at NH Guam-Agana (type A positive).

**Inpatient Pharmacy**
- Eleven influenza AVs (5.6% of all influenza AVs) were prescribed in the inpatient setting during Week 13, above baseline (4.6%).
- NMC Portsmouth dispensed three AVs in the inpatient setting, and six other facilities dispensed one or two AVs each. This week’s AVs were dispensed to spouses (7), non-active duty sponsors (2), active duty service member, and a child.

**Influenza-Associated Hospitalization Reports**
- Two influenza cases were reported to DRSi during Week 13. Both were active duty service members at HOA/Camp Lemonnier.

**Bacterial Coinfections**
- There were no coinfections identified during Week 13.
- Overall coinfection case counts remain below baseline.

### Proportion Bacterial Coinfections by Respiratory Source and Percent of Laboratory Positive Cases with a Bacterial Coinfections since Week 40, 2015-2016 Season

<table>
<thead>
<tr>
<th>Coinfections by Respiratory Source, n (%)</th>
<th>Lab Cases with Bacterial Coinfection (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Respiratory</td>
<td>Lower Respiratory</td>
</tr>
<tr>
<td>Current Season (n=83)</td>
<td>32 (38.6)</td>
</tr>
<tr>
<td>Cumulative Baseline (n=96.5)</td>
<td>37.7 (39)</td>
</tr>
</tbody>
</table>

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

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Active Duty
- 24 laboratory positive influenza cases were identified among active duty Navy (17) and Marine Corps (7) service members during Week 13 (14 type A, 9 type B, 1 type A & B). Top facilities this week: WRNMMC (4), NHC Hawaii (3), NH Lemoore (2), NHC Quantico (2).
- 32 active duty service members (23 Navy, 9 Marines) were dispensed AVs (all oseltamivir) during Week 13.

Recruits
- Three laboratory positive influenza cases were identified among Navy (1) and Marine Corps (2) recruits during Week 13. Three cases (2 type A, 1 type A & B) were identified at NMC San Diego and James A Lovell FHCC.
- There were no AVs dispensed to recruits during Week 13.

<table>
<thead>
<tr>
<th>Case Type</th>
<th>Active Duty</th>
<th>Recruits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Navy</td>
<td>Marine Corps</td>
<td>Navy</td>
</tr>
<tr>
<td>Laboratory Positive</td>
<td>185</td>
<td>63</td>
<td>19</td>
</tr>
<tr>
<td>AV Prescriptions</td>
<td>449</td>
<td>8</td>
<td>154</td>
</tr>
</tbody>
</table>

Children
- The rate of laboratory positive influenza cases (per 100,000) among children was 17.6 for ages 0-4 years and 9.1 for ages 5-17.
- 48 laboratory positive influenza cases were identified among children during Week 13, less than one standard deviation above baseline.
  - There were 22 cases among children ages 0-4 and 26 among children ages 5-17.
- The rate of AV prescriptions (per 100,000) is highest among children 0-4 years (6.6) followed by children 5-17 years (3.8).
- There were 70 AVs dispensed to children during Week 13, more than double baseline estimates.
  - This week’s cases (all oseltamivir) include 30 children ages 0-4 years old and 40 children ages 5-17 years old. NH Camp Lejeune (12) dispensed the most AVs. One was dispensed in the inpatient setting.

In the News
- Study: Vaccination in prior influenza seasons had a null or negative effect on vaccine effectiveness during the 2014-2015 season. Details