Overall Summary

Laboratory-identified influenza cases and dispensed antivirals continue to increase, but remain below baseline levels. Eight coinfections from respiratory sources were identified among laboratory-identified cases. Specifically, there were 6 upper respiratory infections with *Streptococcus* and 2 lower respiratory infections.

Key Findings

**Influenza Activity and Surveillance**

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

**Antivirals (AVs)**
- Dispensed AVs were below baseline levels.
- 209 AVs dispensed. Details

**Influenza-Like Illness (ILI)**
- ILI outpatient encounters were slightly below baseline at 5.0% of outpatient medical encounters. Details

**Severity Indicators**

**Inpatient**
- One inpatient laboratory-positive case identified.
- 15 inpatient AVs dispensed, above baseline.
- One influenza case reported to DRSi. Details

**Coinfections**
- 8 bacterial coinfections among laboratory-positive cases were identified from respiratory specimens, 13 were identified from non-respiratory specimens.
- Six rapid strep tests were identified among influenza cases. Details

**Select Populations**

**Active Duty**
- 24 laboratory-positive cases identified.
- 42 AVs dispensed. Details

**Recruits**
- Two laboratory-positive cases identified.
- No AVs dispensed. Details
- Febrile respiratory illness rates were at or below expected values for all training centers during week 1. NHRC Report

**Children**
- Laboratory cases among children were comparable to baseline levels with 49 laboratory-positive cases among children identified. Details

Active Duty Vaccination Rates

Navy ....................... 92.6%
Marine Corps .......... 93.3%
US Fleet Forces ....... 95.6%

View Table
Data source: MRRS, current as of 17 Jan 2017.
Influenza Activity and Surveillance

**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 (70.9%).
- 12 cases were identified in all 3 sources.
- 1,798 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 increased from the prior week, but were below baseline with 126 cases.
- Influenza case types: A(111), B(12).
- Facilities with the greatest number of cases:
  - Current week: NMC San Diego (18), NH Bremerton (12), and NH Camp Pendleton and NH Jacksonville (both with 10).
  - Season: NMC San Diego (82), NH Bremerton (59), and NH Camp Pendleton (52).

**Specimen Positivity**
- 17.5% of all influenza specimens tested during Week 2 were positive, above last season (9.4%).
- 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>
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<tbody>
<tr>
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<tr>
<td>Week 52</td>
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<td>Week 1</td>
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<td>Week 2</td>
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<tr>
<td>Season</td>
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**Antiviral Prescriptions**
- 209 AVs were dispensed (below baseline levels), which was an increase from the prior week.
- AVs dispensed: Amantadine (2), and Oseltamivir (207).
- Facilities dispensing most AVs this week: NH Bremerton (48), NMC San Diego (24), and NH Camp Lejeune (19).

<table>
<thead>
<tr>
<th>Antiviral Medications Dispensed to DON Beneficiaries, n (%)</th>
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<tr>
<td></td>
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<td>Season</td>
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</table>
Syndromic Surveillance

**Influenza-Like Illness (ILI)** *
- The percentage of medical encounters that included an ILI diagnosis:
  - 5.0% of outpatient encounters (slightly below baseline).
  - 15.3% of ER admissions (below baseline).
- 5 DON facilities (17.9%) reported an increase in the proportion of outpatient ILI visits from the prior week.
  - Two facilities had an increase of 25% or higher.
  - NHC Annapolis had the greatest increase (47.5%) in the percent of ILI visits.

*For Week 1, lagged due to data availability

Severity Indicators

**Inpatient Laboratory**
- One inpatient laboratory cases were identified (0.8% of all laboratory cases), below baseline levels.
- This inpatient case was for a spouse at NMC San Diego.

**Inpatient Pharmacy**
- The percentage of inpatient AVs (7.2% of all influenza AVs) was above baseline (5.5%); 15 inpatient AVs were dispensed.
- AVs were most frequently dispensed at NMC San Diego (4), and AMC Madigan-Lewis, NH Bremerton and WRNMMC (all with 2).
- AVs were dispensed to spouses (8), non-active duty sponsors (4), and children (3).

**Influenza-Associated Hospitalization Reports**
- The inpatient laboratory case was not reported to DRSi; however a DRSi record for an influenza-associated hospitalization was identified in DRSi, but it was listed as “Not a case.”

**Bacterial Coinfections**
- 21 coinfections were identified: 6 *Streptococcus* (upper respiratory), 1 *Pseudomonas* (lower respiratory), 1 *Staphylococcus* (lower respiratory), and 13 infections from non-respiratory specimens. Details.
- 6 positive rapid strep tests were identified among influenza cases.

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**Bacterial Coinfections by Specimen Source and as a Percent of Laboratory Cases, 2016-2017 Season**

<table>
<thead>
<tr>
<th>Coinfections by Specimen 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=36)</td>
<td>9 (25.0)</td>
</tr>
<tr>
<td>Cumulative Baseline* (n=28.3)</td>
<td>9.8 (34.7)</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.
Active Duty
- 24 laboratory-positive influenza cases were identified among active duty service members, 14 Navy and 10 Marine Corps (23 Type A, 1 Type B).
  - Vaccination records were available for 19 cases.
  - The cases were identified at NMC San Diego (5), NH Bremerton (3) and James A Lovell FHCC (3).
  - 42 active duty service members (30 Navy, 12 Marine Corps) were dispensed AVs (all Oseltamivir).

Recruits
- Two laboratory-positive influenza cases were identified among recruits at NMC San Diego (1) and James A Lovell FHCC (1).
- No AVs were dispensed to Navy recruits.

Children
- Laboratory cases were comparable to baseline levels; 49 laboratory-positive influenza cases were identified.
  - No cases were identified from an inpatient setting.
  - Outpatient cases were identified most frequently at NH Camp Pendleton (7), NH Camp Lejeune (5) and NH Bremerton, NH Jacksonville and NMC San Diego (all with 4).
  - AVs dispensed to children were below baseline levels; 64 AVs were dispensed (all Oseltamivir).
    - Two AVs were dispensed in the inpatient setting.
    - Locations with most AVs dispensed: NH Bremerton (17), NH Camp Lejeune (13) and NH Pensacola (6).

In the News
- The CDC reports that influenza activity rose in the US during week 1; three pediatric influenza-associated deaths were reported and influenza was widespread in 21 states and Puerto Rico. Details
- A Clinical Infectious Disease article found decreasing influenza vaccine protection over time; however, they caution that their findings could be due to bias or residual confounding. Details