Overall Summary
Overall laboratory, pharmacy, and influenza-like-illness trends are below baseline. Impact among active duty personnel remains minimal. An increase in laboratory positive cases in the inpatient setting was noted.

Key Findings

Influenza Activity and Surveillance

Laboratory
48 laboratory positive influenza cases were identified during Week 4, below baseline. Details

Antivirals (AVs)
95 AV medications were dispensed in Week 4, below baseline. Details

Influenza-Like Illness (ILI)
Overall, 4.5% of outpatient medical encounters were due to ILI, below baseline. Details

Severity Indicators

Inpatient
This week, there were seven inpatient laboratory positive cases and nine inpatient antiviral prescriptions. There were no inpatient cases reported to DRSi. Details

Coinfections
There was one non-respiratory bacterial coinfection identified among laboratory positive cases during Week 4. Details

Select Populations

Active Duty and Recruits
In Week 4, there were four laboratory positive cases and 14 AV prescriptions dispensed to active duty personnel. Among recruits, there was one laboratory positive case and three dispensed AV prescriptions Details

Most current NHRC surveillance reports febrile respiratory illness rates were at or below expected values at MCRD San Diego, MCRD Parris Island, and NRTC Great Lakes. Details

Children
The number of influenza positive laboratory cases and influenza specific AV prescriptions in children remain below baseline. Details

Active Duty Vaccination Rates
Navy: 93.2%
Marine Corps: 94.1%
US Fleet Forces: 98.1%

View Table
Data source: MRRS, current as of 01 Feb 2016.

Prepared by the EpiData Center (email; web)
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 4, there were 118 DON cases identified in one or more data sources; pharmacy captured the highest proportion of cases (65.6%). Nine cases were identified in all three sources.
- Since Week 40, there have been 1,360 DON cases identified in at least one of the three data sources.

Laboratory Cases
- 48 laboratory positive influenza cases were identified during Week 4 (28 type A, 20 type B); below baseline estimates.
- Most common facilities this week: NMC San Diego (16), NH Jacksonville (7), and NH Bremerton (7).
- Since Week 40, 282 laboratory positive cases were identified among DON beneficiaries. Top facilities thus far: NMC San Diego (94), NH Bremerton (23), NH Lemoore (21), NH Camp Pendleton (18), and NH Camp Lejeune (14).

Specimen Positivity
- 10.7% of all influenza specimens tested during Week 4 were positive, lower than last season (22.3%).
- When grouped by parent facility, 10 (35.7%) locations tested more than ten specimens. NH Bremerton (30.8%), NH Jacksonville (29.2%), NMC San Diego (12.1%), NH Camp Pendleton (10.5%) experienced the highest positivity.

<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 2</td>
<td>23 (43.4)</td>
<td>11 (20.8)</td>
<td>19 (35.8)</td>
<td>53</td>
</tr>
<tr>
<td>Week 3</td>
<td>22 (45.8)</td>
<td>1 (2.1)</td>
<td>25 (52.1)</td>
<td>48</td>
</tr>
<tr>
<td>Week 4</td>
<td>30 (56.6)</td>
<td>1 (1.9)</td>
<td>22 (41.5)</td>
<td>53</td>
</tr>
<tr>
<td>Season</td>
<td>170 (53.6)</td>
<td>32 (10.1)</td>
<td>115 (36.3)</td>
<td>317</td>
</tr>
</tbody>
</table>

Antiviral Prescriptions
- 95 antiviral prescriptions were dispensed during Week 4.
- Most common facilities this week: NMC San Diego (24), NH Beaufort (8), and NH Camp Pendleton (8).
- Since Week 40, the majority (98.3%) of prescriptions were for Oseltamivir.

<table>
<thead>
<tr>
<th>Antiviral Medications Dispensed to DON Beneficiaries, n (%)</th>
<th>Amantadine</th>
<th>Oseltamivir</th>
<th>Rimantadine</th>
<th>Zanamivir</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 4</td>
<td>2 (2.1)</td>
<td>93 (97.9)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>95</td>
</tr>
<tr>
<td>Season</td>
<td>15 (1.7)</td>
<td>877 (98.3)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>892</td>
</tr>
</tbody>
</table>

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Influenza-Like Illness (ILI)

- The percent of medical encounters that included an ILI diagnosis during Week 3 (lagged due to data availability):
  - 4.5% of outpatient encounters (below baseline)
  - 13.5% of ER admissions (below baseline)
- When grouped by parent facility, 14 DON facilities (50.0%) experienced an increase in the proportion of outpatient ILI visits during Week 3; three facilities experienced an increase above 25% (NH Sigonella, NH Oak Harbor, NH Okinawa).

Syndromic Surveillance

- Influenza-Like Illness (ILI)
  - The percent of medical encounters that included an ILI diagnosis during Week 3 (lagged due to data availability):
    - 4.5% of outpatient encounters (below baseline)
    - 13.5% of ER admissions (below baseline)
  - When grouped by parent facility, 14 DON facilities (50.0%) experienced an increase in the proportion of outpatient ILI visits during Week 3; three facilities experienced an increase above 25% (NH Sigonella, NH Oak Harbor, NH Okinawa).

Severity Indicators

- Inpatient Laboratory
  - Seven positive laboratory cases (14.6% of all inpatient influenza tests) were identified in an inpatient setting during Week 4.
  - There were two influenza A positive family members at NMC San Diego and one retiree at AMC William Beaumont-Bliss. There were four influenza B positive family members and one Marine recruit, all at NMC San Diego.

- Inpatient Pharmacy
  - Nine (9.5%) AV prescriptions were in the inpatient setting during Week 4, above baseline (8.0%).
  - This week’s inpatient cases include one child aged 5-17 years, 5 spouses, one active duty male, one recruit male and one other sponsor aged 45+.

- Influenza-Associated Hospitalization Reports
  - There were no inpatient cases reported to DRSi this week.

Bacterial Coinfections

- One coinfection was identified during Week 4; an outpatient nonrespiratory *Escherichia* infection at NMC San Diego. Details
- Though overall case counts remain low, the proportion of lower respiratory specimens is higher than expected.

<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>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>3 (30.0)</td>
<td>2 (22.0)</td>
</tr>
<tr>
<td>6.8 (10.7)</td>
<td>35.5 (55.5)</td>
</tr>
</tbody>
</table>

* Cumulative baseline calculated as a weighted average over three years and may not represent whole numbers.
Active Duty
- Four laboratory positive influenza cases were identified among active duty Navy (1) and Marine Corps (3) service members during Week 4; these were identified at NH Camp Pendleton, James A Lovell FHCC, ACH Leonard Wood, and NH Beaufort.
- Fifteen active duty service members (9 Navy, 6 Marines) were dispensed AVs (14 oseltamivir) during Week 4.

Recruits
- One laboratory positive influenza case among recruits during Week 4 at NMC San Diego (influenza type B).
- Two AVs (oseltamivir) were dispensed to recruits during Week 4 at NH Beaufort and NMC San Diego.

Children
- The rate of laboratory positive influenza cases (per 100,000) is highest this week among children ages 5-17 years (8.0), followed by children 0-4 (2.4).
- The rate of AV prescriptions (per 100,000) is highest this week among adults 45+ years (2.6) followed by children 0-4 years (2.4), and children 5-17 years (1.8).
- 26 laboratory positive influenza cases were identified among children during Week 4, below baseline estimates.
  - All but three were identified from outpatient settings in eight different facilities; the inpatient cases were from NMC San Diego. There were three cases among children ages 0-4 and 23 among children ages 5-17.
- There were 30 AVs dispensed to children during Week 4, below baseline estimates for children.
  - This week’s cases (all oseltamivir) include 11 children ages 0-4 year and 19 children ages 5-17 years. The facilities dispensing the most AVs NMC San Diego (10), NH Beaufort (4) and NH Jacksonville (4). One was dispensed in an inpatient setting.

In the News
- CDC released a Health Advisory urging rapid antiviral treatment of very ill and high risk suspect influenza patients without waiting for testing. Details
- National flu activity continues to increase slowly. The proportion of outpatient visits for influenza-like illness (ILI) in the United States is above the national baseline. Details

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