Influenza Activity and Surveillance

Laboratory:
There were 193 laboratory positive influenza results among DON beneficiaries during Week 53. Case counts continued to decrease this week, while the percent positive remained stable. More

Antivirals:
There were 356 influenza-specific antiviral (AV) medications prescribed to DON beneficiaries this week, three times the seasonal baseline. More

Influenza-Like Illness:
Overall, 7.1% of outpatient medical encounters were due to influenza-like illness (ILI); this was comparable to the seasonal baseline. More

Severity Indicators

Inpatient:
Eight of the 47 inpatient influenza tests performed during Week 53 were positive. Twenty seven inpatient AV prescriptions were dispensed this week. One inpatient case was reported to DRSi this week. More

Coinfections:
There were 11 bacterial coinfections identified among DON beneficiaries since our last report. More

Select Populations

Active Duty & Recruits:
In Week 53, 25 Navy and 8 Marine Corps active duty service members had laboratory positive influenza results. Seven recruits (3 Navy, 4 Marine Corps) had a positive influenza laboratory test. More

NHRC reports substantially elevated febrile respiratory illness (FRI) rates at NRTC Great Lakes and moderately elevated FRI rates at MCRD San Diego during Week 52. More

Children:
Laboratory influenza rates in the 0-4 and 5-17 age groups were 25.7 and 9.2 per 100,000, respectively. There were 100 AV prescriptions dispensed to children this week; four times the seasonal baseline. More

Contact Information: Gosia Nowak, 757-953-0979, gosia.nowak@med.navy.mil ~ On the Web: http://go.usa.gov/DtUC
**Laboratory:**

- There were 193 positive influenza laboratory results identified among DON beneficiaries in Week 53 (174 type A, 13 type B, 6 non-specific).
  - The number of cases this week remains *twice* the seasonal baseline.
  - One-quarter of all influenza tests performed were positive. While this was consistent with last week, it was almost twice the percent positive this time last year.
- The most laboratory positive cases this week occurred at NH Jacksonville (39), NMC San Diego (29), Camp Lejeune (20), WRNMMC (11), and NH Bremerton (10).
  - NH Camp Lejeune has had the most cumulative cases since week 40 (199), followed by NH Jacksonville (187), and NH Pensacola (86).
- In Week 53, one-quarter (25.9%) of laboratory positives were non-rapid tests, compared to 15.8% last week.

<table>
<thead>
<tr>
<th>Proportion of Testing Types among Positive Influenza Tests</th>
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<tbody>
<tr>
<td><strong>Rapid</strong></td>
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<tr>
<td><strong>Culture</strong></td>
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<tr>
<td><strong>PCR</strong></td>
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<tr>
<td><strong>DFA</strong></td>
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<tr>
<td><strong>Unspecified</strong></td>
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<tr>
<td><strong>Week 53</strong></td>
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<tr>
<td>74.1%</td>
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<tr>
<td>3.6%</td>
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<tr>
<td>22.3%</td>
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<tr>
<td>0.0%</td>
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<tr>
<td>0.0%</td>
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<tr>
<td><strong>Season</strong></td>
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<tr>
<td>71.2%</td>
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<tr>
<td>11.4%</td>
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<tr>
<td>17.4%</td>
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</table>

**Antivirals:**

- There were 356 influenza-specific antiviral (AV) medications prescribed to DON beneficiaries this week (all oseltamivir).
- Although trending downward, antiviral prescriptions during Week 53 were still more than *three times* the seasonal baseline.
- Twenty seven of the antiviral prescriptions during Week 53 were in the inpatient setting, *double* the amount dispensed last week.
- There have been 2,047 AVs prescribed to DON beneficiaries this season (2,034 oseltamivir, 13 amantadine).
Syndromic Surveillance

Influenza-Like Illness:
- During Week 53, 7.1% of outpatient medical encounters among DON beneficiaries included ICD-9-CM diagnostic codes for influenza-like illness (ILI); this was comparable to the seasonal baseline.
- Among ER visits, 16.5% of medical encounters contained ILI ICD-9-CM diagnostic codes, which was below the seasonal baseline.

Immunizations

Vaccination Coverage:
- 86.9% of Navy and 79.3% of Marine Corps active duty service members have received an influenza vaccine.
- Reserve vaccination rates are slightly below the rates of active duty service members (86.3% Navy, 74.3% Marine Corps).
- The majority (28) of the 33 of laboratory-identified active duty influenza cases during Week 53 had a record of vaccination at least 14 days prior to infection. Only three of the seven laboratory-identified recruit influenza cases had a record for influenza vaccination.

Severity Indicators

Inpatient Surveillance:
- There were 47 inpatient influenza tests performed among DON beneficiaries in Week 53; eight were positive.
  - Six of this week’s cases were influenza type A (one 0-4 years, two 18-44 years and three 45+ years) and two were type B (both age 45+).
- Twenty seven AV medications were prescribed in the inpatient setting this week, double the amount dispensed last week.
  - Inpatient AVs were dispensed to patients across three age groups: 0-4 (1), 18-44 (8), 45+ (18).
  - NMC San Diego had the most inpatient AVs dispensed (8), followed by NH Jacksonville (4), and WRNMMC (4).
- There was one influenza-associated hospitalizations reported to DRSi this week.
  - This week’s case was a 18-44 year old male recruit at NMC San Diego. This case was not previously identified in laboratory or pharmacy surveillance.

Coinfections:
- During Week 53, 11 bacterial coinfections were identified among DON laboratory positive influenza patients; the percent of patients with a bacterial coinfections (4.7%) remains low.
- Three upper respiratory Streptococcus infections were identified in four separate outpatient facilities this week.
- One lower respiratory Staphylococcus infection was identified in an outpatient facility this week.
Active Duty

- There were 33 laboratory positive influenza results among DON active duty service members in Week 53 (32 type A, 1 type B); all were in an outpatient setting.
  - The largest number of cases were identified at NH Jacksonville (7) and NMC San Diego (4). Remaining cases were spread across 16 facilities with one or two cases each.
  - Four of the 33 DON active duty influenza cases had no record of vaccination, and one was vaccinated within 14 days of infection.
- The majority of DON active duty laboratory positive cases this week (84.8%) and this season (80.3%) were vaccinated at least 14 days prior to infection.
- There were 55 AVs dispensed to active duty service members at 34 facilities during Week 53 (all oseltamivir).

Recruits:

- Three Navy recruits (2 type A; 1 type unknown) and four Marine Corps recruits (all type A) had positive laboratory tests this week.
  - All cases were identified in outpatient settings at NMC San Diego (3), Lovell FHCC - Great Lakes (3), and NH Beaufort (1).
- There were nine AV’s dispensed to recruits. The most prescriptions were dispensed at Lovell FHCC - Great Lakes (3), six other facilities dispensed one each (all oseltamivir).

Children:

- The rates of positive influenza results in the 0-4 and 5-17 age groups in Week 53 were 25.7 and 9.2 per 100,000, respectively. Compared to last week, the rate among 0-4 year old beneficiaries increased slightly, while this week’s rate decreased by more than half in the 5-17 year old DON beneficiaries.
- There were 100 AV medications prescribed to children during Week 53; although the trend is declining, the number of AVs dispensed to children during Week 53 was four times the seasonal baseline.

Other Age Groups:

- During Week 53, laboratory influenza rates among the 18-44 and 45+ age groups were 9.0 and 14.4 per 100,000, respectively.

In the News

- On 19 December 2014, the US Food and Drug Administration approved Rapivab (peramivir) to treat influenza infection in adults. The EDC has included peramivir in influenza AV surveillance since its emergency use authorization during the 2009 H1N1 pandemic. To date, there have been no prescriptions for peramivir in DON beneficiaries within the MHS. More
- The CDC reports high influenza activity in 29 states and Puerto Rico. More