Weekly Highlights:

- Influenza activity in the DON is elevated and increasing. Laboratory-positive cases, dispensed AVs, and percent of ILI outpatient visits are all elevated.
- Severity indicators are elevated, exceeding both the surveillance threshold and the maximum number of inpatient cases observed within the past three years. Twenty-two inpatient laboratory-positive cases occurred and seventy-two antivirals were dispensed from an inpatient setting.
- A shortage of rapid test kits at one MTF was reported, potentially impacting laboratory indicators.

Influenza Surveillance Indicators

<table>
<thead>
<tr>
<th>OVERVIEW</th>
<th>Trend</th>
<th>Activity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Cases</td>
<td>N 371</td>
<td>↑ Elevated</td>
</tr>
<tr>
<td>Dispensed Antivirals</td>
<td>N 798</td>
<td>↑ Elevated</td>
</tr>
<tr>
<td>ILI Outpatient Visits</td>
<td>% 7.8</td>
<td>↑ Elevated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEVERITY</th>
<th>Trend</th>
<th>Activity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient Laboratory Cases</td>
<td>N 22</td>
<td>↓ Elevated</td>
</tr>
<tr>
<td>Inpatient Dispensed Antivirals</td>
<td>N 72</td>
<td>↑ Elevated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTIVE DUTY AND RECRUITS</th>
<th>Trend</th>
<th>Activity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Duty Laboratory Cases</td>
<td>N 66</td>
<td>↑ Elevated</td>
</tr>
<tr>
<td>Active Duty Dispensed Antivirals</td>
<td>N 122</td>
<td>↑ Elevated</td>
</tr>
<tr>
<td>Recruit Laboratory Cases</td>
<td>N 8</td>
<td>↓ Elevated</td>
</tr>
<tr>
<td>Recruit Dispensed Antivirals</td>
<td>N 13</td>
<td>↑ Normal</td>
</tr>
</tbody>
</table>

Overall Burden (Data Lagged, Week 52)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data

<table>
<thead>
<tr>
<th>Summary for Week 52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cases............ 895</td>
</tr>
<tr>
<td>% in Lab.............. 49.2</td>
</tr>
<tr>
<td>% in Pharmacy........... 65.6</td>
</tr>
<tr>
<td>% in Encounters......... 49.9</td>
</tr>
</tbody>
</table>

Supporting Surveillance

- DOD Global Laboratory-based Influenza Surveillance (USAFSAM).
  Week 51 & 52 highlights:
  * 136 positive influenza A specimens (123 H3N2, 13 H1N1) and 23 positive influenza B specimens.
  * Access the full report here.

  03JAN2018 report highlights:
  * Cluster of influenza A/H3 cases at MCRD Parris Island in mid December; seems to have abated by late December.
  * Access the most recent NHRC OID Surveillance reports here.
**Laboratory Surveillance**

- **Burden:** Laboratory activity is elevated, exceeding two standard deviations above baseline levels. The number of laboratory-positive cases (N=371) increased over the prior week.
- **Specimens:** Overall percent positivity is 29.6%, with 84.4% of cases identified as influenza A.
- **Severity:** Twenty-two inpatient laboratory-positive case were identified this week among family members (N=13), retirees (N=7), and AD service members (N=2). Seventeen cases occurred at NMC San Diego.
- **Age:** Children ages 0-4 had the highest rate of laboratory-positive influenza cases (N=57). Adults age 45+ had the second highest rate (N=141).
- **Location:** NH Camp Pendleton (N=74), NMC San Diego (N=69), and NH Pensacola (N=32) had the highest number of laboratory-positive influenza cases for the week.

Data sources: HL7-formatted CHCS chemistry and microbiology databases. Denominators for rates are from M2 enrollment records.

### DON Inpatient Laboratory Cases (Severity)

- **Burden:** Laboratory activity is elevated, exceeding two standard deviations above baseline levels. The number of laboratory-positive cases (N=371) increased over the prior week.
- **Specimens:** Overall percent positivity is 29.6%, with 84.4% of cases identified as influenza A.
- **Severity:** Twenty-two inpatient laboratory-positive case were identified this week among family members (N=13), retirees (N=7), and AD service members (N=2). Seventeen cases occurred at NMC San Diego.
- **Age:** Children ages 0-4 had the highest rate of laboratory-positive influenza cases (N=57). Adults age 45+ had the second highest rate (N=141).
- **Location:** NH Camp Pendleton (N=74), NMC San Diego (N=69), and NH Pensacola (N=32) had the highest number of laboratory-positive influenza cases for the week.

Data sources: HL7-formatted CHCS chemistry and microbiology databases. Denominators for rates are from M2 enrollment records.
**Antiviral Surveillance**

- **Burden:** Dispensed AVs (N=798) are elevated, exceeding two standard deviations above baseline levels. The number of dispensed AVs increased for the fourth week, with a 36.9% increase over the prior week.
- **Severity:** Seventy-two inpatient AVs were dispensed this week to family members (N=37), retirees (N=31), former spouses (N=3), and AD service members (N=1).
- **Types:** All AVs dispensed were Oseltamivir.
- **Location:** NMC San Diego (N=256), NH Camp Pendleton (N=134), and NH Pensacola (N=70) had the highest weekly number of dispensed AVs.

Data sources: HL7-formatted CHCS pharmacy databases. Denominators for rates are from M2 enrollment records.

**Top MTFs, Dispensed Antivirals, Week 1**

- NMC San Diego: 265
- NH Camp Pendleton: 134
- NH Pensacola: 70
- AMC BAE-MC-FISH: 29
- JAMES A LOVELL FHCC: 29
- WALTER REED NATL MLL MED CTR: 27

**Top MTFs, Dispensed Antivirals, Season**

- NMC San Diego: 723
- NH Pensacola: 405
- NH Camp Pendleton: 307
- NH Jackson Mille: 233
- WALTER REED NATL MLL MED CTR: 117
- AMC BAE-MC-FISH: 101
- NH Corpus Christi: 80

Note: Season counts are since Week 37.

**Influenza-Like Illness (Data Lagged, Week 52)**

- **All outpatient:** ILI activity is elevated. The percentage of outpatient medical encounters due to ILI increased to 7.8% in Week 1.
- **Location:** ILI activity was highest at NH Beaufort (16.1%), followed by NH Naples (12.2), and James A Lovell FHCC (12.1%).

Data source: CAPER

**Outpatient Medical Encounters due to ILI, Week 52**

- **ILI %, 2017 - 2018:**
- **Baseline:**

*Data lagged by one week.*
**Active Duty and Recruits**

- **AD Laboratory cases:** Sixty-six laboratory-positive cases among AD Sailors (N=50) and Marines (N=16).
- **AD Dispensed Antivirals:** Ninety-five AVs dispensed among Sailors and twenty-seven AVs dispensed to Marines.
- **Recruits:** Ten laboratory-positive cases among Navy (N=11) recruits.
- **Location:** Laboratory-positive cases occurred most frequently at NMC San Diego (N=32), NH Camp Pendleton (N=26), and James A Lovell FHCC (N=15).
- **Vaccination Status:** Fifty AD laboratory-positive cases (75.8%) had a vaccination record more than fourteen days prior to infection.

Data Sources: HL7-formatted CHCS chemistry, microbiology and pharmacy databases, MRRS and ITS.

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**Laboratory-Positive Cases Among Active Duty Service Members, 2017-2018**

![Graph showing laboratory-positive cases among Active Duty members]

**Summary of Active Duty and Recruit Cases**

<table>
<thead>
<tr>
<th></th>
<th>Laboratory Cases</th>
<th>Dispersed AVs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Week 1</td>
<td>Season</td>
</tr>
<tr>
<td>Total Cases</td>
<td>74</td>
<td>349</td>
</tr>
<tr>
<td>Navy AD</td>
<td>50</td>
<td>230</td>
</tr>
<tr>
<td>Marine Corps AD</td>
<td>16</td>
<td>66</td>
</tr>
<tr>
<td>Navy Recruit</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td>Marine Corps Recruit</td>
<td>0</td>
<td>24</td>
</tr>
</tbody>
</table>

Note: Season counts are since Week 37.

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**Bacterial Coinfections**

- **Summary:** 2.4% of laboratory-positive influenza cases had a bacterial coinfection identified this season.
- **Upper-respiratory:** Thirty-five upper respiratory infections have been identified, all *Streptococcus*.
- **Lower-respiratory:** Twenty lower respiratory infections have been identified as *Staphylococcus* (N=7), *Corynebacterium* (N=1), *Enterococcus* (N=2), *Escherichia* (N=1), *Enterobacter* (N=1), *Haemophilus* (N=1), *Klebsiella* (N=1), *Pantoena* (N=1), *Pseudomonas* (N=1), *Stenotrophomonas* (N=2), and *Streptococcus* (N=2).

Data Sources: HL7-formatted CHCS chemistry and microbiology databases

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**Medical Event Reports (MER)**

**MERs for Influenza-Associated Hospitalizations**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>3</td>
<td>3</td>
<td>100.0%</td>
</tr>
<tr>
<td>Season</td>
<td>25</td>
<td>20</td>
<td>80.0%</td>
</tr>
</tbody>
</table>

*Indicates MERs that matched to cases from laboratory or pharmacy surveillance data.

**Methods and Data Sources**

The Influenza SITREP methods can be found [here](#).

- **HL7 formatted CHCS data from microbiology and chemistry data are available from 2004 to present.** HL7 formatted CHCS data from pharmacy databases are available from 2006 to present.
- Data from NH Oak Harbor, NH Bremerton, AMC Madigan, and Fairchild AFB are not captured due to transition to MHS GENESIS.
- Laboratory-positive and AV baselines are calculated as a weighted average of the 2014-2015, 2015-2016 and 2016-2017 seasons.
- The “Overall Burden” and ILI figures are lagged one week due to encounter data availability.
- AV surveillance no longer captures Amantadine as of 07 Nov 2017.
- All figures prepared by the EpiData Center on 09 Jan 2018.

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**In the News**

- A STAT News article discusses concerns with H3N2 flu seasons, including issues with vaccine development and effectiveness, as well as the concept of original antigenic sin. [Details](#)
- Numerous articles are reporting on the current flu season, including:
  - An LA Times article about Tamiflu shortages in CA [Details](#)
  - A New York Times article about the shortage of IV fluid bags used to treat flu patients. [Details](#)