Weekly Highlights:

- Overall influenza activity in the DON remains elevated. Laboratory-positive cases, dispensed AVs, and percent of ILI outpatient visits are all elevated.
- Severity indicators are elevated; indicators continue to exceed both the surveillance threshold and the maximum number of inpatient cases observed within the past three years. Sixteen inpatient laboratory-positive cases occurred and sixty-three antivirals were dispensed from an inpatient setting in Week 2.

Influenza Surveillance Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Trend</th>
<th>Activity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Cases</td>
<td>↑</td>
<td>Elevated</td>
</tr>
<tr>
<td>Dispensed Antivirals</td>
<td>↑</td>
<td>Elevated</td>
</tr>
<tr>
<td>ILI Outpatient Visits</td>
<td>↓</td>
<td>Elevated</td>
</tr>
<tr>
<td>Inpatient Laboratory Cases</td>
<td>↓</td>
<td>Elevated</td>
</tr>
<tr>
<td>Inpatient Dispensed Antivirals</td>
<td>↓</td>
<td>Elevated</td>
</tr>
<tr>
<td>Active Duty Laboratory Cases</td>
<td>↑</td>
<td>Elevated</td>
</tr>
<tr>
<td>Active Duty Dispensed Antivirals</td>
<td>↑</td>
<td>Elevated</td>
</tr>
<tr>
<td>Recruit Laboratory Cases</td>
<td>↓</td>
<td>Normal</td>
</tr>
<tr>
<td>Recruit Dispensed Antivirals</td>
<td>↓</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Overall Burden (Data Lagged, Week 1)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data

Supporting Surveillance

- DOD Global Laboratory-based Influenza Surveillance (USAFSAM).
  - Week 52 & 1 highlights:
    - 146 positive influenza A specimens (131 H3N2, 13 H1N1, and 2 not subtyped) and 23 positive influenza B specimens.
    - Access the full report [here](#).
  - 11JAN2018 report highlights:
    - Influenza A/H3 cases continued in large numbers at border surveillance sites in Imperial County, CA.
    - Increased influenza A/H3 activity in San Diego County.
    - 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=510) increased 17% over the prior week.
- **Specimens:** Overall percent positivity is 30.4%, with 83.3% of cases identified as influenza A.
- **Severity:** Sixteen inpatient laboratory-positive case were identified this week among family members (N=10), retirees (N=4), and AD service members (N=2). Ten cases occurred at NMC San Diego.
- **Age:** Children ages 0-4 had the highest rate of laboratory-positive influenza cases (N=75). Adults age 45+ had the second highest rate (N=152).
- **Location:** NH Pensacola (N=79), NMC San Diego (N=78), and NH Jacksonville (N=42) 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.

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**DON Inpatient Laboratory Cases (Severity)**

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**DON Inpatient Laboratory Cases (Severity)**

Max weekly count (from past 3 seasons)

Surveillance Threshold (Baseline + 1 Std. Dev.)

In Grace Baseline

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**Top MTFs, Laboratory-Positive Cases, Week 2**

<table>
<thead>
<tr>
<th>Location</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH Pensacola</td>
<td>79</td>
</tr>
<tr>
<td>NMC San Diego</td>
<td>78</td>
</tr>
<tr>
<td>NH Jacksonville</td>
<td>42</td>
</tr>
<tr>
<td>NH Camp Pendleton</td>
<td>41</td>
</tr>
<tr>
<td>AMC BAMF-FSM</td>
<td>23</td>
</tr>
<tr>
<td>NH Camp Lejeune</td>
<td>23</td>
</tr>
<tr>
<td>NMC Portsmouth</td>
<td>20</td>
</tr>
</tbody>
</table>

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**Top MTFs, Laboratory-Positive Cases, 2017-2018 Season**

<table>
<thead>
<tr>
<th>Location</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMC San Diego</td>
<td>511</td>
</tr>
<tr>
<td>NH Camp Pendleton</td>
<td>360</td>
</tr>
<tr>
<td>NH Pensacola</td>
<td>274</td>
</tr>
<tr>
<td>NH Jacksonville</td>
<td>253</td>
</tr>
<tr>
<td>AMC BAMF-FSM</td>
<td>132</td>
</tr>
<tr>
<td>James A. Lovell FHCC</td>
<td>100</td>
</tr>
<tr>
<td>AF MCOR1st MED GMP-HEERBER</td>
<td>78</td>
</tr>
</tbody>
</table>
Antiviral Surveillance

- **Burden:** Dispensed AVs (N=947) are elevated, exceeding two standard deviations above baseline levels. The number of dispensed AVs increased for a fifth week, with a 9.9% increase over the prior week.
- **Severity:** Sixty-three inpatient AVs were dispensed this week to family members (N=43), retirees (N=17), and AD service members (N=3).
- **Types:** All AVs dispensed were Oseltamivir (N=945), Zanamivir (N=1), and Peramivir (N=1)
- **Location:** NH Pensacola (N=165), NMC San Diego (N=150), and NH Camp Pendleton (N=91) 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 2**

- NH Pensacola: 165
- NMC San Diego: 150
- NH Camp Pendleton: 91
- NH Jacksonville: 57
- Walter Reed Natl ML Med Ctr: 37
- AMC BAMC-Fish: 29
- Ft Belvoir Community HCSP-FBC: 26

**Top MTFs, Dispensed Antivirals, Season**

- NMC San Diego: 896
- NH Pensacola: 574
- NH Camp Pendleton: 415
- NH Jacksonville: 282
- Walter Reed Natl ML Med Ctr: 152
- AMC BAMC-Fish: 136
- NHC Corpus Christi: 119

Note: Season counts are since Week 37.

Influenza-Like Illness (Data Lagged, Week 1)

- **All outpatient:** ILI activity is elevated. The percentage of outpatient medical encounters due to ILI was 6.0% in Week 1.
- **Location:** ILI activity was highest at James A Lovell FHCC (17.7%), followed by NHC Corpus Christi (11.9%), and NH Beaufort (10.9%).

Data source: CAPER

**Outpatient Medical Encounters due to ILI, Week 1**

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

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

+ **AD Laboratory cases:** One hundred and seven laboratory-positive cases among AD Sailors (N=63) and Marines (N=44).

+ **AD Dispensed Antivirals:** One hundred and sixty AVs dispensed among Sailors and fifty-one AVs dispensed to Marines.

+ **Recruits:** Two laboratory-positive cases and six AVs dispensed among recruits.

+ **Location:** Laboratory-positive cases occurred most frequently at NH Pensacola (N=20), NMC San Diego (N=18), and NH Camp Pendleton (N=13).

+ **Vaccination Status:** Eighty-two AD laboratory-positive cases (76.6%) had a vaccination record more than fourteen days prior to infection.

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

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

![Graph showing laboratory-positive cases among AD members]

### Bacterial Coinfections

- **Summary:** 2.4% of laboratory-positive influenza cases had a bacterial coinfection identified this season.

- **Upper-respiratory:** Forty-seven upper respiratory infections have been identified, all *Streptococcus*.

- **Lower-respiratory:** Twenty-five lower respiratory infections have been identified as *Staphylococcus* (N=8), *Corynebacterium* (N=2), *Enterococcus* (N=2), *Escherichia* (N=1), *Enterobacter* (N=1), *Haemophilus* (N=3), *Klebsiella* (N=1), *Neisseria* (N=1), *Pantoea* (N=1), *Pseudomonas* (N=1), *Stenotrophomonas* (N=2), and *Streptococcus* (N=2).

Data Sources: HL7-formatted CHCS chemistry and microbiology databases

### Medical Event Reports (MER)

#### MERs for Influenza-Associated Hospitalizations

<table>
<thead>
<tr>
<th></th>
<th>MER</th>
<th>Match to Surveillance Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Week 2</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Season</td>
<td>31</td>
<td>26</td>
</tr>
</tbody>
</table>

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

Note: Season counts are since Week 37.

#### Bacterial Coinfections as a Percent of Laboratory Cases

<table>
<thead>
<tr>
<th>Coinfections</th>
<th>Lab Cases w/ Coinfection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper (N)</td>
<td>43</td>
</tr>
<tr>
<td>Lower (N)</td>
<td>25</td>
</tr>
<tr>
<td>Total Resp (N)</td>
<td>60</td>
</tr>
<tr>
<td>%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

**Baseline**

<table>
<thead>
<tr>
<th>Current Season</th>
<th>Upper (N)</th>
<th>Lower (N)</th>
<th>Total Resp (N)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>18</td>
<td>5</td>
<td>22</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

Note: Season counts are since Week 37.

### 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 18 Jan 2018.

### In the News

- CDC reports widespread flu activity in 49 states. Seven new flu-associated pediatric deaths reported this week. [Details](#)
- Numerous articles are reporting on the current flu season, including:
  - An *ABC News* article about school closures and hospital overcrowding related to localized influenza outbreaks. [Details](#)
  - A *NBC San Diego* article about the record number of flu-associated deaths in San Diego County. [Details](#)