Weekly Highlights:

- Influenza activity in the DON is increasing. Laboratory-positive cases are elevated and increased 81% in Week 50. Dispensed AVs are normal, but increased 110% from the prior week.
- Severity indicators are normal and within expected levels, with five inpatient laboratory-positive cases and fifteen dispensed antivirals from an inpatient setting.
- Recruit laboratory-positive cases are elevated, with cases at NH Beaufort (n=6) and James A Lovell FHCC (n=3).
- NMC San Diego and Brooke Army Medical Center had the most laboratory-positive cases.

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>↑</td>
<td>Elevated</td>
</tr>
<tr>
<td>Dispensed Antivirals</td>
<td>↑</td>
<td>Normal</td>
</tr>
<tr>
<td>ILI Outpatient Visits</td>
<td>←</td>
<td>Normal</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>↑</td>
<td>Normal</td>
</tr>
<tr>
<td>Inpatient Dispensed Antivirals</td>
<td>↑</td>
<td>Normal</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>↑</td>
<td>Normal</td>
</tr>
<tr>
<td>Active Duty Dispensed Antivirals</td>
<td>↑</td>
<td>Normal</td>
</tr>
<tr>
<td>Recruit Laboratory Cases</td>
<td>↑</td>
<td>Elevated</td>
</tr>
<tr>
<td>Recruit Dispensed Antivirals</td>
<td>↑</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Overall Burden (Data Lagged, Week 49)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data

Supporting Surveillance

- DOD Global Laboratory-based Influenza Surveillance (USAFSAM).
  Week 48 & 49 highlights:
  * Twenty-seven positive influenza A specimens (19 H3N2, 5 H1N1, 3 not subtyped)
  * Seven positive influenza B specimens
  * Access the full report here.

  14DEC2017 report highlights:
  * Continued increase in influenza A/H3 cases at border sites in Imperial County, CA.
  * Access the most recent NHRC OID Surveillance reports here.
**Laboratory Surveillance**

* Burden: Laboratory activity is elevated, exceeding one standard deviation above baseline levels. The number of laboratory-positive cases (n=204) increased 81% over the prior week.

* Specimens: Overall percent positivity is 21.5%, with 82.5% of cases identified as influenza A.

* Severity: Five inpatient laboratory-positive case were identified this week among 3 family members and 2 retirees at NMC San Diego.

* Age: Children ages 0-4 years had the highest rate of laboratory-positive influenza cases (n=32). Children ages 5-17 had the second highest rate (n=51).

* Location: NMC San Diego (n=39), AMC BAMC-FSH (n=26), and NH Jacksonville (n=22) 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)**

- **Max weekly count (from past 3 seasons)**: 15
- **Surveillance Threshold (Baseline + 1 Std. Dev.):**
- **In-Season Baseline:**

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**Top MTFs, Laboratory-Positive Cases, Week 50**

- NMC SAN DIEGO: 39
- AMC BAMC-FSH: 29
- NH JACKSONVILLE: 22
- NH CAMP PENDELTON: 19
- AF MC-91st MED GCP-Keesler: 14
- NH PENSACOLA: 13
- NH HAWAII: 9

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

- NH JACKSONVILLE: 150
- NMC SAN DIEGO: 75
- NH PENSACOLA: 69
- NH CAMP PENDELTON: 39
- AMC BAMC-FSH: 32
- AMC TRIPLER-SHAFER: 29
- NH CAMP LEJEUNE: 25

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**DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season**

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**DON Laboratory-Positive, Seasonal Comparison, 2012-2018**

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**DON Laboratory-Positive Influenza Specimens, by Type**

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**DON Laboratory-Positive Case Rates by Age Group**

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Note: Season counts are since Week 37.
Antiviral Surveillance

* Burden: Dispensed AVs (n=256) are above baseline levels but within expected values. However, the number of dispensed AVs increased 110% over the prior week.
* Severity: Fifteen inpatient AVs were dispensed this week to family members (n=12) and retirees (n=3).
* Types: All influenza AVs dispensed were Oseltamivir.
* Location: NMC San Diego (n=42), NH Pensacola (n=31), and NH Jacksonville (n=15) had the highest number of dispensed AVs for the week.

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

Top MTFs, Dispensed Antivirals, Week 50

All numbers are Week 50 values. NMC San Diego had the highest number of dispensed AVs with 42, followed by NH Pensacola with 31.

Top MTFs, Dispensed Antivirals, Season

NH Pensacola had the highest number of dispensed AVs in the season with 190, followed by NMC San Diego with 147 and NH Jacksonville with 132.

Influenza-Like Illness (Data Lagged, Week 49)

* All outpatient: The percentage of outpatient medical encounters due to ILI remained the same as the prior week at 4.1%. ILI activity is normal and within expected levels.
* Location: ILI activity was the highest at NHC Corpus Christi (6.0%), followed by NHC Annapolis (5.9%) and NHC Lemoore (5.4%).

Data source: CAPER

Outpatient Medical Encounters due to ILI, Week 49

* Data lagged by one week.
Active Duty and Recruits

- **AD Laboratory cases**: Forty laboratory-positive cases among Sailors (n=36) and Marines (n=4).
- **AD Dispensed Antivirals**: Twenty-seven AVs dispensed among Sailors and seven AVs dispensed to Marines.
- **Recruits**: Nine laboratory-positive cases among Navy (n=3) and Marine Corps (n=6) recruits.
- **Location**: Laboratory-positive cases occurred most frequently at AMC-BAMC-FSH (n=19), NH Beaufort (n=7), and James A Lovell FHCC (n=6).
- **Vaccination Status**: Twenty AD laboratory-positive cases (50.0%) 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 Active Duty Service Members, 2017-2018](image)

Summary of Active Duty and Recruit Cases

<table>
<thead>
<tr>
<th></th>
<th>Laboratory</th>
<th>Dispersed AVs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Week 50</td>
<td>Season</td>
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<tr>
<td>Total Cases</td>
<td>49</td>
<td>206</td>
</tr>
<tr>
<td>Navy AD</td>
<td>36</td>
<td>150</td>
</tr>
<tr>
<td>Marine Corps AD</td>
<td>4</td>
<td>43</td>
</tr>
<tr>
<td>Navy Recruit</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Marine Corps Recruit</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: Season counts are since Week 37.

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 50</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Season</td>
<td>14</td>
<td>9</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

- **Summary**: 2.8% of laboratory-positive influenza cases had a bacterial coinfection identified this season.
- **Upper-respiratory**: Sixteen upper respiratory infections have been identified, all *Streptococcus*.
- **Lower-respiratory**: Eight lower respiratory infections have been identified as *Staphylococcus* (n=3), *Enterococcus* (n=1), *Escherichia* (n=1), *Klebsiella* (n=1), *Pseudomonas* (n=1), and *Streptococcus* (n=1).

Data Sources: HL7-formatted CHCS chemistry and microbiology databases

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>lower (N)</td>
</tr>
<tr>
<td>current season</td>
<td>16</td>
</tr>
<tr>
<td>baseline</td>
<td>7</td>
</tr>
</tbody>
</table>

Note: Season counts are since Week 37.

In the News

- The CDC reports that influenza activity is continuing to increase with 12 states reporting widespread activity, and Puerto Rico and 26 states reporting regional activity. Further, a human infection with influenza A (H3N2) variant was reported. [Details](#)
- In their Christmas 2017 feature, the [British Medical Journal](#) searches the medical literature for evidence of “man flu” — the idea that men experience more severe influenza symptoms than women. [Details](#)