

# Influenza Situation Report: 2017-2018 Season

Department of the Navy

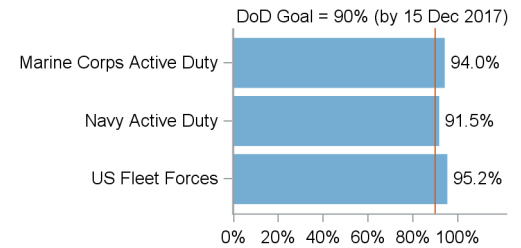


## Week 4 (21 Jan – 27 Jan 2018)

### Weekly Highlights:

- \* Overall influenza activity in the DON remains **elevated**. Laboratory-positive cases, dispensed AVs, and the percent of ILI outpatient visits are all **elevated**.
- \* Severity indicators are **normal** and trending downward; the number of inpatient antivirals and laboratory cases are **normal**.
- \* Active duty laboratory-positive cases and dispensed antivirals are **elevated**. Recruit laboratory cases are **elevated**. Recruit dispensed antivirals are **normal**.

### Active Duty Vaccination Rates, 29 Jan 2018

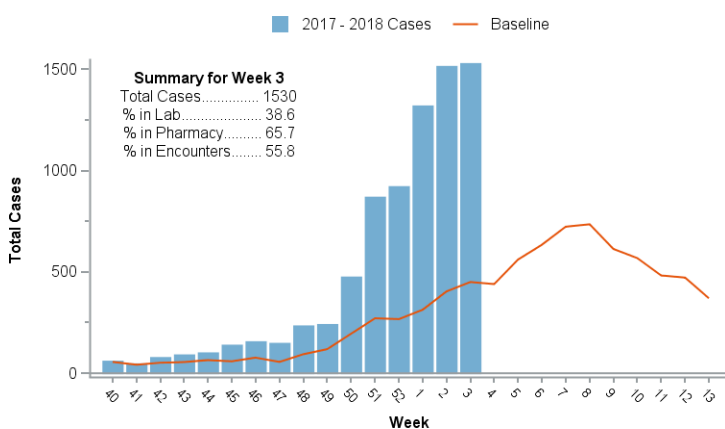


## Influenza Surveillance Indicators

OVERVIEW				Trend	Activity Level
Laboratory Cases	N	652		↑	Elevated
Dispensed Antivirals	N	1537		↑	Elevated
ILI Outpatient Visits	%	5.3		↑	Elevated
SEVERITY				Trend	Activity Level
Inpatient Laboratory Cases	N	5		↓	Normal
Inpatient Dispensed Antivirals	N	24		↓	Normal
ACTIVE DUTY AND RECRUITS				Trend	Activity Level
Active Duty Laboratory Cases	N	130		↑	Elevated
Active Duty Dispensed Antivirals	N	270		↑	Elevated
Recruit Laboratory Cases	N	9		↓	Elevated
Recruit Dispensed Antivirals	N	9		↓	Normal

## Overall Burden (Data Lagged, Week 3)

### DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data



## Supporting Surveillance

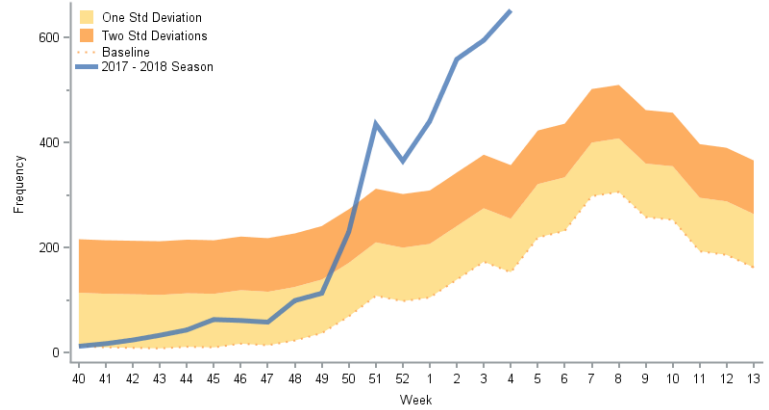
- \* **DOD Global Laboratory-based Influenza Surveillance (AFHSB).**  
Week 3 highlights:
  - \* Percentage of positive lab test are stable at 24.7% for service members, but increased to 33.3% for other beneficiaries
  - \* Access the full report [here](#).
- \* **Operational Infectious Diseases (OID) Weekly Surveillance Report (NHRC).**  
25JAN2018 report highlights:
  - \* Overall FRI cases are decreasing, but showing more pathogen diversity.
  - \* AGE rates at basic training centers are currently low.
  - \* Access the most recent NHRC OID Surveillance reports [here](#).

# Laboratory Surveillance

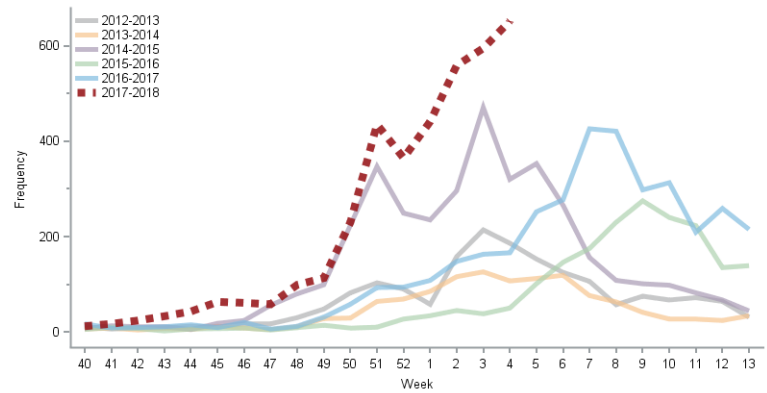
- \* **Burden:** Laboratory activity is elevated, exceeding two standard deviations above baseline levels. The number of laboratory-positive cases (N=652) increased over the prior week.
- \* **Specimens:** Overall percent positivity is 24.8%, with 72.4% of cases identified as influenza A.
- \* **Severity:** Five inpatient laboratory-positive case were identified this week among family members (N=4) and AD (N=1). Cases occurred at NMC San Diego, NH Camp Lejeune, and AMC BAMC-FSH.
- \* **Age:** Children ages 0-4 had the highest rate of laboratory-positive influenza cases (N=95). Children ages 5-17 had the second highest rate (N=224).
- \* **Location:** NH Jacksonville (N=84), NH Pensacola (N=63), and NH Camp Lejeune (N=44) 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.

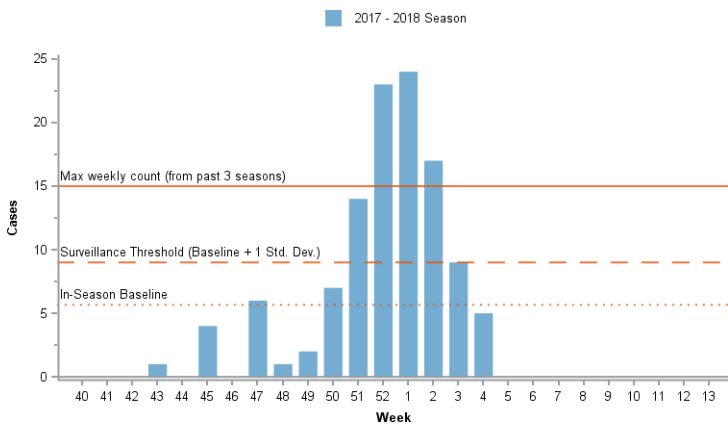
## DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season



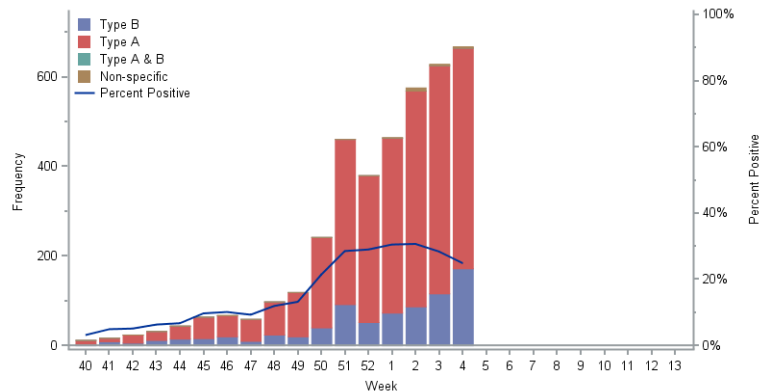
## DON Laboratory-Positive, Seasonal Comparison, 2012-2018



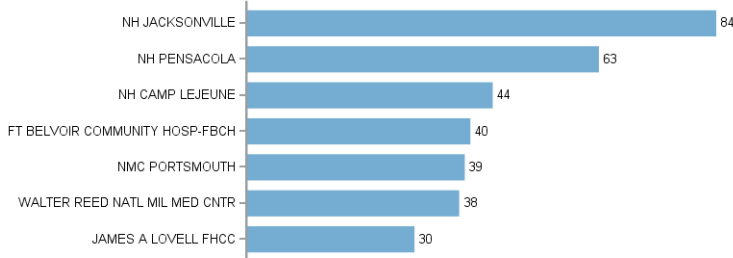
## DON Inpatient Laboratory Cases (Severity)



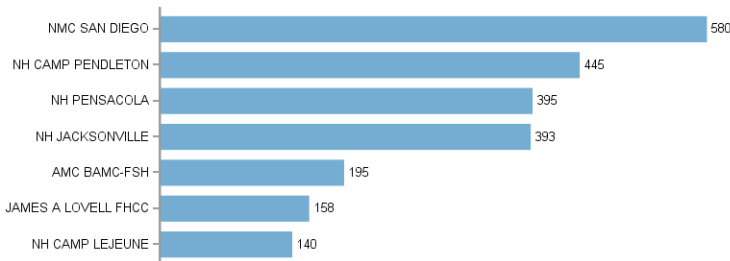
## DON Laboratory-Positive Influenza Specimens, by Type



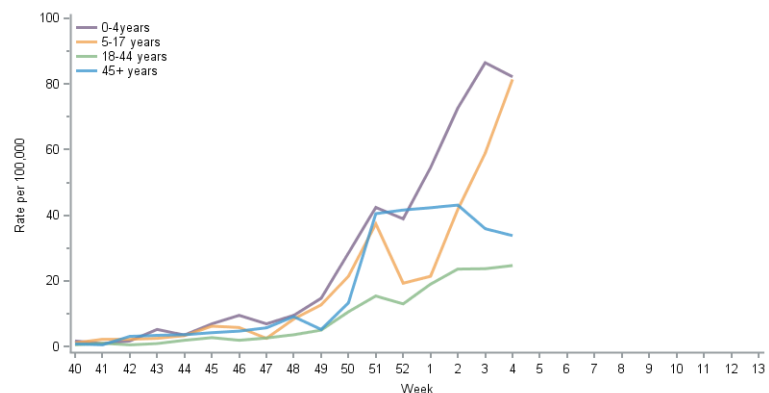
## Top MTFs , Laboratory-Positive Cases, Week 4



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



## DON Laboratory-Positive Case Rates by Age Group



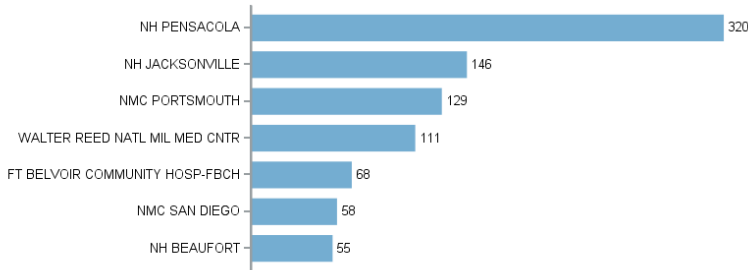
Note

# Antiviral Surveillance

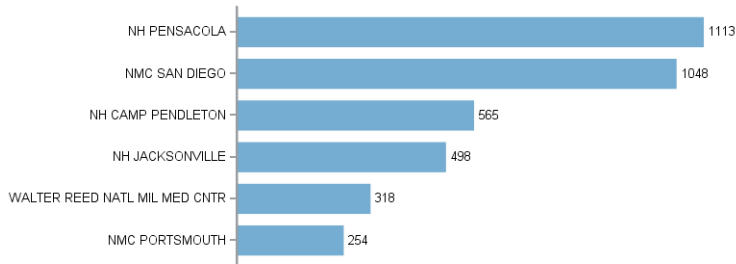
- \* **Burden:** Dispensed AVs (N=1537) are elevated, exceeding two standard deviations above baseline levels. The number of dispensed AVs increased 53.4% over the prior week.
- \* **Severity:** 23 inpatient AVs were dispensed this week to family members (N=12), retirees (N=5), AD service members (N=4), and recruits (N=2).
- \* **Types:** Zanamivir was dispensed once, all other AVs dispensed were Oseltamivir.
- \* **Location:** NH Pensacola (N=320), NH Jacksonville (N=146), NMC Portsmouth (N=129), and WRNMMC (N=111) 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 4

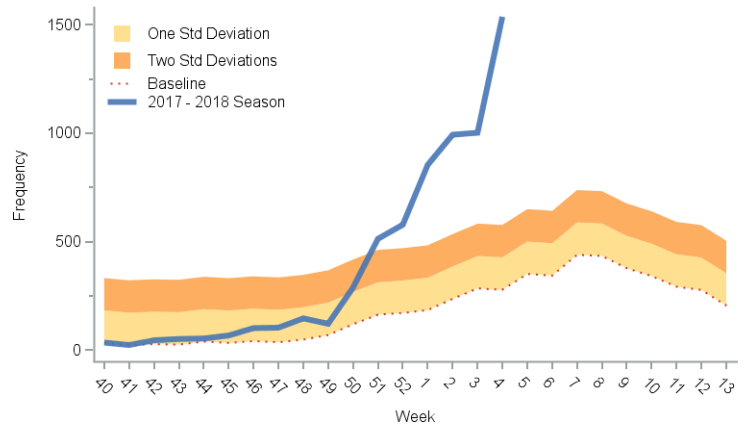


## Top MTFs, Dispensed Antivirals, Season

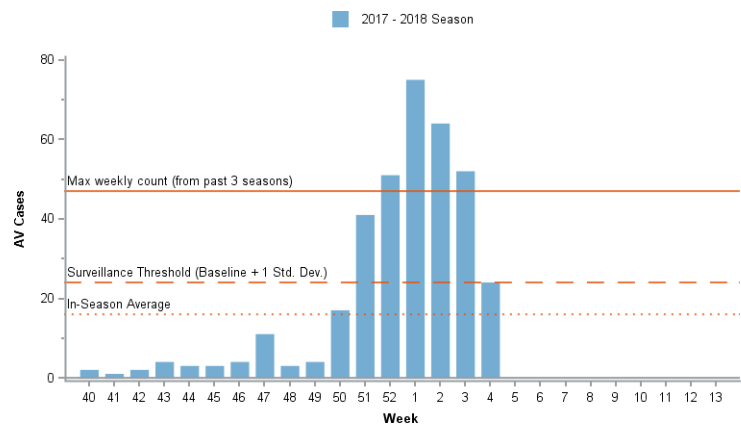


Note: Season counts are since Week 47.

## DON Influenza Specific Antiviral Prescriptions and Seasonal Baseline, 2017-2018 Season



## DON Inpatient Dispensed Antivirals (Severity)

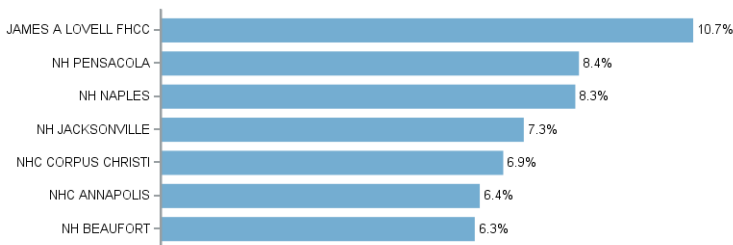


# Influenza-Like Illness (Data Lagged, Week 3)

- \* **All outpatient:** ILI activity is elevated. The percentage of outpatient medical encounters due to ILI was 5.3% in Week 3.
- \* **Location:** ILI activity was highest at James A Lovell FHCC (10.7%), followed by NH Pensacola (8.4%), and NH Naples (8.3%).

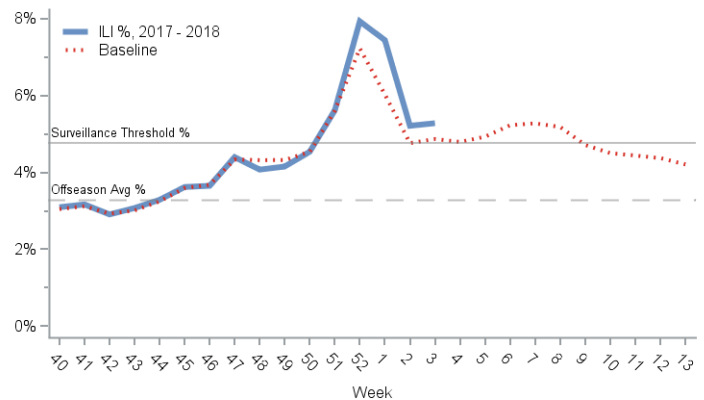
Data source: CAPER

## Top DON MTFs, Percentage of Outpatient ILI, Week 3



\*Data lagged by one week.

## Outpatient Medical Encounters due to ILI, Week 3



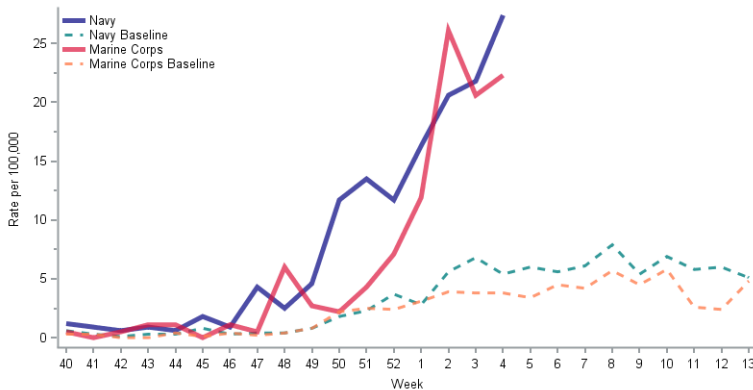
\*Data lagged by one week.

## Active Duty and Recruits

- \* **AD Laboratory cases:** 130 laboratory-positive cases among AD Sailors (N=89) and Marines (N=41).
- \* **AD Dispensed Antivirals:** 198 AVs dispensed among Sailors and 72 AVs dispensed to Marines.
- \* **Recruits:** nine laboratory-positive cases and nine AVs dispensed among recruits.
- \* **Location:** Laboratory-positive cases occurred most frequently at NH Jacksonville (N=84), NH Pensacola (N=63), and NH Camp Lejeune (N=44).
- \* **Vaccination Status:** 107 AD laboratory-positive cases (82.3%) 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



### Summary of Active Duty and Recruit Cases

	Laboratory		Dispensed AVs	
	Week 4	Season	Week 4	Season
<b>Total Cases</b>	139	736	279	1,146
<b>Navy AD</b>	89	460	198	795
<b>Marine Corps AD</b>	41	199	72	283
<b>Navy Recruit</b>	7	46	5	43
<b>Marine Corps Recruit</b>	2	31	4	25

Note: Season counts are since Week 47.

## In the News

- \* CDC reports elevated influenza activity in Week 3, with widespread flu activity in all states but Hawaii and Washington D.C. Seven new flu-associated pediatric deaths reported this week. [Details](#)
- \* A study in the New England Journal of Medicine found a significant association between respiratory infections, especially influenza, and acute myocardial infarction. [Details](#)

## Medical Event Reports (MER)

### MERs for Influenza-Associated Hospitalizations

	MER	Match to Surveillance Data	
	N	N	%
<b>Week 4</b>	24	22	91.7%
<b>Season</b>	61	52	85.2%

\*Indicates MERs that matched to cases from laboratory or pharmacy surveillance data. Datasource: DRSi

Note: Season counts are since Week 47.

## Bacterial Coinfections

- \* **Summary:** 2.6% of laboratory-positive influenza cases had a bacterial coinfection identified this season.
- \* **Upper-respiratory:** 94 upper respiratory infections have been identified, all *Streptococcus*.
- \* **Lower-respiratory:** 27 lower respiratory infections have been identified as *Staphylococcus* (N=10), *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

### Bacterial Coinfections as a Percent of Laboratory Cases

	Coinfections			Lab Cases w/ Coinfection
	Upper (N)	Lower (N)	Total Resp (N)	%
<b>Current Season</b>	88	27	107	2.8%
<b>Baseline</b>	30	6	35	3.4%

Note: Season counts are since Week 47.

## 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.
- \* ILI threshold is calculated based on the off-season percentage outpatient visits for the 2014-2015, 2015-2016 and 2016-2017 seasons, plus two standard deviations.
- \* 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 30 Jan 2018.