

Influenza Situation Report: 2017-2018 Season

Department of the Navy

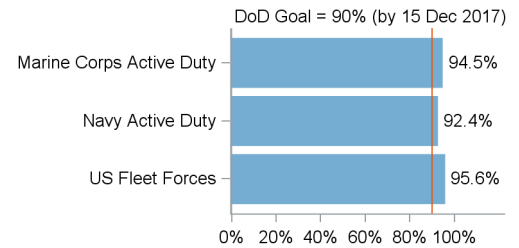


Week 5 (28 Jan – 03 Feb 2018)

Weekly Highlights:

- * Overall influenza activity in the DON continues to increase and remains **elevated**. The number of both laboratory-positive cases and dispensed AVs far exceed expected levels.
- * The number of inpatient dispensed antivirals is **elevated** and increased over the prior week.
- * The number of inpatient laboratory cases is **normal** and continues to trend downward.
- * Active duty laboratory-positive cases and dispensed antivirals are **elevated**. Recruit laboratory cases are **elevated**. Recruit dispensed antivirals are **normal**.

Active Duty Vaccination Rates, 05 Feb 2018

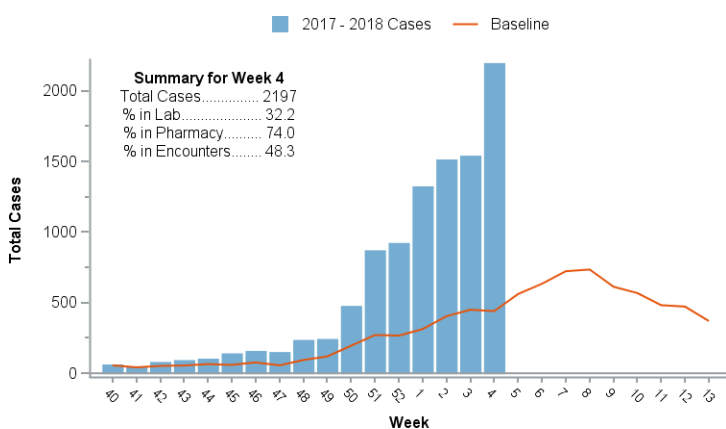


Influenza Surveillance Indicators

OVERVIEW			Trend	Activity Level
Laboratory Cases	N	794	↑	Elevated
Dispensed Antivirals	N	1931	↑	Elevated
ILI Outpatient Visits	%	5	↓	Elevated
SEVERITY			Trend	Activity Level
Inpatient Laboratory Cases	N	4	↓	Normal
Inpatient Dispensed Antivirals	N	40	↑	Elevated
ACTIVE DUTY AND RECRUITS			Trend	Activity Level
Active Duty Laboratory Cases	N	118	↓	Elevated
Active Duty Dispensed Antivirals	N	276	↓	Elevated
Recruit Laboratory Cases	N	6	↓	Elevated
Recruit Dispensed Antivirals	N	4	↓	Normal

Overall Burden (Data Lagged, Week 4)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data



Supporting Surveillance

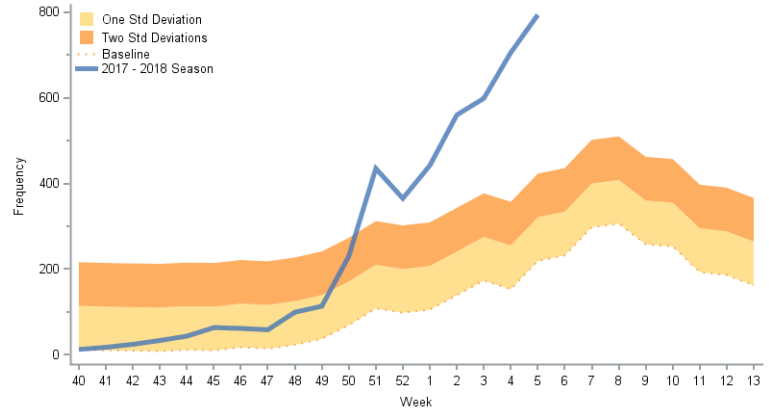
- * **DOD (AFHSB) Seasonal Influenza Surveillance Summary**
Week 4 highlights:
 - * The percentage of outpatient visits due to ILI decreased slightly from last week, but remain well above baseline and previous seasons.
 - * Access the full report [here](#).
- * **Operational Infectious Diseases (OID) Weekly Surveillance Report (NHRC).**
01FEB2018 report highlights:
 - * RSV cases increased among border and DoD beneficiary ILI patients.
 - * Access the most recent NHRC OID Surveillance reports [here](#).

Laboratory Surveillance

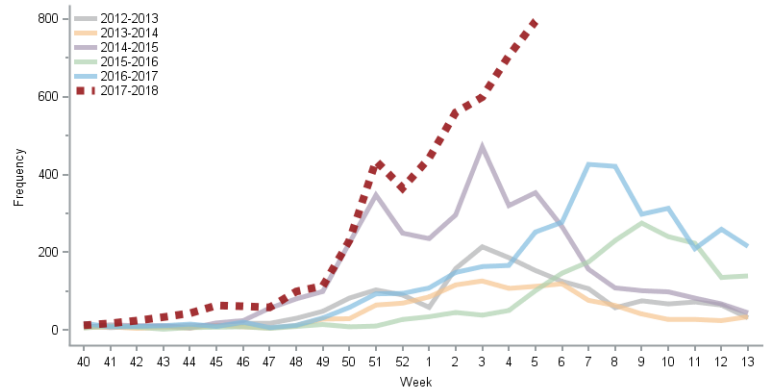
- * **Burden:** Laboratory activity is elevated, exceeding two standard deviations above baseline levels. The number of laboratory-positive cases (N=794) increased 12.5% over the prior week.
- * **Specimens:** Overall percent positivity is 26.9%, with 69.8% of cases identified as influenza A.
- * **Severity:** Four inpatient laboratory-positive case were identified among family members (N=2), a retiree (N=1), and AD (N=1). Cases occurred at NMC San Diego, NH Jacksonville, and AMC Womack-Bragg.
- * **Age:** Children ages 0-4 had the highest rate of laboratory-positive influenza cases (N=122). Children ages 5-17 had the second highest rate (N=290).
- * **Location:** NH Jacksonville (N=109), NH Camp Lejeune (N=76), and NMC Portsmouth (N=60) 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.

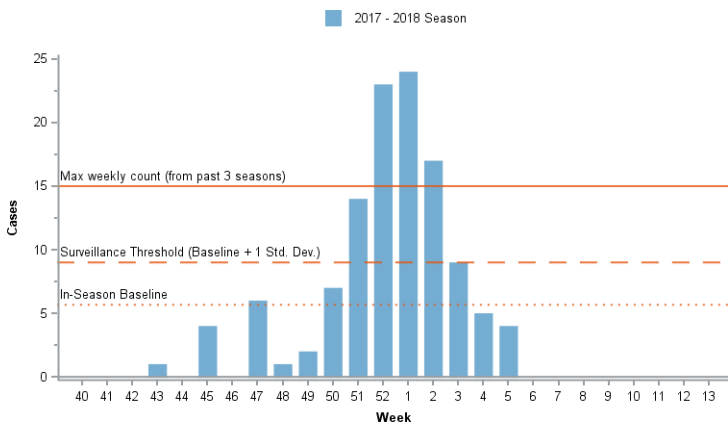
DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season



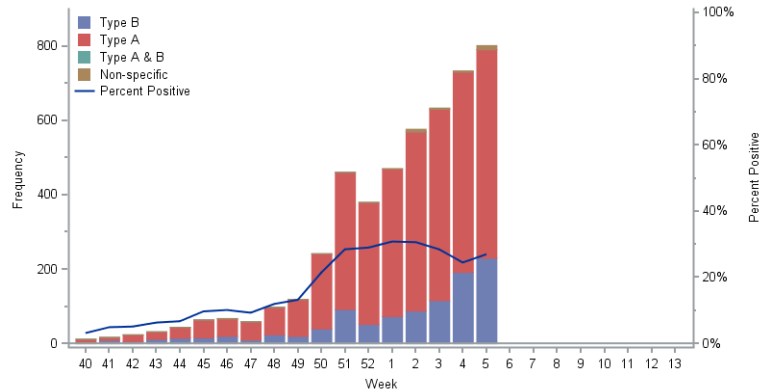
DON Laboratory-Positive, Seasonal Comparison, 2012-2018



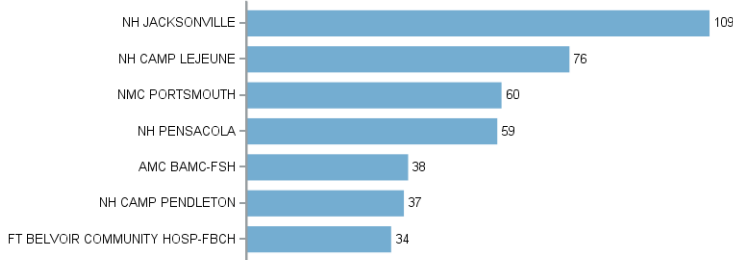
DON Inpatient Laboratory Cases (Severity)



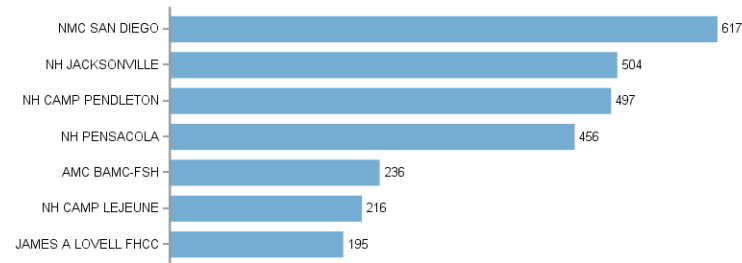
DON Laboratory-Positive Influenza Specimens, by Type



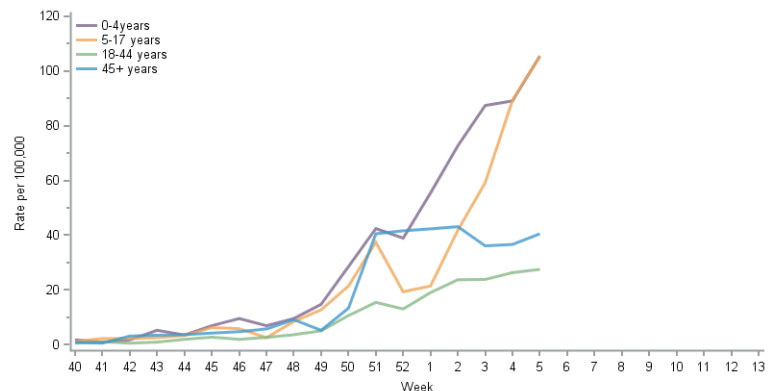
Top MTFs , Laboratory-Positive Cases, Week 5



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



DON Laboratory-Positive Case Rates by Age Group



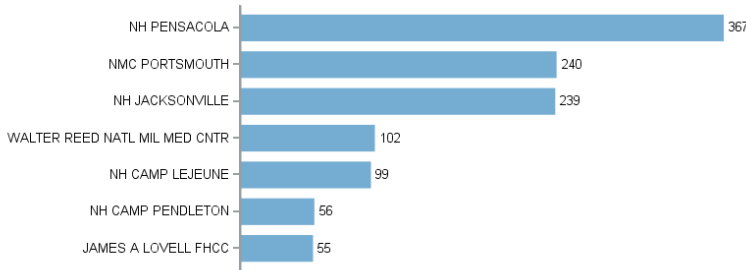
Note

Antiviral Surveillance

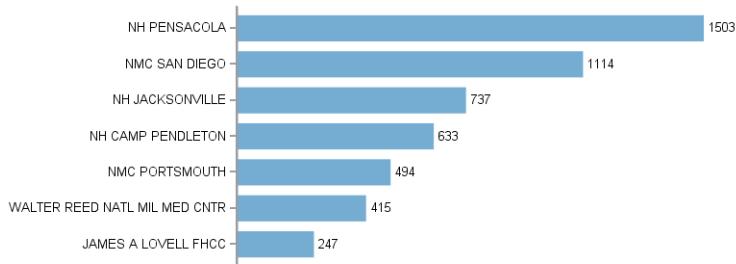
- * **Burden:** Dispensed AVs (N=1932) are five times higher than baseline levels, and increased 18.5% over the prior week.
- * **Severity:** 33 inpatient AVs were dispensed this week to retirees (N=14), family members (N=13), AD service members (N=4), and recruits (N=2).
- * **Types:** Zanamivir and Peramivir were each dispensed once, all other AVs dispensed were Oseltamivir (N=1930).
- * **Location:** NH Pensacola (N=367), NMC Portsmouth (N=240), NH Jacksonville (N=239), and WRNMMC (N=102) had the highest weekly number of dispensed AVs.
- * **Note:** Updated CDC guidance for prescribing influenza AVs can be found [here](#).

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

Top MTFs, Dispensed Antivirals, Week 5

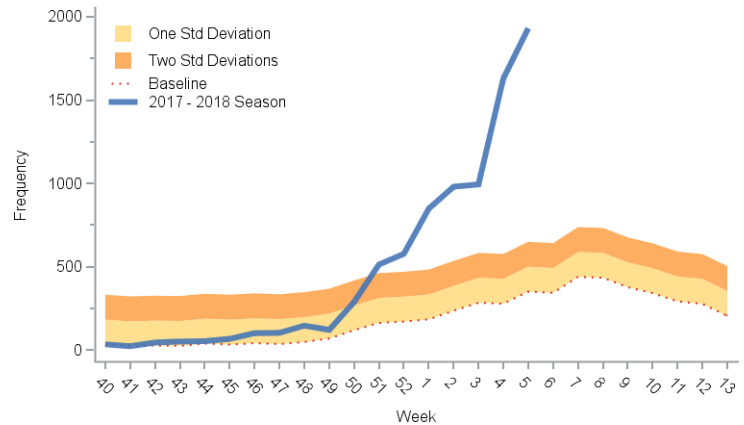


Top MTFs, Dispensed Antivirals, Season

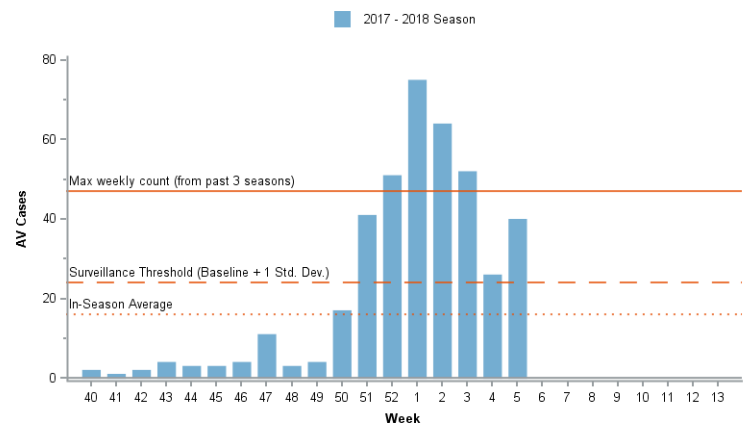


Note: Season counts are since Week 57.

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



DON Inpatient Dispensed Antivirals (Severity)



Influenza-Like Illness (Data Lagged, Week 4)

- * **All outpatient:** ILI activity is elevated. The percentage of outpatient medical encounters due to ILI was 5.0% in Week 4.
- * **Location:** ILI activity was highest at NH Naples (9.5%), followed by NHC Corpus Christi (8.3%), and NHC Annapolis (8.0%).

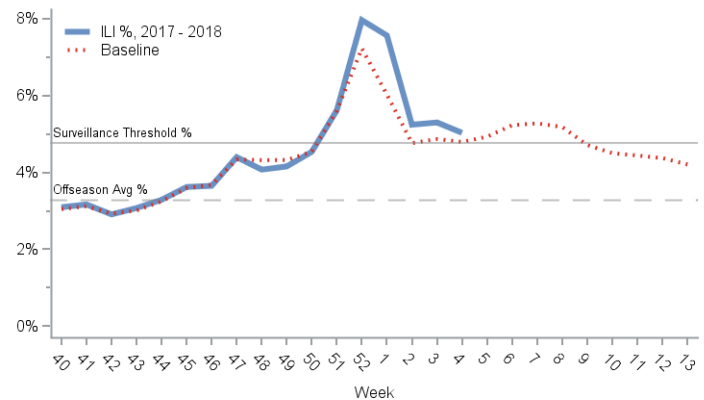
Data source: CAPER

Top DON MTFs, Percentage of Outpatient ILI, Week 4



*Data lagged by one week.

Outpatient Medical Encounters due to ILI, Week 4



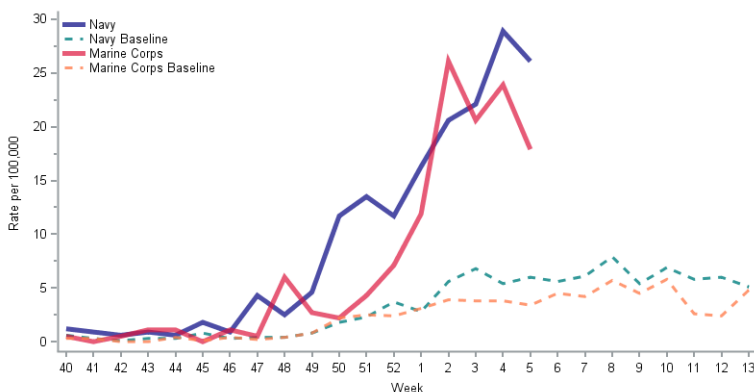
*Data lagged by one week.

Active Duty and Recruits

- * **AD Laboratory cases:** 118 laboratory-positive cases among AD Sailors (N=85) and Marines (N=33).
- * **AD Dispensed Antivirals:** 215 AVs dispensed among AD Sailors and 61 AVs dispensed to Marines.
- * **Recruits:** Six laboratory-positive cases and four AVs dispensed among recruits.
- * **Location:** Laboratory-positive cases occurred most frequently at NH Camp Lejeune (N=17), NH Yokosuka (N=11), NH Jacksonville (N=10), and NH Pensacola (N=10).
- * **Vaccination Status:** 98 AD laboratory-positive cases (85.6%) 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



Summary of Active Duty and Recruit Cases

	Laboratory		Dispensed AVs	
	Week 5	Season	Week 5	Season
Total Cases	124	872	280	1,436
Navy AD	85	551	215	1,019
Marine Corps AD	33	235	61	343
Navy Recruit	2	50	1	46
Marine Corps Recruit	4	36	3	28

Note: Season counts are since Week 57.

In the News

- * CDC reports influenza activity remains elevated in Week 4, with wide-spread flu activity in all states but Hawaii and Oregon. The overall hospitalization rate is higher than seen during the same week of the 2014-2015 season. [Details](#)
- * A study in the Journal of the American Geriatrics Society suggests that there may be underdiagnosis of influenza among older adults. Researchers found that adults over the age of 65 presenting with flu-like symptoms are less likely than younger adults to be tested for influenza. [Details](#)

Medical Event Reports (MER)

MERs for Influenza-Associated Hospitalizations

	MER	Match to Surveillance Data	
	N	N	%
Week 5	4	4	100.0%
Season	63	55	87.3%

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

Datasource: DRSi

Note: Season counts are since Week 57.

Bacterial Coinfections

- * **Summary:** 3.0% of laboratory-positive influenza cases had a bacterial coinfection identified this season.
- * **Upper-respiratory:** 129 upper respiratory infections have been identified, all *Streptococcus*.
- * **Lower-respiratory:** 27 lower respiratory infections have been identified as *Staphylococcus* (N=10), *Haemophilus* (N=3), *Corynebacterium* (N=2), *Enterococcus* (N=2), *Streptococcus* (N=2), *Stenotrophomonas* (N=2), *Enterobacter* (N=1), *Escherichia* (N=1), *Klebsiella* (N=1), *Neisseria* (N=1), *Pantoea* (N=1), and *Pseudomonas* (N=1).

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)	%
Current Season	123	27	142	3.0%
Baseline	39	7	46	3.7%

Note: Season counts are since Week 57.

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 07 Feb 2018.