

Influenza Situation Report: 2017-2018 Season

Department of the Navy

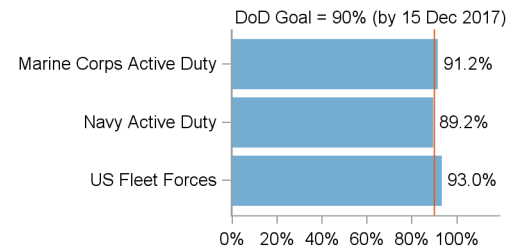


Week 52 (24 Dec - 30 Dec 2017)

Weekly Highlights:

- * Overall influenza activity in the DON is **elevated**. Laboratory-positive cases are down from the prior week, however they continue to exceed one standard deviation above baseline levels. Dispensed AVs exceeded two standard deviations above baseline levels.
- * Severity indicators are **elevated** and above the surveillance threshold, with fifteen inpatient laboratory-positive cases and forty-two dispensed antivirals from an inpatient setting.
- * Active duty dispensed AVs and recruit laboratory-positive cases are **elevated**.

Active Duty Vaccination Rates, 02 Jan 2018

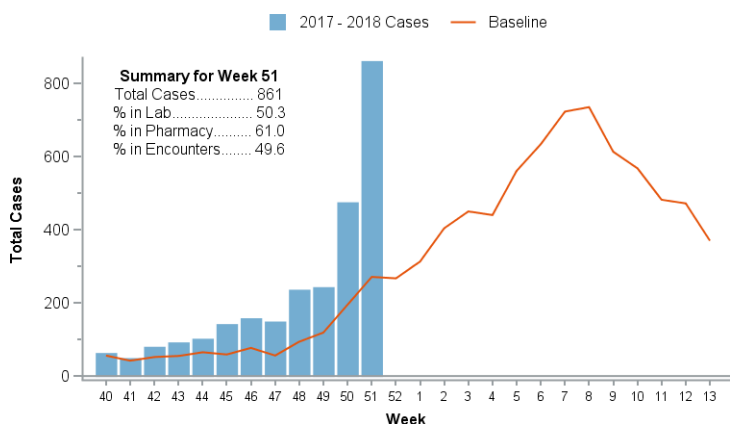


Influenza Surveillance Indicators

OVERVIEW				Trend	Activity Level
Laboratory Cases	N	270		↓	Elevated
Dispensed Antivirals	N	528		↑	Elevated
ILI Outpatient Visits	%	5.6		↑	Elevated
SEVERITY				Trend	Activity Level
Inpatient Laboratory Cases	N	15		↑	Elevated
Inpatient Dispensed Antivirals	N	42		↔	Elevated
ACTIVE DUTY AND RECRUITS				Trend	Activity Level
Active Duty Laboratory Cases	N	33		↓	Normal
Active Duty Dispensed Antivirals	N	73		↔	Elevated
Recruit Laboratory Cases	N	10		↑	Elevated
Recruit Dispensed Antivirals	N	3		↓	Normal

Overall Burden (Data Lagged, Week 51)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data



Supporting Surveillance

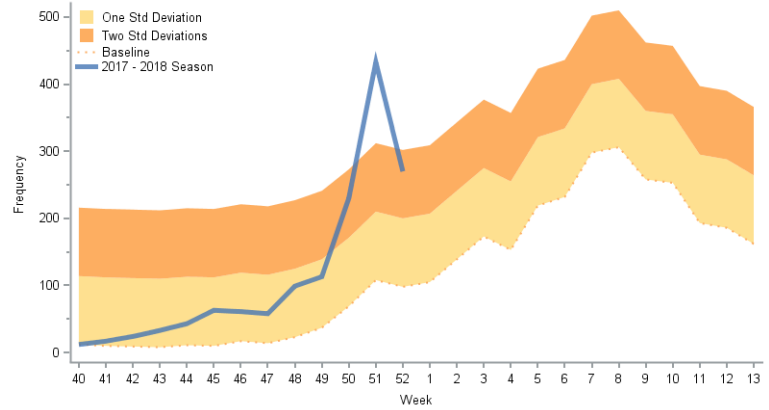
- * **DOD Global Laboratory-based Influenza Surveillance (USAFSAM).**
Week 50 & 51 highlights:
 - * 126 positive influenza A specimens (108 H3N2, 11 H1N1), and 18 positive influenza B specimens.
 - * Access the full report [here](#).
- * **Operational Infectious Diseases (OID) Weekly Surveillance Report (NHRC).**
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

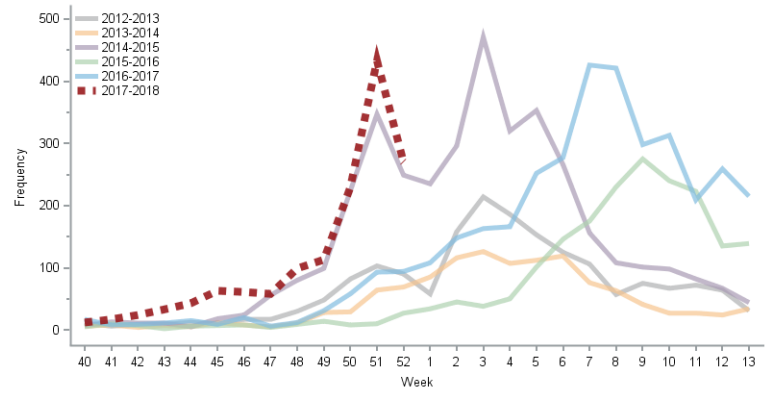
- * **Burden:** Laboratory activity is elevated, exceeding one standard deviation above baseline levels. The number of laboratory-positive cases (n=270) decreased 31.4% over the prior week.
- * **Specimens:** Overall percent positivity is 26.8%, with 86.3% of cases identified as influenza A.
- * **Severity:** Fifteen inpatient laboratory-positive case were identified this week among Navy retirees (n=8), Navy family members (n=5), and Marine Corps recruits (n=2). Ten cases were identified at NMC San Diego.
- * **Age:** Children ages 0-4 had the highest rate of laboratory-positive influenza cases (n=34). Adults age 45+ had the second highest rate (n=107).
- * **Location:** NH Camp Pendleton (n=57), NMC San Diego (n=47), and NH Pensacola (n=36) 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.

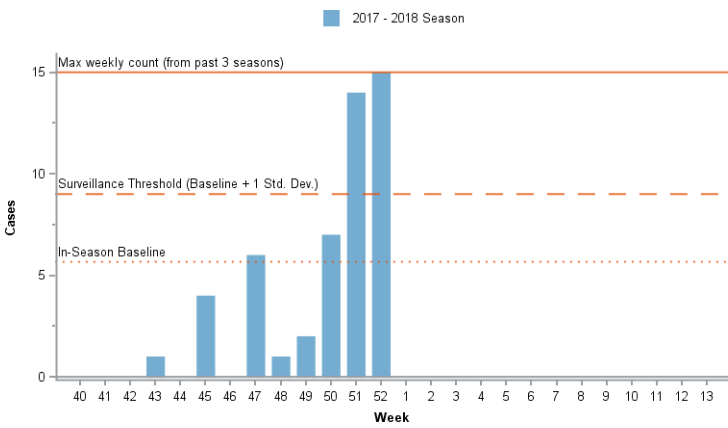
DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season



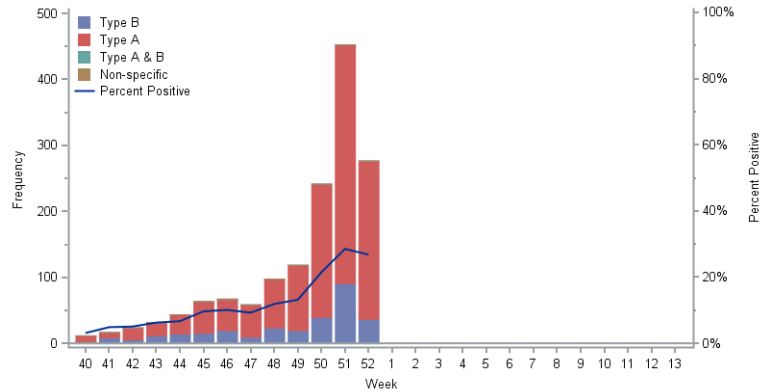
DON Laboratory-Positive, Seasonal Comparison, 2012-2018



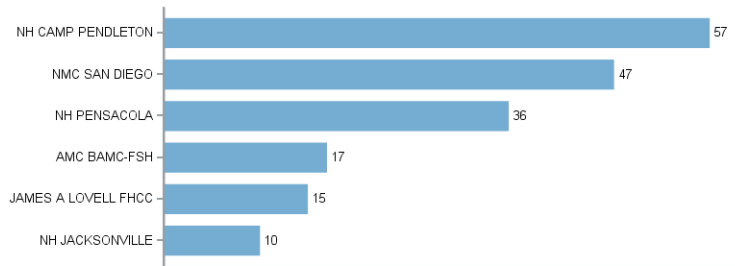
DON Inpatient Laboratory Cases (Severity)



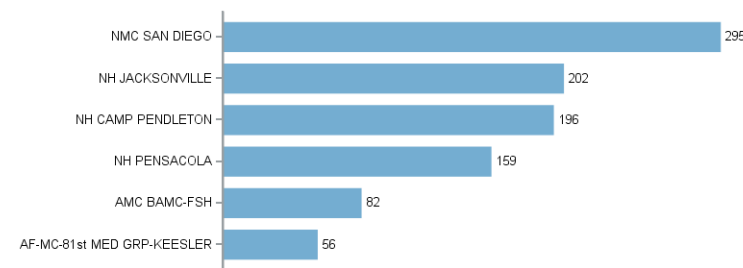
DON Laboratory-Positive Influenza Specimens, by Type



Top MTFs , Laboratory-Positive Cases, Week 52

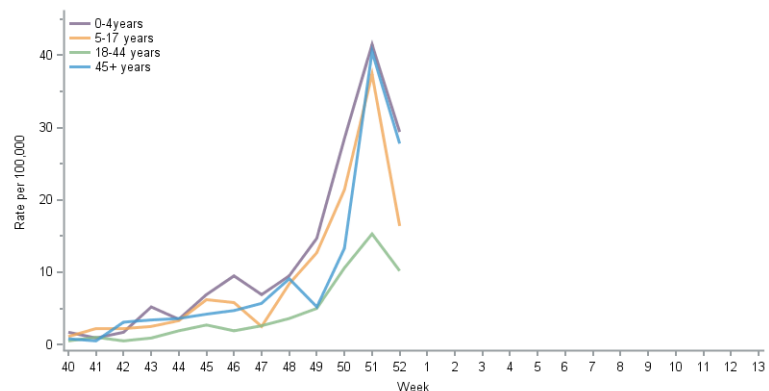


Top MTFs , Laboratory-Positive Cases, 2017-2018 Season



Note: Season counts are since Week 37.

DON Laboratory-Positive Case Rates by Age Group

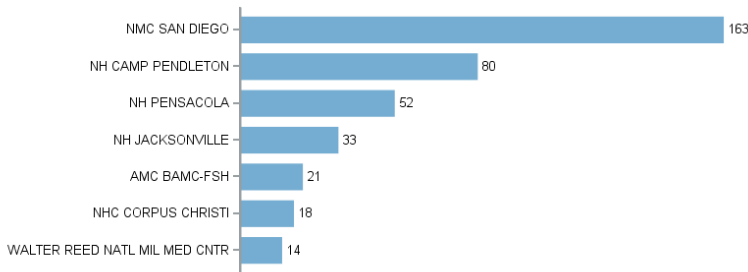


Antiviral Surveillance

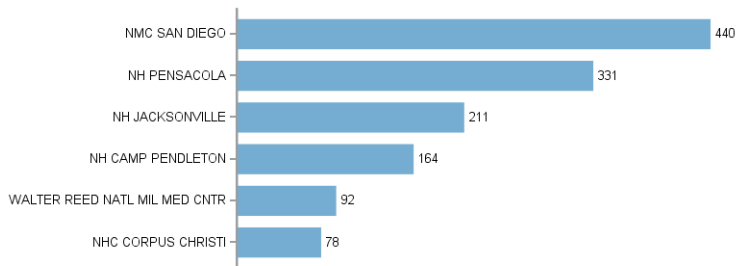
- * **Burden:** Dispensed AVs (n=529) are elevated, exceeding two standard deviations above baseline levels. The number of dispensed AVs increased 1.1% over the prior week.
- * **Severity:** Forty-two inpatient AVs were dispensed this week to family members (n=25), retirees (n=14), recruits (n=2), and AD service members (n=1).
- * **Types:** AVs dispensed were Oseltamivir (n=528) and Peramivir (n=1).
- * **Location:** NMC San Diego (n=163), NH Camp Pendleton (n=80), and NH Pensacola (n=52) 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 52

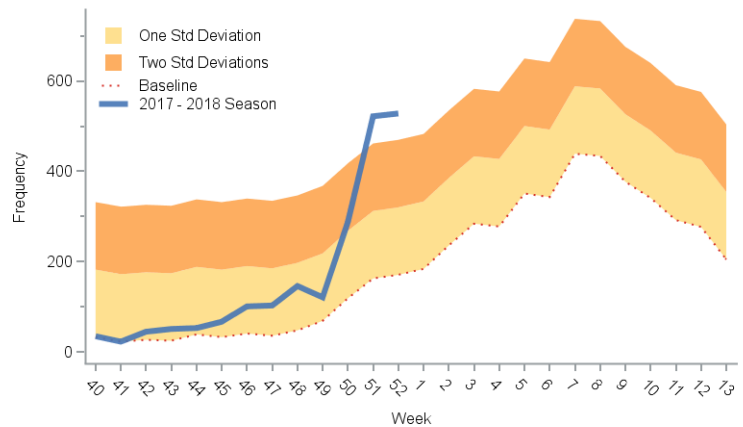


Top MTFs, Dispensed Antivirals, Season

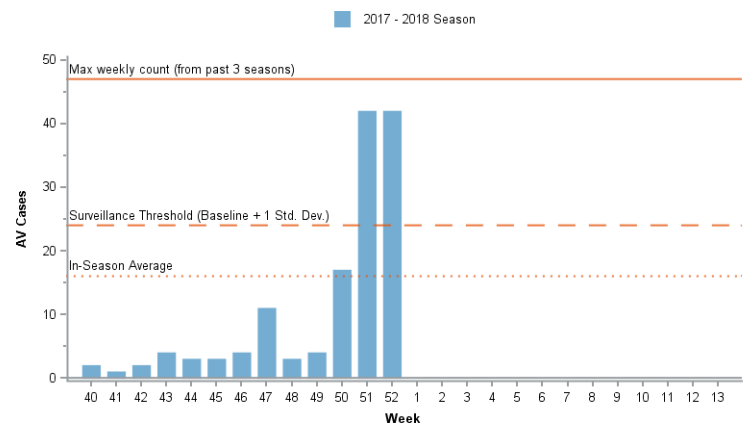


Note: Season counts are since Week 37.

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



DON Inpatient Dispensed Antivirals (Severity)



Influenza-Like Illness (Data Lagged, Week 51)

- * **All outpatient:** ILI activity is elevated. The percentage of outpatient medical encounters due to ILI increased to 5.6% in Week 51.
- * **Location:** ILI activity was the highest at NH Beaufort (10.1%), followed by NHC Lemoore (7.7%), and NH Pensacola (7.6%).

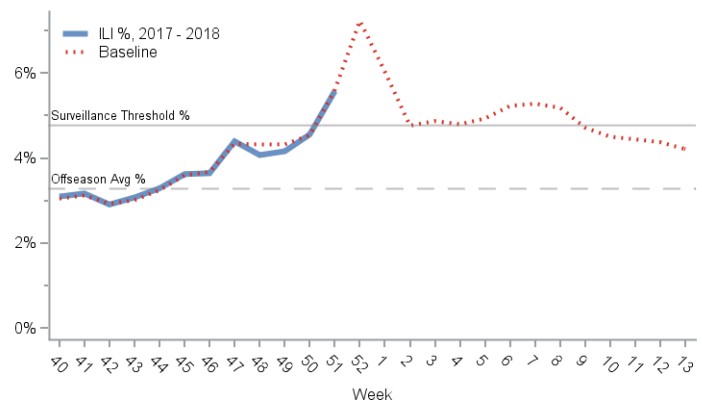
Data source: CAPER

Top DON MTFs, Percentage of Outpatient ILI, Week 51



*Data lagged by one week.

Outpatient Medical Encounters due to ILI, Week 51



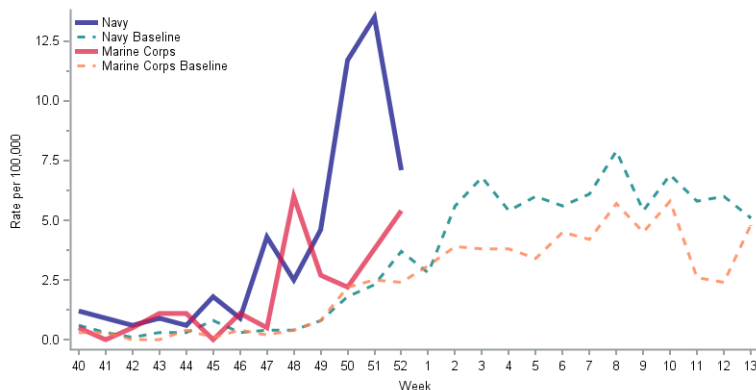
*Data lagged by one week.

Active Duty and Recruits

- * **AD Laboratory cases:** Thirty-three laboratory-positive cases among AD Sailors (n=23) and Marines (n=10).
- * **AD Dispensed Antivirals:** Fifty-five AVs dispensed among Sailors and eighteen AVs dispensed to Marines.
- * **Recruits:** Ten laboratory-positive cases among Navy (n=8) and Marine Corps (n=2) recruits.
- * **Location:** Laboratory-positive cases occurred most frequently at James A Lovell FHCC (n=9), NH Camp Pendleton (n=9), and NMC San Diego (n=9).
- * **Vaccination Status:** Twenty-three AD laboratory-positive cases (69.7%) 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 52	Season	Week 52	Season
Total Cases	43	255	76	366
Navy AD	23	165	55	267
Marine Corps AD	10	46	18	76
Navy Recruit	8	20	1	9
Marine Corps Recruit	2	24	2	14

Note: Season counts are since Week 37.

In the News

- * The CDC reports that influenza activity increased sharply in Week 52. Widespread influenza activity was reported in forty-six states; four states reported regional activity. [Details](#)

Medical Event Reports (MER)

MERs for Influenza-Associated Hospitalizations

	MER	Match to Surveillance Data	
	N	N	%
Week 52	1	1	100.0%
Season	21	16	76.2%

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

Note: Season counts are since Week 37.

Bacterial Coinfections

- * **Summary:** 2.5% of laboratory-positive influenza cases had a bacterial coinfection identified this season.
- * **Upper-respiratory:** Twenty-nine upper respiratory infections have been identified, all *Streptococcus*.
- * **Lower-respiratory:** Eleven lower respiratory infections have been identified as *Staphylococcus* (n=4), *Corynebacterium* (n=1), *Enterococcus* (n=1), *Escherichia* (n=1), *Klebsiella* (n=1), *Pantoea* (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

	Coinfections			Lab Cases w/ Coinfection
	Upper (N)	Lower (N)	Total Resp (N)	%
Current Season	29	11	37	2.5%
Baseline	12	3	14	3.1%

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.
- * 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 03 Jan 2017.