

Influenza Situation Report: 2017-2018 Season

Department of the Navy

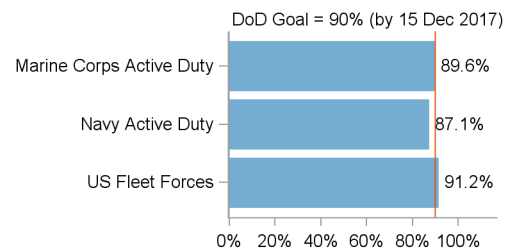


Week 50 (10 Dec - 16 Dec 2017)

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.

Active Duty Vaccination Rates, 18 Dec 2017

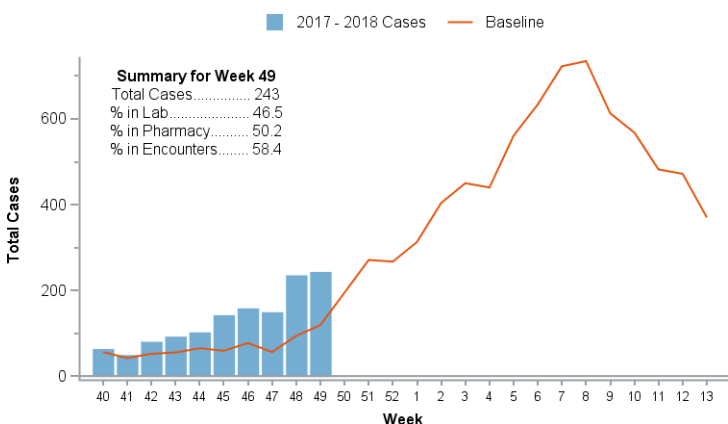


Influenza Surveillance Indicators

OVERVIEW			Trend	Activity Level
Laboratory Cases	N	204	↑	Elevated
Dispensed Antivirals	N	256	↑	Normal
ILI Outpatient Visits	%	4.1	↔	Normal
SEVERITY			Trend	Activity Level
Inpatient Laboratory Cases	N	5	↑	Normal
Inpatient Dispensed Antivirals	N	15	↑	Normal
ACTIVE DUTY AND RECRUITS			Trend	Activity Level
Active Duty Laboratory Cases	N	40	↑	Normal
Active Duty Dispensed Antivirals	N	34	↑	Normal
Recruit Laboratory Cases	N	9	↑	Elevated
Recruit Dispensed Antivirals	N	5	↑	Normal

Overall Burden (Data Lagged, Week 49)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data



Supporting Surveillance

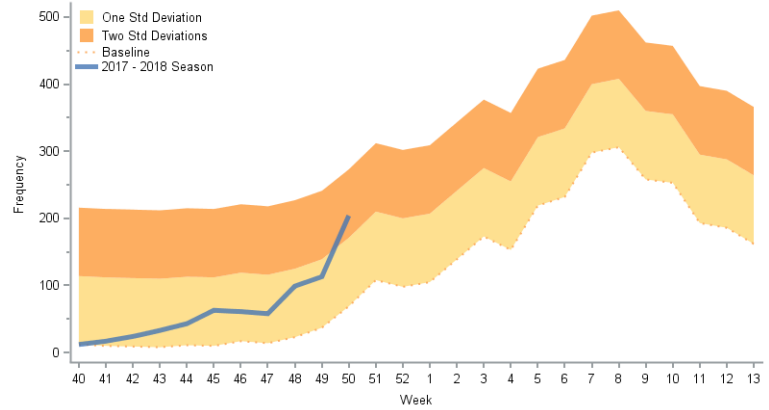
- * **DOD Global Laboratory-based Influenza Surveillance (USAFSAM).** Week 48 & 49 highlights:
 - * Twenty-seven positive influenza A specimens (19 H3N2, 5 H1N1, 3 not subtyped)
 - * Seven positive influenza B specimens .
 - * Access the full report [here](#).
- * **Operational Infectious Diseases (OID) Weekly Surveillance Report (NHRC).** 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

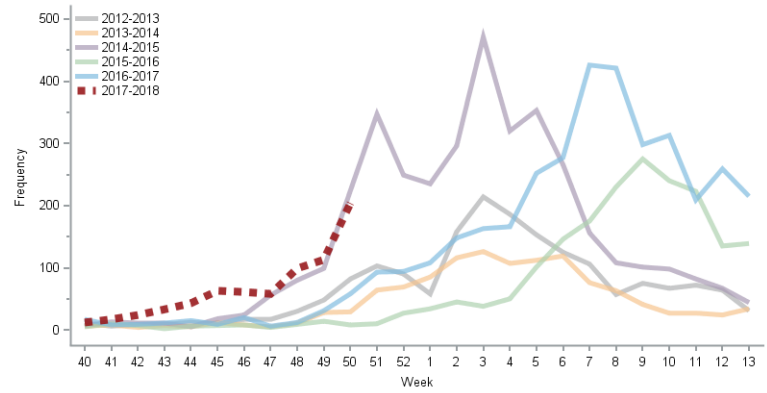
- * **Burden:** Laboratory activity is elevated, exceeding one standard deviation above baseline levels. The number of laboratory-positive cases (n=204) increased 81% over the prior week.
- * **Specimens:** Overall percent positivity is 21.5%, with 82.5% of cases identified as influenza A.
- * **Severity:** 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.

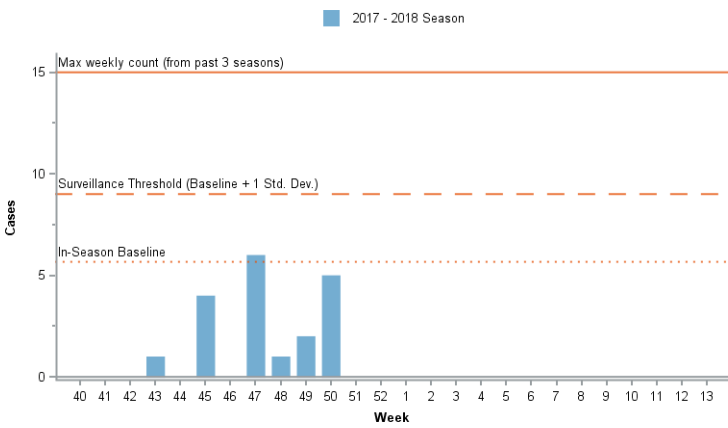
DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season



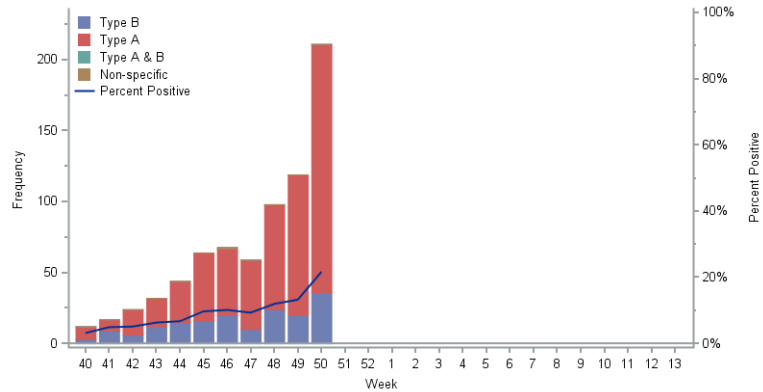
DON Laboratory-Positive, Seasonal Comparison, 2012-2018



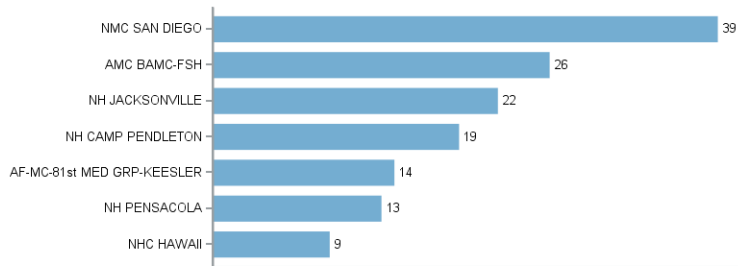
DON Inpatient Laboratory Cases (Severity)



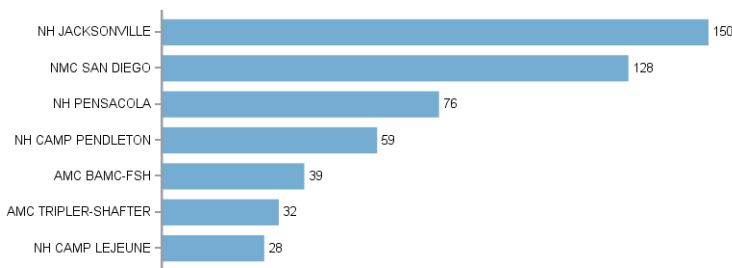
DON Laboratory-Positive Influenza Specimens, by Type



Top MTFs , Laboratory-Positive Cases, Week 50

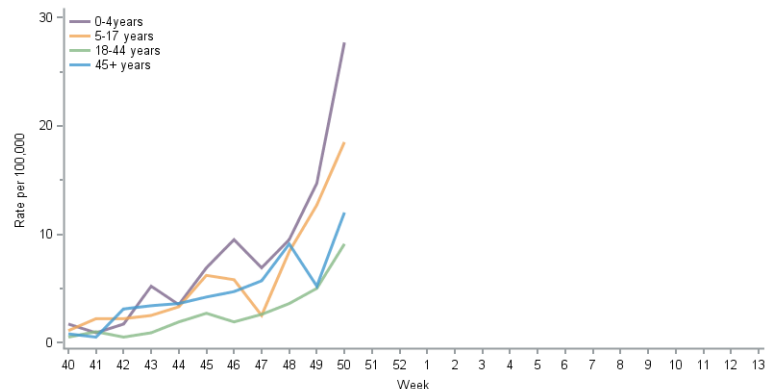


Top MTFs , Laboratory-Positive Cases, 2017-2018 Season



Note: Season counts are since Week 37.

DON Laboratory-Positive Case Rates by Age Group

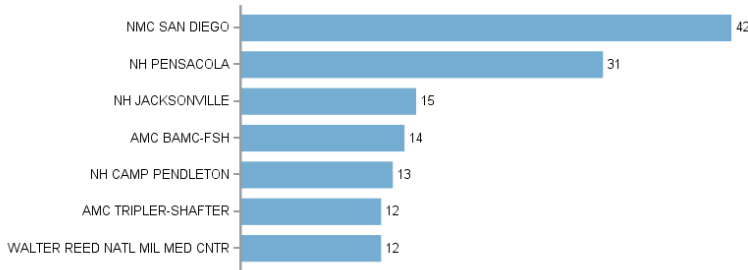


Antiviral Surveillance

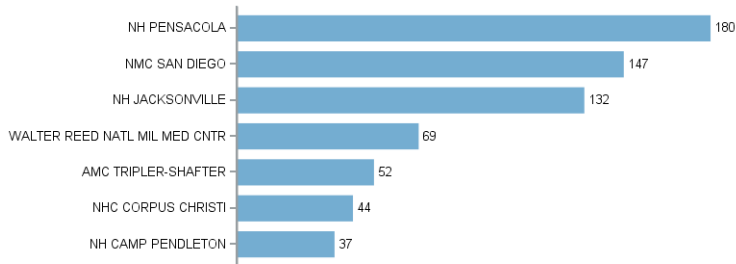
- * **Burden:** Dispensed AVs (n=256) are above baseline levels but within expected values. However, the number of dispensed AVs increased 110% over the prior week.
- * **Severity:** Fifteen inpatient AVs were dispensed this week to family members (n=12) and retirees (n=3).
- * **Types:** All influenza 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

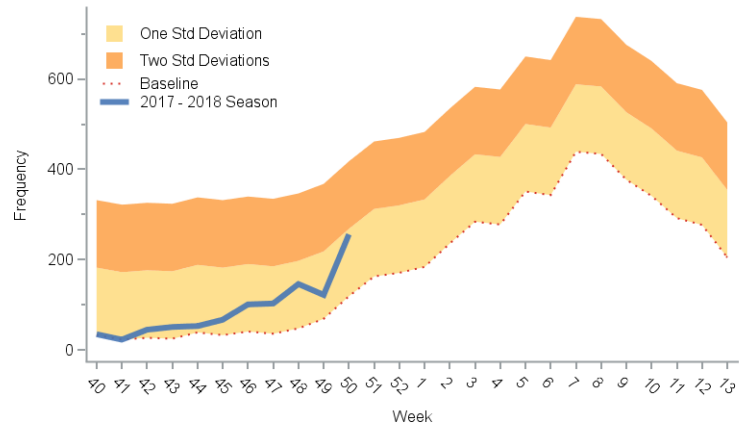


Top MTFs, Dispensed Antivirals, Season

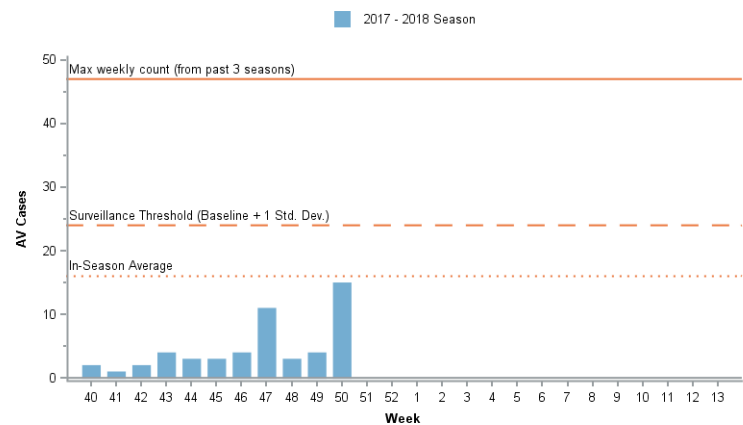


Note: Season counts are since Week 37.

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



DON Inpatient Dispensed Antivirals (Severity)



Influenza-Like Illness (Data Lagged, Week 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%).

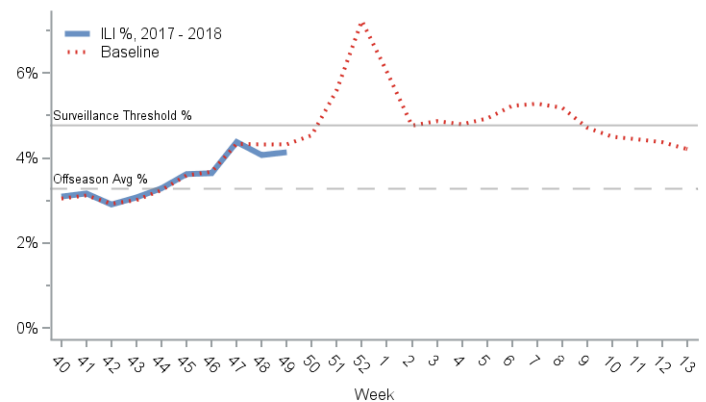
Data source: CAPER

Top DON MTFs, Percentage of Outpatient ILI, Week 49



*Data lagged by one week.

Outpatient Medical Encounters due to ILI, Week 49



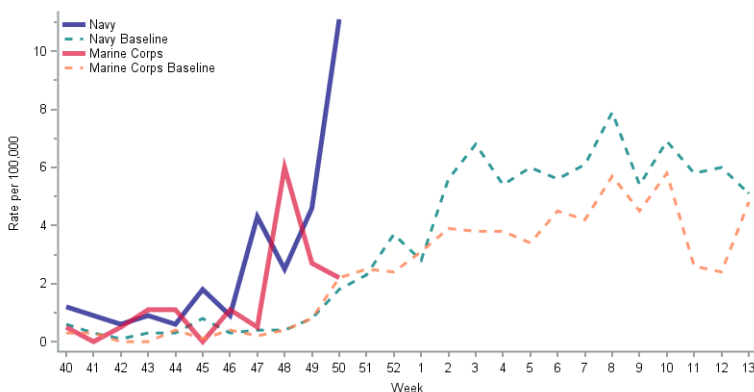
*Data lagged by one week.

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



Summary of Active Duty and Recruit Cases

	Laboratory		Dispensed AVs	
	Week 50	Season	Week 50	Season
Total Cases	49	151	39	206
Navy AD	36	96	27	150
Marine Corps AD	4	29	7	43
Navy Recruit	3	7	2	4
Marine Corps Recruit	6	19	3	9

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](#)

Medical Event Reports (MER)

MERs for Influenza-Associated Hospitalizations

	MER	Match to Surveillance Data	
	N	N	%
Week 50	1	1	100.0%
Season	14	9	64.3%

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

Datasource: DRSi

Note: Season counts are since Week 37.

Bacterial Coinfections

- * **Summary:** 2.8% 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

	Coinfections			Lab Cases w/ Coinfection
	Upper (N)	Lower (N)	Total Resp (N)	%
Current Season	16	8	21	2.8%
Baseline	7	3	9	3.7%

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 05 Dec 2017.