

Influenza Situation Report: 2017-2018 Season

Department of the Navy

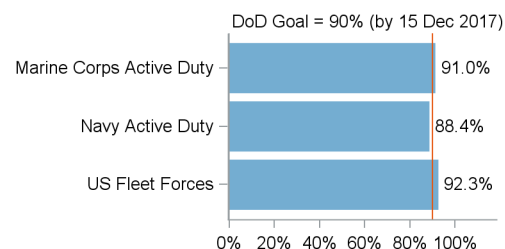


Week 51 (17 Dec - 23 Dec 2017)

Weekly Highlights:

- * Influenza activity in the DON is increasing. Laboratory-positive cases are **elevated** and increased 50% in Week 51. Dispensed AVs are **elevated** and increased 65.3% from the prior week.
- * Severity indicators are **elevated** and above the surveillance threshold, with ten inpatient laboratory-positive cases and Thirty-five dispensed antivirals from an inpatient setting.
- * Active duty laboratory-positive cases and dispensed AVs are **elevated** and increased from prior week.

Active Duty Vaccination Rates, 25 Dec 2017

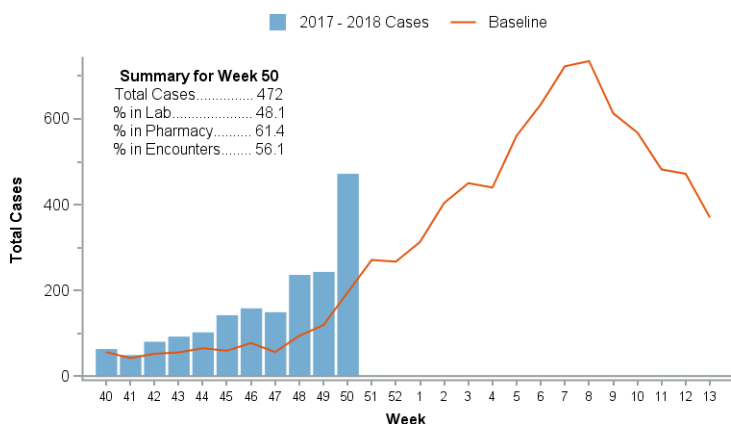


Influenza Surveillance Indicators

OVERVIEW				Trend	Activity Level
Laboratory Cases	N	341		↑	Elevated
Dispensed Antivirals	N	476		↑	Elevated
ILI Outpatient Visits	%	4.5		↑	Normal
SEVERITY				Trend	Activity Level
Inpatient Laboratory Cases	N	10		↑	Elevated
Inpatient Dispensed Antivirals	N	37		↑	Elevated
ACTIVE DUTY AND RECRUITS				Trend	Activity Level
Active Duty Laboratory Cases	N	44		↑	Elevated
Active Duty Dispensed Antivirals	N	71		↑	Elevated
Recruit Laboratory Cases	N	6		↓	Elevated
Recruit Dispensed Antivirals	N	4		↓	Normal

Overall Burden (Data Lagged, Week 50)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data



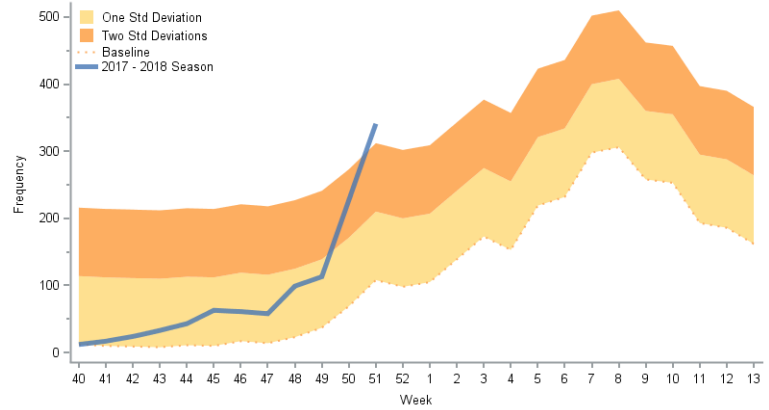
Supporting Surveillance

- * **DOD Global Laboratory-based Influenza Surveillance (USAFSAM).**
Week 49 & 50 highlights:
 - * Sixty-seven positive influenza A specimens (63 H3N2, 4 H1N1), thirteen positive influenza B specimens, and one positive influenza A and B coinfection specimen.
 - * 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](#).

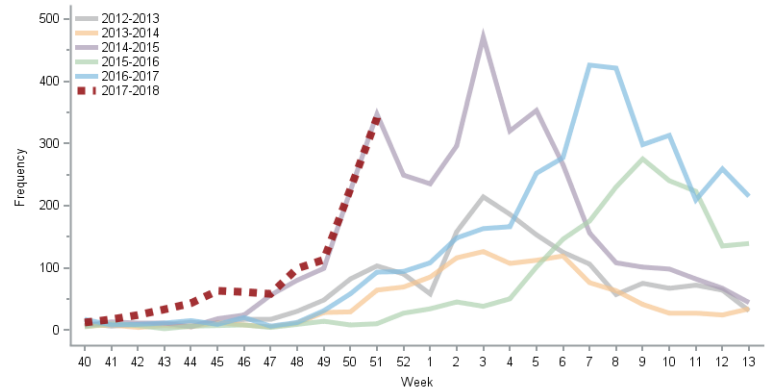
Laboratory Surveillance

- * **Burden:** Laboratory activity is elevated, exceeding two standard deviation above baseline levels. The number of laboratory-positive cases (n=341) increased 50% over the prior week.
- * **Specimens:** Overall percent positivity is 26.0%, with 80% of cases identified as influenza A.
- * **Severity:** Seven inpatient laboratory-positive case were identified this week among 3 family members, 5 retirees, and 2 AD at NMC San Diego. Two were identified at AMC BAMC-FSH (1 retiree and 1 family member) and one active duty was identified at NH Camp Pendleton
- * **Age:** Adults ages 45+ years had the highest rate of laboratory-positive influenza cases (n=118). Children ages 5-17 had the second highest rate (n=84).
- * **Location:** NMC San Diego (n=71), NH Camp Pendleton (n=51), and NH Jacksonville (n=42) had the highest number of laboratory-positive influenza cases for the week.

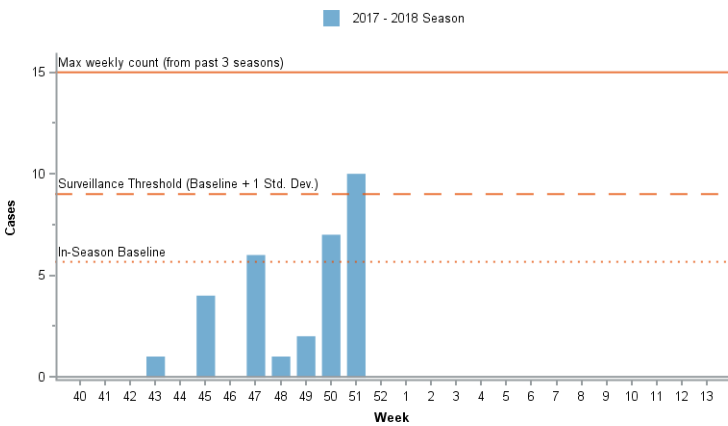
DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season



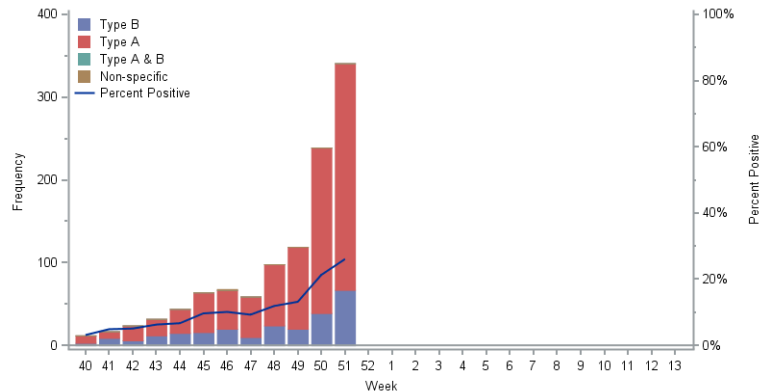
DON Laboratory-Positive, Seasonal Comparison, 2012-2018



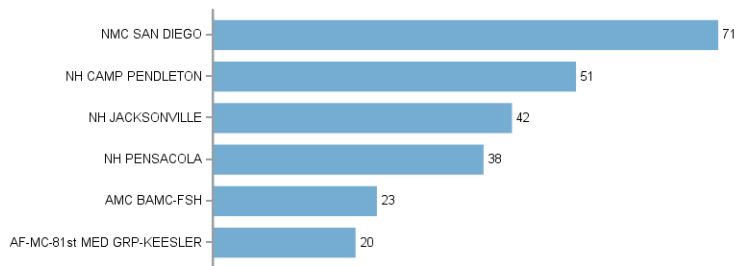
DON Inpatient Laboratory Cases (Severity)



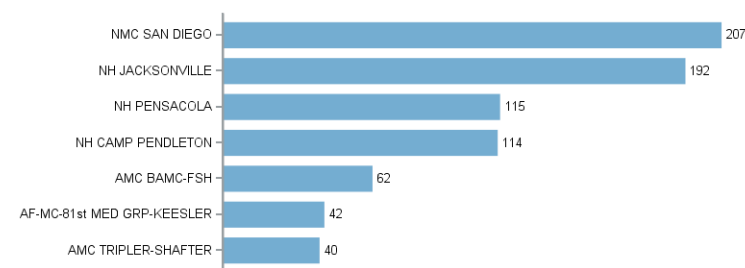
DON Laboratory-Positive Influenza Specimens, by Type



Top MTFs , Laboratory-Positive Cases, Week 51

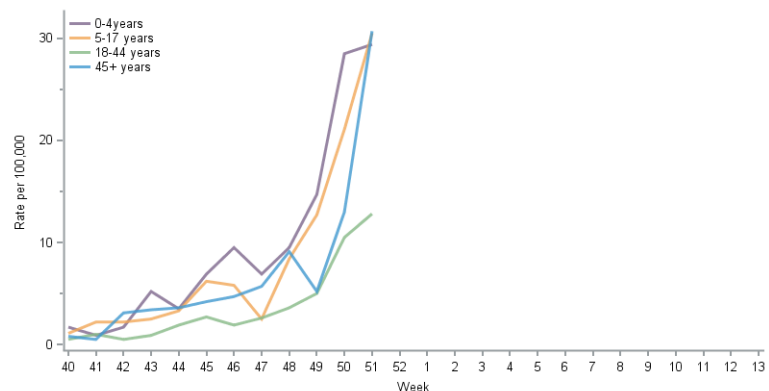


Top MTFs , Laboratory-Positive Cases, 2017-2018 Season



Note: Season counts are since Week 37.

DON Laboratory-Positive Case Rates by Age Group

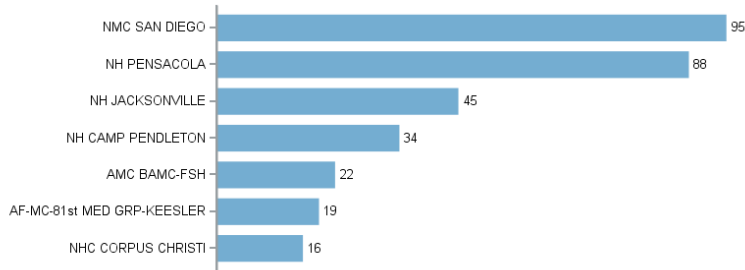


Antiviral Surveillance

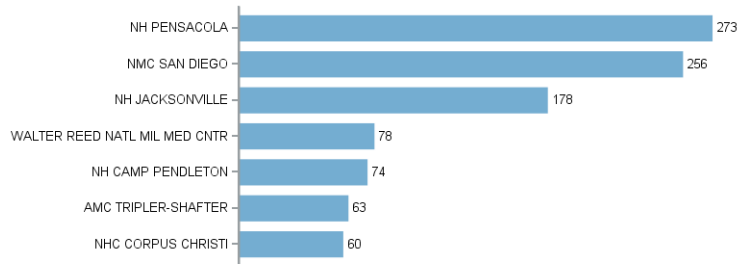
- * **Burden:** Dispensed AVs (n=476) are elevated, exceeding two standard deviations above baseline levels. The number of dispensed AVs increased 65.3% over the prior week.
- * **Severity:** Thirty-two inpatient AVs were dispensed this week to family members (n=21), and retirees (n=11).
- * **Types:** All influenza AVs dispensed were Oseltamivir.
- * **Location:** NMC San Diego (n=95), NH Pensacola (n=88), and NH Jacksonville (n=45) 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 51

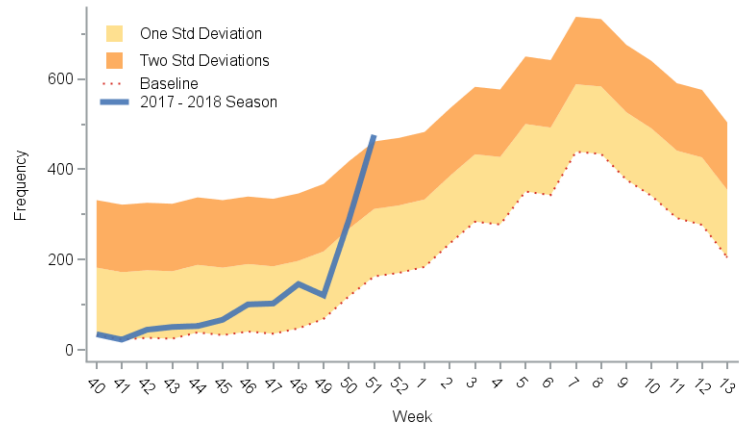


Top MTFs, Dispensed Antivirals, Season

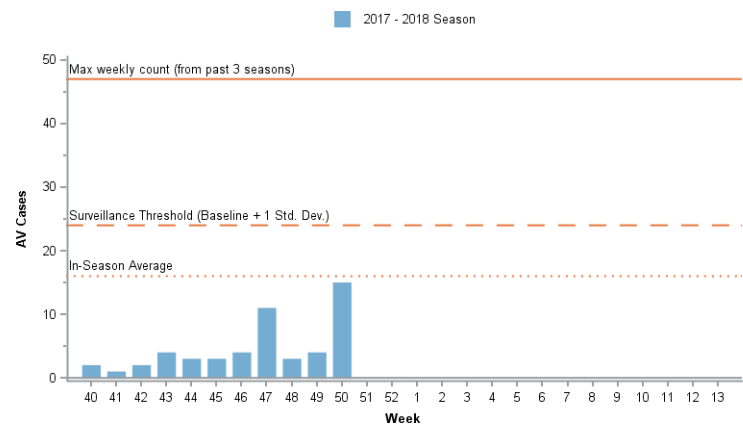


Note: Season counts are since Week 37.

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



DON Inpatient Dispensed Antivirals (Severity)



Influenza-Like Illness (Data Lagged, Week 50)

- * **All outpatient:** The percentage of outpatient medical encounters due to ILI increased to 4.5%. ILI activity is normal and within expected levels.
- * **Location:** ILI activity was the highest at NH Lemoore (7.3%), followed by NHC Annapolis (5.9%) and NH Pensacola (5.6%).

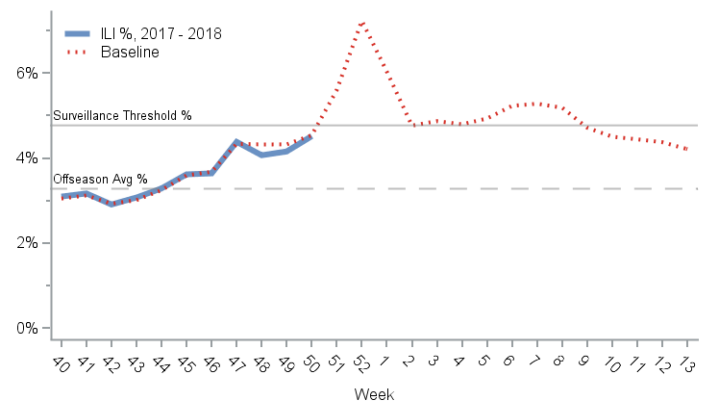
Data source: CAPER

Top DON MTFs, Percentage of Outpatient ILI, Week 50



*Data lagged by one week.

Outpatient Medical Encounters due to ILI, Week 50



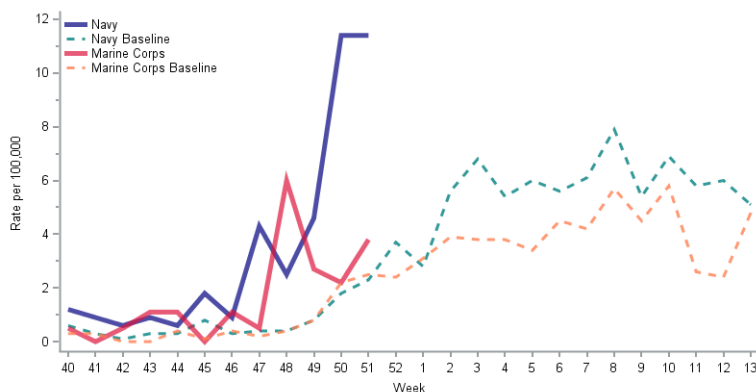
*Data lagged by one week.

Active Duty and Recruits

- * **AD Laboratory cases:** Forty-four laboratory-positive cases among Sailors (n=37) and Marines (n=7).
- * **AD Dispensed Antivirals:** Fifty-seven AVs dispensed among Sailors and fourteen AVs dispensed to Marines.
- * **Recruits:** Six laboratory-positive cases among Navy (n=3) and Marine Corps (n=3) recruits.
- * **Location:** Laboratory-positive cases occurred most frequently at NMC San Diego (n=11), AMC BAMC-FSH (n=6), and James A Lovell FHCC (n=5).
- * **Vaccination Status:** Thirty-five AD laboratory-positive cases (79.5%) 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 51	Season	Week 51	Season
Total Cases	50	204	75	288
Navy AD	37	134	57	212
Marine Corps AD	7	36	14	56
Navy Recruit	3	12	1	8
Marine Corps Recruit	3	22	3	12

Note: Season counts are since Week 37.

In the News

- * The CDC has issued an influenza update across the Health Alert Network (HAN) providing notice about increased influenza A (H3N2) activity, a summary of antiviral treatment recommendations, an update on treatment drugs and supply, and background information about treatment for patients [Details](#)
- * A paper in PLoS Biology argues that developing antibiotic alternatives for mild infections may be a better strategy for combating antibiotic resistance. [Details](#)

Medical Event Reports (MER)

MERs for Influenza-Associated Hospitalizations

	MER	Match to Surveillance Data	
	N	N	%
Week 51	4	4	100.0%
Season	18	13	72.2%

*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-two upper respiratory infections have been identified, all *Streptococcus*.
- * **Lower-respiratory:** Nine lower respiratory infections have been identified as *Staphylococcus* (n=3), *Enterococcus* (n=1), *Escherichia* (n=1), *Klebsiella* (n=1), *Pseudomonas* (n=1), *Corynebacterium* (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	22	9	28	2.5%
Baseline	9	3	11	3.0%

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 26 Dec 2017.