

Influenza Situation Report: 2017-2018 Season

Department of the Navy

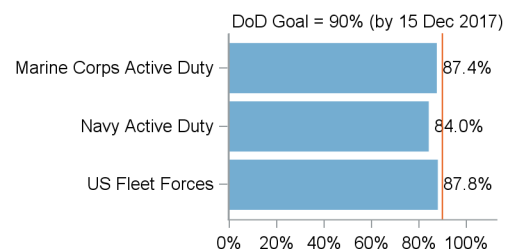


Week 49 (03 Dec - 09 Dec 2017)

Weekly Highlights:

- * Influenza activity in the DON is increasing, but is still **normal** and within expected levels. Laboratory-positive cases increased slightly in Week 49; however, dispensed AVs and the ILI percent decreased over the prior week.
- * Severity indicators are **low** and within expected levels, with one inpatient laboratory-positive case and four dispensed antivirals from an inpatient setting.
- * NMC San Diego and NH Jacksonville had the most laboratory-positive cases, while the largest percentage of ILI visits occurred at NHC Corpus Christi (7.3%).

Active Duty Vaccination Rates, 12 Dec 2017

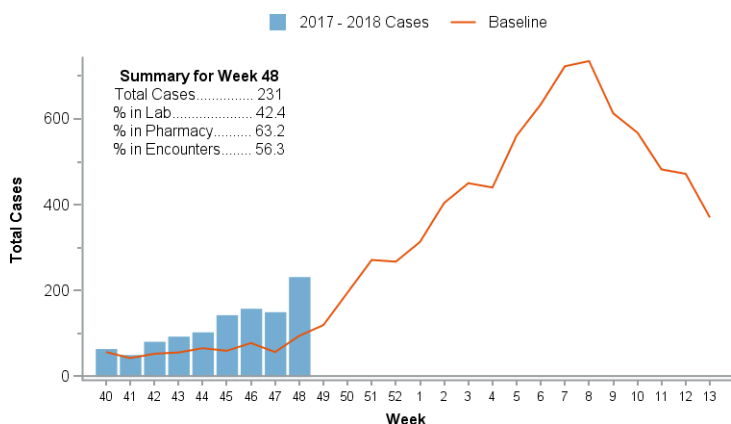


Influenza Surveillance Indicators

OVERVIEW			Trend	Activity Level
Laboratory Cases	N	100	↑	Normal
Dispensed Antivirals	N	109	↓	Normal
ILI Outpatient Visits	%	4.1	↓	Normal
SEVERITY			Trend	Activity Level
Inpatient Laboratory Cases	N	1	↔	Low
Inpatient Dispensed Antivirals	N	4	↑	Low
ACTIVE DUTY AND RECRUITS			Trend	Activity Level
Active Duty Laboratory Cases	N	19	↔	Normal
Active Duty Dispensed Antivirals	N	22	↓	Normal
Recruit Laboratory Cases	N	1	↓	Normal
Recruit Dispensed Antivirals	N	0	↔	Normal

Overall Burden (Data Lagged, Week 48)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data



Supporting Surveillance

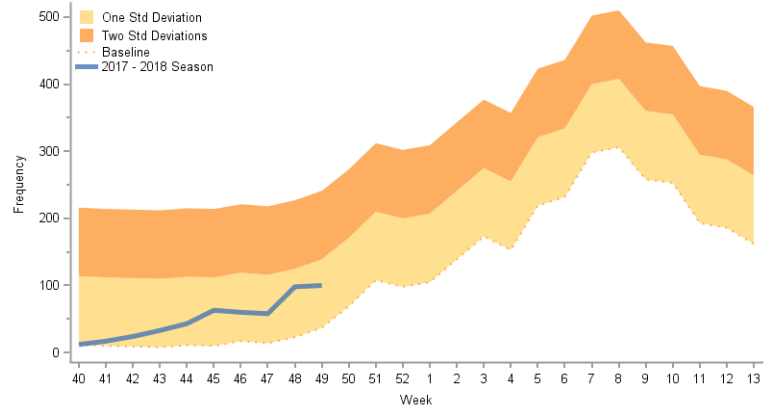
- * **DOD Global Laboratory-based Influenza Surveillance (USAFSAM).**
Week 47 & 48 highlights:
 - * Twenty-five positive influenza A specimens (18 H3N2, 7 H1N1)
 - * Five positive influenza B specimens .
 - * Access the full report [here](#).
- * **Operational Infectious Diseases (OID) Weekly Surveillance Report (NHRC).**
07DEC2017 report highlights:
 - * Continued increase in influenza A/H3 cases for civilians in Imperial County, CA.
 - * Access the most recent NHRC OID Surveillance reports [here](#).

Laboratory Surveillance

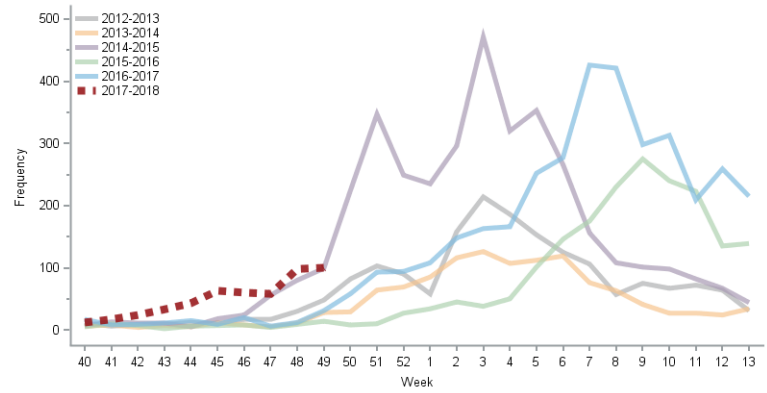
- * **Burden:** Laboratory-positive cases (n=100) are above baseline levels but within expected values. The number of cases increased 2.0% over the prior week.
- * **Specimens:** Overall percent positivity is 12.9%, with 81.3% of cases identified as influenza Type A.
- * **Severity:** One inpatient laboratory-positive case was identified this week, a Navy retiree at NMC San Diego.
- * **Age:** Children ages 5-17 years had the highest rate of laboratory-positive influenza cases (n=34). Children ages 0-4 had the second highest rate (n=12).
- * **Location:** NMC San Diego (n=20), NH Jacksonville (n=14), and NH Camp Pendleton (n=12) 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.

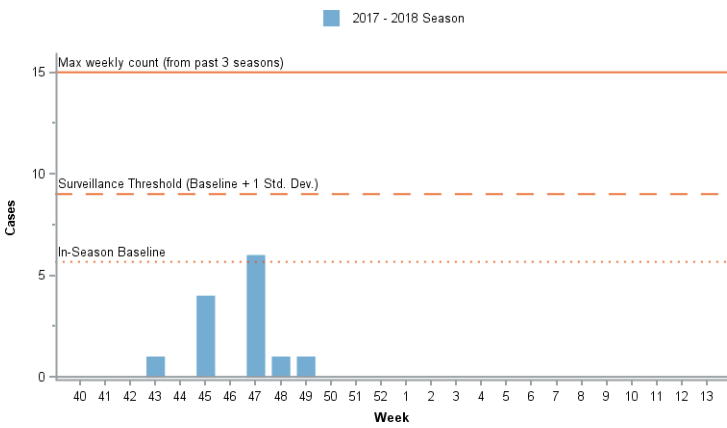
DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season



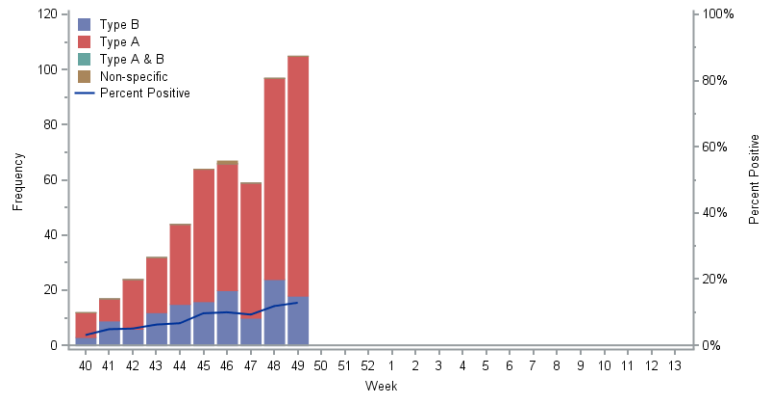
DON Laboratory-Positive, Seasonal Comparison, 2012-2018



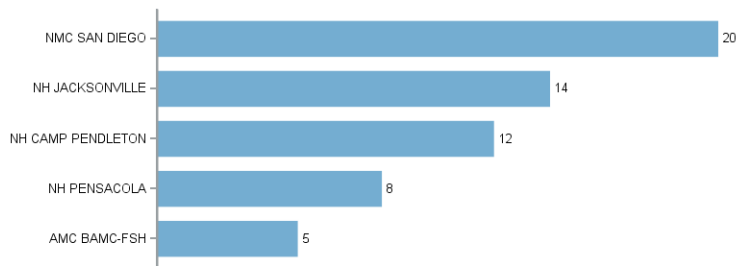
DON Inpatient Laboratory Cases (Severity)



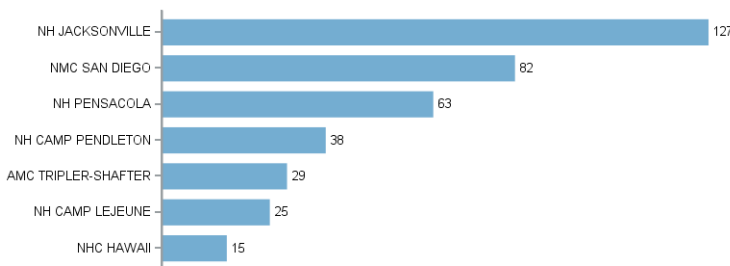
DON Laboratory-Positive Influenza Specimens, by Type



Top MTFs , Laboratory-Positive Cases, Week 49

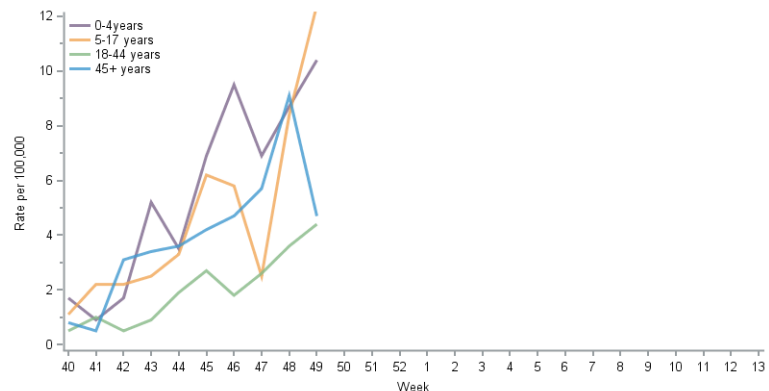


Top MTFs , Laboratory-Positive Cases, 2017-2018 Season



Note: Season counts are since Week 37.

DON Laboratory-Positive Case Rates by Age Group

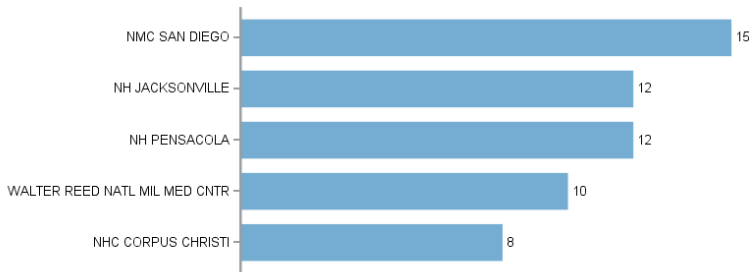


Antiviral Surveillance

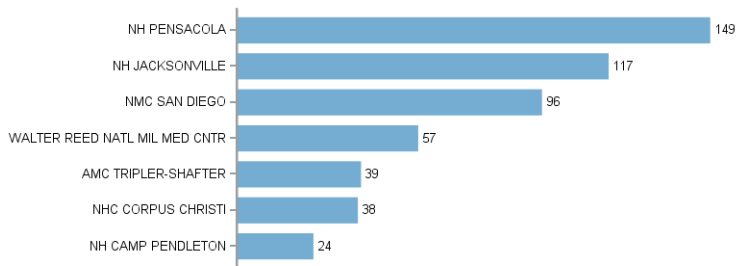
- * **Burden:** Dispensed AVs (n=109) are above baseline levels but within expected values. The number of dispensed AVs decreased 25.3% over the prior week.
- * **Severity:** Three inpatient AVs were dispensed this week to family members (n=2) and a retiree (n=1).
- * **Types:** All influenza AVs dispensed were Oseltamivir.
- * **Location:** NMC San Diego (n=15), NH Jacksonville (n=12), and NH Pensacola (n=12) had the highest number of dispensed AVs for the week.

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

Top MTFs, Dispensed Antivirals, Week 49

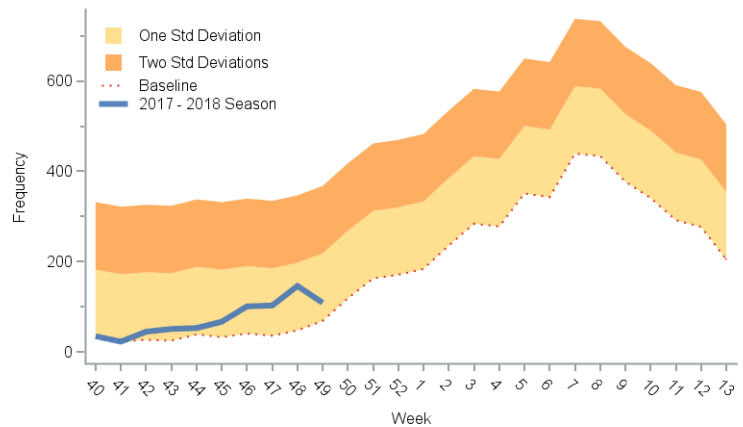


Top MTFs, Dispensed Antivirals, Season

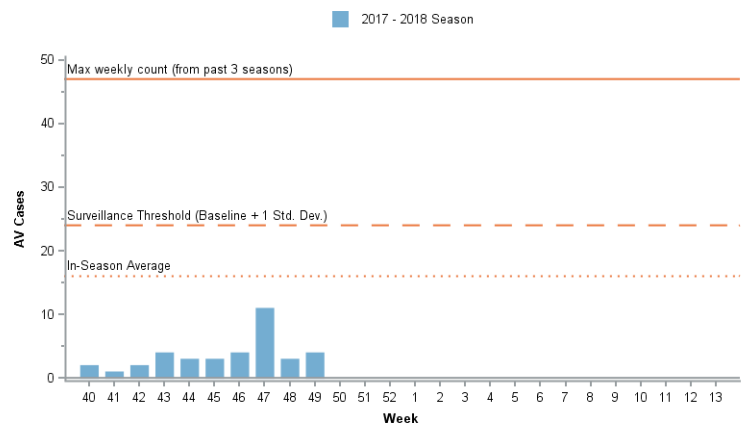


Note: Season counts are since Week 37.

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



DON Inpatient Dispensed Antivirals (Severity)



Influenza-Like Illness (Data Lagged, Week 48)

- * **All outpatient:** The percentage of outpatient medical encounters due to ILI decreased from the week prior to 4.1%. ILI activity is normal and within expected levels.
- * **Location:** ILI activity was the highest at NHC Corpus Christi (7.3%), followed by NHC Annapolis (5.5%), and NH Jacksonville (5.6%).

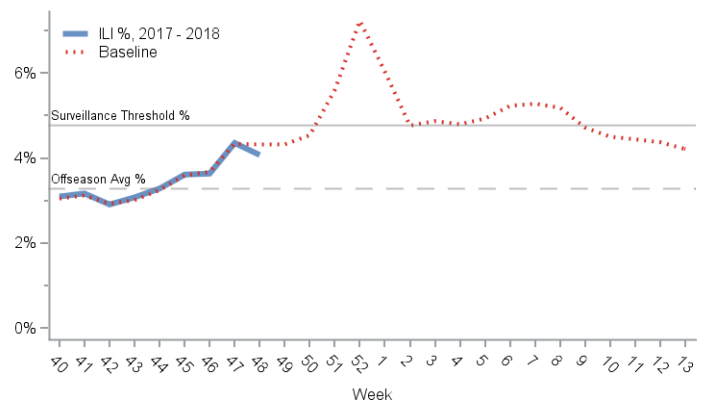
Data source: CAPER

Top DON MTFs, Percentage of Outpatient ILI, Week 48



*Data lagged by one week.

Outpatient Medical Encounters due to ILI, Week 48



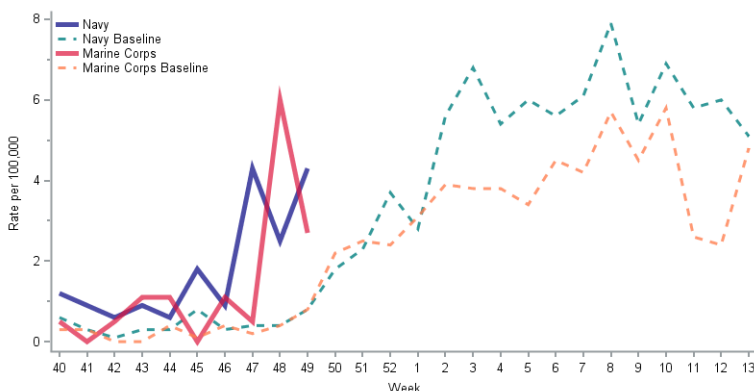
*Data lagged by one week.

Active Duty and Recruits

- * **AD Laboratory cases:** Nineteen laboratory-positive cases among Sailors (n=14) and Marines (n=5).
- * **AD Dispensed Antivirals:** Eighteen AVs dispensed among Sailors and four AVs dispensed to Marines.
- * **Recruits:** One laboratory-positive case among Navy recruits.
- * **Location:** Laboratory-positive cases occurred most frequently at NH Pensacola (n=4), NMC San Diego (n=3), and NH Jacksonville (n=3).
- * **Vaccination Status:** Ten AD laboratory-positive cases (52.6%) 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



Summary of Active Duty and Recruit Cases

	Laboratory		Dispensed AVs	
	Week 49	Season	Week 49	Season
Total Cases	20	101	22	165
Navy AD	14	59	18	121
Marine Corps AD	5	25	4	36
Navy Recruit	1	4	0	2
Marine Corps Recruit	0	13	0	6

Note: Season counts are since Week 37.

In the News

- * The CDC reports that influenza activity continues to increase in the U.S. Influenza A (H3N2) is the most commonly reported strain during Week 48. [Details](#)
- * Finding from a *Nature* article published this week suggest that survivors of influenza A (H7N9) are at risk of persistent long-term lung disability and psychological impairment. [Details](#)

Medical Event Reports (MER)

MERs for Influenza-Associated Hospitalizations

	MER	Match to Surveillance Data	
	N	N	%
Week 49	0	-	-
Season	13	8	61.5%

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

Note: Season counts are since Week 37.

Bacterial Coinfections

- * **Summary:** 3.4% of laboratory-positive influenza cases had a bacterial coinfection identified this season.
- * **Upper-respiratory:** Fourteen upper respiratory infections have been identified, all *Streptococcus*.
- * **Lower-respiratory:** Seven lower respiratory infection have been identified as *Staphylococcus* (n=2), *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	14	7	18	3.4%
Baseline	5	2	7	3.6%

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.