

Influenza Situation Report: 2017-2018 Season

Department of the Navy

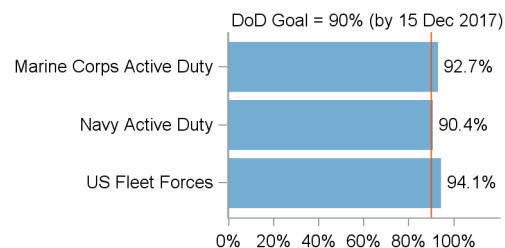


Week 2 (07 Jan 2018– 13 Jan 2018)

Weekly Highlights:

- * Overall influenza activity in the DON remains **elevated**. Laboratory-positive cases, dispensed AVs, and percent of ILI outpatient visits are all **elevated**.
- * Severity indicators are **elevated**; indicators continue to exceed both the surveillance threshold and the maximum number of inpatient cases observed within the past three years. Sixteen inpatient laboratory-positive cases occurred and sixty-three antivirals were dispensed from an inpatient setting in Week 2.

Active Duty Vaccination Rates, 16 Jan 2018

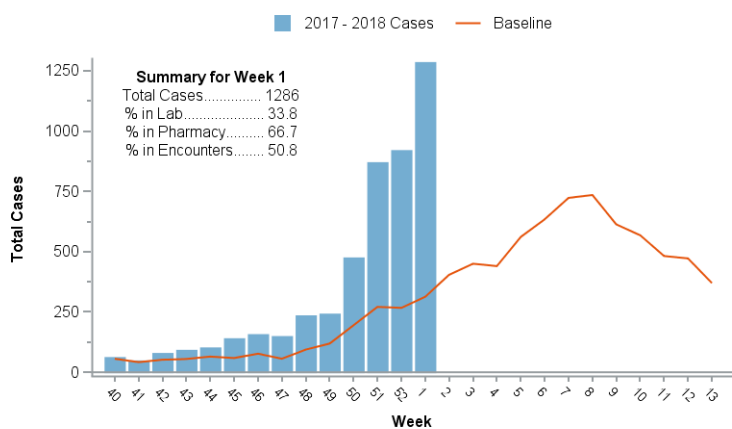


Influenza Surveillance Indicators

OVERVIEW			Trend	Activity Level
Laboratory Cases	N	510	↑	Elevated
Dispensed Antivirals	N	946	↑	Elevated
ILI Outpatient Visits	%	7.3	↓	Elevated
SEVERITY			Trend	Activity Level
Inpatient Laboratory Cases	N	16	↓	Elevated
Inpatient Dispensed Antivirals	N	63	↓	Elevated
ACTIVE DUTY AND RECRUITS			Trend	Activity Level
Active Duty Laboratory Cases	N	107	↑	Elevated
Active Duty Dispensed Antivirals	N	157	↑	Elevated
Recruit Laboratory Cases	N	2	↓	Normal
Recruit Dispensed Antivirals	N	6	↓	Normal

Overall Burden (Data Lagged, Week 1)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data



Supporting Surveillance

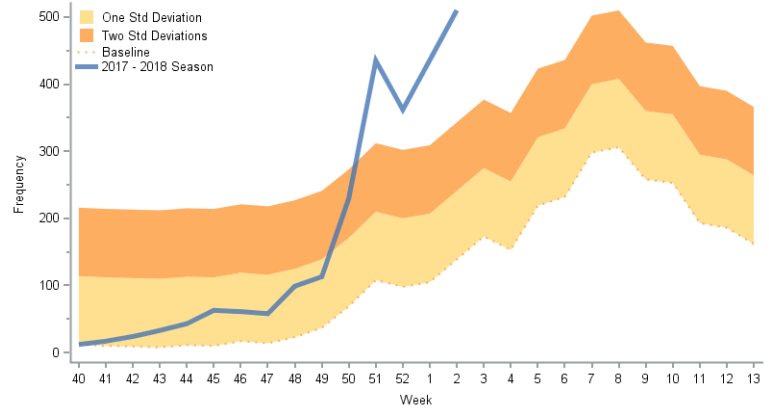
- * **DOD Global Laboratory-based Influenza Surveillance (USAFSAM).** Week 52 & 1 highlights:
 - * 146 positive influenza A specimens (131 H3N2, 13 H1N1, and 2 not subtyped) and 23 positive influenza B specimens.
 - * Access the full report [here](#).
- * **Operational Infectious Diseases (OID) Weekly Surveillance Report (NHRC).** 11JAN2018 report highlights:
 - * Influenza A/H3 cases continued in large numbers at border surveillance sites in Imperial County, CA.
 - * Increased influenza A/H3 activity in San Diego County.
 - * Access the most recent NHRC OID Surveillance reports [here](#).

Laboratory Surveillance

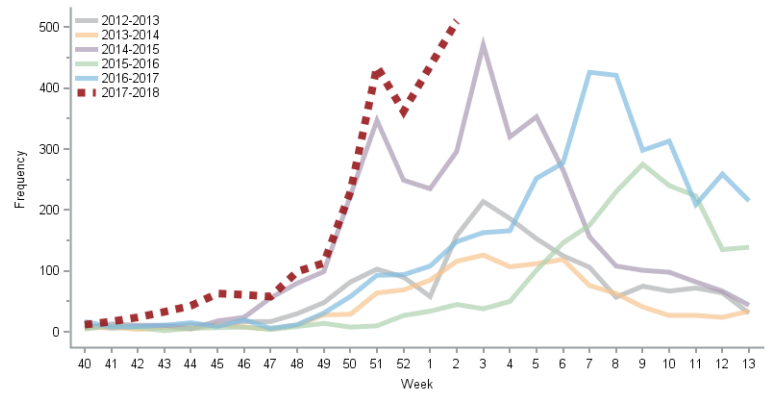
- * **Burden:** Laboratory activity is elevated, exceeding two standard deviations above baseline levels. The number of laboratory-positive cases (N=510) increased 17% over the prior week.
- * **Specimens:** Overall percent positivity is 30.4%, with 83.3% of cases identified as influenza A.
- * **Severity:** Sixteen inpatient laboratory-positive case were identified this week among family members (N=10), retirees (N=4), and AD service members (N=2). Ten cases occurred at NMC San Diego.
- * **Age:** Children ages 0-4 had the highest rate of laboratory-positive influenza cases (N=75). Adults age 45+ had the second highest rate (N=152).
- * **Location:** NH Pensacola (N=79) , NMC San Diego (N=78), and NH Jacksonville (N=42) 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.

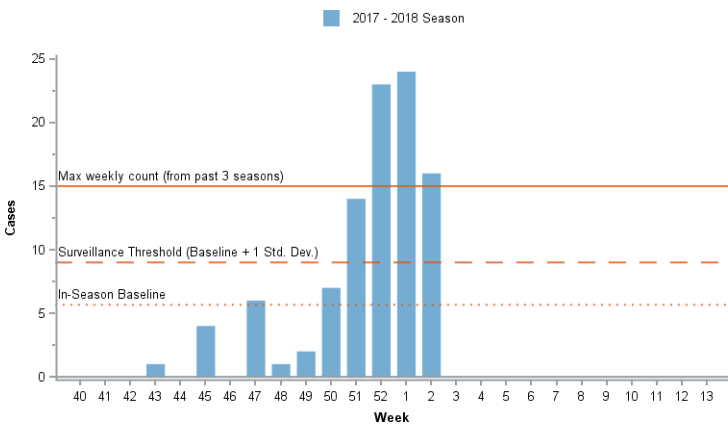
DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season



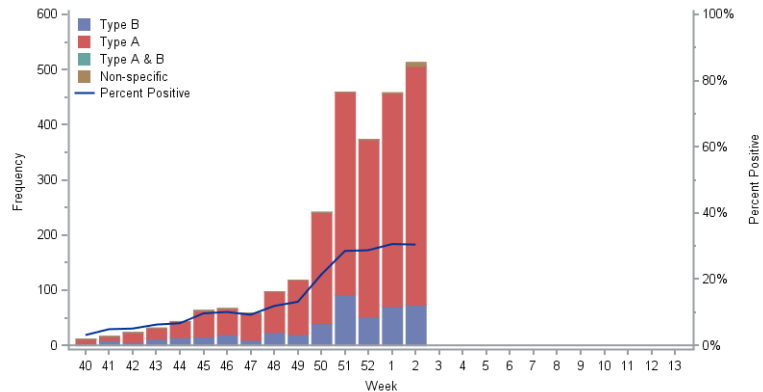
DON Laboratory-Positive, Seasonal Comparison, 2012-2018



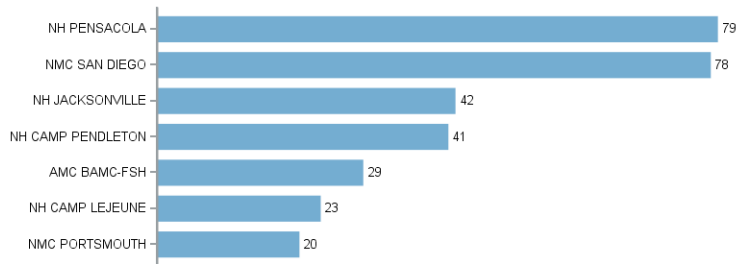
DON Inpatient Laboratory Cases (Severity)



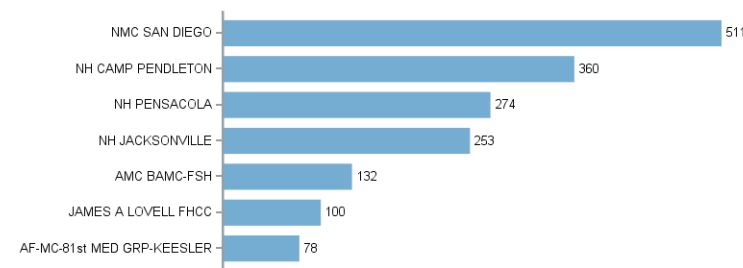
DON Laboratory-Positive Influenza Specimens, by Type



Top MTFs , Laboratory-Positive Cases, Week 2

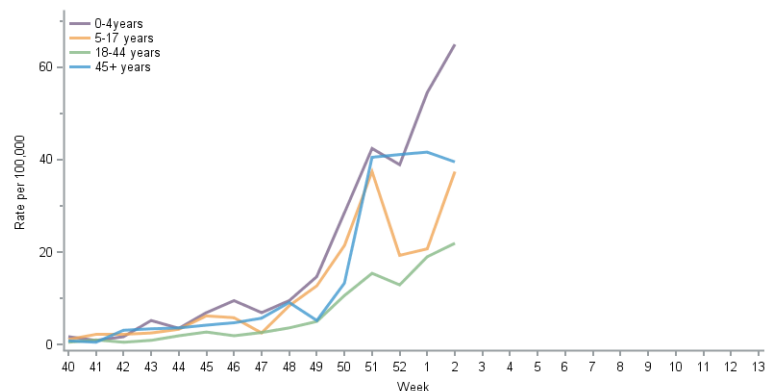


Top MTFs , Laboratory-Positive Cases, 2017-2018 Season



Note: Season counts are since Week 37.

DON Laboratory-Positive Case Rates by Age Group

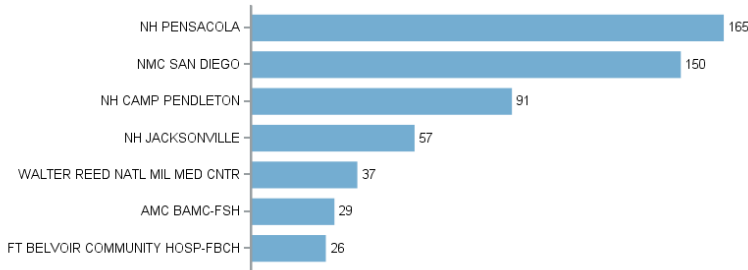


Antiviral Surveillance

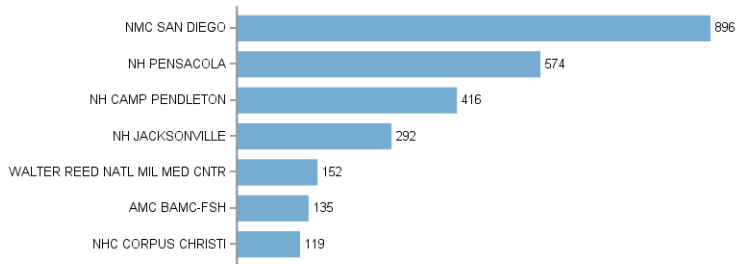
- * **Burden:** Dispensed AVs (N=947) are elevated, exceeding two standard deviations above baseline levels. The number of dispensed AVs increased for a fifth week, with a 9.9% increase over the prior week.
- * **Severity:** Sixty-three inpatient AVs were dispensed this week to family members (N=43), retirees (N=17), and AD service members (N=3).
- * **Types:** All AVs dispensed were Oseltamivir (N=945), Zanamivir (N=1), and Peramivir (N=1)
- * **Location:** NH Pensacola (N=165), NMC San Diego (N=150), and NH Camp Pendleton (N=91) had the highest weekly number of dispensed AVs.

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

Top MTFs, Dispensed Antivirals, Week 2

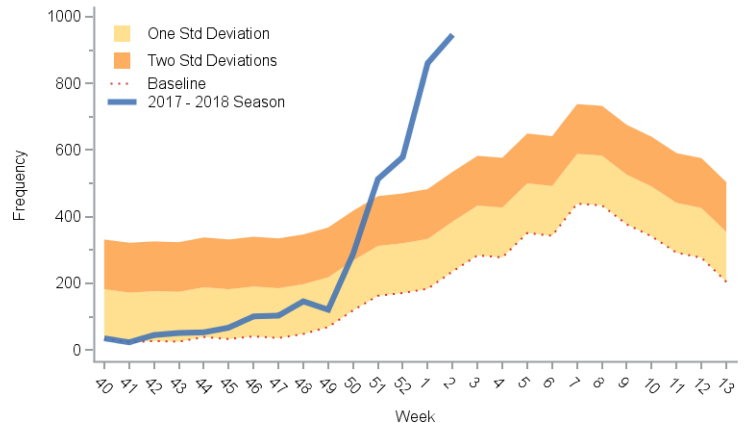


Top MTFs, Dispensed Antivirals, Season

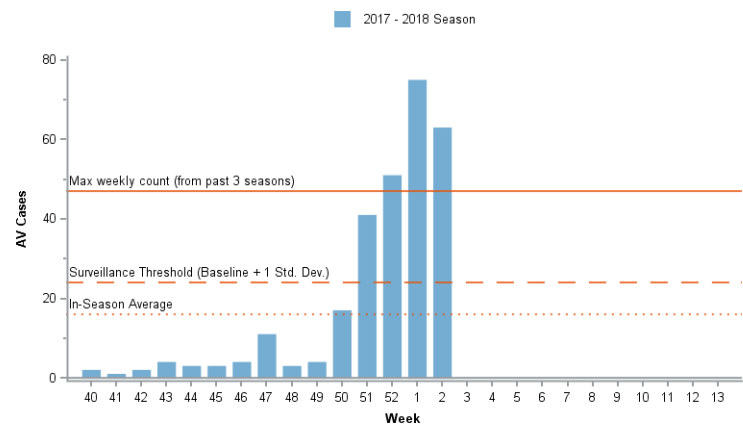


Note: Season counts are since Week 37.

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



DON Inpatient Dispensed Antivirals (Severity)

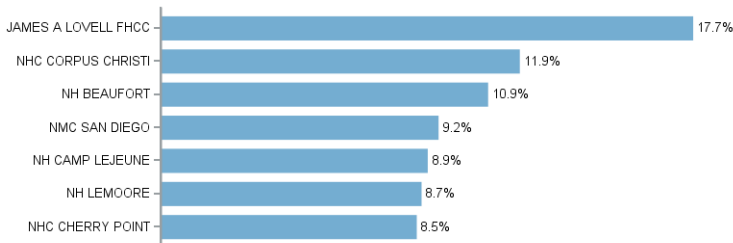


Influenza-Like Illness (Data Lagged, Week 1)

- * **All outpatient:** ILI activity is elevated. The percentage of outpatient medical encounters due to ILI was 6.0% in Week 1.
- * **Location:** ILI activity was highest at James A Lovell FHCC (17.7%), followed by NHC Corpus Christi (11.9%), and NH Beaufort (10.9%).

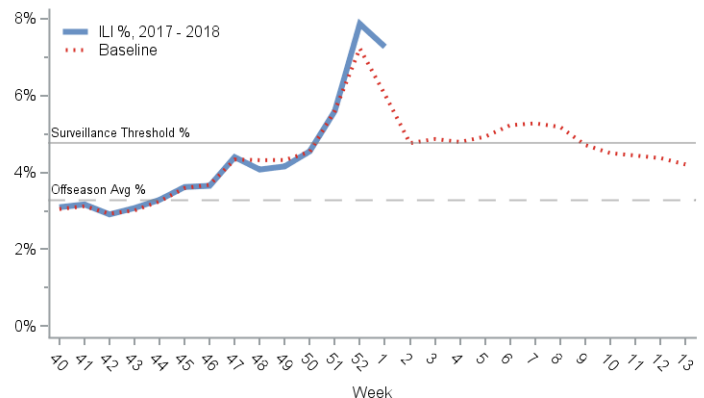
Data source: CAPER

Top DON MTFs, Percentage of Outpatient ILI, Week 1



*Data lagged by one week.

Outpatient Medical Encounters due to ILI, Week 1



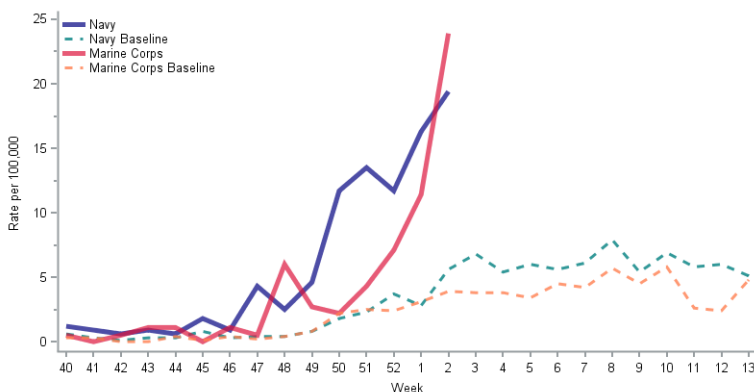
*Data lagged by one week.

Active Duty and Recruits

- * **AD Laboratory cases:** One hundred and seven laboratory-positive cases among AD Sailors (N=63) and Marines (N=44).
- * **AD Dispensed Antivirals:** One hundred and six AVs dispensed among Sailors and fifty-one AVs dispensed to Marines.
- * **Recruits:** Two laboratory-positive cases and six AVs dispensed among recruits.
- * **Location:** Laboratory-positive cases occurred most frequently at NH Pensacola (N=20), NMC San Diego (N=18), and NH Camp Pendleton (N=13).
- * **Vaccination Status:** Eighty-two AD laboratory-positive cases (76.6%) 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 2	Season	Week 2	Season
Total Cases	109	467	163	680
Navy AD	63	296	106	474
Marine Corps AD	44	115	51	159
Navy Recruit	1	30	4	29
Marine Corps Recruit	1	26	2	18

Note: Season counts are since Week 37.

In the News

- * CDC reports widespread flu activity in 49 states. Seven new flu-associated pediatric deaths reported this week. [Details](#)
- * Numerous articles are reporting on the current flu season, including:
 - * An *ABC News* article about school closures and hospital overcrowding related to localized influenza outbreaks. [Details](#)
 - * A *NBC San Diego* article about the record number of flu-associated deaths in San Diego County. [Details](#)

Medical Event Reports (MER)

MERs for Influenza-Associated Hospitalizations

	MER	Match to Surveillance Data	
	N	N	%
Week 2	9	9	100.0%
Season	31	26	83.9%

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

Note: Season counts are since Week 37.

Bacterial Coinfections

- * **Summary:** 2.4% of laboratory-positive influenza cases had a bacterial coinfection identified this season.
- * **Upper-respiratory:** Forty-seven upper respiratory infections have been identified, all *Streptococcus*.
- * **Lower-respiratory:** Twenty-five lower respiratory infections have been identified as *Staphylococcus* (N=8), *Corynebacterium* (N=2), *Enterococcus* (N=2), *Escherichia* (N=1), *Enterobacter* (N=1), *Haemophilus* (N=3), *Klebsiella* (N=1), *Neisseria* (N=1), *Pantoea* (N=1), *Pseudomonas* (N=1), *Stenotrophomonas* (N=2), and *Streptococcus* (N=2).

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	43	25	60	2.4%
Baseline	18	5	22	3.2%

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 18 Jan 2018.