

Influenza Situation Report: 2017-2018 Season

Department of the Navy

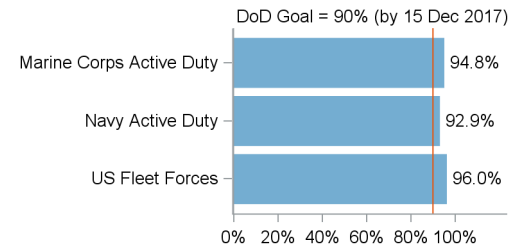


Week 6 (04 Feb – 10 Feb 2018)

Weekly Highlights:

- * Overall influenza activity in the DON remains **elevated**. Laboratory-positive cases, dispensed AVs, and the percent of ILI outpatient visits are all **elevated**. Both laboratory-positive cases and dispensed antivirals decreased over the prior week.
- * The number of inpatient dispensed antivirals is **elevated**.
- * The number of inpatient laboratory cases is **low** and continues to trend downward.
- * Active duty laboratory-positive cases and dispensed antivirals are **elevated**. Recruit laboratory cases are **elevated**. Recruit dispensed antivirals are **normal**.

Active Duty Vaccination Rates, 05 Feb 2018

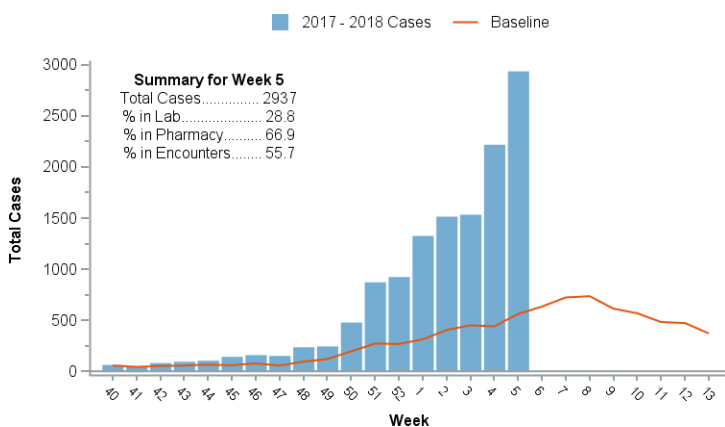


Influenza Surveillance Indicators

OVERVIEW			Trend	Activity Level
Laboratory Cases	N	648	↓	Elevated
Dispensed Antivirals	N	1779	↓	Elevated
ILI Outpatient Visits	%	5.6	↑	Elevated
SEVERITY			Trend	Activity Level
Inpatient Laboratory Cases	N	2	↓	Low
Inpatient Dispensed Antivirals	N	29	↓	Elevated
ACTIVE DUTY AND RECRUITS			Trend	Activity Level
Active Duty Laboratory Cases	N	97	↓	Elevated
Active Duty Dispensed Antivirals	N	258	↓	Elevated
Recruit Laboratory Cases	N	11	↑	Elevated
Recruit Dispensed Antivirals	N	6	↑	Normal

Overall Burden (Data Lagged, Week 5)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data



Supporting Surveillance

- * **DOD Seasonal Influenza Surveillance Summary (AFHSB). Week 5 highlights:**
 - * The percentage of positive lab tests are high at 20.0% for service members, and remained stable at 31.1% for other beneficiaries.
 - * Access the full report [here](#).
- * **Operational Infectious Diseases (OID) Weekly Surveillance Report (NHRC).**

08FEB2018 report highlights:

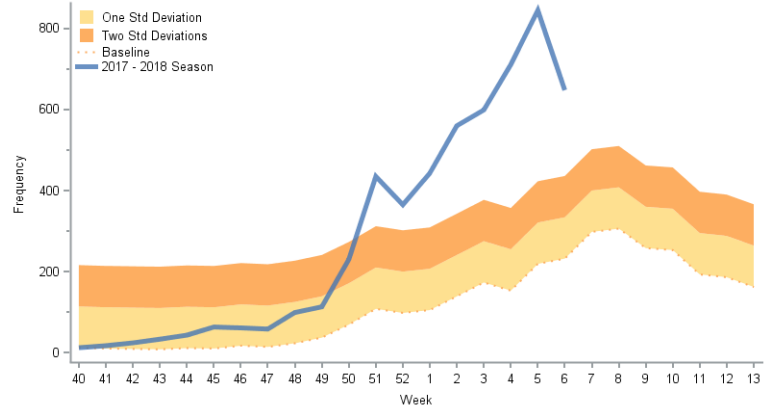
 - * Clusters of influenza among trainees were seen at basic training centers in San Diego and New Jersey .
 - * Access the most recent NHRC OID Surveillance reports [here](#).

Laboratory Surveillance

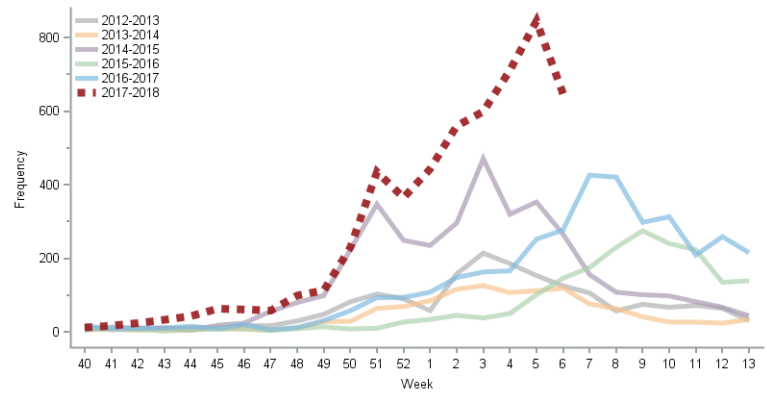
- * **Burden:** Laboratory activity is elevated, exceeding two standard deviations above baseline levels. The number of laboratory-positive cases (N=648) decreased 23.3% from the prior week.
- * **Specimens:** Overall percent positivity is 26.7%, with 68.3% of cases identified as influenza A.
- * **Severity:** Two inpatient laboratory-positive case were identified among family members at NMC San Diego.
- * **Age:** Children ages 0-4 had the highest rate of laboratory-positive influenza cases at 101.2 cases per 100,000 persons, while children ages 5-17 had the second highest rate at 90.5 cases per 100,000 persons.
- * **Location:** NMC Portsmouth (N=75), NH Pensacola (N=759), and NH Camp Lejeune (N=47) 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.

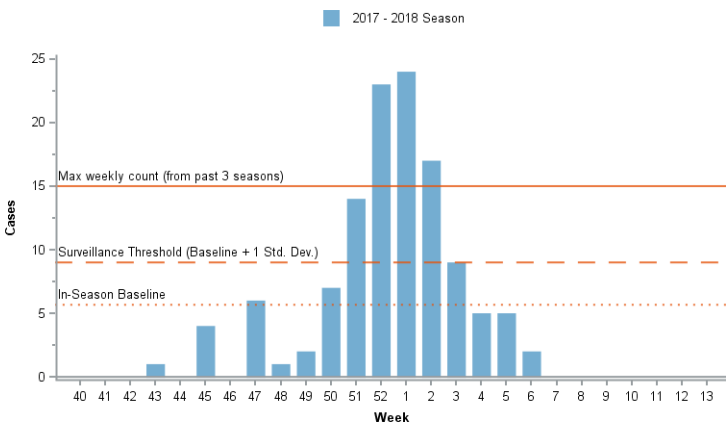
DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season



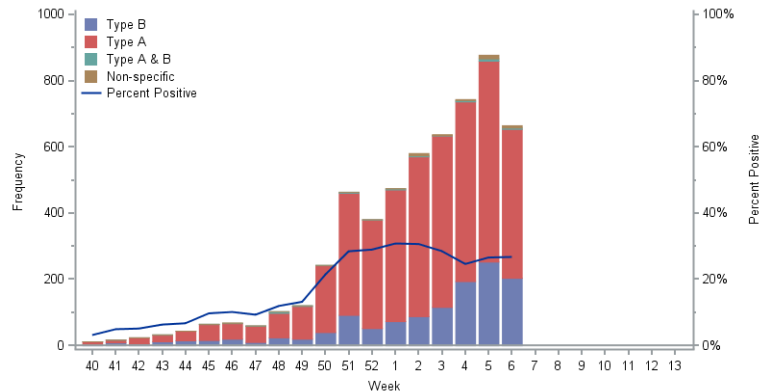
DON Laboratory-Positive, Seasonal Comparison, 2012-2018



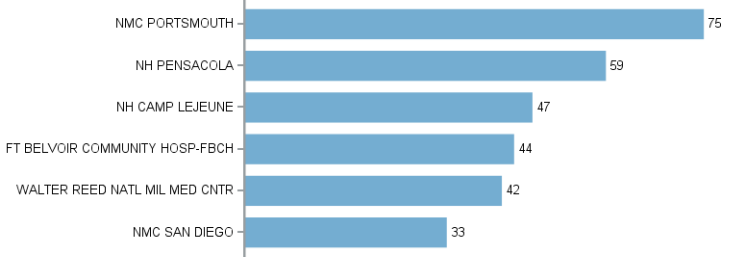
DON Inpatient Laboratory Cases (Severity)



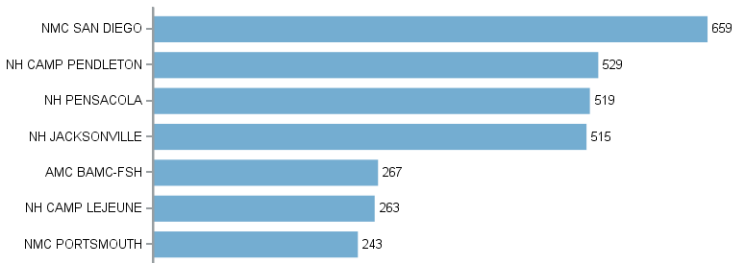
DON Laboratory-Positive Influenza Specimens, by Type



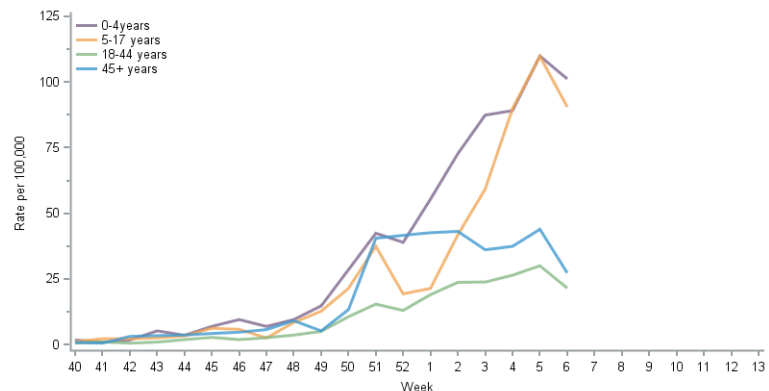
Top MTFs , Laboratory-Positive Cases, Week 6



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



DON Laboratory-Positive Case Rates by Age Group



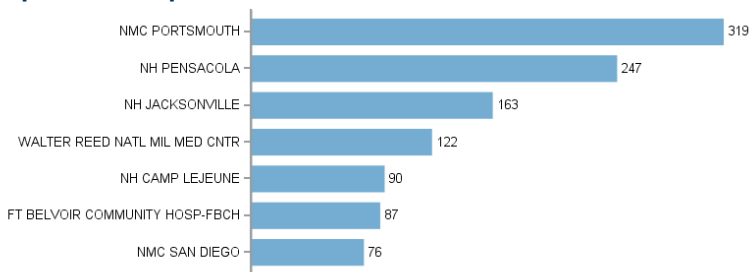
Note

Antiviral Surveillance

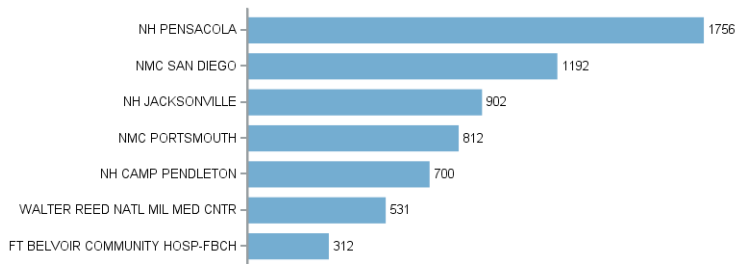
- * **Burden:** Dispensed AVs (N=1779) are elevated, far exceeding baseline levels. However, the number of dispensed AVs decreased 9.7% over the prior week.
- * **Severity:** 29 inpatient AVs were dispensed this week to family members (N=18), retirees (N=5), AD service members (N=4), a former spouse (N=1), and a recruit (N=1).
- * **Types:** All AVs dispensed this week were for Oseltamivir .
- * **Location:** NMC Portsmouth (N=319), NH Pensacola (N=247) , and NH Jacksonville (N=163) 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 6

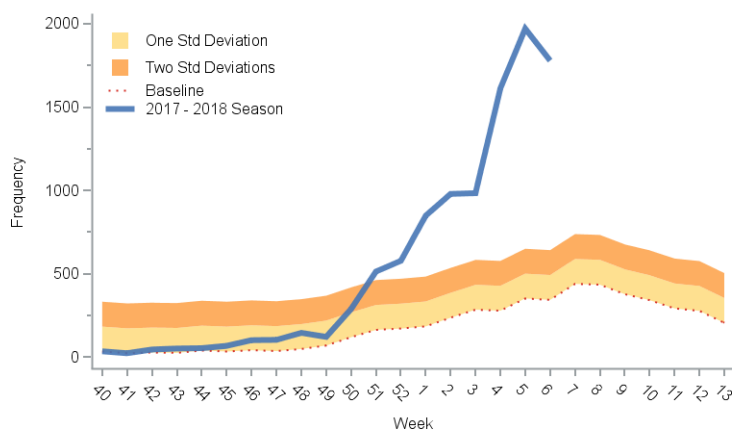


Top MTFs, Dispensed Antivirals, Season

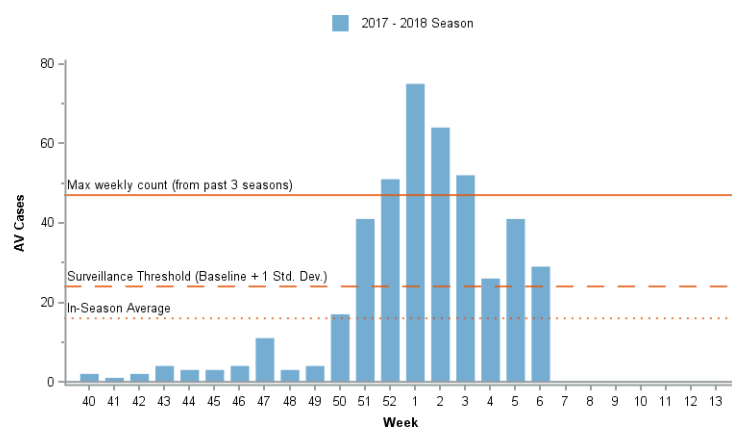


Note: Season counts are since Week 67.

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



DON Inpatient Dispensed Antivirals (Severity)



Influenza-Like Illness (Data Lagged, Week 5)

- * **All outpatient:** ILI activity is elevated. The percentage of outpatient medical encounters due to ILI was 5.6% in Week 5.
- * **Location:** ILI activity was highest at NH Naples (11.2%), followed by NH Jacksonville (8.9%), and NH Naples (8.7%).

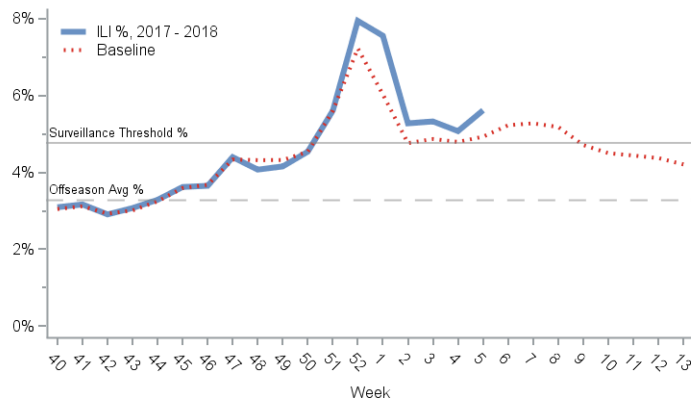
Data source: CAPER

Top DON MTFs, Percentage of Outpatient ILI, Week 5



*Data lagged by one week.

Outpatient Medical Encounters due to ILI, Week 5



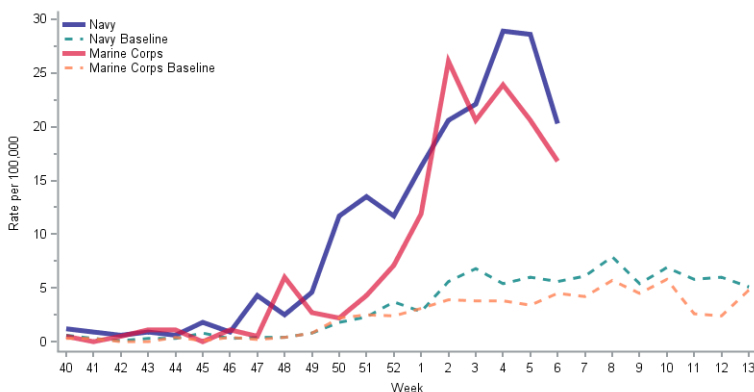
*Data lagged by one week.

Active Duty and Recruits

- * **AD Laboratory cases:** 97 laboratory-positive cases among AD Sailors (N=66) and Marines (N=31).
- * **AD Dispensed Antivirals:** 196 AVs dispensed among AD Sailors and 62 AVs dispensed to Marines.
- * **Recruits:** 11 laboratory-positive cases and four AVs dispensed among recruits.
- * **Location:** Laboratory-positive cases occurred most frequently at NMC Portsmouth (N=11), NH Pensacola (N=11), and NHC Quantico (N=11).
- * **Vaccination Status:** 81 AD laboratory-positive cases (83.5%) 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 6	Season	Week 6	Season
Total Cases	108	994	264	1,702
Navy AD	66	625	196	1,216
Marine Corps AD	31	271	62	406
Navy Recruit	5	55	2	48
Marine Corps Recruit	6	43	4	32

Note: Season counts are since Week 67.

In the News

- * CDC reports elevated influenza activity in Week 5, with widespread flu activity in all states but Hawaii and Oregon. Ten new flu-associated pediatric deaths reported this week. [Details](#)
- * A *Nature* scientific report shows far ultraviolet C light may be an effective tool for reducing the spread of airborne-mediated microbial diseases, including influenza. [Details](#)

Medical Event Reports (MER)

MERs for Influenza-Associated Hospitalizations

	MER	Match to Surveillance Data	
	N	N	%
Week 6	3	1	33.3%
Season	66	56	84.8%

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

Note: Season counts are since Week 67.

Bacterial Coinfections

- * **Summary:** 3.2% of laboratory-positive influenza cases had a bacterial coinfection identified this season.
- * **Upper-respiratory:** 163 upper respiratory infections have been identified among 153 cases, all *Streptococcus*.
- * **Lower-respiratory:** 28 lower respiratory infections have been identified as *Staphylococcus* (N=10), *Haemophilus* (N=3), *Corynebacterium* (N=2), *Enterococcus* (N=2), *Streptococcus* (N=2), *Stenotrophomonas* (N=2), *Enterobacter* (N=1), *Escherichia* (N=1), *Klebsiella* (N=1), *Neisseria* (N=1), *Pantoea* (N=1), *Pseudomonas* (N=1) and *Serratia* (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	153	28	173	3.2%
Baseline	48	7	55	3.7%

Note: Season counts are since Week 67.

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 07 Feb 2018.