

Influenza Situation Report: 2017-2018 Season

Department of the Navy

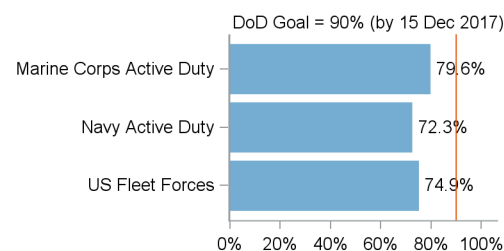


Week 47 (19 Nov - 25 Nov 2017)

Weekly Highlights:

- * Influenza activity in the DON is **normal** and within expected levels. Laboratory-positive cases decreased in Week 47; however, dispensed AVs increased from the prior week.
- * Severity indicators are increasing but **normal** and within expected levels, with six inpatient laboratory-positive cases and eleven dispensed antivirals from an inpatient setting.
- * NH Jacksonville and Walter Reed NMMC had the most laboratory-positive cases (both with 12), while the largest percentage of ILI visits occurred at NHC Annapolis (6.8%).
- * An outbreak of influenza A (n=9) has been reported at Walter Reed NMMC.

Active Duty Vaccination Rates, 27 Nov 2017

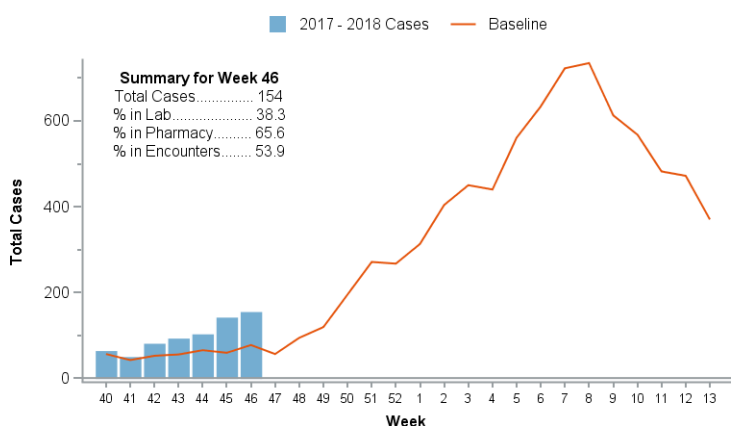


Influenza Surveillance Indicators

OVERVIEW			Trend	Activity Level
Laboratory Cases	N	55	↓	Normal
Dispensed Antivirals	N	105	↑	Normal
ILI Outpatient Visits	%	3.7	↑	Normal
SEVERITY			Trend	Activity Level
Inpatient Laboratory Cases	N	6	↑	Normal
Inpatient Dispensed Antivirals	N	11	↑	Normal
ACTIVE DUTY AND RECRUITS			Trend	Activity Level
Active Duty Laboratory Cases	N	14	↑	Normal
Active Duty Dispensed Antivirals	N	31	↑	Normal
Recruit Laboratory Cases	N	1	↑	Normal
Recruit Dispensed Antivirals	N	1	↑	Normal

Overall Burden (Data Lagged, Week 46)

DON Total Influenza Cases from Laboratory, Pharmacy and Encounter Data



Supporting Surveillance

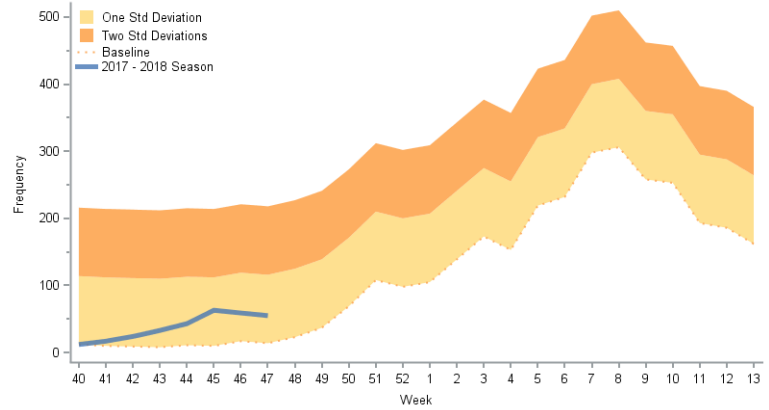
- * **DOD Global Laboratory-based Influenza Surveillance (USAFSAM).**
Weeks 43 & 44 highlights:
 - * Six positive influenza A specimens (all H3N2)
 - * One positive influenza B specimen.
 - * Access the full report [here](#).
- * **Operational Infectious Diseases (OID) Weekly Surveillance Report (NHRC).**
21 Nov 2017 report highlights:
 - * Sharp increase in influenza A/H3 cases in Imperial County, CA.
 - * Access the most recent NHRC OID Surveillance reports [here](#).

Laboratory Surveillance

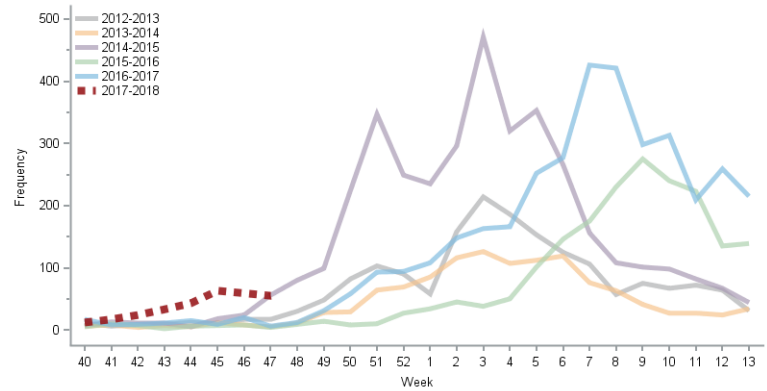
- * **Burden:** Laboratory-positive cases (n=55) are above baseline levels but within expected values. The number of cases decreased over the prior week by 6.8%.
- * **Specimens:** Overall percent positivity is 9.6%, with 84.2% of cases identified as influenza Type A.
- * **Severity:** Six inpatient laboratory-positive cases were identified this week. Cases occurred among retirees (3), an active duty Sailor (1), and other family members (2).
- * **Age:** Children ages 0-4 years had the highest rate of laboratory-positive influenza cases (n=7). Adults over the age of 45 had the second highest rate (n=21).
- * **Location:** NH Jacksonville (n=12), Walter Reed NMMC (n=12), and NMC San Diego (n=8), 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.

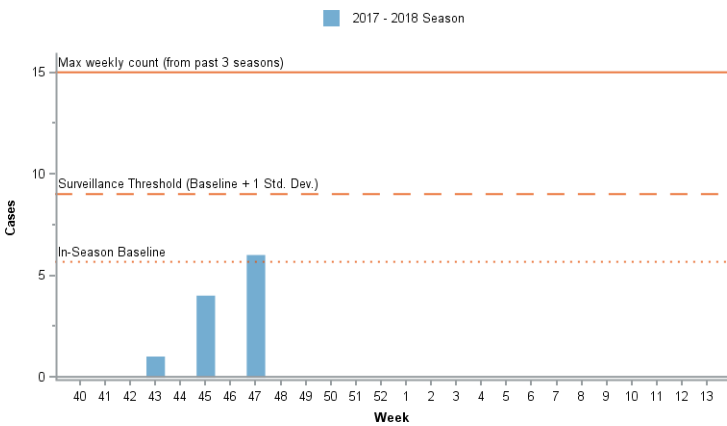
DON Laboratory-Positive Influenza Cases and Seasonal Baseline, 2017-2018 Season



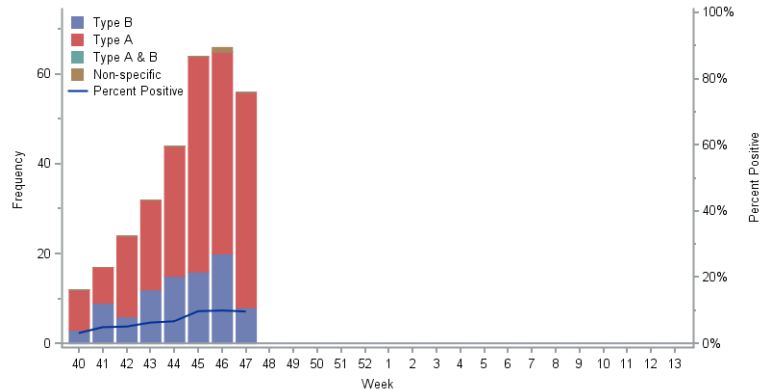
DON Laboratory-Positive, Seasonal Comparison, 2012-2017



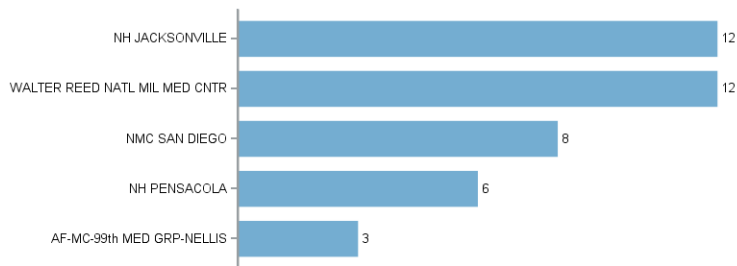
DON Inpatient Laboratory Cases (Severity)



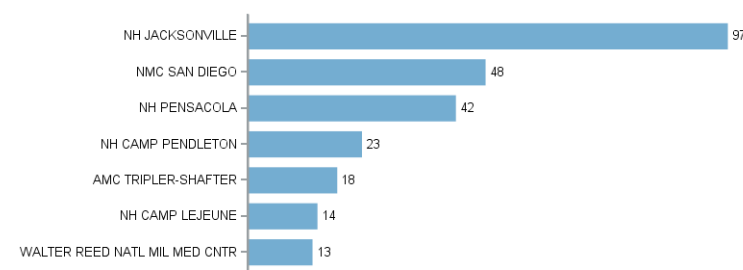
DON Laboratory-Positive Influenza Specimens, by Type



Top MTFs , Laboratory-Positive Cases, Week 47

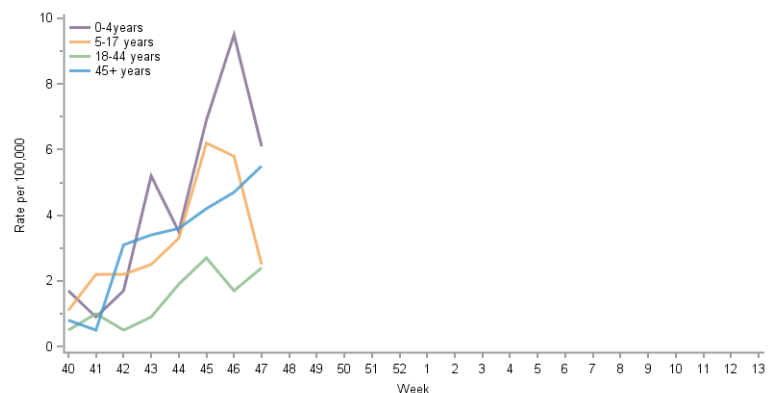


Top MTFs , Laboratory-Positive Cases, 2017-2018 Season



Note: Season counts are since Week 37.

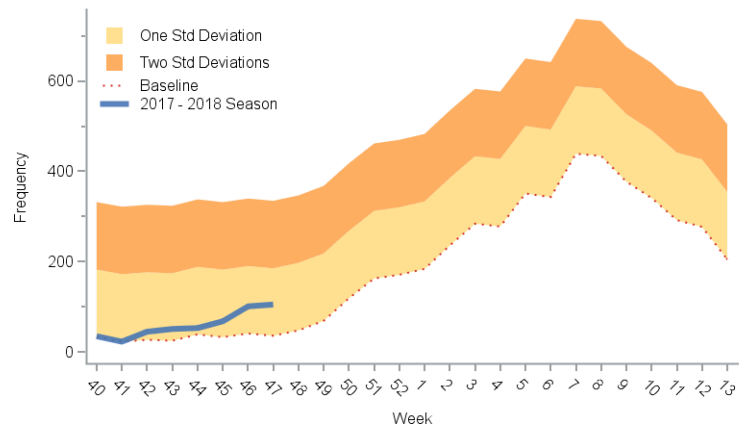
DON Laboratory-Positive Case Rates by Age Group



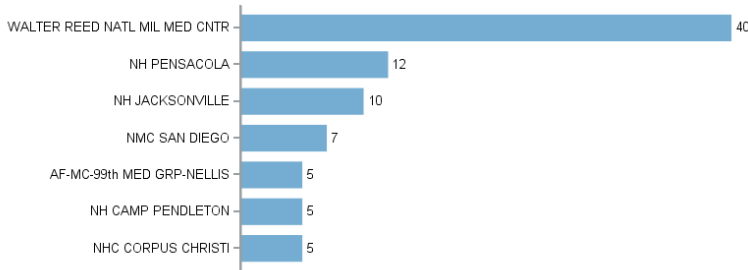
Antiviral Surveillance

- * **Burden:** Dispensed AVs (n=105) are above baseline levels but within expected values. The number of dispensed AVs increased over the prior week with an increase of 4.0%.
- * **Severity:** Eleven inpatient AVs were dispensed this week. Five AVs were dispensed to family members, three were dispensed to retirees, two were dispensed to active duty Sailors, and one was dispensed to a Reservist.
- * **Types:** All influenza AVs dispensed were Oseltamivir.
- * **Location:** Walter Reed NMMC (n=40), NH Pensacola (n=12), NH Jacksonville (n=10), and NMC San Diego (n=7), had the highest number of dispensed AVs for the week.

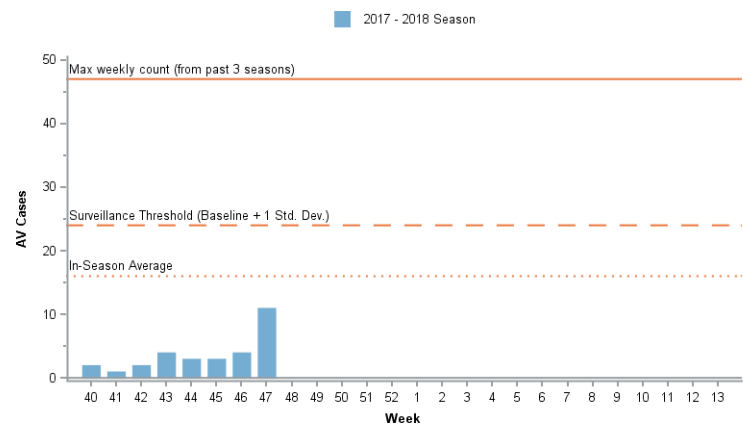
DON Influenza Specific Antiviral Prescriptions and Seasonal Baseline, 2017-2018 Season



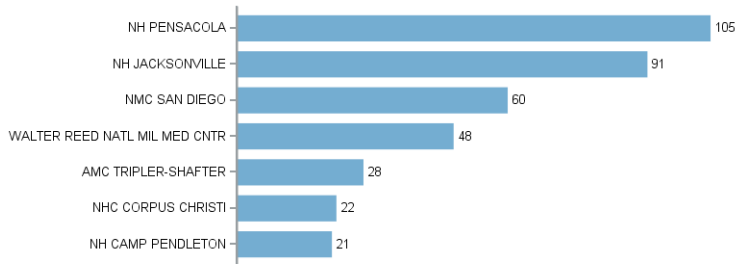
Top MTFs, Dispensed Antivirals, Week 47



DON Inpatient Dispensed Antivirals (Severity)



Top MTFs, Dispensed Antivirals, Season



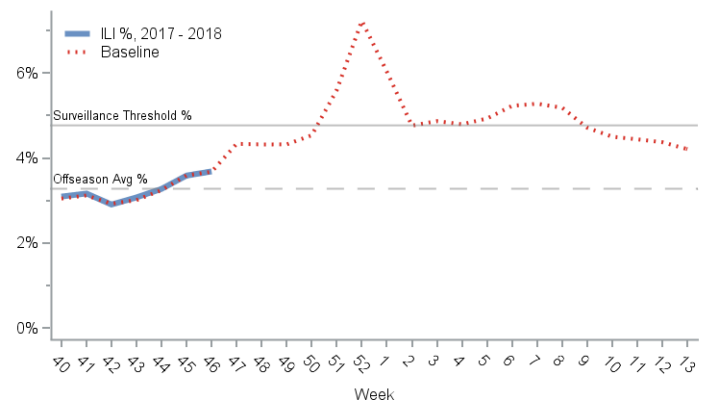
Note: Season counts are since Week 37.

Influenza-Like Illness (Data Lagged, Week 46)

- * **All outpatient:** The percentage of outpatient medical encounters due to ILI increased from the week prior to 3.7%. ILI activity is normal and within expected levels.
- * **Location:** ILI activity was the highest at NHC Annapolis (6.8%), followed by NH Jacksonville (5.2%), and NHC Corpus Christi (5.0%).

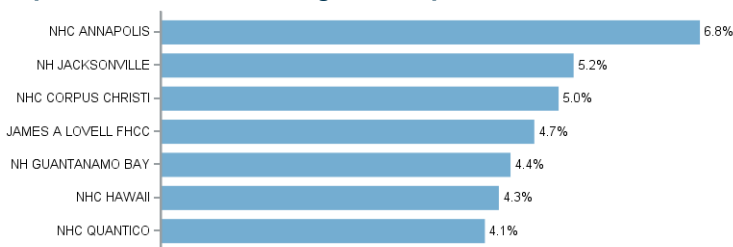
Data source: CAPER

Outpatient Medical Encounters due to ILI, Week 46



*Data lagged by one week.

Top DON MTFs, Percentage of Outpatient ILI, Week 46



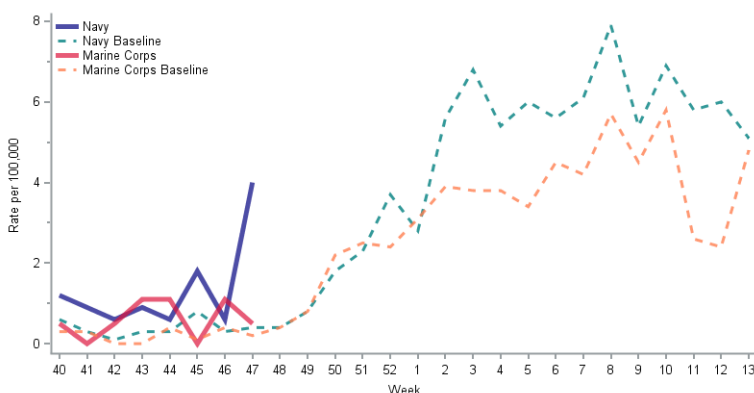
*Data lagged by one week.

Active Duty and Recruits

- * **AD Laboratory cases:** Fourteen laboratory-positive cases total among Sailors (n=13) and Marines (n=1).
- * **AD Dispensed Antivirals:** Twenty-nine AVs dispensed among Sailors and two AVs dispensed to Marines.
- * **Recruits:** One laboratory-positive case and one dispensed AV to a Navy recruit.
- * **Location:** Laboratory-positive cases occurred at Walter Reed NMMC (n=8), James A Lovell FHCC (n=2), and five other facilities (all with one case each).
- * **Vaccination Status:** Nine AD laboratory-positive cases (64.3%) 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 47	Season	Week 47	Season
Total Cases	15	58	32	111
Navy AD	13	35	29	82
Marine Corps AD	1	9	2	21
Navy Recruit	1	1	1	2
Marine Corps Recruit	0	13	0	6

Note: Season counts are since Week 37.

In the News

- * The CDC reports that influenza activity is increasing in the U.S. Five influenza-associated pediatric deaths have been reported, one of which occurred during the 2016-2017 season. [Details](#)
- * A new study released *Clinical Infectious Diseases* indicates that Oseltamivir use in children reduces the duration of illness and the likelihood of ear infection. [Details](#)

Medical Event Reports (MER)

MERs for Influenza-Associated Hospitalizations

	MER	Match to Surveillance Data	
	N	N	%
Week 47	3	3	100.0%
Season	10	5	50.0%

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

Note: Season counts are since Week 37.

Bacterial Coinfections

- * **Summary:** 4.0% of laboratory-positive influenza cases had a bacterial coinfection identified this season.
- * **Upper-respiratory:** Eleven upper respiratory infections have been identified, all *Streptococcus*.
- * **Lower-respiratory:** Five lower respiratory infection have been identified as *Staphylococcus* (n=2), *Enterococcus* (n=1), *Escherichia* (n=1), and *Klebsiella* (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	11	5	13	4.0%
Baseline	2	1	3	2.1%

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 past three seasons 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 22 Nov 2017.