



Influenza Situation Report: 2015-2016 Season

Department of the Navy

Week 9 (28 February to 5 March 2016)

Overall Summary

The number of laboratory positive cases and antiviral prescriptions remain above seasonal baselines. The rates of influenza cases among children continue to increase and are significantly above baselines.

Key Findings

Influenza Activity and Surveillance

Laboratory

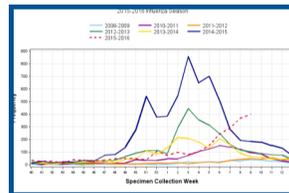
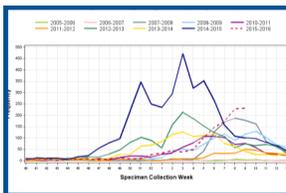
232 laboratory positive influenza cases were identified during Week 9, substantially above baseline. [Details](#)

Antivirals (AVs)

401 AV medications were dispensed in Week 9, substantially above baseline. [Details](#)

Influenza-Like Illness (ILI)

Overall, 4.9% of outpatient medical encounters were due to ILI, at baseline. [Details](#)



Severity Indicators

Inpatient

This week, there were six inpatient laboratory positive cases and 26 inpatient antiviral prescriptions. There were five influenza cases reported to DRSi; four were hospitalized. [Details](#)

Coinfections

There were thirteen bacterial coinfections identified among laboratory positive cases during Week 9. [Details](#)

Select Populations

Active Duty and Recruits

In Week 9, there were 20 laboratory positive cases and 51 AV prescriptions dispensed to active duty personnel. Among recruits, there were eight laboratory positive cases. Six cases were dispensed AV prescriptions. [Details](#)

Most current NHRC surveillance reports febrile respiratory illness rates were at or below expected values at MCRD San Diego, MCRD Parris Island, and NRTC Great Lakes. [Details](#)

Children

The number of influenza positive laboratory cases among children surpassed two standard deviations during Week 9. [Details](#)

Active Duty Vaccination Rates

Navy: 94.1%
Marine Corps: 95.9%
US Fleet Forces: 98.6%

[View Table](#)

Data source: MRRS, current as of 07 Mar 2016.

Prepared by the EpiData Center ([email](#); [web](#))

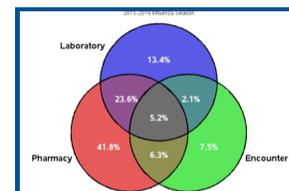


Influenza Activity and Surveillance

Overall Burden

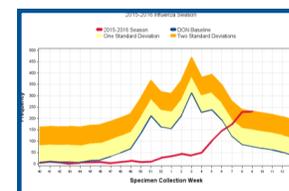
The estimated burden of influenza across the DON combines three major sources of data: certified laboratory results, antiviral pharmacy transactions, and medical encounters with influenza-specific diagnoses.

- During Week 9, there were 521 DON cases identified in one or more data sources; pharmacy captured the highest proportion of cases (77.0%). Twenty-seven cases were identified in all three sources.
- Since Week 40, there have been 3,564 DON cases identified in at least one of the three data sources.



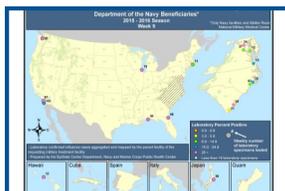
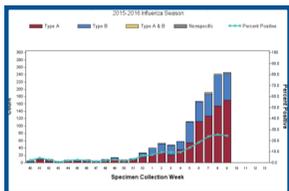
Laboratory Cases

- 232 laboratory positive influenza cases were identified during Week 9 (161 type A, 68 type B, 3 type A & B); reaching the boundary of the second standard deviation above baseline.
- Most common facilities this week: NH Jacksonville (35), NMC San Diego (33), and NH Camp Pendleton (18).
- Since Week 40, 1,167 laboratory positive cases were identified among DON beneficiaries. Top facilities thus far: NMC San Diego (335), NH Camp Pendleton (106), NH Jacksonville (106), and NH Bremerton (63).



Specimen Positivity

- 24.6% of all influenza specimens tested during Week 9 were positive, higher than the same time last season (13.8%).
- When grouped by parent facility, 18 (64.3%) locations tested more than ten specimens. NHC Hawaii (50.0%) and James A Lovell FHCC (47.4%)

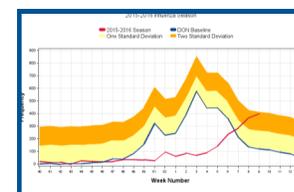


Test Types among Positive Influenza Specimens, n (%)				
	Rapid	Culture	PCR	Total
Week 7	85 (44.3)	7 (3.6)	100(52.8)	192
Week 8	136 (56.2)	9 (3.7)	97 (40.1)	242
Week 9	169 (68.7)	6(2.4)	71(28.9)	246
Season	728 (56.8)	86 (6.7)	467 (36.5)	1,281

Antiviral Prescriptions

- 401 antiviral prescriptions were dispensed during Week 9, reaching the boundary of the second standard deviation above baseline.
- Most common facilities this week: NMC San Diego (103) and NH Jacksonville (36).
- Since Week 40, the majority (99.1%) of prescriptions were for oseltamivir.

Antiviral Medications Dispensed to DON Beneficiaries, n (%)					
	Amantadine	Oseltamivir	Rimantadine	Zanamivir	Total
Week 9	1 (0.2)	400(99.8)	0 (0.0)	0 (0.0)	401
Season	21 (0.9)	2,336 (99.1)	0 (0.0)	0 (0.0)	2,357



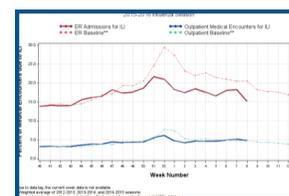
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Syndromic Surveillance

Influenza-Like Illness (ILI)

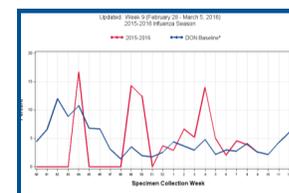
- The percent of medical encounters that included an ILI diagnosis during Week 8 (lagged due to data availability):
 - 4.9% of outpatient encounters (same as baseline)
 - 15.3% of ER admissions (below baseline)
- When grouped by parent facility, 8 DON facilities (28.6%) experienced an increase in the proportion of outpatient ILI visits during Week 8; none experienced an increase above 25%; though NH Oak Harbor (23.9%) and Naval Health Clinic New England (15.1%) saw greatest increases.



Severity Indicators

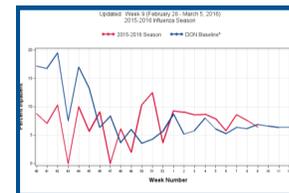
Inpatient Laboratory

- Six influenza positive laboratory cases (2.6% of all laboratory cases) were identified in the inpatient setting during Week 9.
- Three cases were identified at NMC San Diego, two at AMC Brooke-SAMMC-Sam Houston and one at WRNMMC. Cases consisted of active duty (1), recruit (1), family members (2), and retirees (2). Four cases were classified with Type A and two with Type B.



Inpatient Pharmacy

- 26 influenza AVs (6.5% of all influenza AVs) were prescribed in the inpatient setting during Week 9, below baseline (6.0%) (first time below baseline since week 52).
- The inpatient cases were most frequently at NMC San Diego (11) and WRNMMC and AMC Brooke-SAMMC-Sam Houston with 3 cases each. The inpatient cases were among active duty service members (3), recruits (2), spouses (11), children (4) and other sponsors (6).



Influenza-Associated Hospitalization Reports

- Five influenza cases were reported to DRSi during Week 9. Four reports were for influenza-associated hospitalizations.

Bacterial Coinfections

- Thirteen coinfections were identified during Week 9; among respiratory coinfections, there were four *Streptococcus* and two *Staphylococcus* infections. [Details](#)
- Though overall case counts remain lower than baseline, the proportion of lower respiratory specimens is higher than expected.

Proportion Bacterial Coinfections by Respiratory Source and Percent of Laboratory Positive Cases with a Bacterial Coinfections since Week 40, 2015-2016 Season				
	Coinfections by Respiratory Source, n (%)			Lab Cases with Bacterial Coinfection (%)
	Upper Respiratory	Lower Respiratory	Non-Respiratory	
Current Season (n=47)	16 (34.0)	7(14.9)	24(51.1)	4.0
Cumulative Baseline (n=90)	33.5 (37.2)	8 (8.9)	48.5(53.9)	3.8

* Cumulative baseline calculated as a weighted average over three years and may not represent whole numbers.

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Select Populations

Active Duty

- 20 laboratory positive influenza cases were identified among active duty Navy (13) and Marine Corps (7) service members during Week 9 (18 type A, 2 type B). Cases were identified at NH Okinawa(3), NHC Quantico (2), NMC San Diego (2), NH Jacksonville (2) and eleven other facilities (1 each).
- 52 active duty service members (36 Navy, 16 Marines) were dispensed AVs (all oseltamivir) during Week 9.



Status	Immunity Status	Vaccine Type				Total	Percent
		LAIV	IV	LAIV & IV	None		
Active Duty	Vaccinated, immune	39	65	1	-	105	76.6%
	Vaccinated, not immune	6	6	-	-	12	8.8%
	No vaccination record	-	-	-	20	20	14.6%
Total		45	71	1	20	137	-
Recruit	Vaccinated, immune	19	22	-	-	41	71.9%
	Vaccinated, not immune	15	1	-	-	16	28.1%
Total		34	23			57	-

LAIV: Live-attenuated influenza vaccine (intranasal); IV: Inactivated influenza vaccine (injection)
Vaccinated, immune: Vaccinated more than 14 days prior to infection.

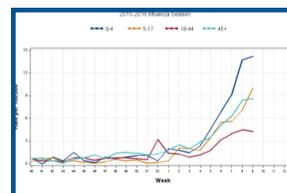
Recruits

- Eight laboratory positive influenza cases were identified among recruits during Week 9 at James A Lovell FHCC (4), NMC San Diego (3), and NH Beaufort.
- There were six AVs dispensed to recruits during Week 9.

Case Type	Number of DON Active Duty and Recruit Cases since Week 40, 2015-2016 Season				Total
	Active Duty		Recruits		
	Navy	Marine Corps	Navy	Marine Corps	
Laboratory Positive	101	36	17	40	194
AV Prescriptions	314	116	8	85	523

Children

- The rate of laboratory positive influenza cases (per 100,000) saw an increase among children ages 0-4 years (36.7) and children ages 5-17 (24.1).
- 115 laboratory positive influenza cases were identified among children during Week 9, surpassing two standard deviations above baseline estimates.
 - One case was identified from an inpatient setting at NMC San Diego; all others were identified from outpatient settings in 28 different facilities, most frequently NMC San Diego (17) and NH Jacksonville (16). There were 46 cases among children ages 0-4 and 69 among children ages 5-17.
- The rate of AV prescriptions (per 100,000) is highest among children 0-4 years (14.2), followed by children 5-17 years (10.0).
- There were 168 AVs dispensed to children during Week 9, more than three times the baseline estimates for children.
 - This week's cases (all oseltamivir) include 64 children ages 0-4 year and 104 children ages 5-17 years. NMC San Diego (42) dispensed the most AVs. Four were dispensed in an inpatient setting.



In the News

- Flu activity remains elevated in the United States; four influenza associated pediatric deaths reported to the CDC. [Details](#)

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