

2010-11 Influenza Season, as of  
 1 April 2011

# Overview of Army Influenza Surveillance Activities

Questions or comments:  
[influenza.surveillance@amedd.army.mil](mailto:influenza.surveillance@amedd.army.mil)

*An integrated summary of findings from epidemiological reporting systems, Army Medical Center laboratory results, and sentinel, population and hospital-based surveillance systems.*

## 2011-12 Vaccine Selection

Trivalent formulation for the 2011-12 influenza season will remain the same as the 2010-11 influenza season.

## Vaccine and Antiviral Resistance

### Influenza Vaccine

Circulating strains from DoD and civilian populations are well-matched to the 2010-11 vaccine.

*(Reference USAFSAM, CDC)*

During well-matched years, clinical trails show vaccine effectiveness to be between 70-90% among healthy adults. *(Reference: CDC)*

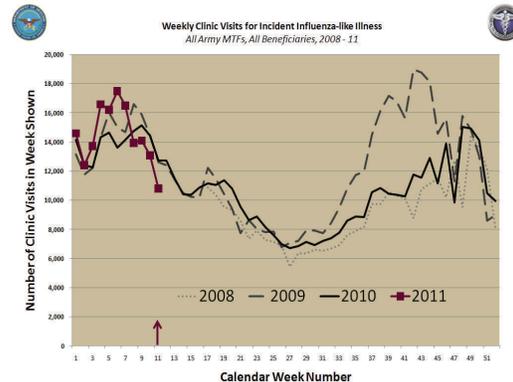
### Antiviral Resistance

CDC findings indicate a high-level of resistance to adamantanes among circulating influenza A isolates, but the A/pH1, A/H3, and B isolates remain susceptible to neuraminidase inhibitors (oseltamivir and zanamivir).

## Influenza-like Illness (ILI) activity

Clinical visits for ILI are gathered by the Armed Forces Health Surveillance Center from ESSENCE. As of 25 March.

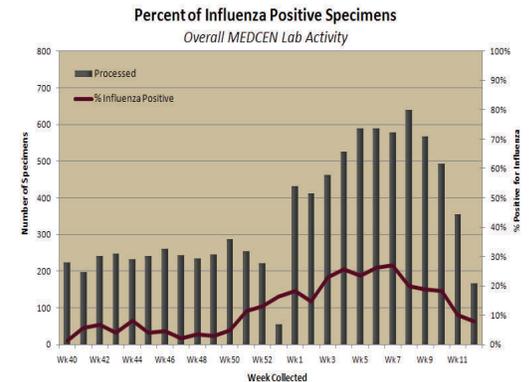
For the week ending 19 March, visits for ILI across Army MTFs decreased (17.3%) from the previous week, and remained at or below the range of visits for the major geographic regions. Click graph below and see pages 2-3 for an overview by region.



## Army Regional Lab activity

Data reflect major regional Medical Center lab activity (TAMC, LRLMC, EAMC, WRAMC, MAMC, and BAMC).

The frequency of specimen collections decreased (28.1%) from Weeks 10 to 11. The percentage of positive influenza results decreased from 18.2% in Week 10 to 10.1% in Week 11. Click graph below and see pages 2-3 for an overview by region.



## Resources

To access, double-click titles

### Surveillance Programs

- DoD Influenza-like Illness (AFHSC)
- Sentinel-based (USAFSAM)
- Population-based (NHRC)
- European Region (PHCR-E/LRMC)
- Acute Respiratory Disease (PHC)
- MHS Lab-based (NMCPCB)

### Related Links

- Pandemic Influenza Watchboard
- AFHSC
- CDC Influenza Update
- Historical Army Influenza reports

## Surveillance Activity Reports

For detailed information on the surveillance programs, see "Resources" section.

### MHS Lab-based surveillance (DoD beneficiaries)

Week ending 26 March: The influenza rate decreased from the previous week to 1.5 per 100,000 for Army active duty. The highest frequency of cases occurred at West Point (n=6) and Ft Lewis (n=6). There were 6 (3 Army) bacterial coinfections associated with influenza this week, totaling 142 for the DoD this season.

### Sentinel-based surveillance (DoD beneficiaries)

Week ending 19 March: 18.9% of 53 specimens were influenza-positive (8 A/H3, 2 B). Influenza accounts for 36% of season results (70% A, 30% B).

Influenza A (n=55)			Influenza B (n=136)		
Subtype	No.	(%)	Lineage	No.	(%)
A/H3	264	(52.3)	B/Victoria	9	(6.6)
A/pH1	228	(45.3)	B/Yamagata	1	(0.5)
A/pending	13	(2.6)	B/pending	136	(94.9)

Of influenza patients with vaccine history, 50% (148/299) of influenza A cases and 38% (48/126) of influenza B cases were immunized.

### Population-based surveillance (Recruits)

Week ending 26 March: Febrile respiratory illness rate is moderately elevated at Fort Benning. This season, 138 Army recruits enrolled in surveillance were positive with influenza (122 A/pH1, 7 A/H3, 9 B). Of these, 16 (15 A/pH1, 1 B) were collected from 22 Feb-4 Mar.

### Acute Respiratory Disease surveillance (Recruits)

Week ending 26 March: Strep/Acute Respiratory Disease (ARD) surveillance index increased from the previous week at 1 site, Ft Sill (ARD=35, Strep=2).

### Pneumonia and Influenza-associated Mortality

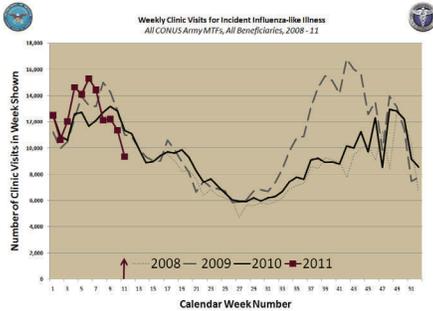
2010-11 season: 1 death on 20 Feb was attributed to influenza A (Ft Jackson). Patient was vaccinated >14 days. A DoD effort is in place to review circulating strains and vaccine efficacy.

# Regional Army Respiratory Activity: Syndromic (ILI) and Lab-Confirmed

## Major Geographic Region: CONUS

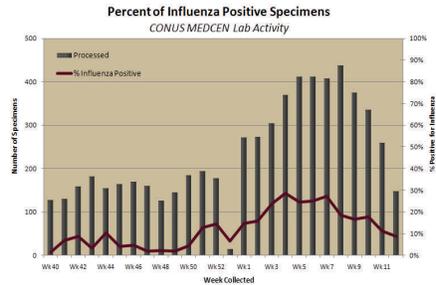
### Influenza-like illness

For the week ending 19 March, patient visits for ILI decreased (17.8%) from the previous week among CONUS-based Army MTFs. Click graph below for an overview.



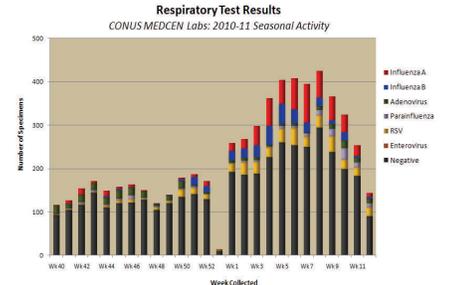
### Respiratory Testing Activity (CONUS)

For week ending 19 March, the frequency of specimen collections decreased (22.9%) from the previous week. The percentage of positive influenza results decreased to 11.2% in Week 11. Click graph below for an overview.



### Laboratory Results

For week ending 19 March, 28.9% (n=75) of specimens collected were positive for a respiratory virus. Influenza subtypes identified this season include: A/pH1 (n=60), A/H3 (n=138). Click graph below for an overview.



## • Northern Regional Medical Command (NRMC)

### Respiratory Testing Activity

The frequency of specimen collections remained stable from Week 10 to Week 11 (ending 19 March). The percent positive influenza results decreased to 15.4% in Week 11. Click graph to right for an overview.

### Laboratory Results

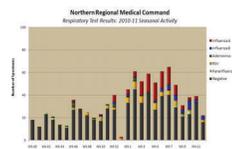
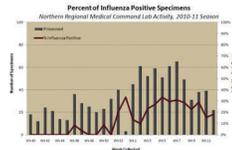
The percentage of positive respiratory results decreased from 39.52% in Week 10 to 15.4% in Week 11. Influenza isolates characterized this season include: A/pH1 (n=3), A/H3 (n=2).

### Patients with Influenza

The majority of influenza-positive patients whose specimen was collected during Week 11 were children (66.7%), followed by 16.7% (n=1) active duty and spouse 16.7% (n=1) spouse.

### Sites submitting specimens

In Week 11, the majority (33.4%) of specimens were collected at WRAMC and Ft. Drum, NY (30.8%). Click table to the right for a seasonal overview of submitting sites and influenza results.



Submitter	Specimens	% Positive
WRAMC	10	10.0%
Ft. Drum, NY	10	30.8%
Other	10	10.0%
<b>Total</b>	<b>30</b>	<b>15.4%</b>

## • Southern Regional Medical Command (SRMC)

### Respiratory Testing Activity

The frequency of specimen collections decreased (32.9%) from Week 10 to Week 11. The percentage of positive influenza results decreased from 14.4% in Week 10 to 2.4% in Week 11.

### Laboratory Results

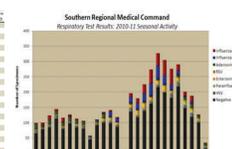
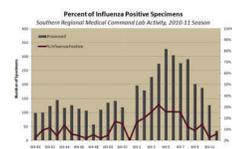
The percentage of positive respiratory results decreased from 37.2% in Week 10 to 21.4% in Week 11. Influenza subtypes identified this season include: A/H3 (n=48).

### Patients with Influenza

Of the 3 influenza-positive patients whose specimen was collected in Week 11, there was 33.3% (n=1) each of an active duty, child, and spouse. Patients sought care at EAMC (n=1), Ft Jackson (n=1), and Redstone Arsenal (n=1).

### Sites submitting specimens

For the week ending 19 March, the majority (27.8%) of specimens were collected at Ft Jackson, SC. Click the table to the right for a season overview of submitting sites and influenza results.



Submitter	Specimens	% Positive
Ft Jackson, SC	10	27.8%
Other	10	2.4%
<b>Total</b>	<b>20</b>	<b>14.4%</b>

## • Western Regional Medical Command (WRMC)

### Respiratory Testing Activity

The frequency of specimen collections decreased (14.5%) from Week 10 to Week 11. The percentage of positive influenza results remained stable from Week 10 to Week 11. Click graph to right for an overview.

### Laboratory Results

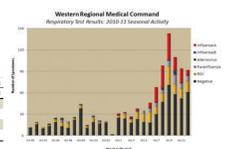
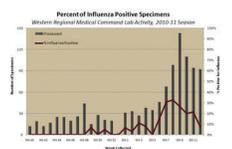
The frequency of positive respiratory results slightly decreased to 44.7% of all specimens processed from Week 10 to Week 11. Influenza isolates characterized this season include: A/H3 (n=88), A/pH1 (n=57).

### Patients with Influenza

For Week 11, the majority (45%, n=9) of patients with influenza were active duty, followed by 30% (n=6) children, 20% (n=4) spouse, and 5% (n=1) retiree. Twenty percent (n=4) sought care in AK.

### Sites submitting specimens

The majority (73.4%) of collections in Week 11 were from MAMC, while 26.6% (n=25) were collected at Ft Wainwright, AK. Click the table to right for a seasonal overview.



Submitter	Specimens	% Positive
MAMC	10	73.4%
Ft Wainwright, AK	10	26.6%
<b>Total</b>	<b>20</b>	<b>44.7%</b>

