

2010-11 Influenza Season, as of  
 25 February 2011

# U.S. Army Influenza Activity Report

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.*

## 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 trials have shown effectiveness of the influenza vaccine to be between 70-90% among health adults.

(Reference: CDC)

### Antiviral Resistance

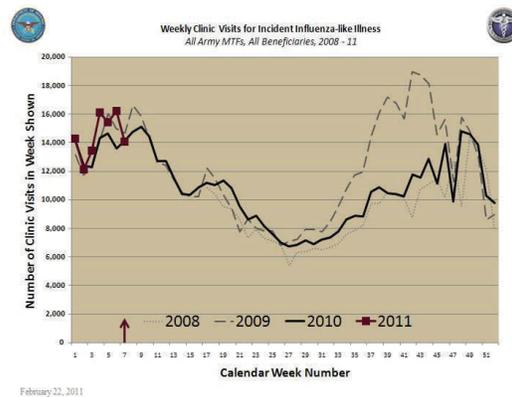
CDC antiviral testing indicates that all circulating influenza continue to be sensitive to neuraminidase inhibitors oseltamivir and zanamivir. DoD antiviral testing, using a genetic marker detection technique, also found that no 2009 H1N1 specimens indicated resistance to oseltamivir.

(Reference CDC, USAFSAM)

## Influenza-like Illness (ILI) activity

Clinical visits for ILI are gathered by the Armed Forces Health Surveillance Center from ESSENCE. As of 22 Feb.

For the week ending 19 February, visits for ILI across Army MTFs decreased (13.1%) from the previous week, and stayed at or below the usual range for this period across the major geographic regions. Click graph below for an overview of visits among all Army MTFs and see pages 2-3 by region.

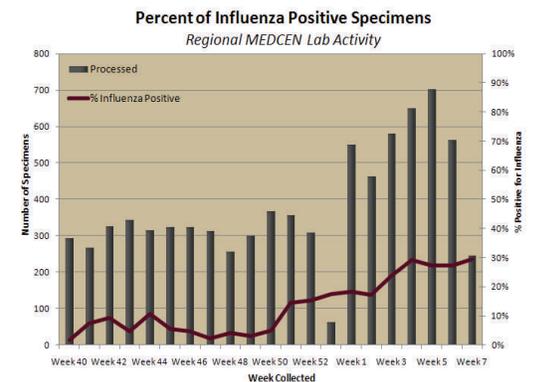


February 22, 2011

## Army Regional Lab activity

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

An average of 62 patients per week had a specimen tested for a respiratory virus at one of the major regional Army MEDCEN labs. Of the total 7,908 specimens tested, 15.4% (n=1,217) were positive for influenza. Click graph below and see pages 2-3 for a detailed overview by region and MEDCEN lab.



## 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 (NMCPHC)

### 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 19 Feb: Highest frequency of influenza cases across DoD occurred at Ft Hood (n=64), Ft Sam Houston (n=31), and Ft Shafter (n=20). Overall, Ft Hood has had the most influenza cases (n=477) this season. As of 23 Feb.

### Sentinel-based surveillance (DoD beneficiaries)

Influenza viruses account for 26% of total season results (70% A, 30% B). USAFSAM further reported:

Influenza A (n=183)			Influenza B (n=78)		
Subtype	No.	(%)	Lineage	No.	(%)
A/H3	97	(53.0)	B/Victoria	8	(10.2)
A/pH1	84	(45.9)	B/Yamagata	1	(1.2)
A/pending	2	(1.1)	B/pending	69	(88.4)

Among influenza-positive patients with vaccine history, 51% (71 of 138) of influenza A cases were immunized (vaccinated >=14 days prior to illness) and 26% (14 of 52) of influenza B cases were immunized.

### Population-based surveillance (Recruits)

Week ending 19 Feb: Febrile respiratory illness rate is at or below expected value at Army recruit sites. This season, 102 Army recruits enrolled in this surveillance program were positive with influenza (89 A/pH1, 7 A/H3, 6 B). Of these, 38.2% (n=39) were collected from 19 Jan-9 Feb. As of 24 Feb.

### Acute Respiratory Disease surveillance (Recruits)

Week ending 19 Feb: Strep/ARD surveillance index at Army recruit sites is at or below rates from the previous week. As of 23 Feb.

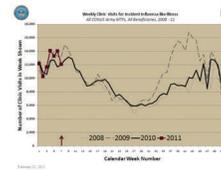
### Pneumonia and Influenza-associated Mortality

2010-11 season: 1 death on 20 Feb reported by Ft Jackson was attributed to influenza A. The Army 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

## CONUS Major Regional MEDCEN Lab Activity

- **ILI:** For the week ending 19 February, patient visits for ILI decreased (13.9%) from the previous week among Army MTFs in CONUS.



Double-click images to expand.

### • Brooke Army Medical Center (BAMC), TX

#### - 2010-11 season: Respiratory Testing

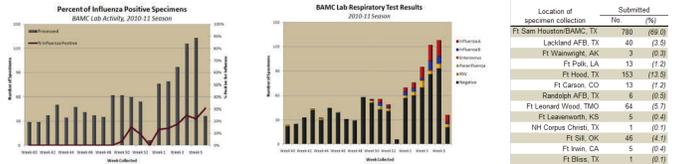
An average of 57 patients a week had a specimen tested at the BAMC lab. Overall, 69.0% (n=780) of patients sought care locally at MTFs on Ft Sam Houston or BAMC.

#### - Patients with Influenza:

The majority (79.2%, n=99) of patients were dependents (72% children, 28% spouse), followed by 12.8% (n=16) active duty, 5.6% (n=7) retirees, 1.6% (n=2) Army National Guard, and 0.8% (n=1) Army Reserve. The majority (95.2%) of the patients with influenza sought care at MTFs on Ft Sam Houston or BAMC.

#### - Results

Of the 1,130 patients tested this season, 21.9% (n=248) were positive, more specifically, 11.1% (n=125) were positive for influenza (67% A, 33% B). In February, influenza (n=40) and RSV (n=10) were identified.



### • Eisenhower Army Medical Center (EAMC), GA

#### - 2010-11 season: Respiratory Testing

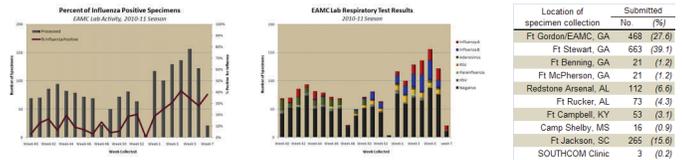
An average of 84 patients a week had a specimen tested at the EAMC lab. Overall, 27.6% (n=468) of patients sought care locally at MTFs on Ft Gordon or EAMC. The majority (39%) of respiratory tests was requested by Ft Stewart, GA.

#### - Patients with Influenza:

The majority (74.5%, n=251) were dependents (82% children, 18% spouse), followed by 15.4% (n=52) active duty, 5.0% (n=17) AR Nat'l Guard, 1.5% (n=5) AR Reserve, and 3.6% (n=12) retirees. Patients seeking care at Ft. Stewart accounted for 39.2% (n=132) of positive influenza cases identified at the EAMC lab.

#### - Results

Of the 1,695 patients tested this season, 36.4% (n=617) were positive, more specifically, 19.9% (n=337) were positive for influenza (50% A, 50% B). In February, influenza (n=42), RSV (n=8), adenovirus (n=3), and parainfluenza (n=1) were identified.



### • Madigan Army Medical Center (MAMC), WA

#### - 2010-11 season: Respiratory Testing

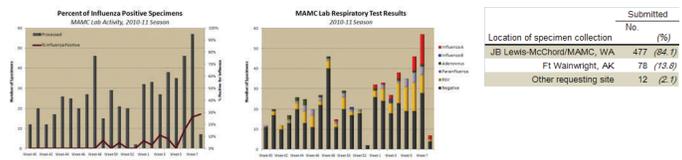
An average of 27 patients a week had a specimen tested at the MAMC lab. Overall, 84.1% (n=477) of patients sought care locally at MTFs on Joint-Base Lewis-McChord or MAMC.

#### - Patients with Influenza:

The majority (82.8%, n=29) were dependents (48% children, 52% spouse), followed by 8.5% (n=3) retirees, and 8.5% (n=3) active duty members. Six patients sought care at Ft. Wainwright, AK, while the remainder were MTFs on Joint Base Lewis-McChord or MAMC.

#### - Results

Of the 567 patients tested this season, 31.9% (n=181) were positive, more specifically, 6.2% (n=35) were positive for influenza (94% A, 6% B). Characterized isolates include A/pH1 (n=13) and A/H3 (n=14). In February, influenza (n=24), RSV (n=24), parainfluenza (n=9), and adenovirus (n=2) were identified.



### • Walter Reed Army Medical Center (WRAMC), WA

#### - 2010-11 season: Respiratory Testing

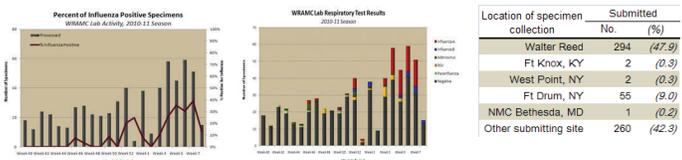
An average of 29 patients a week had a specimen tested at the WRAMC lab. Overall, 47.9% (n=294) of patients sought care locally at MTFs on Walter Reed.

#### - Patients with Influenza:

The majority (62.8%, n=56) were dependents (75% children, 25% spouse), followed by 18.2% (n=16) retirees, 11.4% (n=10) active duty, 2.3% (n=2) Nat'l Guard, and 1.1% (n=1) Reserve. Fifty percent (n=44) of patients with influenza sought care at Walter Reed.

#### - Results

Of the 614 patients tested this season, 22.5% (n=138) were positive, more specifically, 14.6% (n=88) were positive for influenza (94% A, 6% B). Characterized isolates include A/pH1 (n=4) and A/H3 (n=3). In February, influenza (n=56), RSV (n=2), and adenovirus (n=2) were identified.

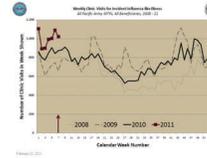


# Regional Army Respiratory Activity: Syndromic (ILI) and Lab-Confirmed

## OCONUS Activity

### Pacific

- **ILI:** For the week ending 19 February, patient visits for ILI decreased (6.3%) from the previous week among Army MTFs in the Pacific region.



Double-click images to expand.

### • Tripler Army Medical Center (TAMC), HI

#### - 2010-11 season: Respiratory Testing

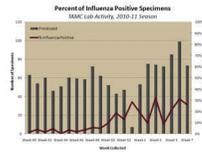
An average of 60 patients a week had a specimen tested at the TAMC lab. Overall, 93% (n=1,175) of patients sought care at Tripler AMC. Other installations requesting a respiratory test include Joint Base Pearl Harbor-Hickam, NH Guam, and Brian Allgood ACH, SK.

#### - Patients with Influenza:

The majority (83.1%, n=128) were dependents (70% children, 30% spouse), followed by 9.7% (n=15) active duty, 3.9% (n=6) retirees, 1.9% (n=3) VA beneficiaries, and 1.3% (n=2) civilians. Three of the 98 patients sought care in South Korea (BAACH), while the remainder sought care in HI.

#### - Results

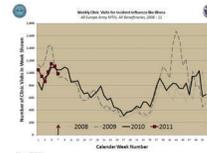
Of the 1,265 patients tested, 34.5% (n=436) were positive, more specifically, 12.2% (n=154) were positive for influenza (71% A, 29% B). Characterized isolates: A/pH1 (n=3), B/Victoria (n=1). In February, influenza (n=68), RSV (n=14), metapneumovirus (n=8), adenovirus (n=7), and parainfluenza (n=2) were identified.



Location of specimen collection	Submitted	
	No.	(%)
Tripler AMC	1,175	(92.9)
Brian Allgood ACH, S.K	16	(1.3)
NH Guam, Guam	6	(0.5)
Joint Base Pearl Harbor Hickam	68	(5.4)

### Europe

- **ILI:** For the week ending 19 February, patient visits for ILI decreased (11.2%) from the previous week among Army MTFs in the European region.



### • Landstuhl Army Medical Center (LRMC), Germany

#### - 2010-11 season: Respiratory Testing (by Luminex technology)

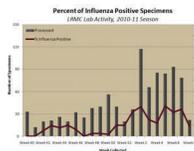
An average of 43 patients a week had a specimen tested. Overall, 80% (n=777) of patients sought care in Germany, more specifically, 27.5% (n=265) sought care at LRMC.

#### - Patients with Influenza:

The majority (60.3%, n=85) were dependents (67% child, 33% spouse), followed by 28.3% (n=40) active duty, 0.9% (n=1) reserve, 0.7% (n=1) retiree, 7.8% (n=11) employees and/or their family members, and 2.1% (n=3) other.

#### - Results

Of the 964 patients tested, 59.0% (n=569) were positive, more specifically, 14.6% (n=141) were positive for influenza (75% A, 25% B). Characterized isolates: A/pH1 (n=89) and A/H3 (n=9).



Location of specimen collection	Submitted	
	No.	(%)
Landstuhl, Germany	265	(27.5)
Bamberg, Germany	2	(0.2)
Braunfels, Germany	41	(4.2)
Colman Barracks, Germany	18	(1.9)
Spillertshausen, Germany	5	(0.5)
Heidelberg, Germany	258	(26.8)
Heidelberg, Germany	1	(0.1)
Katzenbach, Germany	4	(0.4)
Offenbach, Germany	3	(0.3)
Lakenheath AD, England	17	(1.7)
Manheim, Germany	27	(2.8)
Rammstein AD, Germany	31	(3.2)
Schweinfurt, Germany	4	(0.4)
Spangdahlem, Germany	4	(0.4)
Stuttgart, Germany	16	(1.6)
Wiesbaden, Germany	3	(0.3)
Alghero AD, Italy	3	(0.3)
NH Naples, Italy	62	(6.4)
NH Spinnaker, Italy	11	(1.1)
Varese, Italy	4	(0.4)
Brussels, Belgium	3	(0.3)
Sheep, Belgium	25	(2.6)
NH Herta, Spain	42	(4.4)
Incise AD, Turkey	24	(2.5)
HRP	1	(0.1)
Kuwait	3	(0.3)
Alghajran	1	(0.1)

## Centers for Disease Control and Prevention

Retrieved on 24 Feb.

**Nationwide** (as reported by CDC), during week ending 19 Feb:

- 4.9% of reported patient visits were due to ILI, which was above the national baseline of 2.5%. All 10 CDC regions reported above baseline levels.
- Of the specimens tested by collaborating labs and reported to CDC, 31.3% (n=2,866) were positive for influenza. Of these, 77.6% (n=2,224) were Influenza A (subtypes include 26.3% A/pH1, 33.9% A/H3, and 39.7% subtyping not performed) and 22.4% (n=642) Influenza B.
- 8.3% of all deaths reported were due to Pneumonia & Influenza (P&I), which is above the epidemic threshold of 8.0% for the week and is the 4th consecutive week in which P&I has been above the epidemic threshold.

**Antigenic Characterization:** CDC antigenically characterized 809 influenza viruses (124 A/pH1, 419 A/H3, 266 B) collected by U.S. labs this season. The majority (99.2% of A/pH1, 98.8% of A/H3, 99.6% of B/Victoria) are closely related to the vaccine viruses for the current seasonal vaccines.

See CDC's FluView for more information.