

2010-11 Influenza Season, as of
 29 April 2011

Overview of Army ILI and Influenza Activity

Questions or comments:
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An integrated summary of findings from epidemiological reporting systems, Army medical 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 trials show vaccine effectiveness to be between 70-90% among healthy adults. (Reference: CDC)

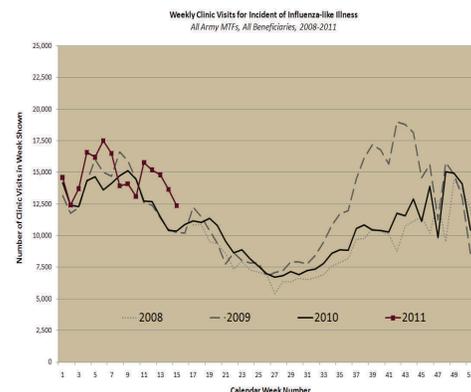
Antiviral Resistance

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 14 April.

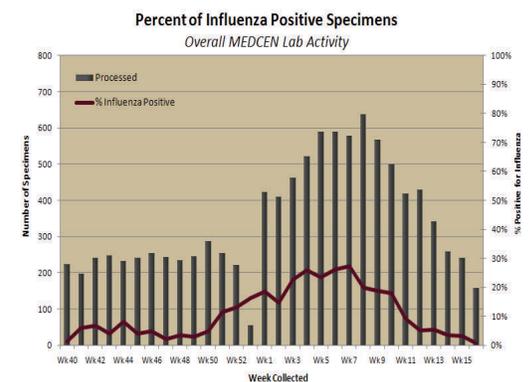
For the week ending 16 April, visits for ILI across Army MTFs decreased (9.5%) from the previous week, and remained at or below the range of visits for the major geographic regions. Click graph below and see pages 2-3 for an overview by region.



Army Regional Lab activity

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

For week ending 23 April (Week 16), the frequency of specimen collections continued to decline (34.7%) from the previous week. The percentage of positive influenza results decreased to 0.6% (n=1) in Week 16. 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/LPMC)
- 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 23 April: The influenza rate was less than 1 per 100,000 for Army active duty. The All DoD facilities had 2 or fewer cases. Overall, Ft Hood has had the most cases this season (n=525). There were no bacterial coinfections associated with influenza this week (155 for DoD this season).

Sentinel-based surveillance (DoD beneficiaries)

Week ending 23 April: 9.1% of specimens were influenza-positive (1 type B). Influenza accounts for 36% of season results (73% A, 27% B).

Influenza A (n=579)			Influenza B (n=209)		
Subtype	No.	(%)	Lineage	No.	(%)
A/H3	310	(53.5)	B/Victoria	9	(4.3)
A/pH1	249	(43.0)	B/Yamagata	1	(0.5)
A/pending	20	(3.5)	B/pending	199	(95.2)

Of influenza patients with vaccine history, 42% (142/338) of influenza A cases and 34% (46/136) of influenza B cases were immunized.

Population-based surveillance (Recruits)

Week ending 23 April: Febrile respiratory illness rate is at or below expected level at the Army basic training sites. This season, 157 Army recruits enrolled in surveillance were positive with influenza (137 A/pH1, 8 A/H3, 12 B). Of these, 0 were collected in April.

Acute Respiratory Disease surveillance (Recruits)

Week ending 23 April: Strep/Acute Respiratory Disease surveillance index increased from the previous week at 2 recruit sites: Ft Benning and Ft Knox.

Pneumonia and Influenza-associated Mortality

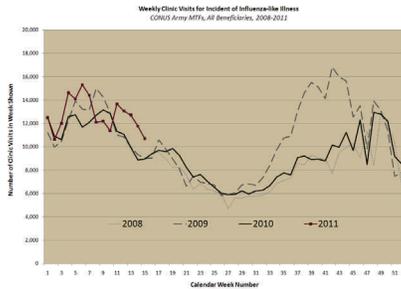
2010-11 season: 1 death on 20 Feb was attributed to influenza A (Ft Jackson). Patient was vaccinated >14 days. A DoD effort is in place to review circulating strains and vaccine efficacy.

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

Major Geographic Region: CONUS

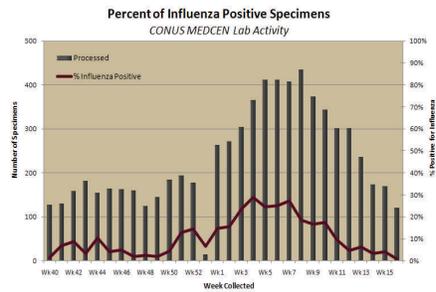
Influenza-like illness

For the week ending 16 April, patient visits for ILI decreased (9.1%) from the previous week among CONUS-based Army MTFs. Click graph below for an overview.



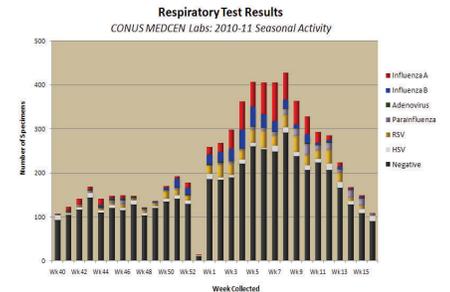
Respiratory Testing Activity (CONUS)

For week ending 23 April, the frequency of specimens collected continued to decline (28.9%) from the previous week. The percent of positive influenza results increased to 0.8% in Week 16. Click graph below for an overview.



Laboratory Results

For week ending 23 April, 24.2% (n=29) of specimens collected were positive for a respiratory virus. Influenza subtypes identified this season include: A/pH1 (n=66), A/H3 (n=148). Click graph below for an overview.



• Northern Regional Medical Command (NRMC)

Respiratory Testing Activity

The frequency of specimen collections decreased (26.0%) from Week 15 to Week 16 (ending 23 April). There were no positive influenza results in Week 16. Click graph to right for an overview.

Laboratory Results

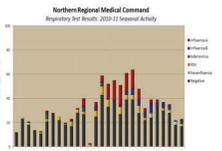
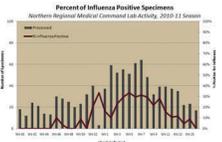
For week ending 23 April, there were no positive respiratory results from specimens collected during Week 16. Influenza isolates characterized this season include: A/pH1 (n=3), A/H3 (n=2).

Patients with Influenza

There were no positive influenza results identified from patients seeking care during Week 16.

Sites submitting specimens

For week ending 23 April, 17 specimens were collected for a viral respiratory result. Specimens were collected in MD (n=14), DC (n=2), and NY (n=1).



• Southern Regional Medical Command (SRMC)

Respiratory Testing Activity

The frequency of specimen collections continued to decline (31.1%) from Week 15 to 16 (week ending 23 April). There were no influenza-positive specimens collected during Week 15.

Laboratory Results

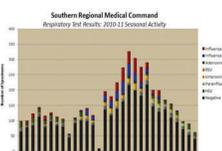
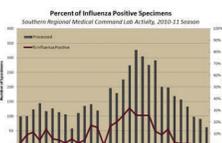
The percentage of positive respiratory results decreased to 35.4% in Week 16, with Adenovirus and herpes simplex virus accounting for the majority (11 each) of positives identified. Influenza subtypes identified this season include: A/H3 (n=48).

Patients with Influenza

There were no influenza-positive patients whose specimen was collected in Week 16.

Sites submitting specimens

For the week ending 23 April, 62 specimens were collected for a viral respiratory result. Specimens were collected in TX (n=22), GA (n=16), MS (n=5), SC (n=11), MO (n=4), OK (n=2), CO (n=1), and LA (n=1).



• Western Regional Medical Command (WRMC)

Respiratory Testing Activity

The frequency of specimen collections decreased (26.7%) from Week 15 to Week 16 (week ending 23 April). The percentage of positive results was 2.4% in Week 16. Click graph to right for an overview.

Laboratory Results

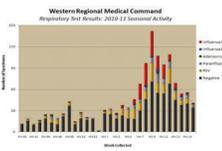
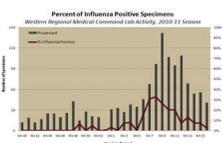
The percentage of positive respiratory results accounted for 17.0% of all specimens tested for a respiratory test during Week 16. Influenza isolates characterized this season include: A/H3 (n=97), A/pH1 (n=63).

Patients with Influenza

For week ending 23 April, 1 patient had a positive influenza test result. The influenza-positive patient was a dependent spouse who sought care in WA (Influenza A/pH1).

Sites submitting specimens

For the week ending 23 April, 41 specimens were collected for a viral respiratory result. Specimens were collected from WA (n=31) and AK (n=10).



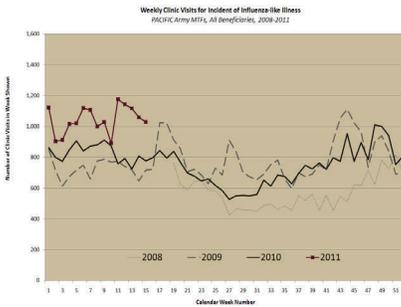
Regional Army Respiratory Activity: Syndromic (ILI) and Lab-Confirmed

Major Geographic Region: Pacific

• Pacific Regional Medical Command (PRMC)

Influenza-like illness

For the week ending 16 April, patient visits for ILI decreased (3.0%) from the previous week among Army MTFs located in the Pacific region. Click graph below for an overview.

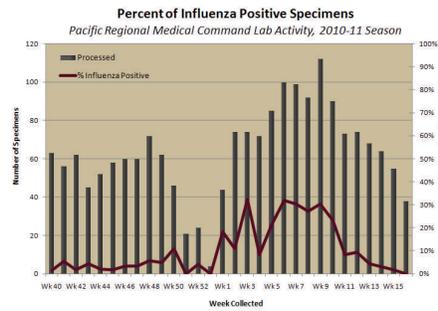


Patients with Influenza

There were no positive influenza results identified from patients seeking care during Week 16.

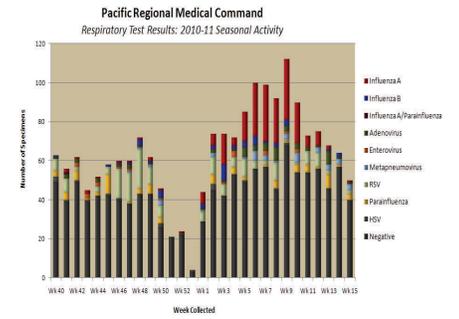
Respiratory Testing Activity

For week ending 23 April, the frequency of specimen collections continued to decline (30.9%) from the previous week. There were no positive influenza results in Week 16.



Laboratory Results

For week ending 23 April, 13.1% of specimens collected were positive for a respiratory virus. Influenza subtypes identified this season include: A/pH1 (n=3), B/Victoria (n=1).



Sites submitting specimens

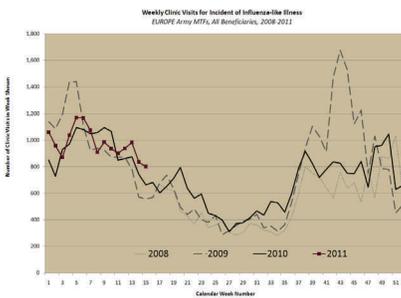
For week ending 23 April, 38 specimens were submitted to TAMC for a respiratory viral result. Sites submitting specimens include TAMC (n=32), Joint Base Pearl Harbor Hickam (n=5), and Schofield Barracks (n=1).

Major Geographic Region: Europe

• Europe Regional Medical Command (ERMC)

Influenza-like illness

For the week ending 16 April, patient visits for ILI decreased (4.1%) from the previous week among Army MTFs in the European region. Click graph below for an overview.

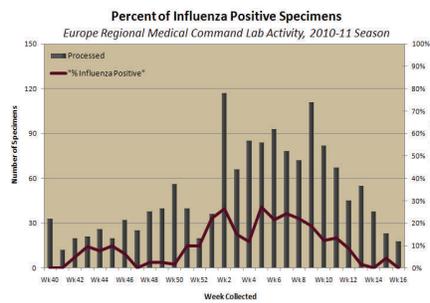


Patients with Influenza

There were no positive influenza results identified from patients seeking care during Week 16.

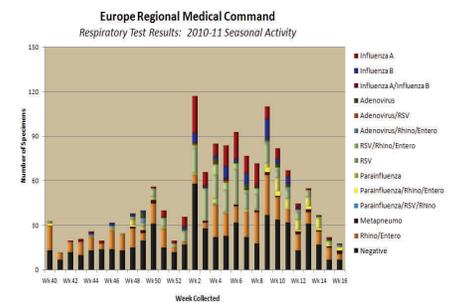
Respiratory Testing Activity

For week ending 23 April, the frequency of specimen collections continued to decrease (21.7%) from the previous week. There were no positive influenza results in Week 16.



Laboratory Results

For week ending 23 April, 61.1% of collections were positive for a respiratory virus, with the most prevalent continuing to be enterovirus/rhinovirus. Click graph below an overview.



Submitting Sites

For week ending 23 April, 18 specimens were submitted to LPMC for a respiratory viral result and collected in Germany (n=11), Italy (n=5), Spain (n=1), and Belgium (n=1).

Characterized Influenza

The most recent influenza specimen isolated was an Influenza A/pH1, collected in Week 15. Of the 201 positive influenza specimens identified this season, LPMC further characterized 68.1% (n=137) as A/pH1 (n=120) and A/H3 (n=17). Click graph to the right for an overview of characterized isolates by week collected.

