



# 2009 H1N1 Influenza Pandemic – Defense Health Board Briefing

COL Wayne Hachey DO, MPH  
Director Preventive Medicine  
Office of Deputy Assistant Secretary of Defense for  
Force Health Protection & Readiness Programs

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## 2009 H1N1 Timeline

- December 2008 – widespread ILI in Mexico
- April 2009 – 4 cases of novel, swine origin influenza identified by DoD influenza surveillance system
- Pandemic Declaration by WHO 11 June 2009
- Southern Hemisphere flu season-2009 H1N1 is predominant virus
- Northern Hemisphere flu season – all countries in the Northern Hemisphere with temperate climates are experiencing wide spread activity



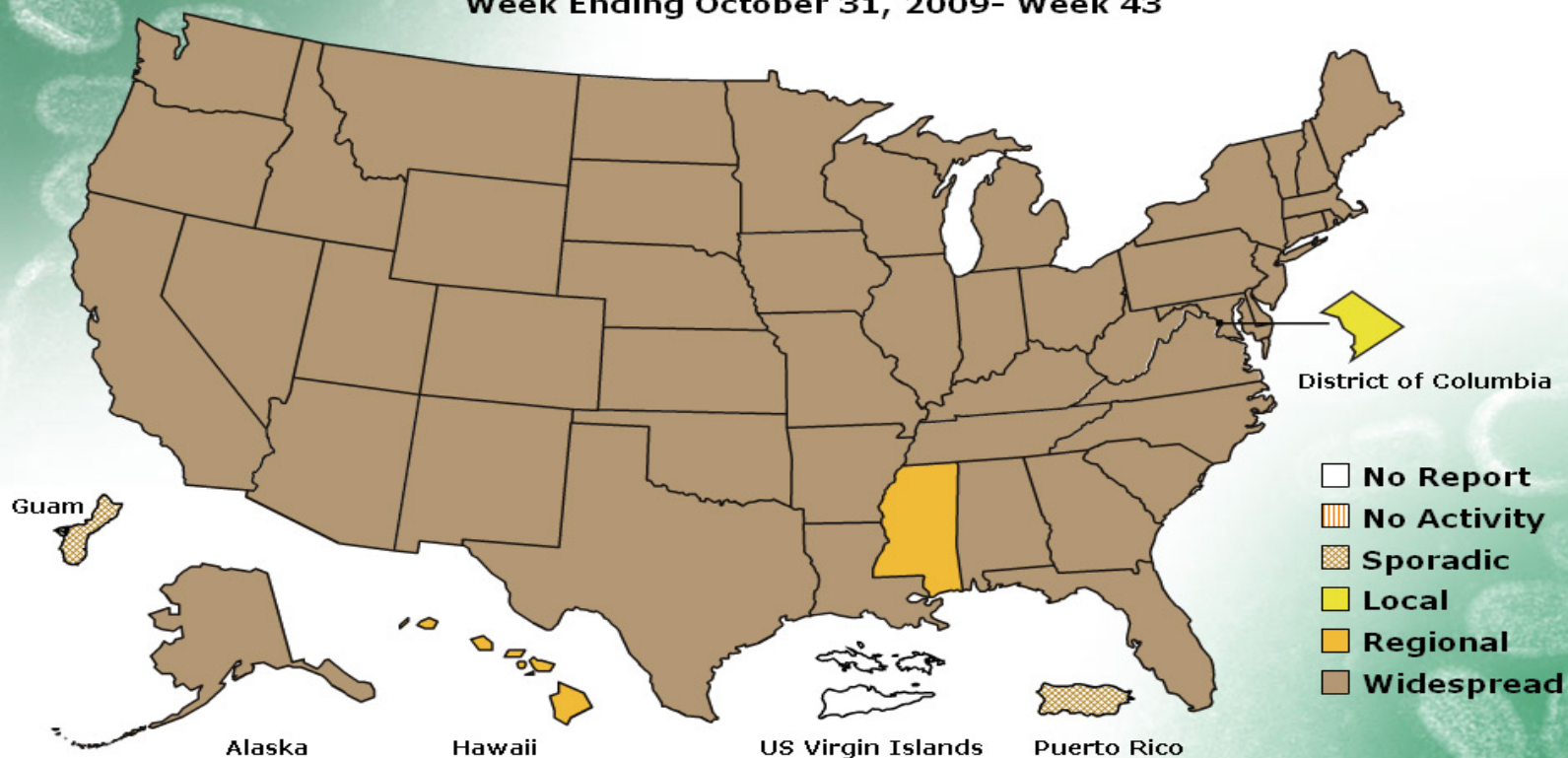
# 2009 H1N1 Flu activity 29 Aug – 31 Oct

## FLUVIEW



**A Weekly Influenza Surveillance Report Prepared by the Influenza Division**  
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists\*

Week Ending October 31, 2009- Week 43



\*This map indicates geographic spread and does not measure the severity of influenza activity.

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## 2009 H1N1 – US

- 99% of current flu isolates are 2009 H1N1
- Proportion of deaths attributed to pneumonia and influenza above epidemic threshold
- Outpatient ILI visits above national baseline



# Hospitalizations - US

## 30 August – 31 October

- 17,838 laboratory confirmed hospitalizations with 672 deaths (85 pediatric)
  - 73% with an underlying condition
  - 25% require intensive care with 65% needing mechanical ventilation
  - 45% < 18 years of age
  - 75% treated with antivirals (treatment within 2 days – more likely to have a positive outcome)
  - 79% got antibiotics, mostly before admission
  - 93% discharged, 7% died
  - Bacterial co-infection in less than 30% of fatal cases



## 2009 H1N1 Hospitalization Rates by age/100,000 (15 April – 3 Nov)

- Influenza related hospitalizations

- 0-4 yrs 47.1
- 5-17 yrs 23.7
- 18-49 yrs 17.3
- 50-64 yrs 19.3
- $\geq$  65 yrs 15.6



## 2009 H1N1 US Deaths by age/100,000 (As of 30 Oct 2009)

- 0-4 yrs            0.10
- 5-18 yrs           0.18
- 19-24 yrs          0.13
- 25-49 yrs          0.17
- 50-64 yrs          0.29
- $\geq$  65 yrs          0.16

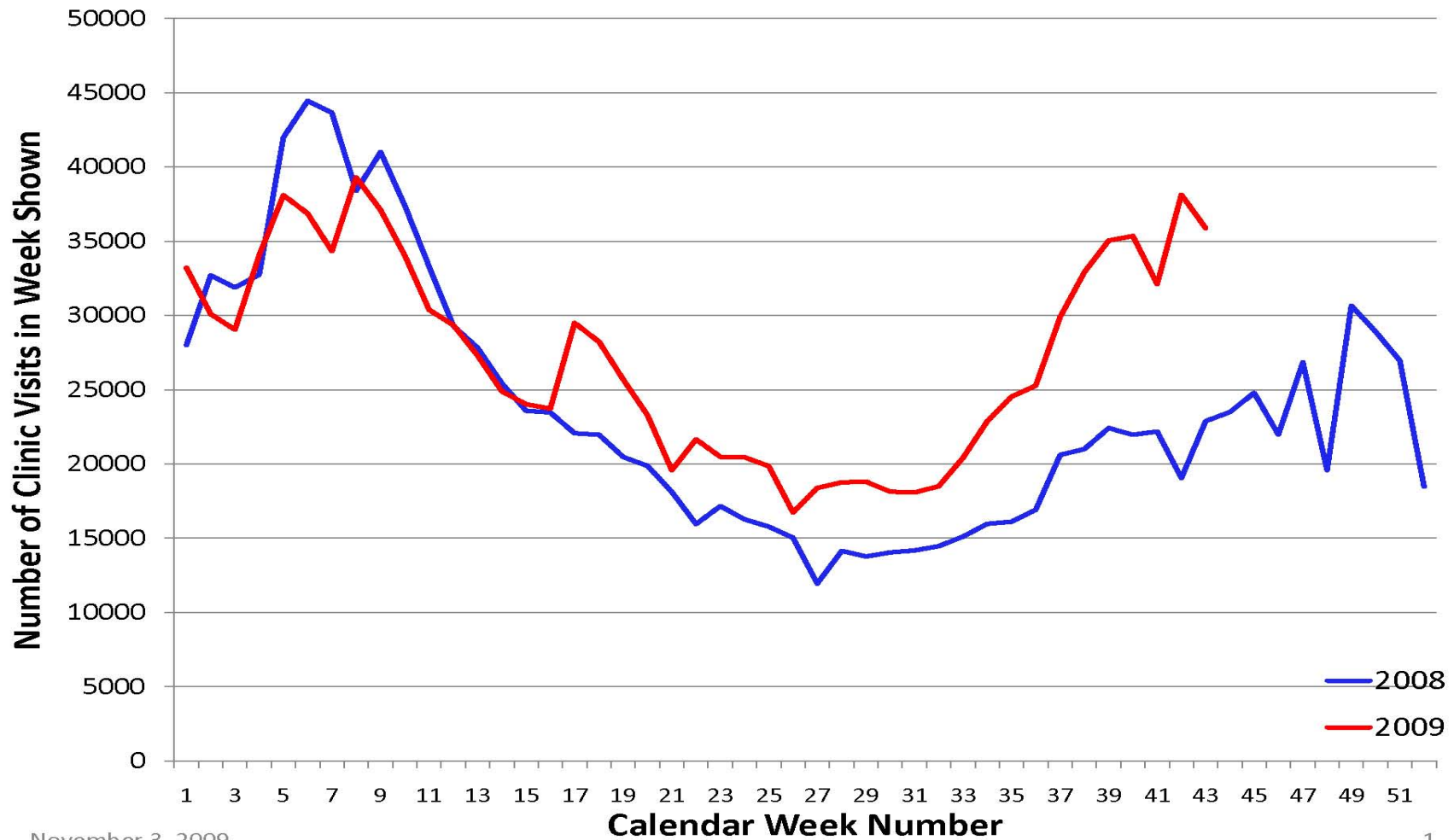


## DoD Clinic visits for incident ILI over the last 10 weeks

- (Weeks 32 to 41) in 2009 have changed as follows:
  - All MHS MTFs + 60 %
  - CONUS (49 states) + 65 %
  - Europe + 123 %
  - Pacific Region - 8 %
  
  - New Mexico 252 %
  - Arizona 181 %
  - Washington 166 %
  - Nevada 155 %
  - Nebraska 134 %
  - Kansas 130 %
  - National Capital Region 107 %
  
  - Colorado 127 %
  - New York 126 %
  - Ohio 113 %
  - Maryland 99 %
  - Virginia 95 %



# Weekly Clinic Visits for ILI, All MTF, 2008-09



November 3, 2009



## Clinic Visits for Influenza-like Illness, Military Health System, Through Week 41 (ending 17 October 2009)

- Compared to the same period in 2008, clinic visits for ILI in week 41 of 2009
- All MHS MTFs + 33%
  - CONUS (49 states) + 36%
  - Europe + 29%
  - Pacific Region - 4%



# Armed Forces Health Surveillance Center Summary (3 November 2009)

- Clinic visits for ILI remain elevated
- Significant elevations in ILI cases reported in ROK, Europe and Hawaii
- 2009 H1N1 remains predominant strain (98%)
- 6 DoD deaths (2 AD, 2 FM, 2 RET)
- Army:
  - Camp Zama (Japan) increase ILI
  - Cluster of cases at USMA
- Navy:
  - Cluster of cases aboard a large deck ship in San Diego
  - Cluster among SEAL trainees in San Diego
- Air Force:
  - 41% of Air Force bases experiencing substantially elevated ILI



# Mitigation Measures

- **Antivirals**
- **Vaccine**
- **Communication**



# Antivirals

- Oseltamivir represents the primary antiviral drug in the DoD stockpile
- Two stockpiles (tactical and strategic):
  - More than 8 million treatment courses
  - OCONUS COCOMS equivalent to 30% of PAR
  - CONUS MTFs equivalent to 30% of PAR
  - Three strategic depots: Approximately 7 million treatment courses
- Zanamivir being added to DoD Stockpile
  - 564,656 added to stockpile
  - Additional funds secured for Relenza or other antivirals with goal of 30% of antiviral stockpile to represent non-oseltamivir NAIs



# DoD Antiviral Policy – H1N1

- Treatment for people hospitalized with confirmed, probable or suspected disease
- If suspected disease - treat if at high risk of influenza complications
- Consider post exposure prophylaxis if at high risk for complications or if operational considerations mandate
- Treatment not necessarily indicated if healthy with mild confirmed disease
- VERY limited outbreak prophylaxis



# Vaccines

- H1N1
  - Unadjuvanted vaccine approved by FDA
  - 1 dose requirement for those  $\geq 10$  yrs of age
  - Vaccine is safe and effective
    - Same manufacturers as seasonal flu
    - Same production methods
    - If the virus had cooperated and shown up earlier would have likely been part of the seasonal flu vaccine



# H1N1 vaccine – Manufacturers and Proportion of US Supply

## Vaccines

CSL 18.7%

Sanofi Pastuer 26.4%

GSK 3.4%

Novartis 45.7%

MedImmune 5.8%

## Adjuvants

Novartis (MF 59) & GSK (AS 03)



## H1N1 vaccine – Where does DoD fit in?

- DoD is getting vaccine from 3 different programs
  - Purchased – Operational Use
  - Federal Employee Allocation Program
    - Civilian employees and OCONUS dependents
    - Can not be used for AD
  - State Allocation Program
    - HCW
    - Dependents and Retirees
    - Can not be used for AD with rare exceptions based on medical risk



# H1N1 vaccine – Operational

- DoD has purchased vaccine to meet operational requirements
  - 2.7M doses
  - 390,660 doses received as of 6 Nov
  - Total to be received NLT 25 December
  - AD, Reservists, NG, GS employees are eligible
  - Priority to: Deployed and Deploying, HCW, Trainees, Ships at Float
  - Mandatory for all uniformed personnel. Highly encouraged for all others.
  - DoD medlog assets move vaccine



# H1N1 Vaccine – Federal Employee

- Up to 1M doses of vaccine
- 25,500 doses received as of 6 Nov
- Program administered by the CDC
- Allotted as vaccine becomes available
- DoD medlog assets move vaccine
- Can be used for DoD civilian employees and OCONUS dependents
- Can NOT be used for AD



# H1N1 Vaccine – State Allocation

- Vaccine for dependents and retirees
- CDC administered program that includes vaccine and ancillary supplies
- Based on State population
- Installation enrolls with State as an immunizer
- Order placed with the State, sent to CDC, CDC allots vaccine to immunizer, vaccine delivered directly to MTF by McKesson
- MTF began receiving vaccine in early October



# Everyone wants Vaccine





## When do I get mine

- Everyone will have access to vaccine
- Uniformed personnel – mandatory
- All others – anyone who wants vaccine will get it
  - But you have to wait your turn
- Vaccine supply is expected to increase rapidly over the next few weeks and months



# Vaccine Safety Surveillance

- Will use the Defense Medical Surveillance System (DMSS) and the military's electronic health record data
- Project is a collaboration between MILVAX, AFHSC, FDA (CBER) and CDC Immunization Safety Office
- Project includes 3 phases



# DoD Vaccine Safety Surveillance Phase 1

- Pre-H1N1 vaccination
  - Pre-specified potential adverse events, such as Guillain-Barré syndrome, will be retrospectively assessed from previous influenza seasons.
  - This phase will estimate background rates that will be used as comparisons for the enhanced surveillance of the new H1N1 vaccine(s).



## DoD Vaccine Safety Surveillance Phase 2

- Active H1N1 vaccination phase
  - Enhanced surveillance to identify signals of pre-specified adverse events among military vaccinees for 42 days post-vaccination
  - Rapid Cycle Analysis techniques developed by the CDC Vaccine Data Link network to solidify signals and compare findings to pre-established background rates.
  - Weekly case-control comparisons of confirmed adverse events
  - Confirmed adverse events will be relayed to the DoD's Vaccine Healthcare Centers Network
  - Data mining techniques to identify unexpected (non-pre-specified) potential adverse events.

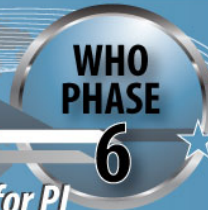


## DoD Vaccine Safety Surveillance Phase 3

- Post H1N1 vaccination phase
  - retrospective cohort study to begin when a pre-identified number of vaccine doses have been administered (based on sample size calculation) to adequately assess the association between pre-specified adverse events and the new H1N1 vaccine
  - compares incident rates of pre-specified adverse events between the H1N1 vaccine and the previous year's seasonal vaccine and an unvaccinated control group



# Pandemic Influenza Watchboard



Search:



## The Official DoD Watchboard for PI

SERVICEMEMBERS, CIVILIANS AND FAMILIES

HEALTH CARE PLANNERS AND PROVIDERS

DOD LEADERSHIP

H1N1 FAQs

H1N1 ARCHIVES

SOCIAL MEDIA

**FLU.GOV**  
Know what to do about the flu.  
VISIT FLU.GOV  
SHARE THIS WIDGET

### Welcome to the Department of Defense Pandemic Influenza Watchboard

*In an influenza pandemic, the DoD's mission is to preserve the U.S. combat capabilities and readiness and to support U.S. government efforts to save lives, reduce human suffering and slow the spread of infection.*

### CDC FLU UPDATES

**U.S. Flu Activity Report - Week Ending October 10, 2009 (Week 40)**

Latest information on influenza activity in the United States.

[More...](#)

**U.S. Flu Activity Report - Week Ending October 3, 2009 (Week 39)**

Latest information on influenza activity in the United States.

[More...](#)

**U.S. Flu Activity Report - Week Ending September 26, 2009 (Week 38)**

Latest information on influenza



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INFO

#### DoD Policy and Guidelines

Clinical and Public Health Guidelines for the MHS (03 Jun 2009)

USD(P&R) Public Health Emergency Management of the 2009 H1N1 Flu 11 May 2009 (13 May 2009)

#### General Facts and Information

MILVAX Novel A(H1N1) Influenza Communications Plan (16 Oct 2009)

H1N1 Frequently Asked Questions (16 Oct 2009)

TRICARE H1N1 Flu Facts (16 Oct 2009)

USUHS H1N1 Flu (Swine Flu) Information (16 Oct 2009)

DefenseLink's Gearing Up for Flu Season (16 Oct 2009)

Homeland Security Department Response to H1N1 (Swine) Flu (16 Oct 2009)

MILVAX H1N1 Facts and Information (16 Oct 2009)

MHS H1N1 Influenza Resources (16 Oct 2009)

#### Surveillance and Detection

H1N1 Flu Surveillance and Detection (13 Oct 2009)

AFHSC Weekly Influenza Surveillance Summary-Week 39 (13 Oct 2009)

#### DoD News

FDA Warns of Unapproved and Illegal H1N1 Drug Products Purchased Over the Internet (16 Oct 2009)

Visit [PandemicFlu.gov](http://PandemicFlu.gov) for one-stop access to U.S. Government avian and pandemic flu information. HHS is responsible for Pandemic Influenza Planning.

[PandemicFlu.gov](http://PandemicFlu.gov)

AVIAN FLU FAQs

AVIAN FLU ARCHIVES

HISTORY

GLOSSARY

LINKS



# DoD PI information source activity

- 12 April to 21 October 2009
  - 1,556,261 hits to DoD Pandemic Flu Watchboard
  - Most active link H1N1 FAQ page
  - Twitter followers since 17 April = 425
    - [www.twitter.com/forcehealth](http://www.twitter.com/forcehealth)
  - Face book fans: 43



The fact is, compared to pigs, we humans are unforgivably slow to learn from pragmatic experience.

Karl Schwen  
U.S. author. *In A Pig's Eye* (1985).





# Questions?

