2009 H1N1 Influenza Pandemic – Defense Health Board Briefing

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2009 H1N1 Timeline

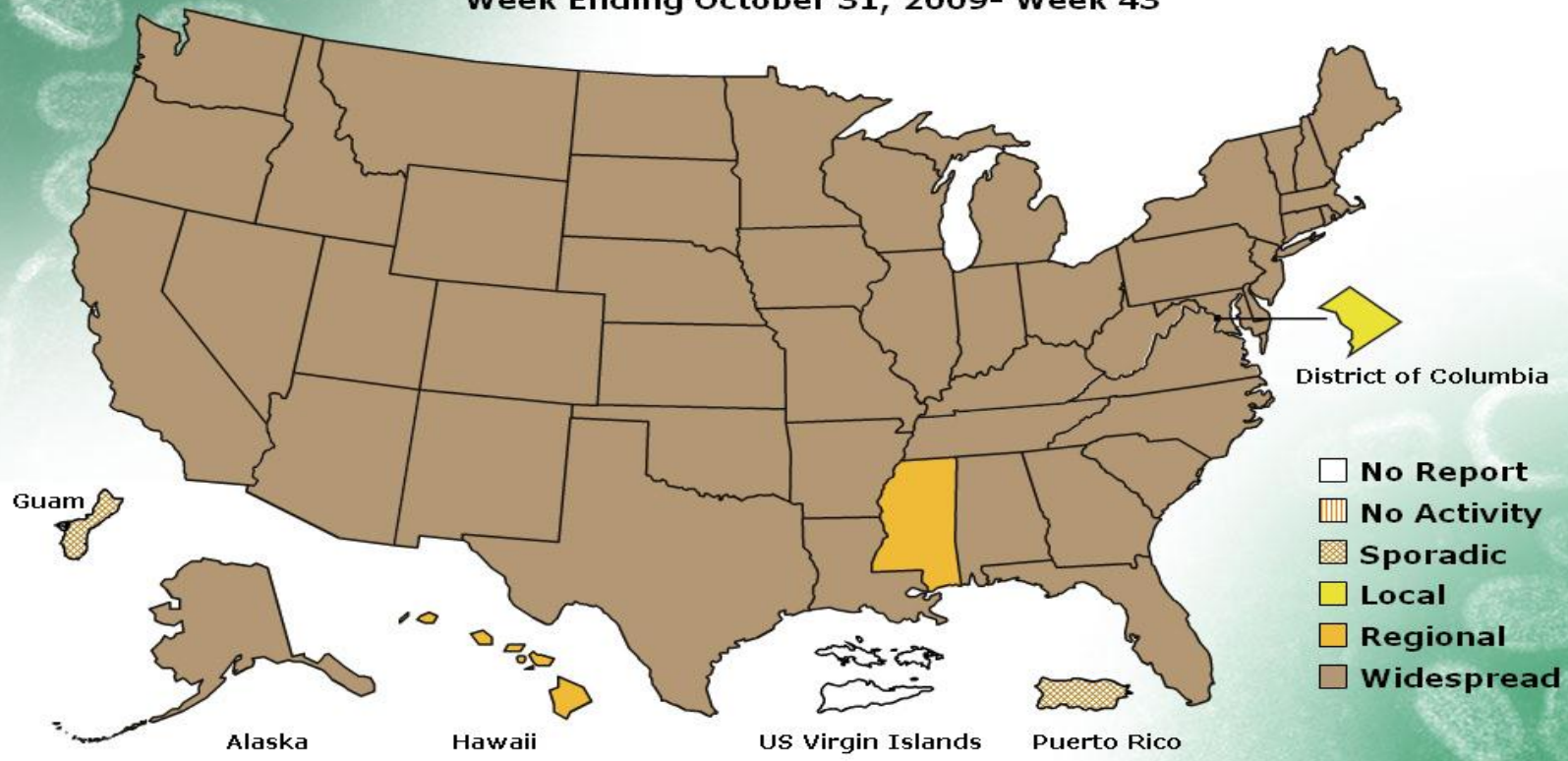
- December 2008 – widespread ILI in Mexico
- April 2009 – 4 cases of novel, swine origin influenza identified by DoD influenza surveillance system
- Pandemic Declaration by WHO 11 June 2009
- Southern Hemisphere flu season-2009 H1N1 is predominant virus
- Northern Hemisphere flu season – all countries 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
  - ≥ 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
- ≥ 65 yrs 0.16

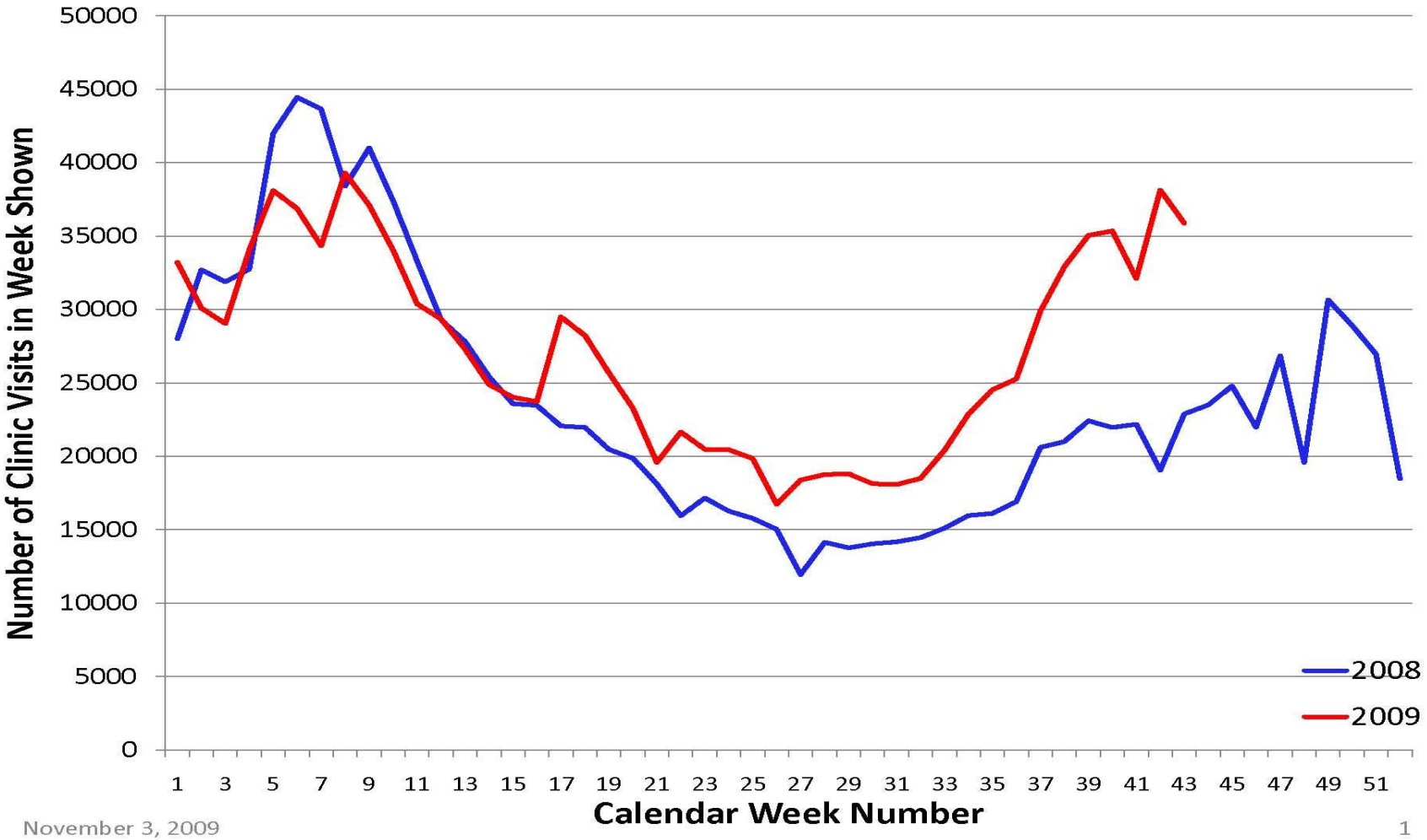
DoD Clinic visits for incident ILI over the last 10 weeks

- (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 %	Colorado	127 %
– Arizona	181 %	New York	126 %
– Washington	166 %	Ohio	113 %
– Nevada	155 %	Maryland	99 %
– Nebraska	134 %	Virginia	95 %
– Kansas	130 %		

– National Capital Region 107 %

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



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 elevate 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 NAI's

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 ≥ 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 6 Nov
  - Total to be received NLT 25 December
  - AD, Reservists, NG, GS employees are eligible
  - Priority to: Deployed and Deploying, HCW, Trainees, Ships a Float
  - Mandatory for all uniformed personnel. Highly encouraged for all others.
  - DoD medlog assets move vaccine

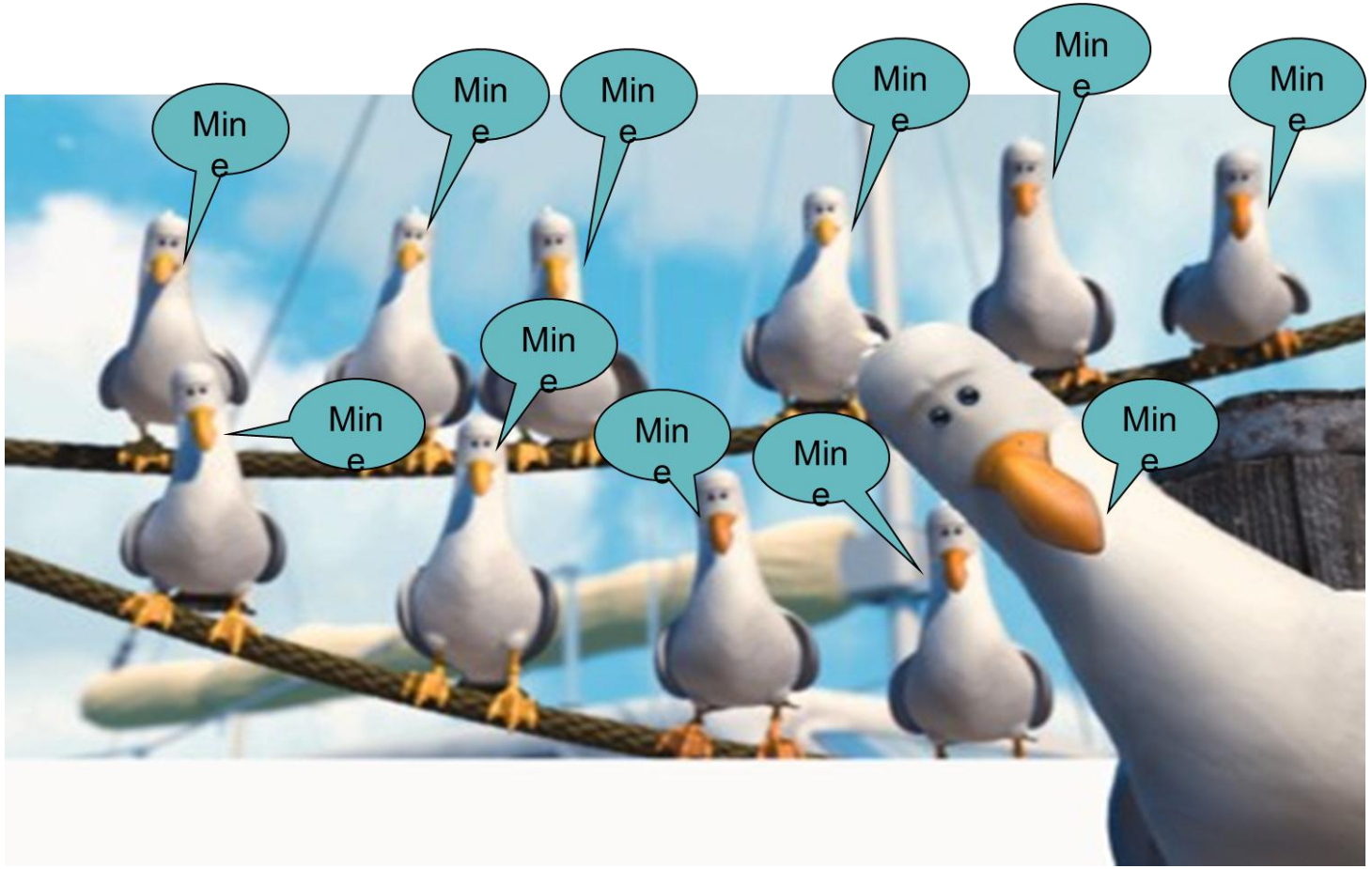
H1N1 Vaccine – Federal Employee

- 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

WHO PHASE 6

Search: GO

The Official DoD Watchboard for PI

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

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

CDC SHARE | INFO

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.

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 for one-stop access to U.S. Government avian and pandemic flu information. HHS is responsible for Pandemic Influenza Planning.

PandemicFlu.gov

http://fhp.osd.mil is the official Web site of Force Health Protection & Readiness Policy & Programs
Skyline 4, Suite 901, 5113 Leesburg Pike, Falls Church, VA 22041
The appearance of external hyperlinks does not constitute endorsements by the Force Health Protection & Readiness Programs of the linked Web sites, or the

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
  - 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?