

# Influenza Activity and Vaccine Update

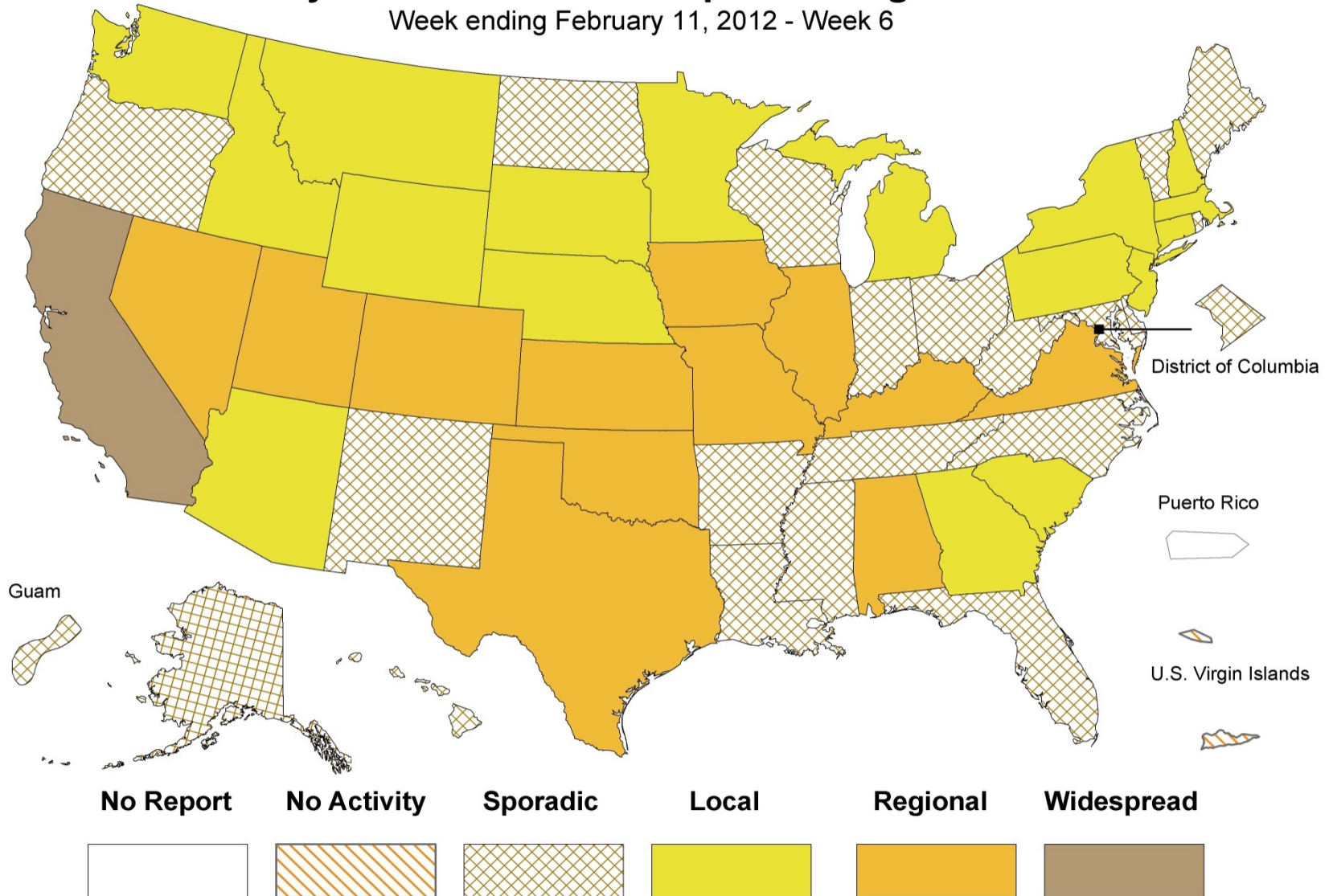
**Lisa Grohskopf, MD, MPH**

**Advisory Committee on Immunization Practices**

*February 22, 2012*

# Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists\*

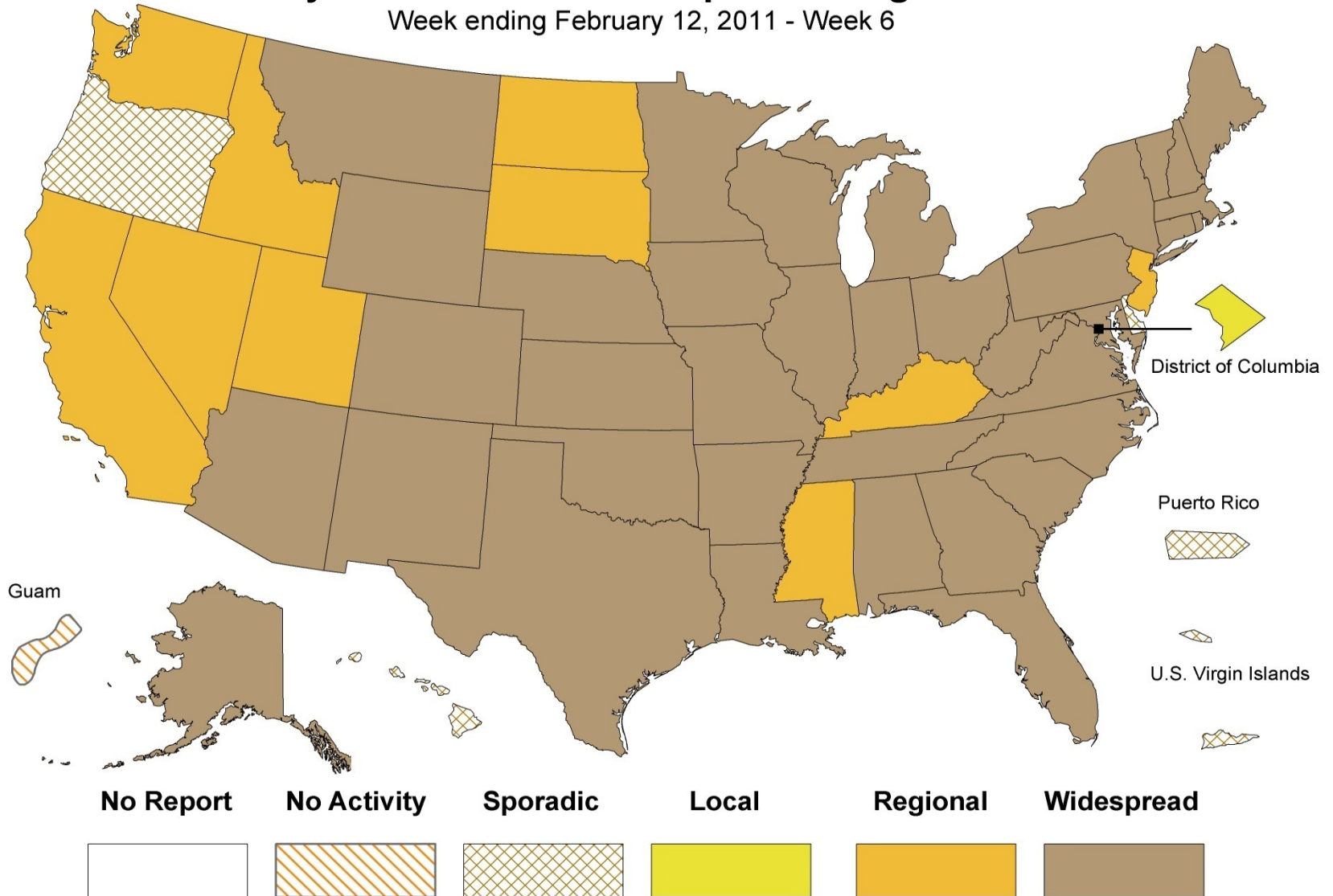
Week ending February 11, 2012 - Week 6



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

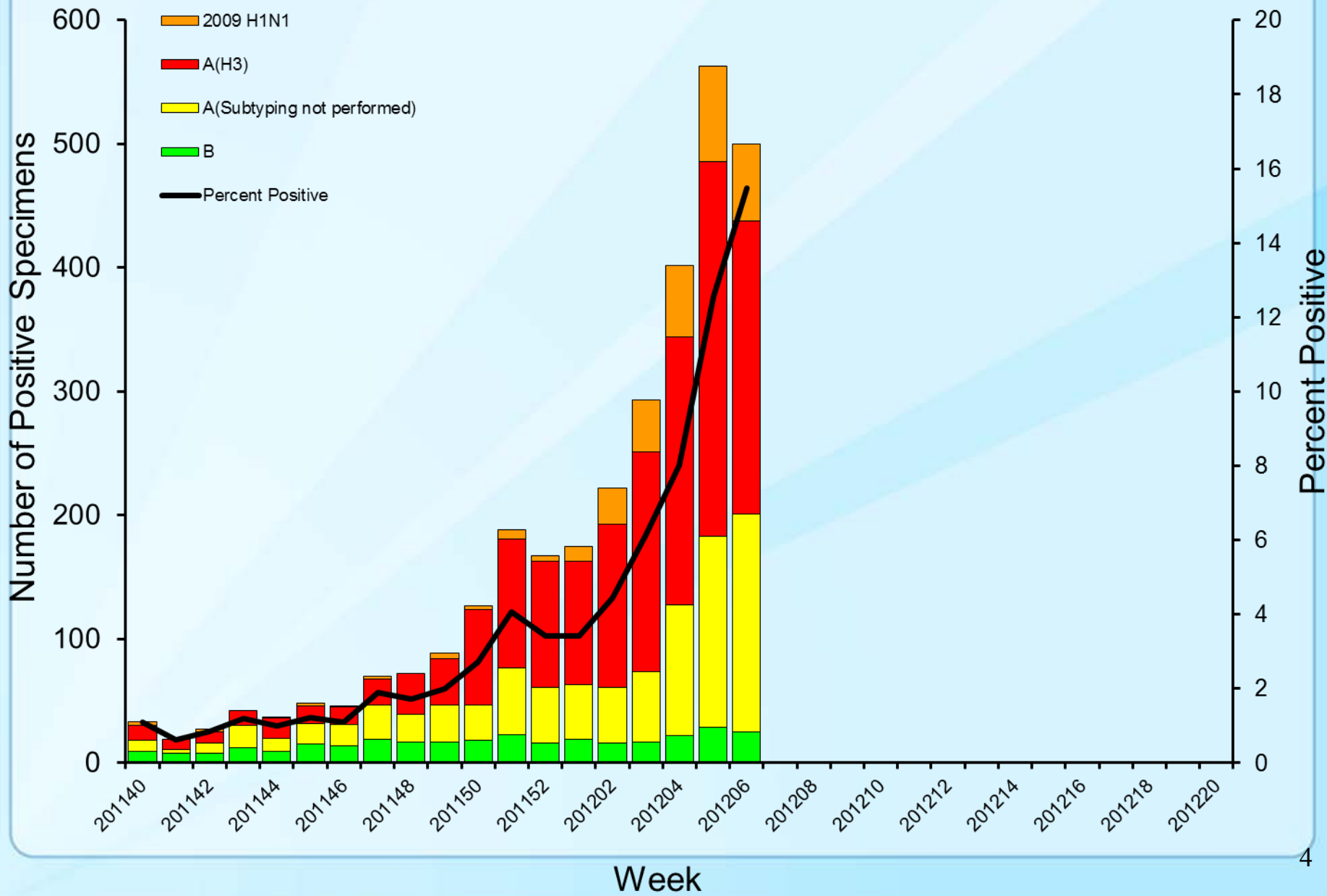
# Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists\*

Week ending February 12, 2011 - Week 6



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

# Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2011-12

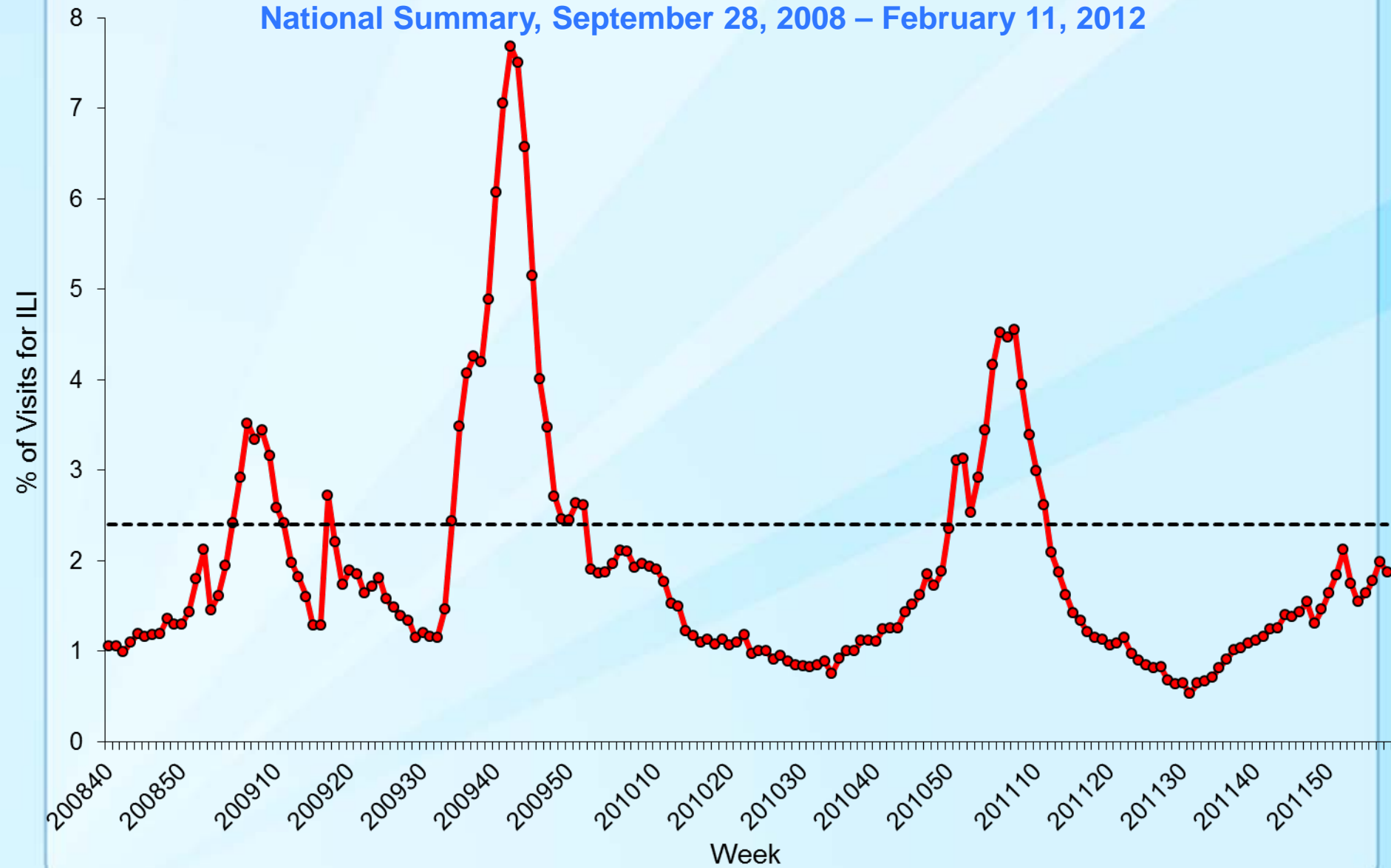


# Characteristics of Recent Influenza Viruses Tested at CDC

Of 369 U.S. viruses antigenically characterized at CDC since October 1, 2011:

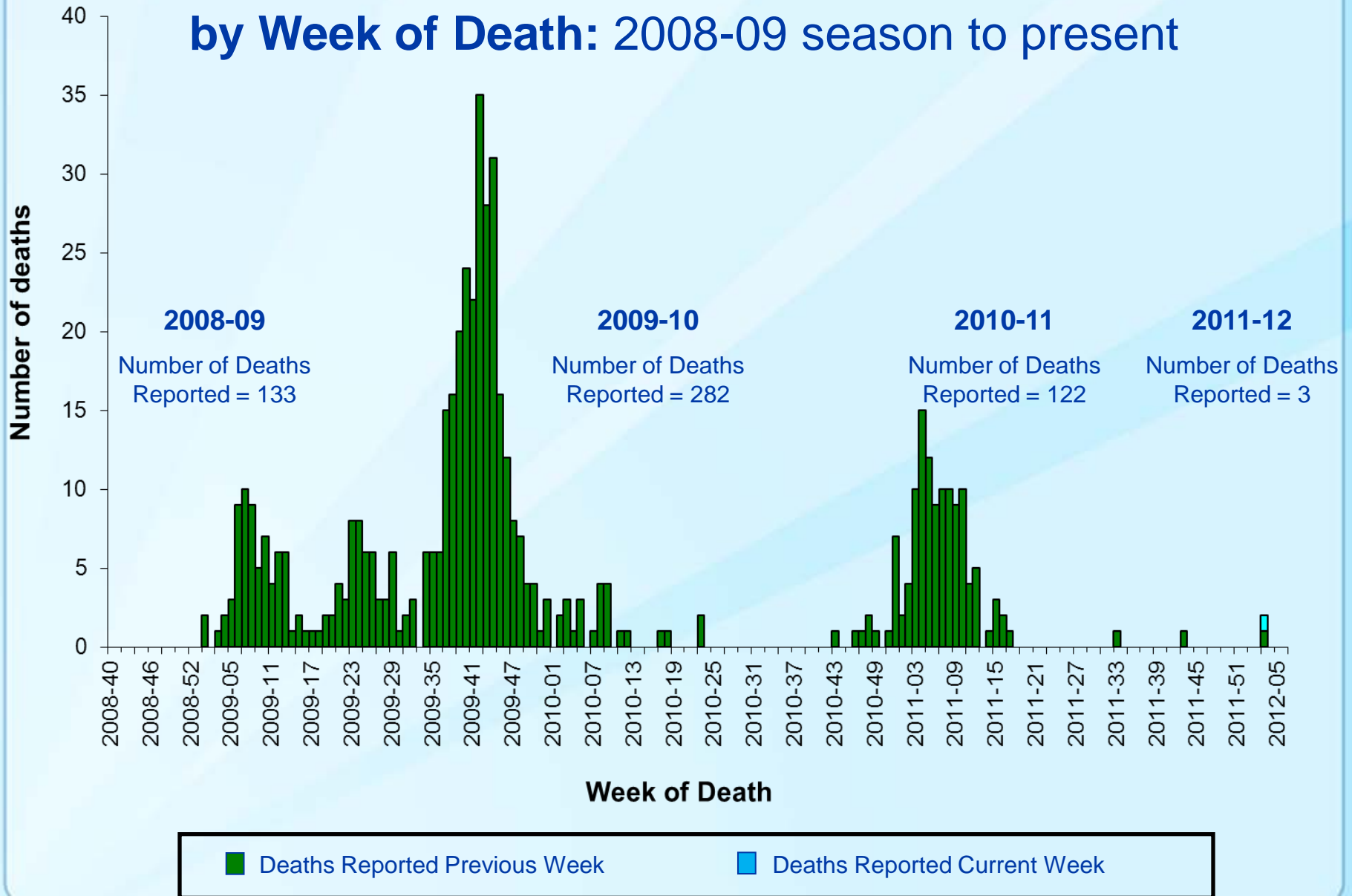
- ❑ **58 (16%) Influenza A (H1N1)**
  - 56 (97%) A/California/7/2009-like
  
- ❑ **263 (71%) Influenza A (H3N2)**
  - 257 (97%) A/Perth/16/2009-like
  
- ❑ **48 (13%) Influenza B**
  - 22 (46%) Victoria lineage; 198 (99%) B/Brisbane/60/2008-like
  - 26 (54%) Yamagata lineage
    - Few B viruses available for testing in US
    - Worldwide most similar to the 2011-2012 vaccine strain

# Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, September 28, 2008 – February 11, 2012





# Number of Influenza-Associated Pediatric Deaths by Week of Death: 2008-09 season to present



# Human Infections with Swine Influenza A Viruses, United States

- 35 human cases of swine influenza A virus infection identified from Dec 2005 – Nov 2011
  - Previously ~ 1 case every 1-2 years
    - Better diagnostics at SHDs
    - Greater awareness
- All triple reassortant swine-origin viruses
- 13 H1N1, 20 H3N2, and 2 H1N2 infections





# Reports of Swine-Origin Influenza A(H3N2)v, 2011

(N=12)

- Occurred between 7/2011 - 11/2011
- 5 states (ME, IA, IN, WV, PA)
- Swine origin H3N2 with matrix (M) gene from A(H1N1)pdm 2009
- Median age 3 years (range 11 months - 58 years)
- Mild to moderate influenza-like illness
- Estimated incubation period 2-4 days (range 1-7 days)
- Exposures:
  - 4 with direct exposure to pigs
  - 2 with indirect exposure
  - 6 with potential human-to-human transmission
- Hemagglutinin genes related to H3N2 viruses circulated in 1990s
  - Adults and older children may have limited immunity
- Current seasonal vaccine not anticipated to provide significant protection

# Influenza vaccine safety monitoring (2011-12 season)

- ❑ Formulation for 2011-12 seasonal influenza vaccine unchanged from 2010-11
- ❑ First season of use for intradermal trivalent inactivated influenza vaccine (TIV)
- ❑ Second season of use for high-dose TIV
- ❑ Monitoring in place in the Vaccine Adverse Event Reporting System (VAERS) and the Vaccine Safety Datalink (VSD)
- ❑ No unexpected or new safety concerns detected

# Thank You!

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