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Know What to Do About the Flu

Update on 2009 H1N1 Influenza

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National Vaccine Advisory Committee Meeting
Washington, D.C.

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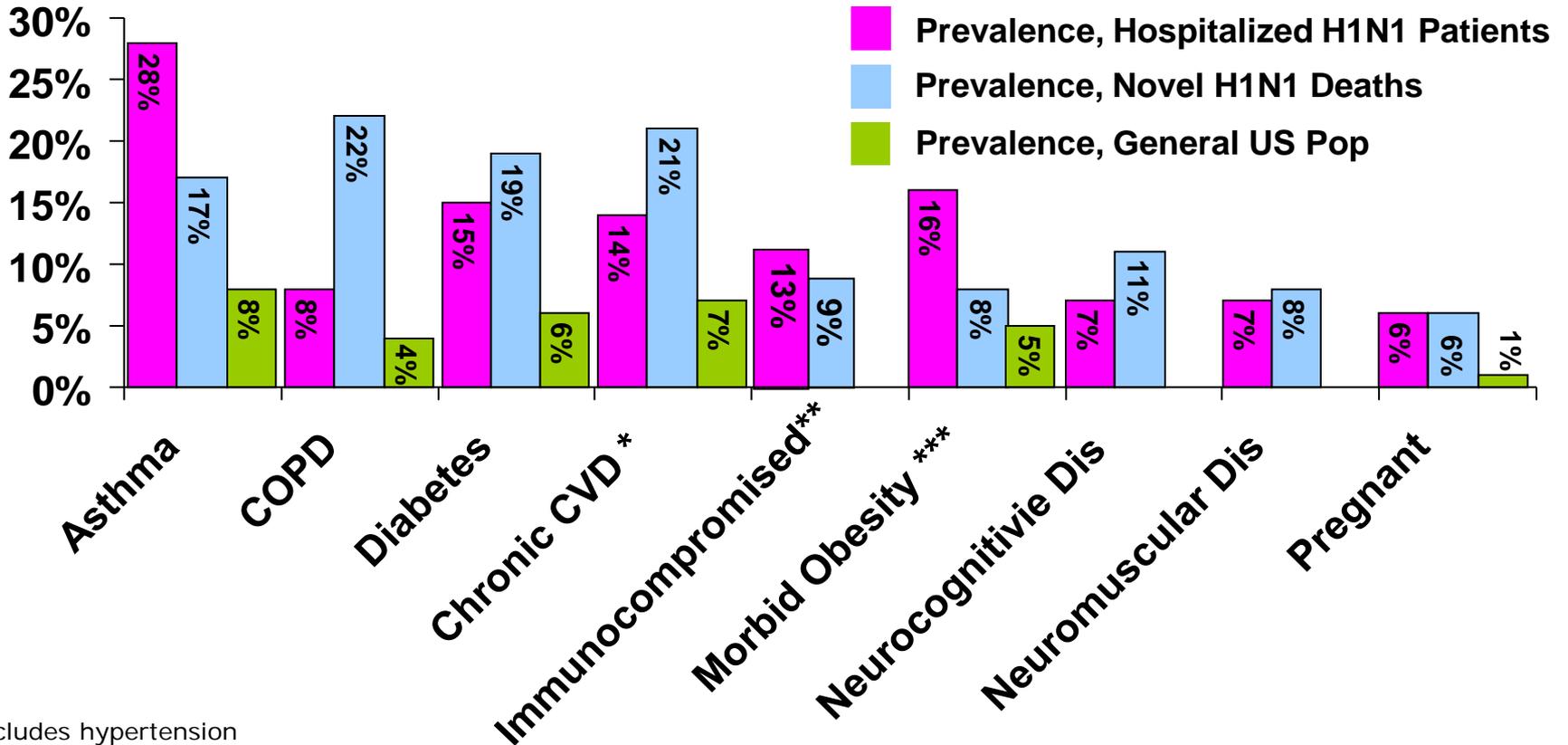


H1N1 Spring Outbreak

- Occurred very late in the flu season
- Remarkable heterogeneity across US
- Affected young people disproportionately
-
- Caused widespread illness; some severe or fatal
-
- Socially disruptive, especially for schools
-
- Tens of thousands of health workers and others responding worldwide



Underlying Conditions



*Excludes hypertension

**No NHANES data available for comparison with US population estimates

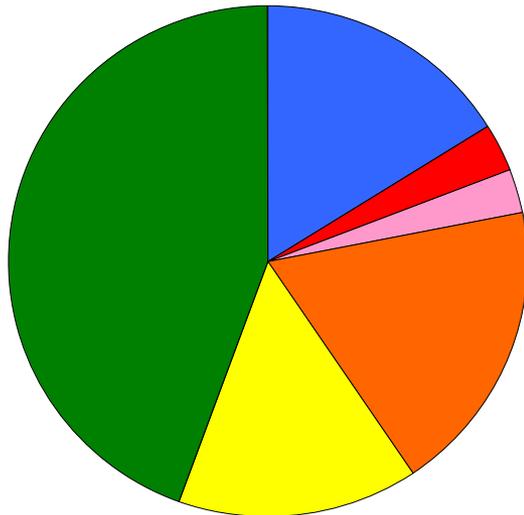
*** Morbid obesity is defined as BMI of 40 or higher. For Hospitalized H1N1 patients, BMI calculation was performed on non-pregnant adults ≥ 20 years (n=119). 45% of 119 non-pregnant hospitalized adults ≥ 20 years were missing height and weight information. For Novel H1N1 Deaths, morbid obesity % was calculated for adults only. Prevalence for US non-pregnant adults is based on NHANES (JAMA. 2006; 295(13): 1577)





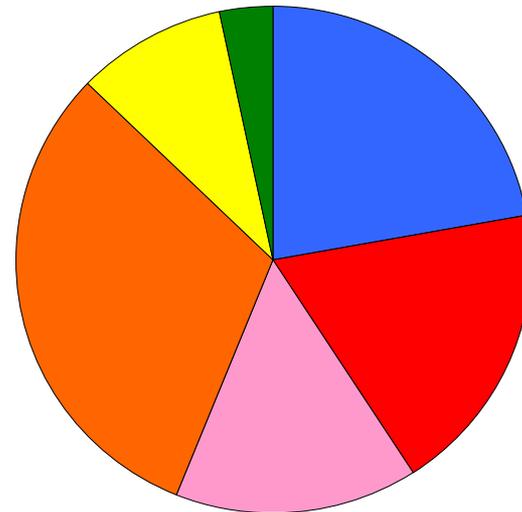
Teens and Young Adults Disproportionately Affected -- Few Cases Among Elderly

Seasonal 2007-08



N=3,930

2009 H1N1 (April - Jun)

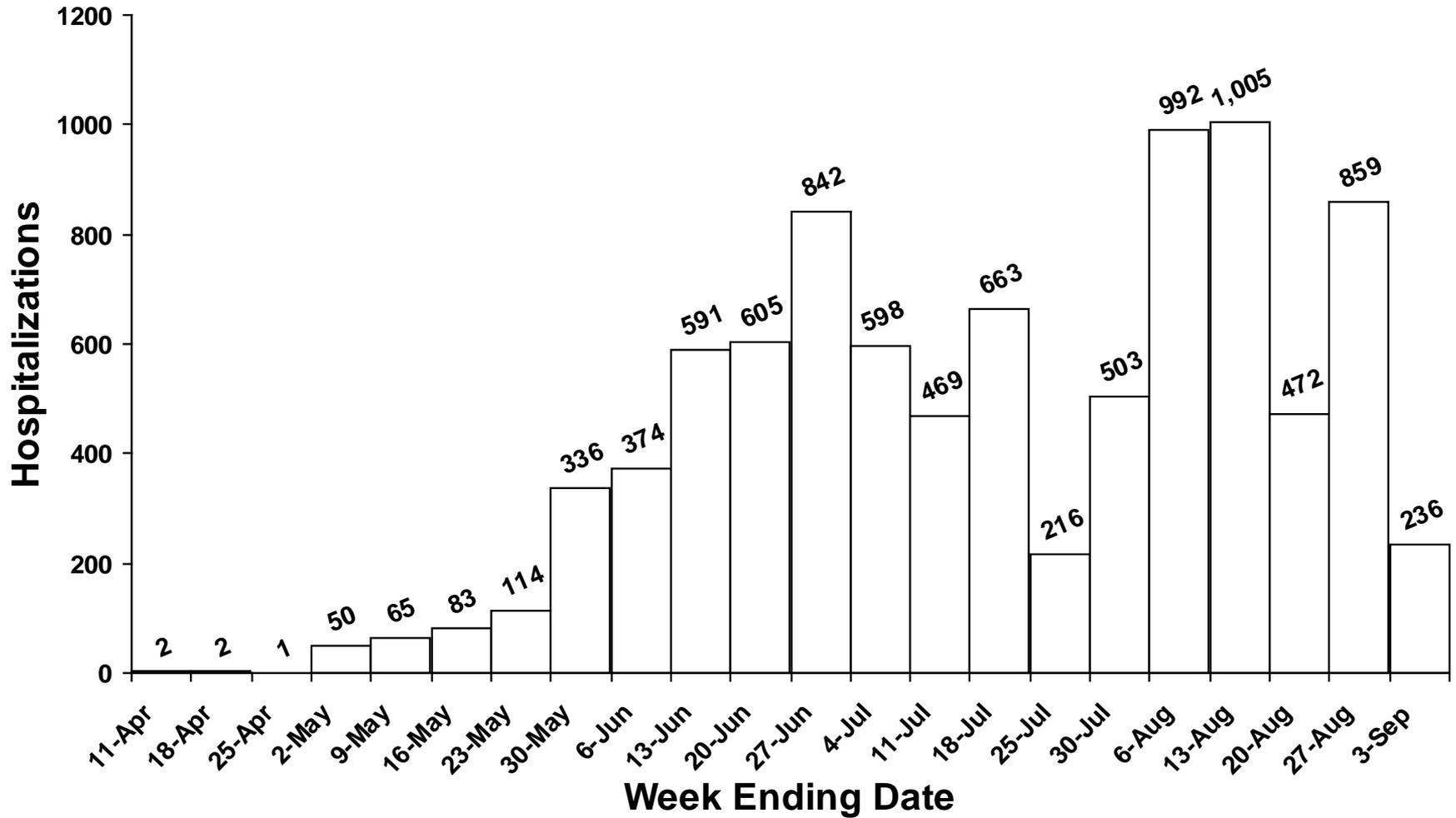


N=312

*April 12-June 30



2009-H1N1 Influenza Hospitalizations by Report Date
3 SEPT 2009 (n=9,079) (Weekly*)

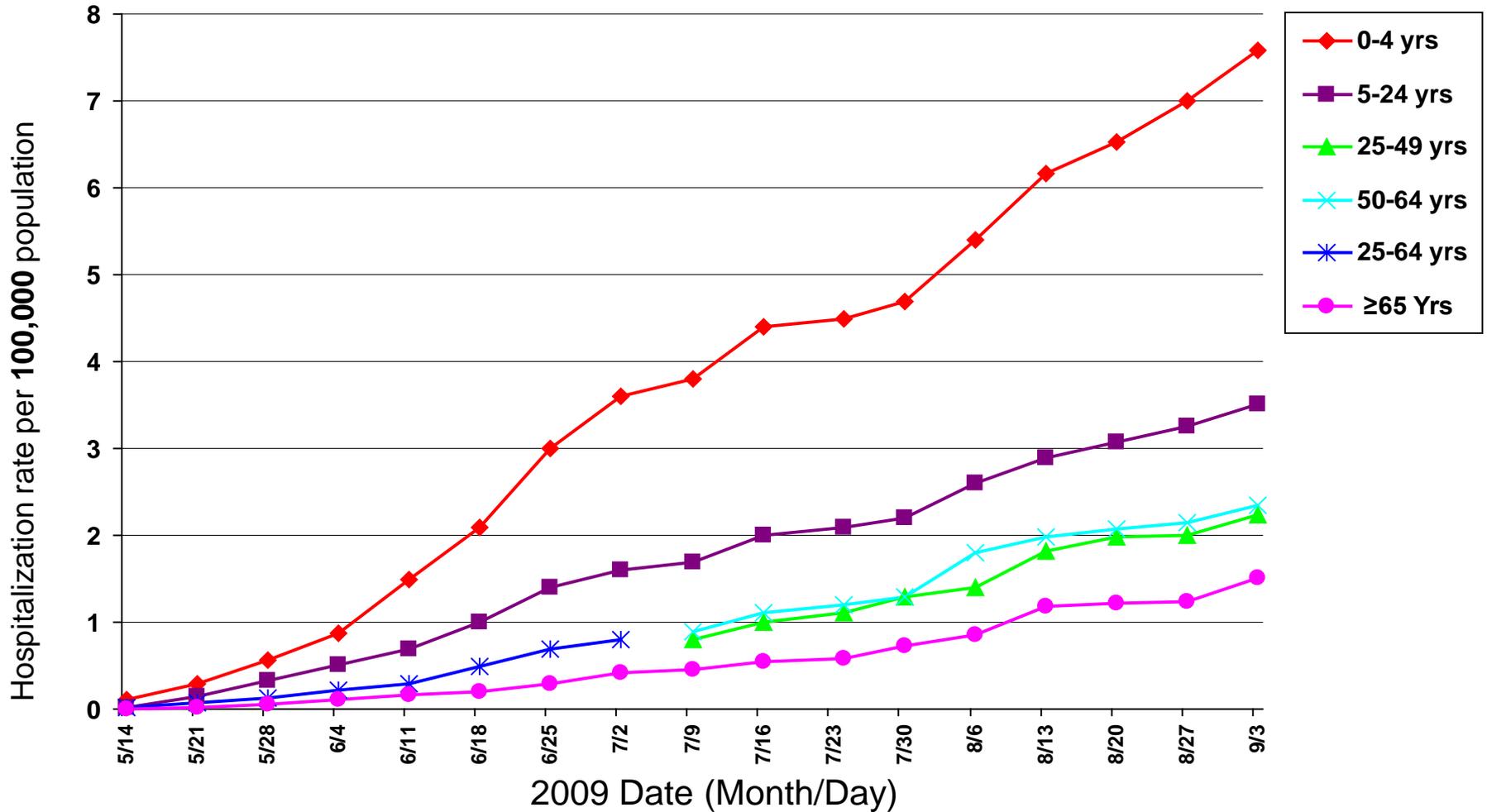


*Data for week ending 25 July 2009 include reports submitted between 1:00 AM EDT 6/25/2009 and 11:00 AM



2009-H1N1 Cumulative Hospitalization Rates per 100,000 US population from State Aggregate Data

2009-H1N1 – May 14 to September 3, 2009



*Hospitalizations with unknown ages are not included

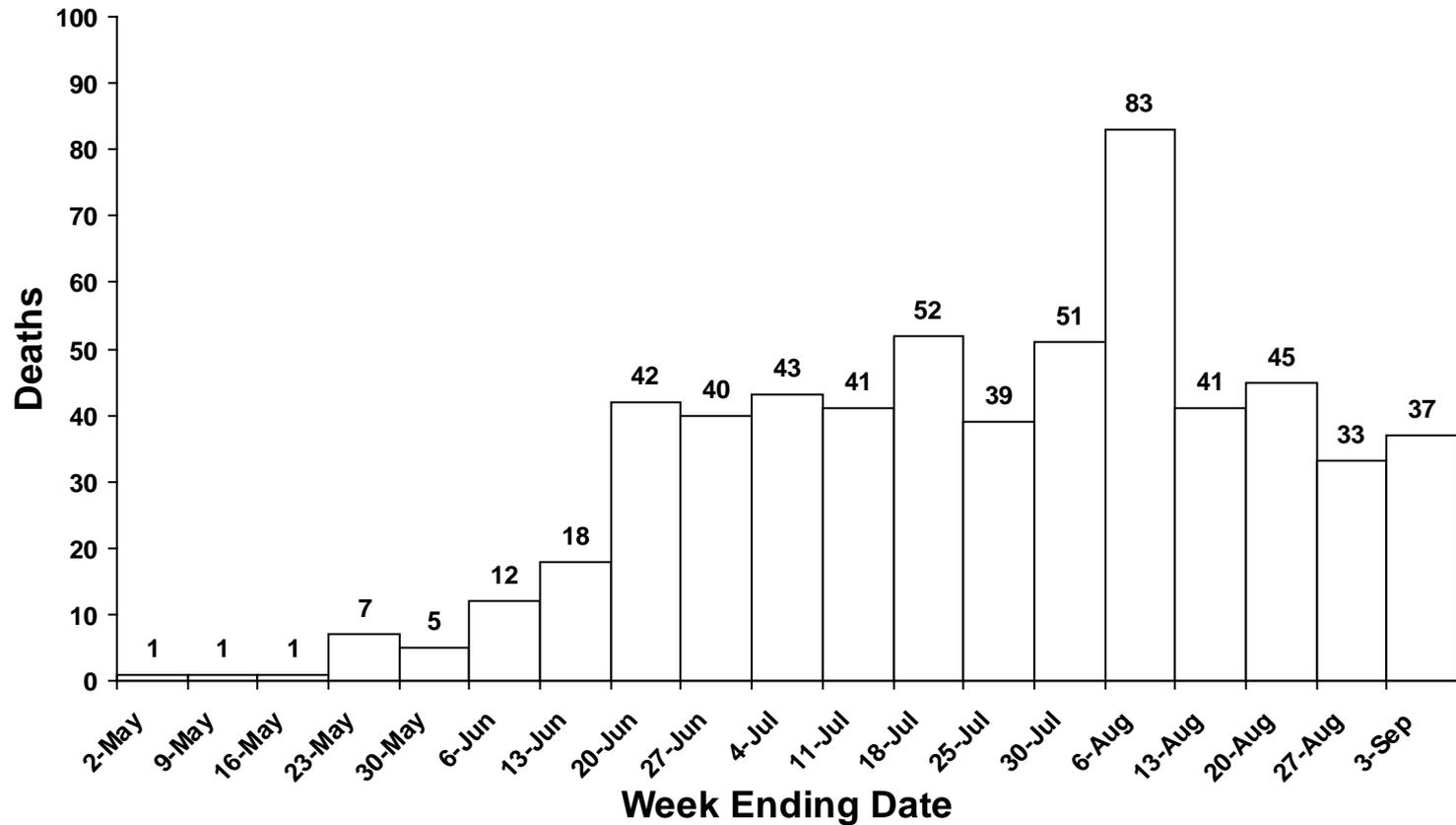
*Rate / 100,000 by Single Year Age Groups: Denominator source: 2008 Census Estimates, U.S. Census Bureau at:

<http://www.census.gov/popest/national/asrh/files/NC-EST2007-ALLDATA-R-File24.csv>



2009-H1N1 Influenza Deaths by Report Date

3 SEPT 2009 (n=593) (Weekly*)



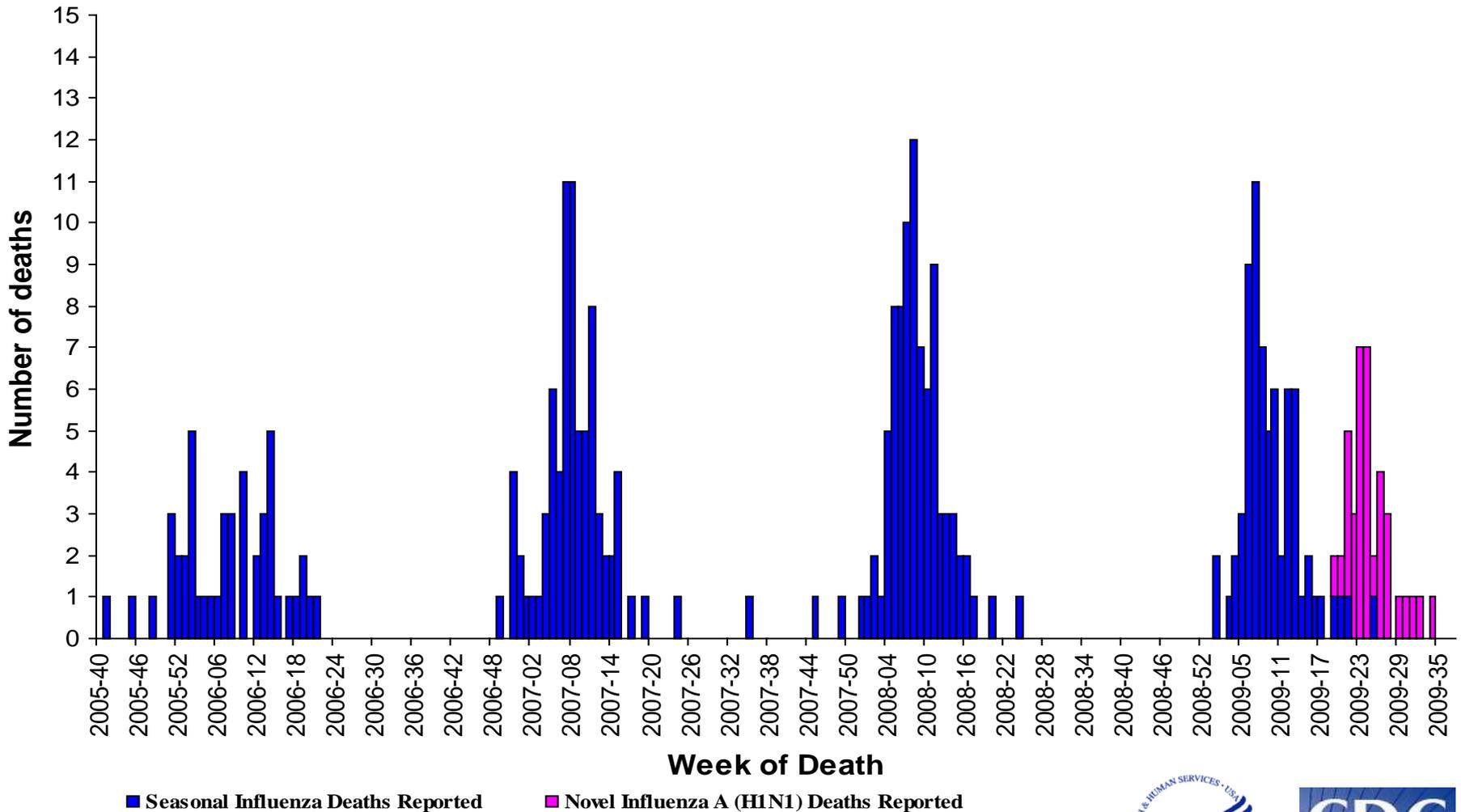
*Data for week ending 30 July 2009 include reports submitted between 1:00 AM EDT 6/25/2009 and 11:00 AM



Influenza Associated Pediatric Mortality

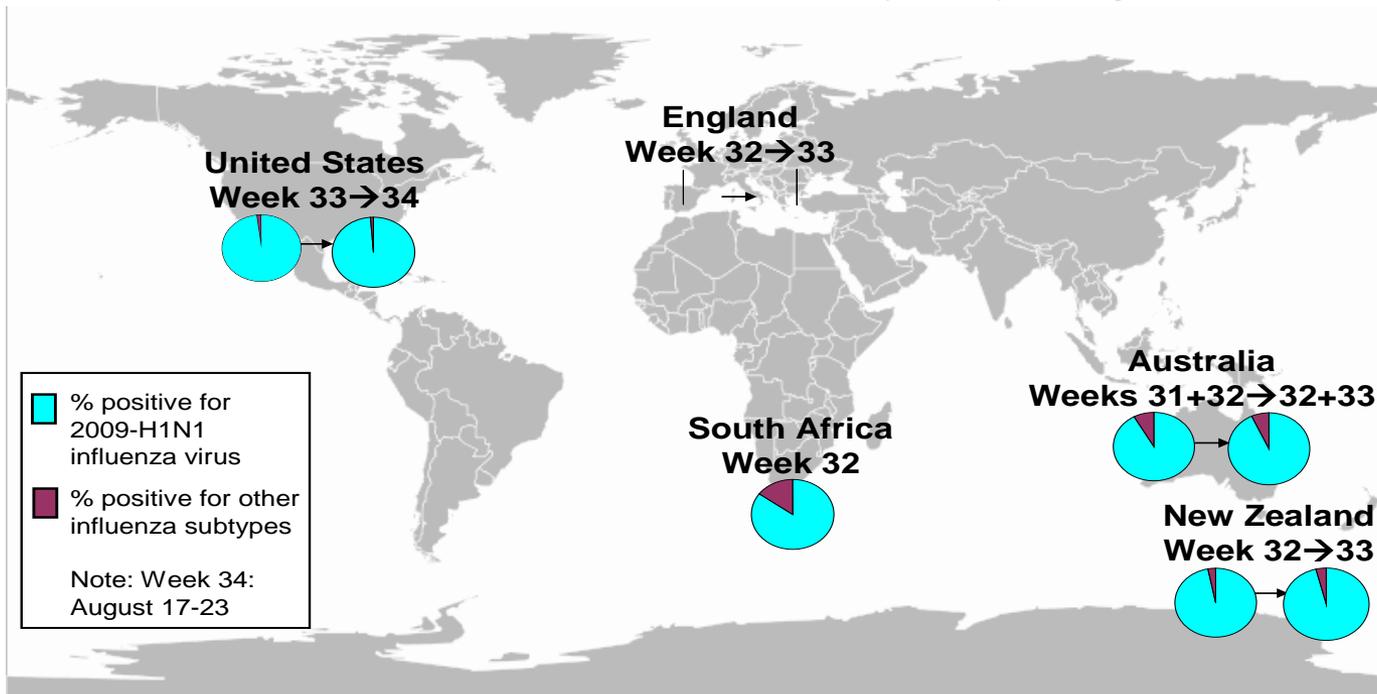
Number of Influenza-Associated Pediatric Deaths by Week of Death

2005-06 season to September 4, 2009



Influenza in Southern Hemisphere - 2009

Both 2009 H1N1 & Seasonal Flu





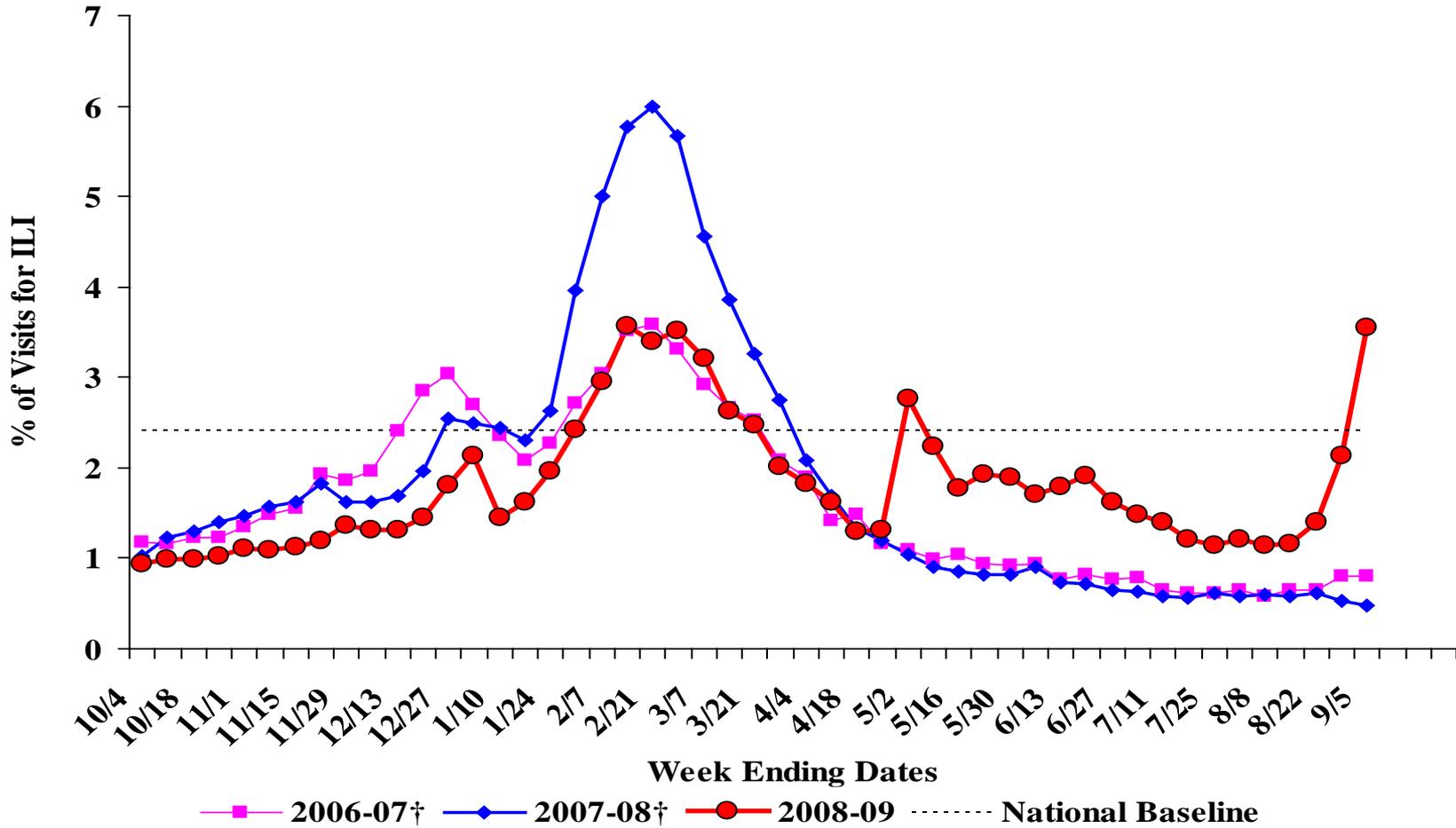
International Update

- The 2009 H1N1 influenza virus is the predominant influenza virus in circulation worldwide.
- The 2009 H1N1 influenza virus in the Southern Hemisphere is very similar to that described in the United States this past spring.
- WHO has reported over 254,206 laboratory-confirmed cases of 2009 H1N1 influenza virus with at least 2,837 deaths, likely a substantial underestimation of total cases.

Epidemiology/Surveillance

Percentage of Visits for Influenza-like Illness (ILI) Reported by
the *US Outpatient Influenza-like Illness Surveillance Network (ILINet)*,
National Summary 2008-09 and Previous Two Seasons

novel 2009-H1N1 – 11 SEPT 2009

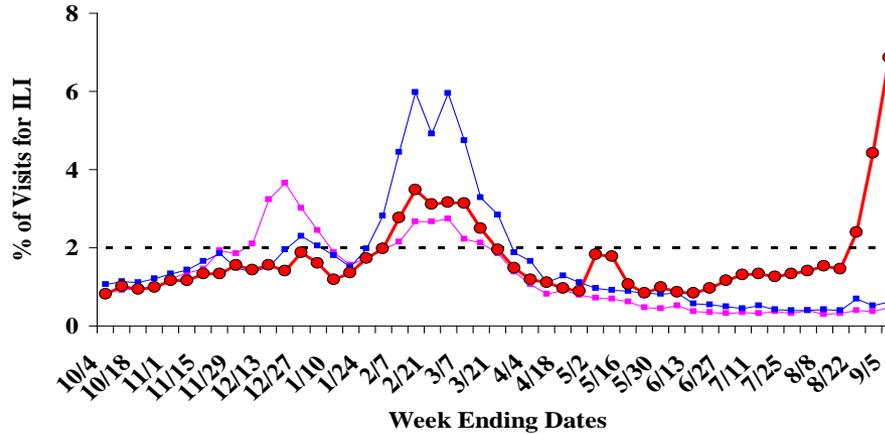


Epidemiology/Surveillance

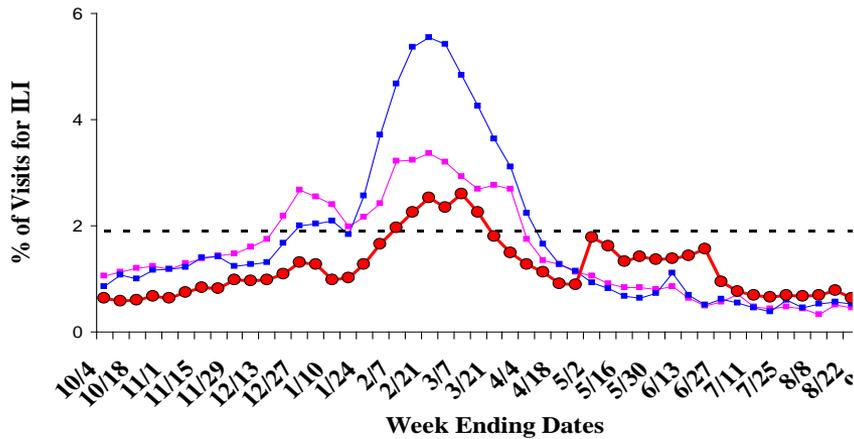
Current Influenza Surveillance – *ILINet* Regions 4-6

novel 2009-H1N1 – 11 SEPT 2009

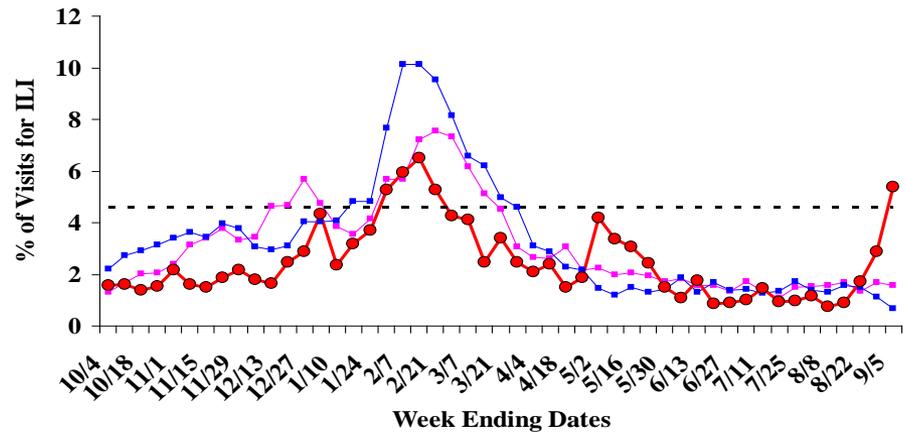
Region 4 - AL, FL, GA, KY, MS, NC, SC, TN



Region 5 - IL, IN, MI, MN, OH, WI

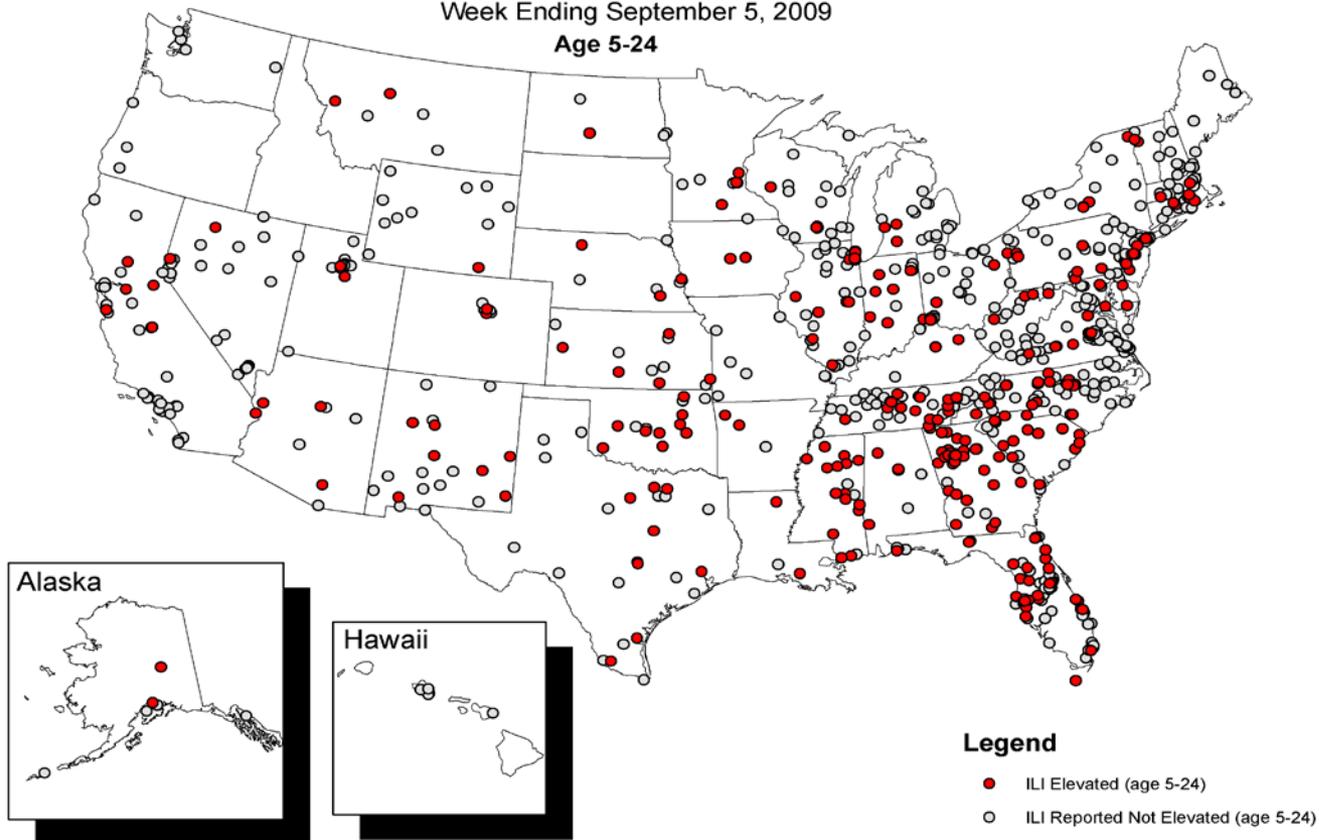


Region 6 - AR, LA, NM, OK, TX

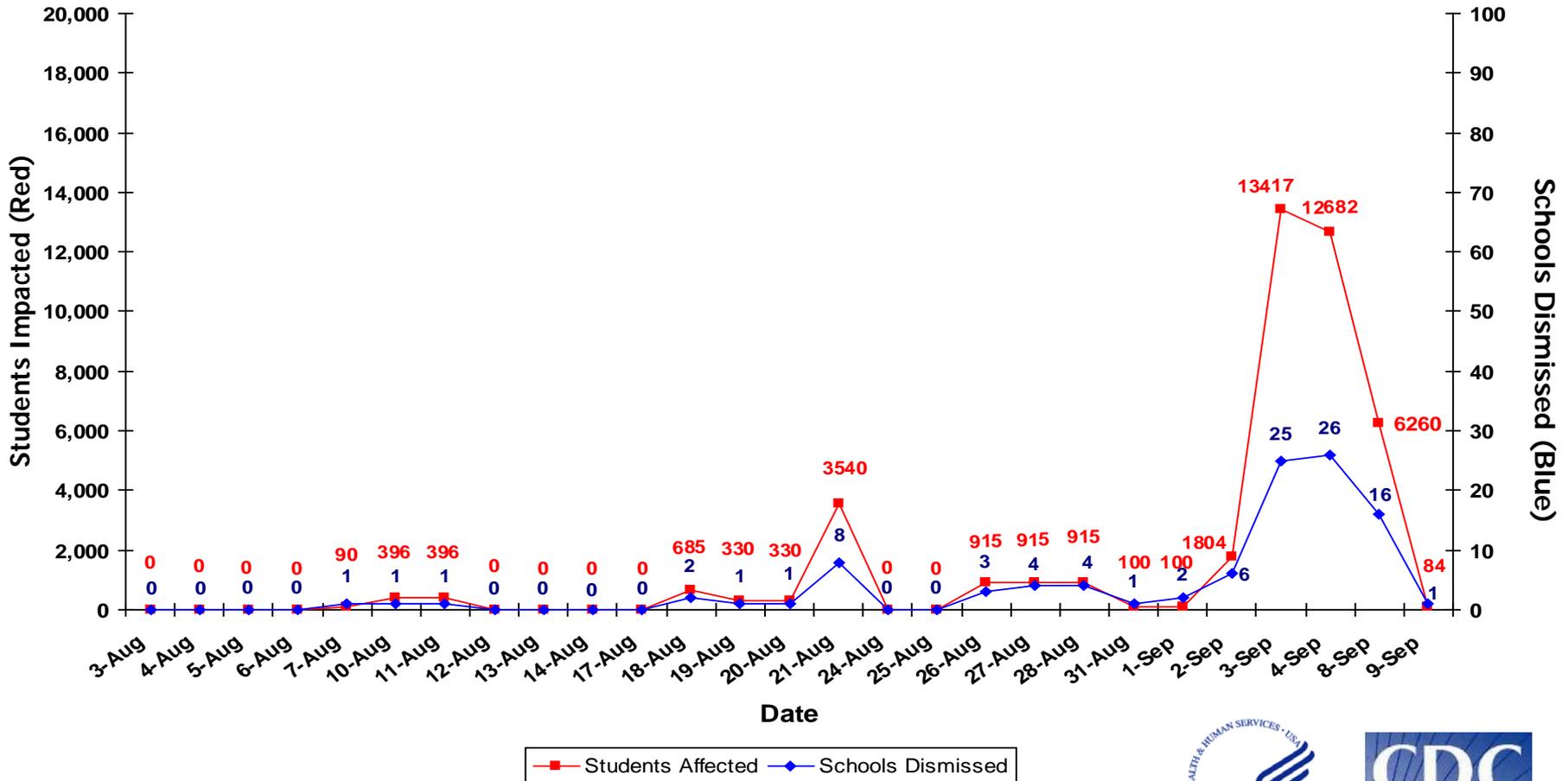




Influenza-like Illness (ILI) Reported from U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)
Analyzed by the Early Aberration Reporting System (EARS)
Week Ending September 5, 2009
Age 5-24



School Dismissals in the U.S. 3 Aug – 9 Sep 2009



National Framework for 2009-H1N1 Response

- Surveillance/Situational Awareness
- Mitigation (medical and community measures)
- Vaccination
- Communication