# H1N1 Pandemic

US Situation Update and
CDC International Response

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Epidemiology/Surveillance
Percentage of Visits for Influenza-like Illness (ILI) Reported by
the *U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)*,
National Summary 2008-09 and Previous Two Seasons
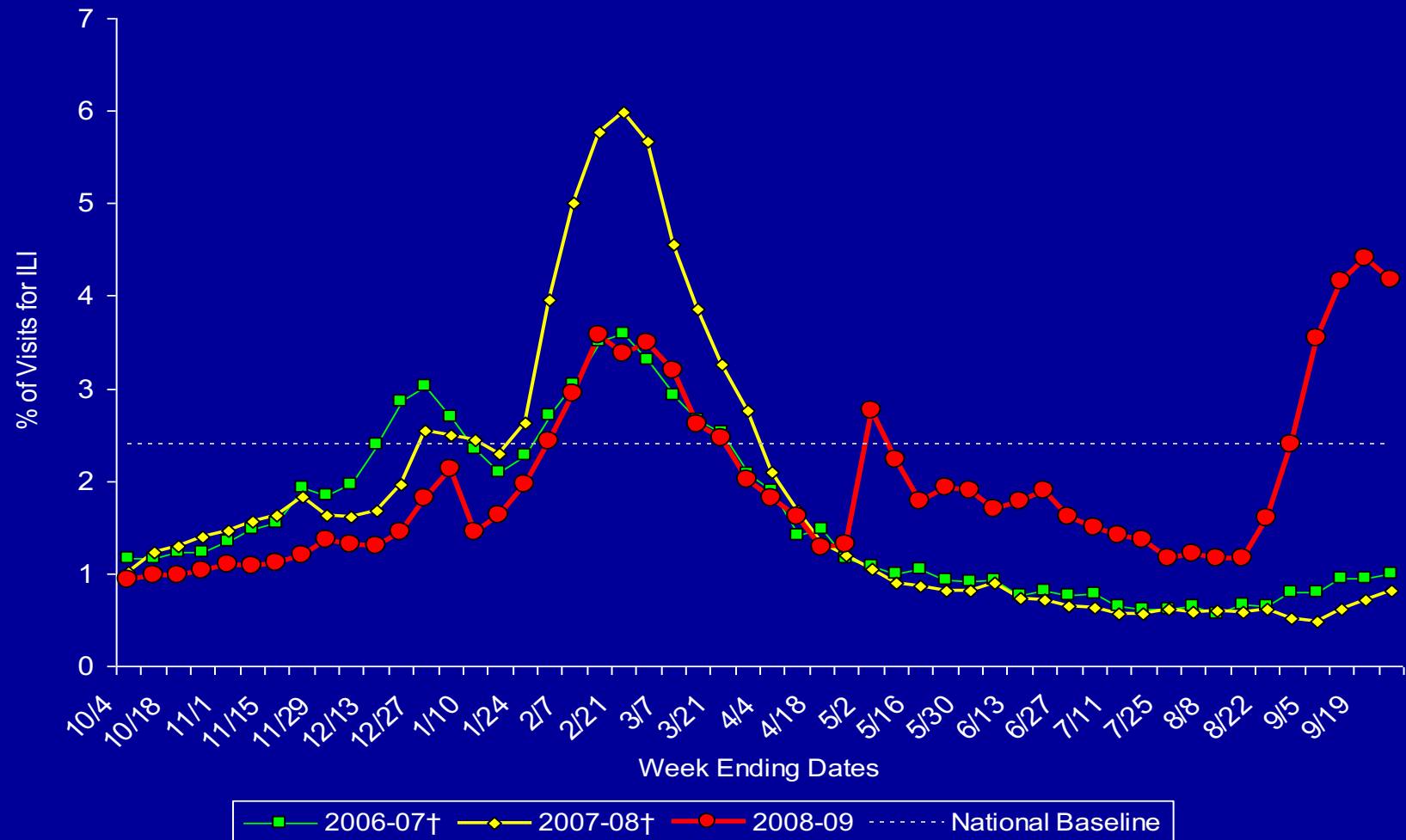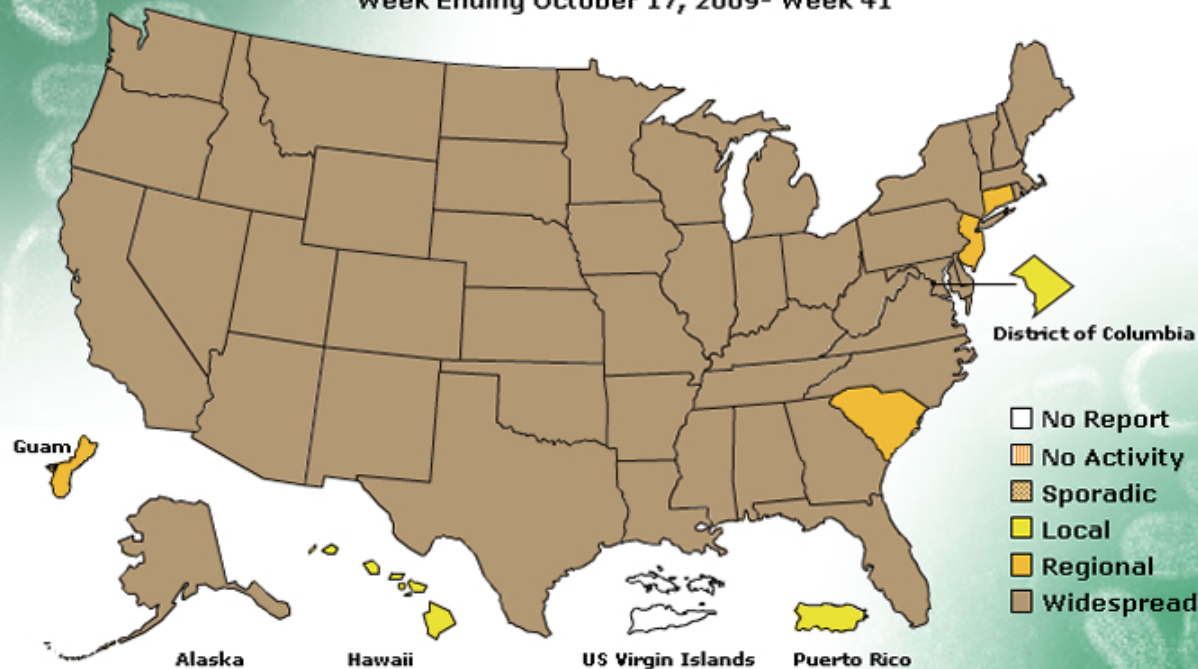
Epidemiology/Surveillance
Weekly Influenza Activity

Epidemiology/Surveillance
Percentage of Visits for Influenza-like Illness (ILI) Reported by the *U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet),* National Summary October 1, 2006 – October 17, 2009
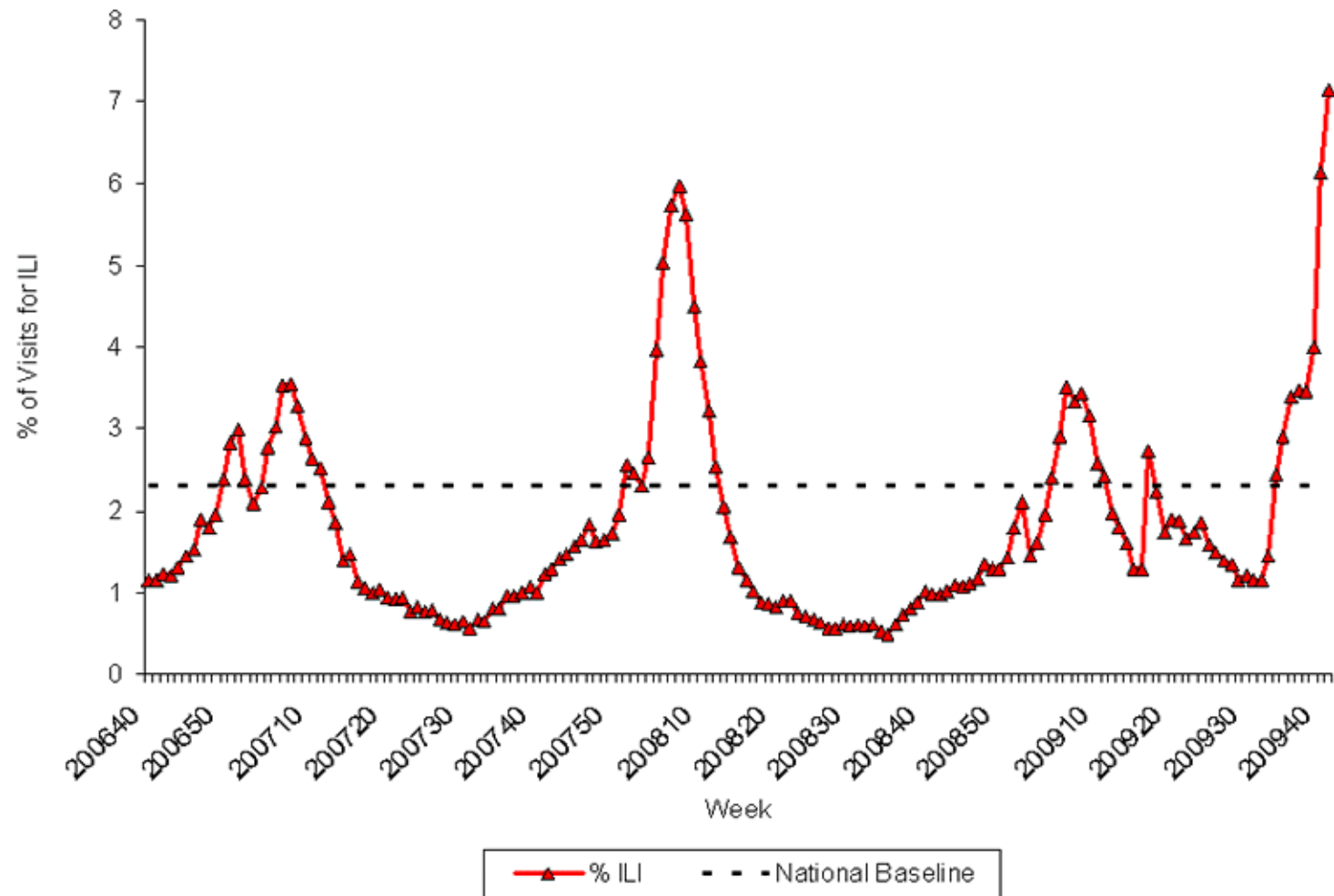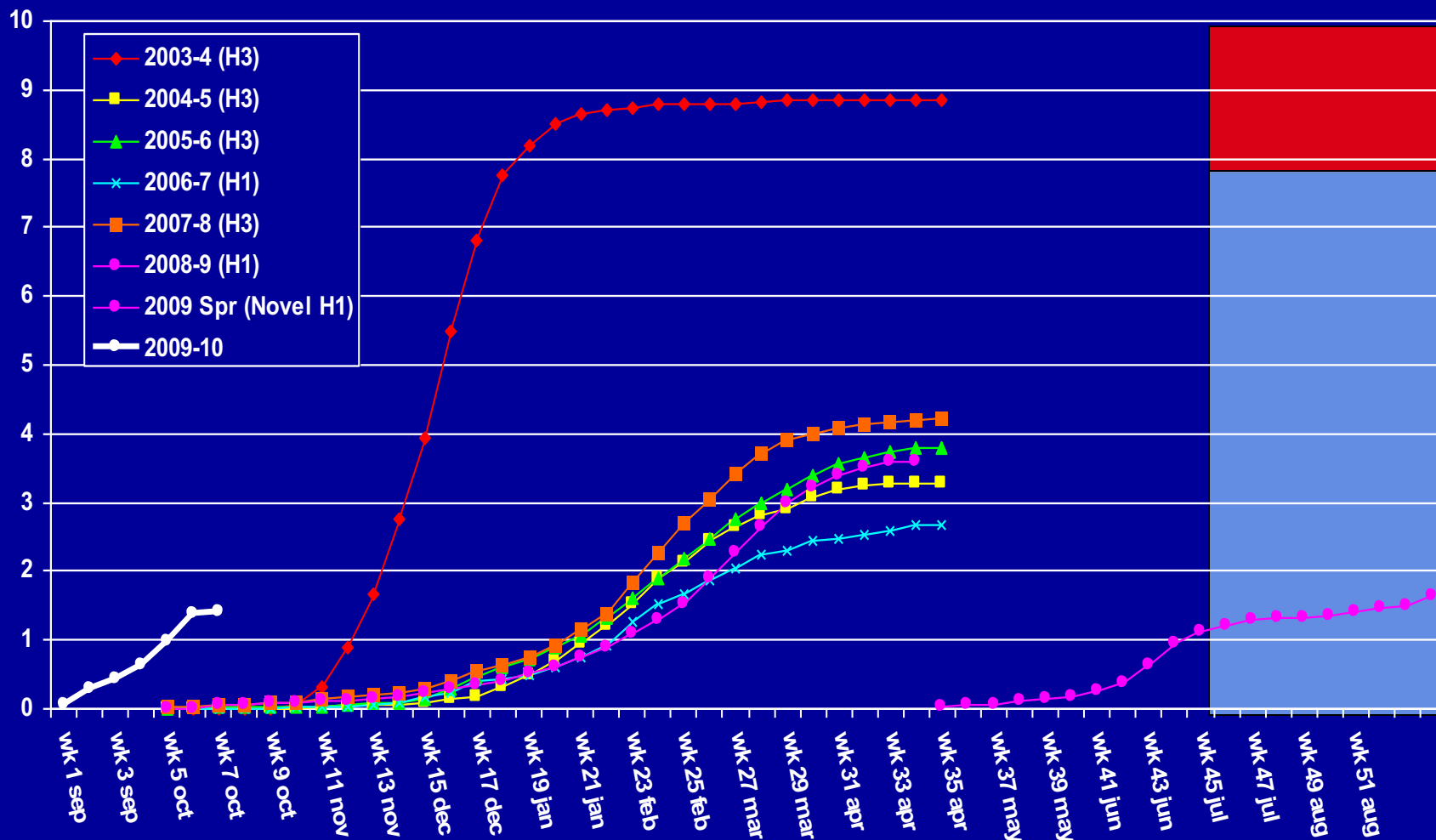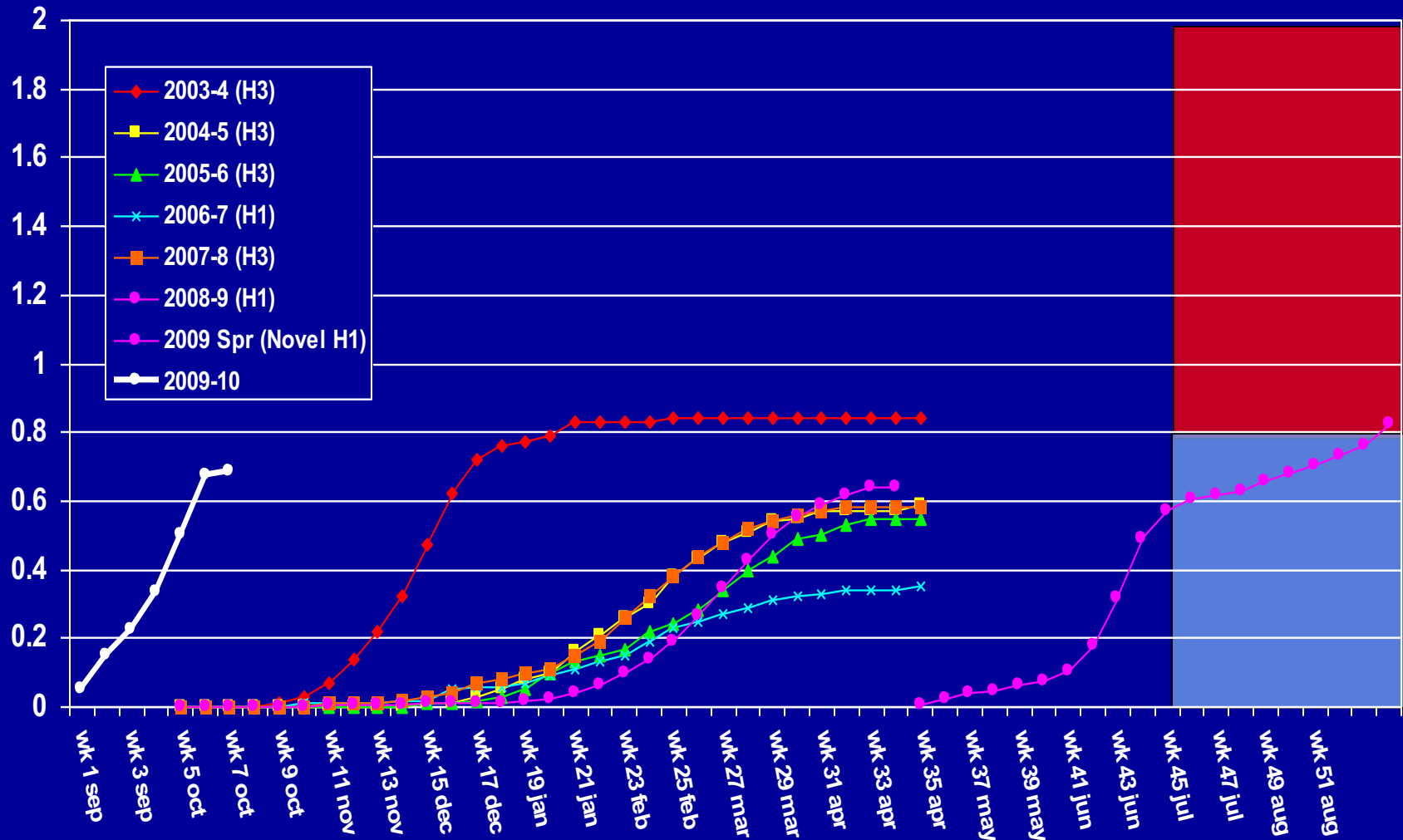
Epidemiology/Surveillance
Cumulative rate of hospitalization/ 100,000 population ages 0-4, EIP, 2003-2009

Epidemiology/Surveillance
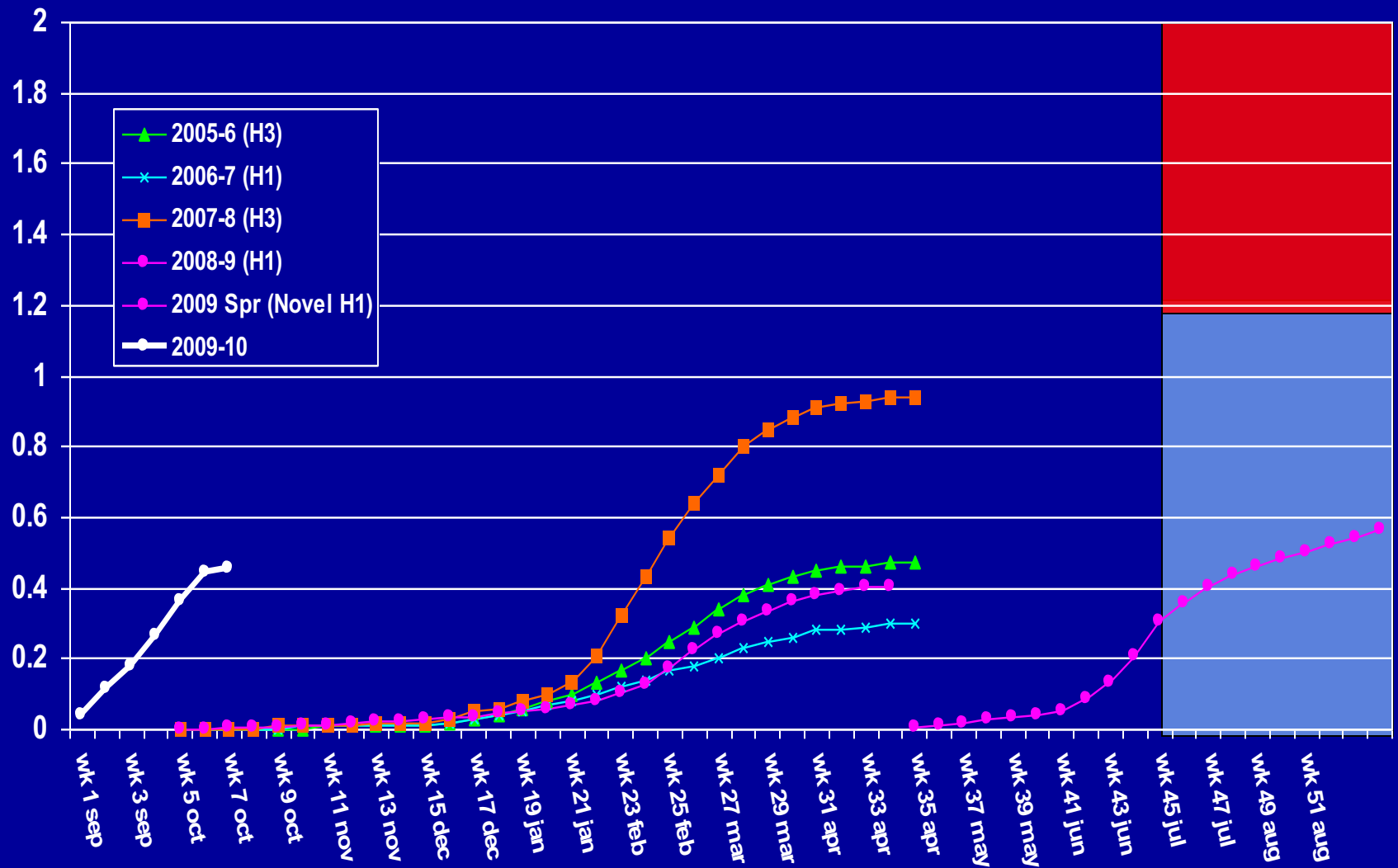Cumulative rate of hospitalization/ 100,000 population
ages 5-17, EIP, 2003-2009

Epidemiology/Surveillance
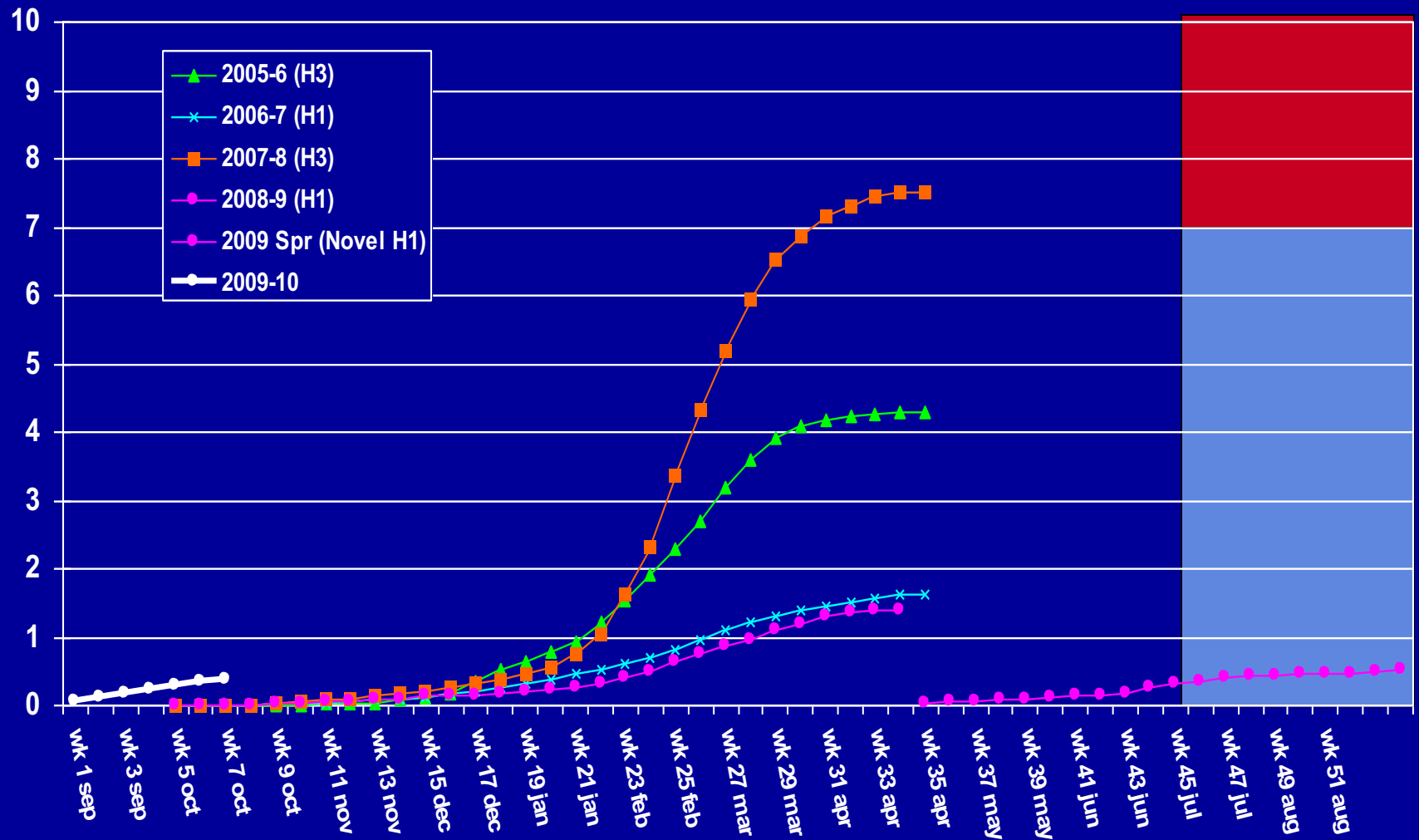Cumulative rate of hospitalization/ 100,000 population
ages 18-64, EIP, 2005-2009

Epidemiology/Surveillance
Cumulative rate of hospitalization/ 100,000 population
ages 65+, EIP, 2005-2009

Epidemiology/Surveillance
Weekly Lab-Confirmed Deaths (n=411)
Influenza Week 41 – 23 OCT 2009
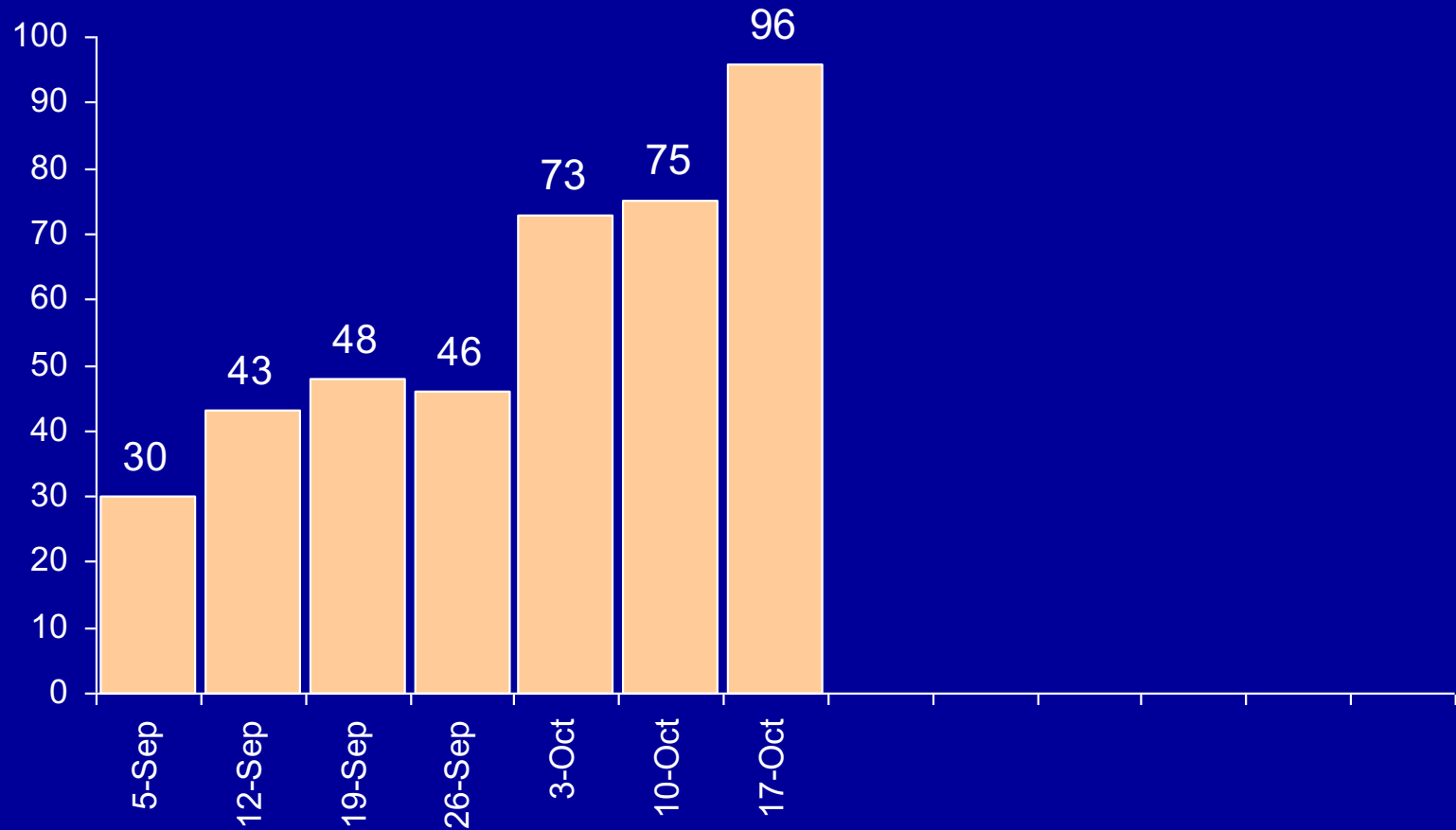
Epidemiology/Surveillance
Lab-Confirmed Deaths by Age Group through Week 41 (n=411*)
Influenza Week 41 – 23 OCT 2009
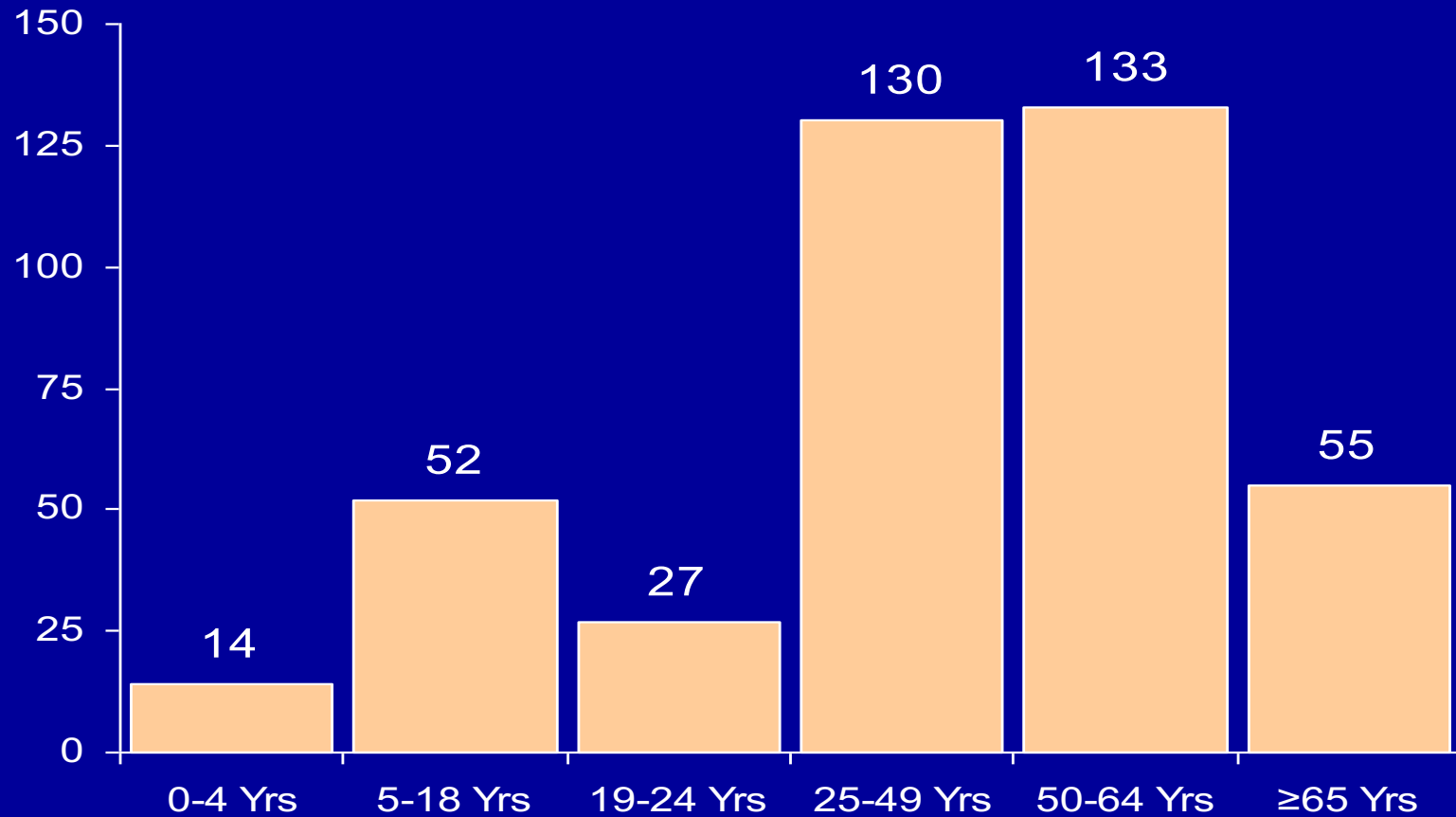
Epidemiology/Surveillance
Lab-Confirmed Mortality per 100,000 Population by Age Group (n=411*)
Influenza Week 41 – 23 OCT 2009

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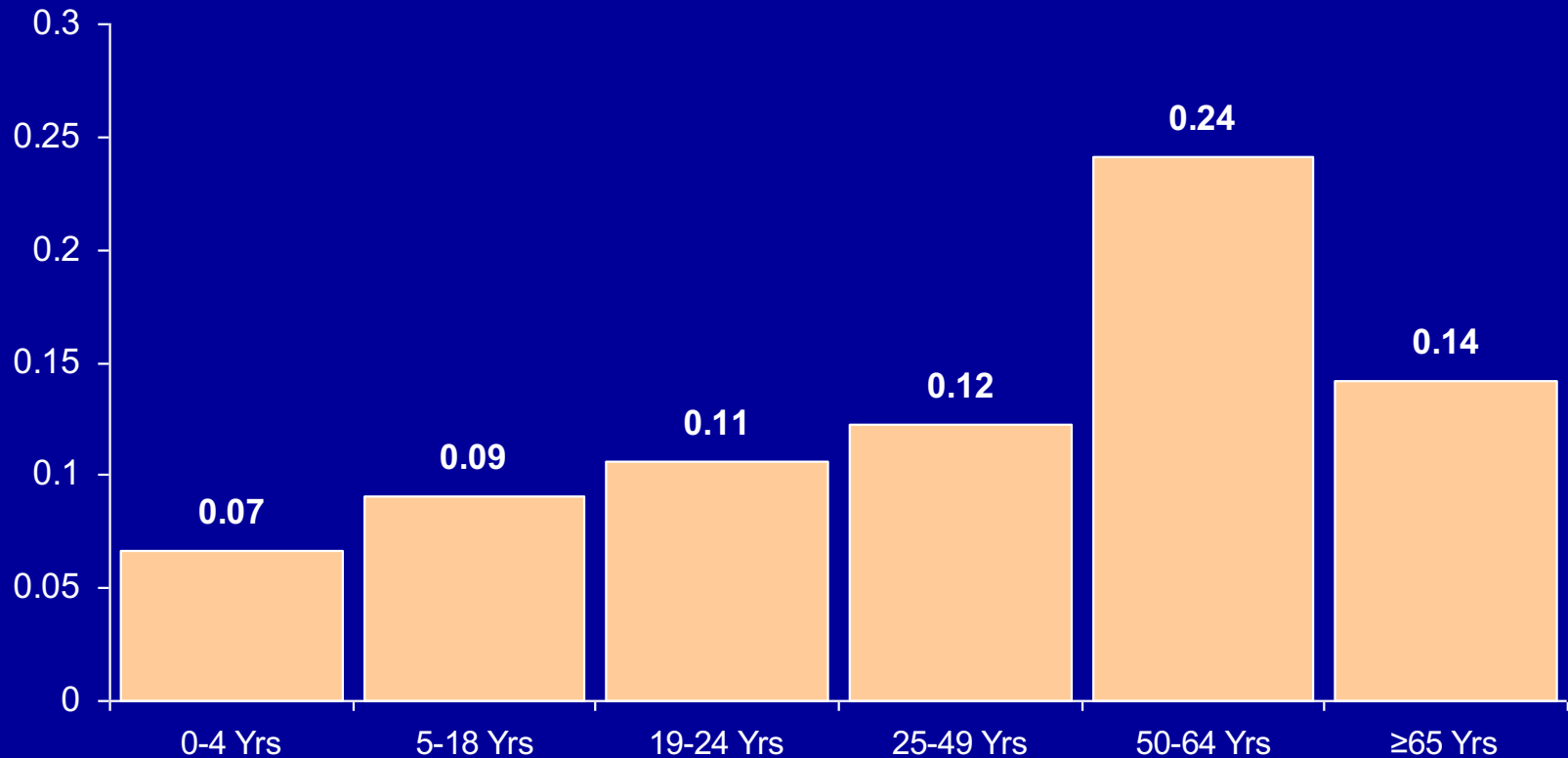
International response

Objectives

1) Better understand pandemic influenza

2) Support countries in preventing and mitigating

Monitoring Global Activity

1) Who is at risk of severe disease?
2) Is the virus changing?
3) Is there resistance to antivirals?
4) How effective is the vaccine?
5) Is the virus causing more severe illness and death?
6) How easily is the virus transmitted?
7) Can health care system handle patients?

CDC International Support

1) Laboratory support for diagnostics
2) In-country epidemiologic expertise
    1) CDC field offices and international influenza staff
    2) Deployments
3) Training
    1) Laboratory (PCR)
    2) Infection control
4) Special studies
    1) Community mitigation – e.g., school closure studies
    2) Vaccine studies
    3) Population-based studies
5) Support WHO in administration of vaccine donation
6) Work closely with PAHO, WHO, MoHs, others

CDC Shipments of Real Time PCR Kits for A(H1N1) to Influenza Laboratories

140 countries
811 kits

Delivered 753
En route 11
Pending 47

- • Countries reporting A(H1N1) cases
- Realtime PCR capacity
- Countries with kits delivered
- Countries with kits en route
- Countries with kits pending
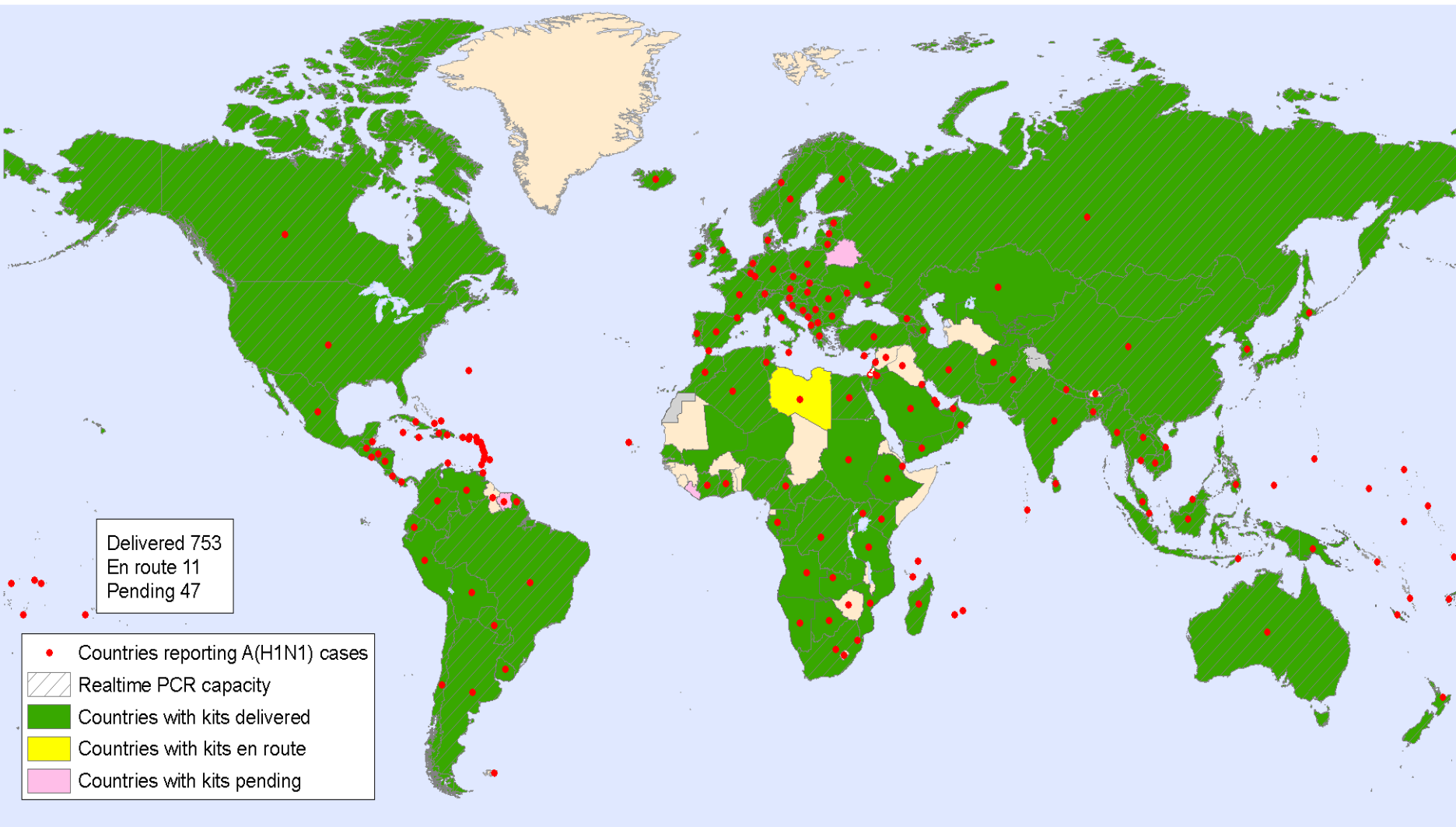
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Map produced: 15 September 2009

Data Source: World Health Organization
Map Production: Public Health Information and Geographic Information Systems (GIS)
World Health Organization

World Health Organization

Country Highlights
Epidemiology

- Staff sent to
    - Argentina (14), Chile (4), Mexico (36), South Africa (2), Australia (2) Kenya (1)
- Studies conducted or supported disease pyramids
    - Mexico, Chile, Argentina, Australia
    - Serologic studies
        - Mexico, Chile, Peru
    - Studies of severe disease and risk factors
        - Argentina, Mexico, Thailand
    - Household transmission and secondary attack rates
        - Mexico, South Africa, Argentina, Kenya, Thailand
    - Effectiveness and Economic impact of school closures
        - Argentina
    - Analysis of health care capacity
        - Argentina

Global Spread of Pandemic H1N1 2009
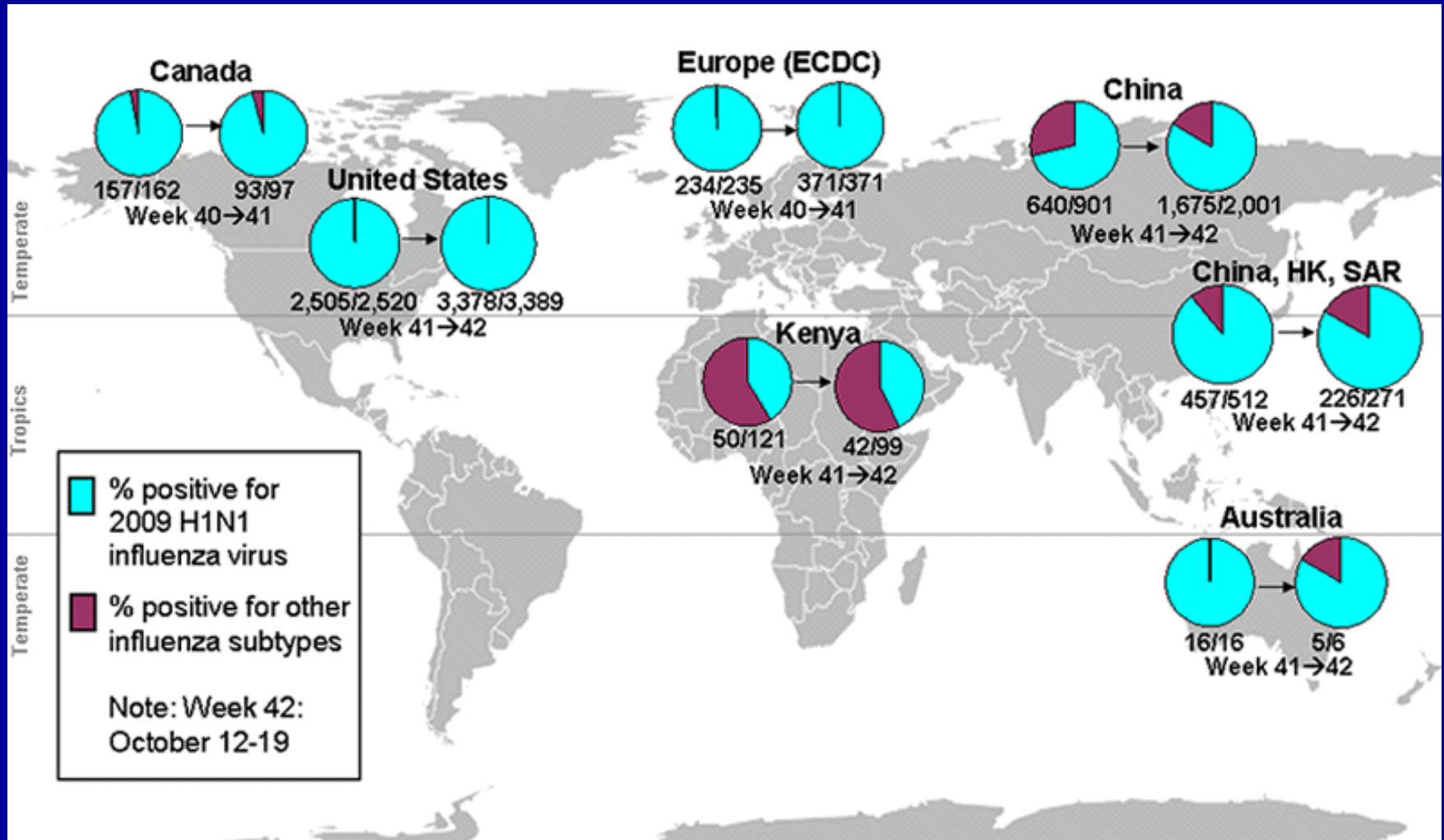
April-September
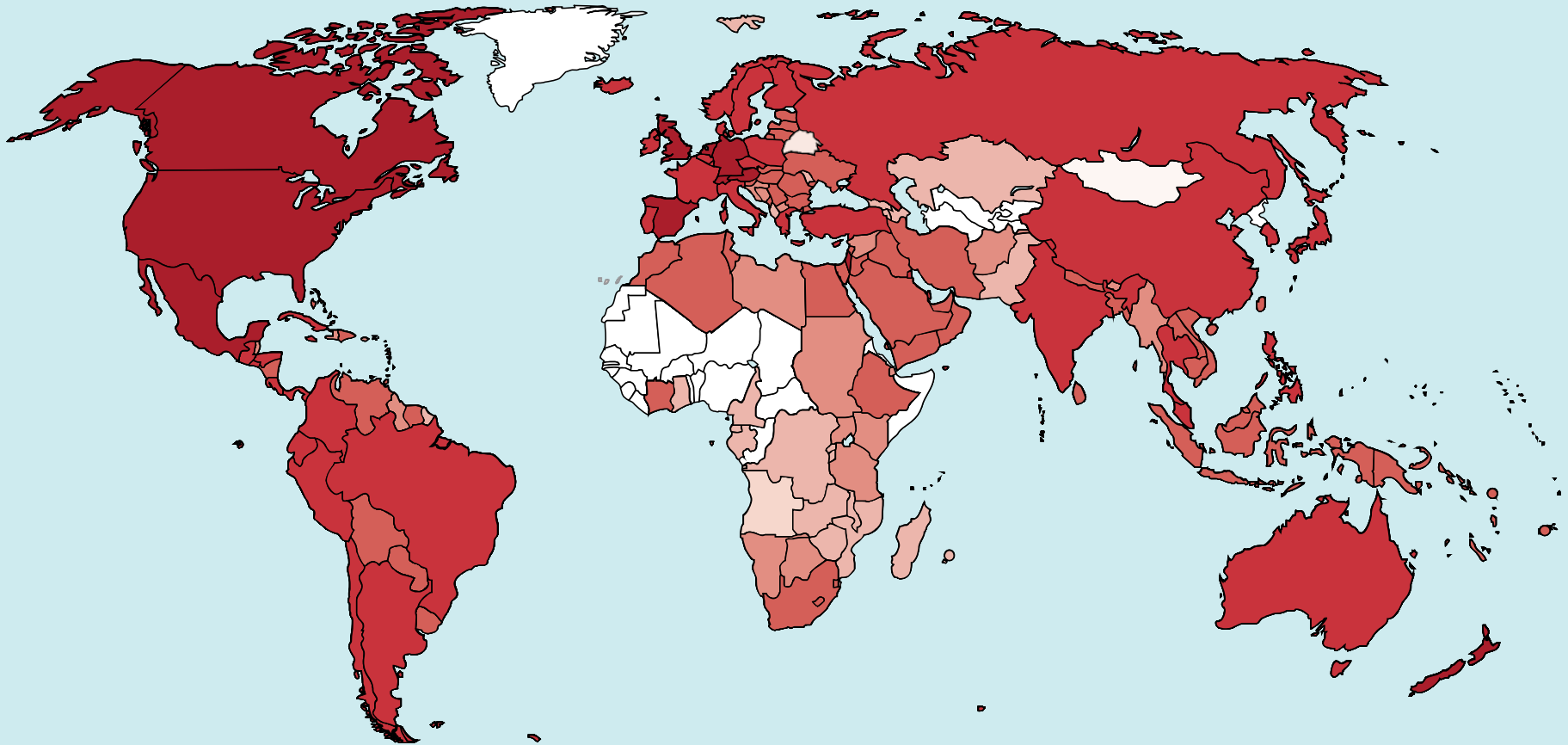
Month of first reported H1N1 case

- April
- May
- June
- July
- August
- September

Proportion of all influenza types that are 2009 H1N1

What have we learned?

1) Stable virus overall

2) Little resistance to antivirals

3) Severity not worsening

4) Certain risk groups consistently more vulnerable (pregnant women, underlying disease)

5) Young and non-senior adults most affected with severe disease

6) Unusual seasonality

US Vaccine Donation

1) 10% of US vaccine order will go to other countries
2) Other countries are also sharing vaccine
3) WHO is distributing
4) CDC is leading assessment of vaccine effectiveness and safety

End