

Community Mitigation Efforts for novel H1N1

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September, 2009

Novel H1N1: An Ever-Evolving Picture



W.H.O. Declares Global Spread of Swine Flu
The alert level was raised Thursday for the flu, which has been mild in most people. New cases shot 11 way Kong schools. Page A12.



What Can We Do?

- Guidance released by CDC in February, 2007
 - Infection control messages
 - Hand hygiene
 - Cover your cough
 - Stay home if ill
 - School closures
 - Cancellation of large gatherings

Why Schools?

- Influenza and novel H1N1 like the young
- Congregate settings
- Kids are “hands on”
- Kids like to “share”
- Elementary schools contain high-risk age group
- Medically high-risk kids and teachers



Flu Prevention in Schools

- **Interested Parties**

- Nurses
- Physicians
- Administrators
- Parents
- Students



Collaboration

Prevention Messages

- Exclusion
- Hand hygiene
- Cough etiquette
- Cleaning
- Surveillance



Information & Guidance Documents

- Health Care Providers
- Child Care Providers
- Schools & Colleges
- Summer Children's Camps
- Correctional & Detention Facilities
- Residential Facilities

School Guidance

- Common Goals
 - Safe, healthy learning environment
 - Protection of high-risk students and staff
 - Responsibility to parents

Exclusion from work/school (NYSDOH Interim Guidance 7/2/09)

- A person with influenza-like illness (ILI) should be excluded from school, work, and related activities and should not go into the community, except to seek medical care, until they are symptom-free (no fever without fever control medications and feels well) for at least 24 hours.
- Longer exclusion for up to 7 days should be strongly considered in settings that have significant numbers of vulnerable individuals (those who have high-risk conditions for influenza complications).

College Guidance

- Educate students and staff
 - Flu symptoms
 - Where to get care
 - Reporting
- Self-isolation
 - At least 24 hours after fever has resolved.

Planning Ahead

- Educational messages
- Contingency plans
 - How to separate non-ill from ill
 - Alternatives to classroom instruction
 - Strategies to assist ill students

Planning Ahead...continued

- Establish a relationship with the local health department
- Stay informed

<http://www.health.state.ny.us/diseases/communicable/influenza/h1n1/>

<http://usny.nysed.gov/swine-flu-info.html>

Large Gatherings

- Includes such events as commencement exercises and graduation activities, church services, sporting events, concerts, social and cultural celebrations, weddings, conferences, and other similar activities.
- Focus is on community situations in which crowding is likely to occur.
- No guidance yet on public gatherings held indoors vs. those held outdoors, because differences in the transmission patterns of the virus in these two settings are not known.

Large Gatherings

- CDC is not currently recommending the cancellation of large gatherings
- Persons with influenza-like illness (ILI) (i.e., fever with either cough or sore throat) should be advised to stay home for at least 24 hours after symptoms have resolved
- Persons who are at high risk of complications from H1N1 infection should consider staying away from public gatherings in communities where H1N1 is circulating.

Large Gatherings

- All persons should be reminded to use appropriate respiratory and hand hygiene precautions
- Based on currently available information, for non-healthcare settings where frequent exposures to persons with H1N1 (swine flu) are unlikely, masks and respirators are not recommended

Large Gatherings

- Event organizers should consider communicating to attendees about the need to remain home if ill and to use good hygiene practices while at the event
- Such information may be communicated through a variety of means such as letters, newspaper notices, public service announcements, Web site postings, and text messages

Everyday steps to protect your health and lessen the spread of H1N1

- Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
- Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hand cleaners are also effective.
- Avoid touching your eyes, nose or mouth. Germs spread this way.
- Try to avoid close contact with sick people.

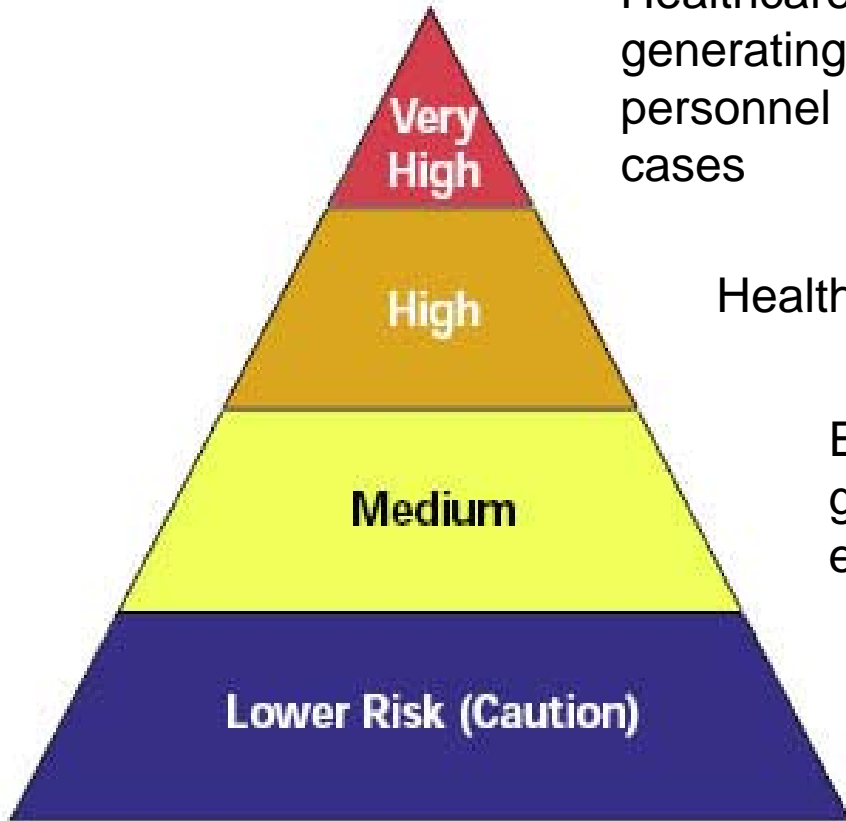
Everyday steps to protect your health and lessen the spread of H1N1

- If you are sick with a flu-like illness, stay home until you have been symptom-free for at least 24 hours. This is to keep from infecting others and spreading the virus further.
- Follow public health advice regarding school closures, avoiding crowds and other social distancing measures.
- If you don't have one yet, consider developing a family emergency plan as a precaution.

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Guidance for Employers



Healthcare employees performing aerosol-generating procedures on known cases; lab personnel handling specimens from known cases

Healthcare employees, medical transport

Employees with high-frequency contact with general population (schools, high volume retail, etc.)

Employees with minimal contact with general public and other coworkers (office employees)

OSHA Risk Pyramid for
Pandemic Influenza

Guidance for Employers

- Encourage vaccination
 - Provide seasonal flu vaccine to your staff at no cost
- Encourage ill workers to stay home
 - Stay out of work until 24 hours after symptoms resolve
 - Employees with ill family members at home can go to work as usual and should monitor their health daily for any signs of illness
- Encourage respiratory hygiene and cough etiquette
 - Posters, education, brochures
 - Provide sufficient facilities for hand washing, hand sanitizer, tissues, disinfectants, and disposable towels for employees

Guidance for Employers

- Management of an employee who comes to work with influenza-like illness
 - Isolate employee, notify health center
 - Send employee home as soon as possible
- Management of their co-workers
 - Have employees monitor themselves for symptoms
 - Advise employees to check with their doctor about any special care they might need if they are pregnant or have chronic health conditions

Influenza Pandemics 20th Century



Credit: US National Museum of Health and Medicine

1918: “Spanish Flu”
A(H1N1)

20-40 m deaths

675,000 US deaths

1957: “Asian Flu”
A(H2N2)

1-4 m deaths

70,000 US deaths

1968: “Hong Kong Flu”
A(H3N2)

1-4 m deaths

34,000 US deaths

Lessons Learned from 1918

How did the 1918 flu spread across the United States?

1918 – Weekly time lapse

Similar to 2009 pattern in CA and NY

Initial assumptions for Avian flu incorrect

6 week lag before arrival in US

Approximate beginning of the epidemic, 1918



before
sept. 14

before
sept. 14

between
sept. 14 - 21

between
sept. 21 - 28

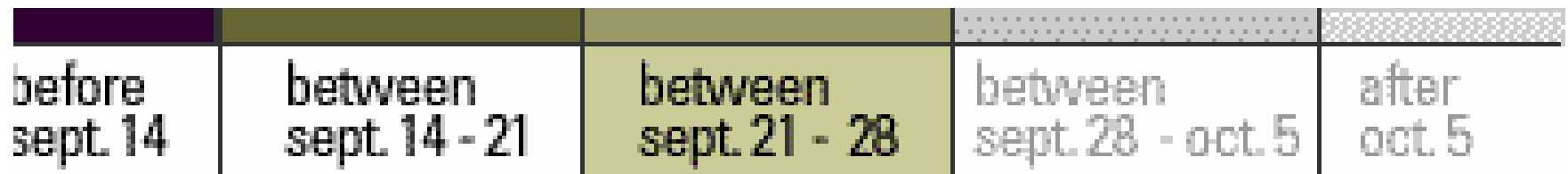
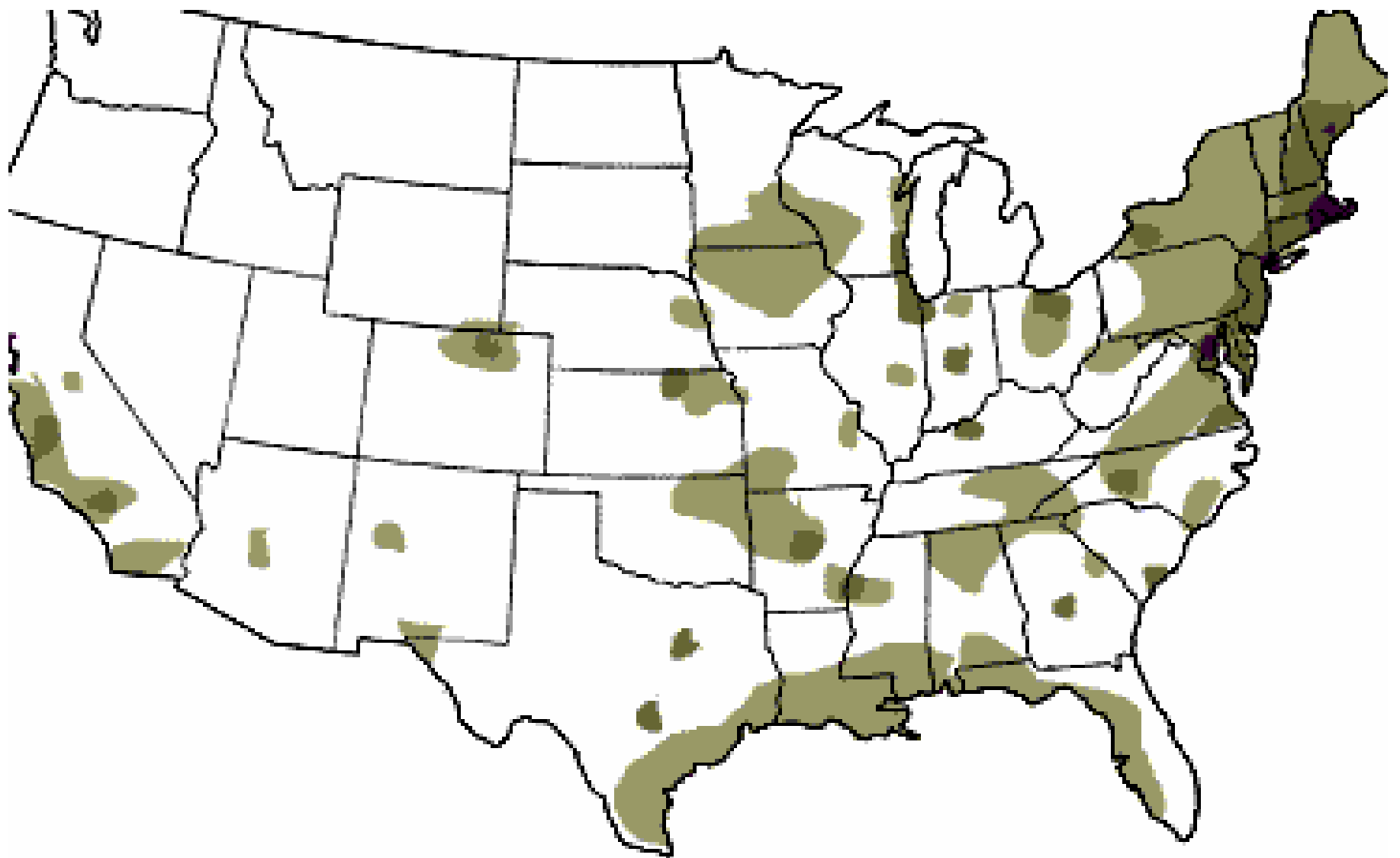
between
sept. 28 - oct. 5

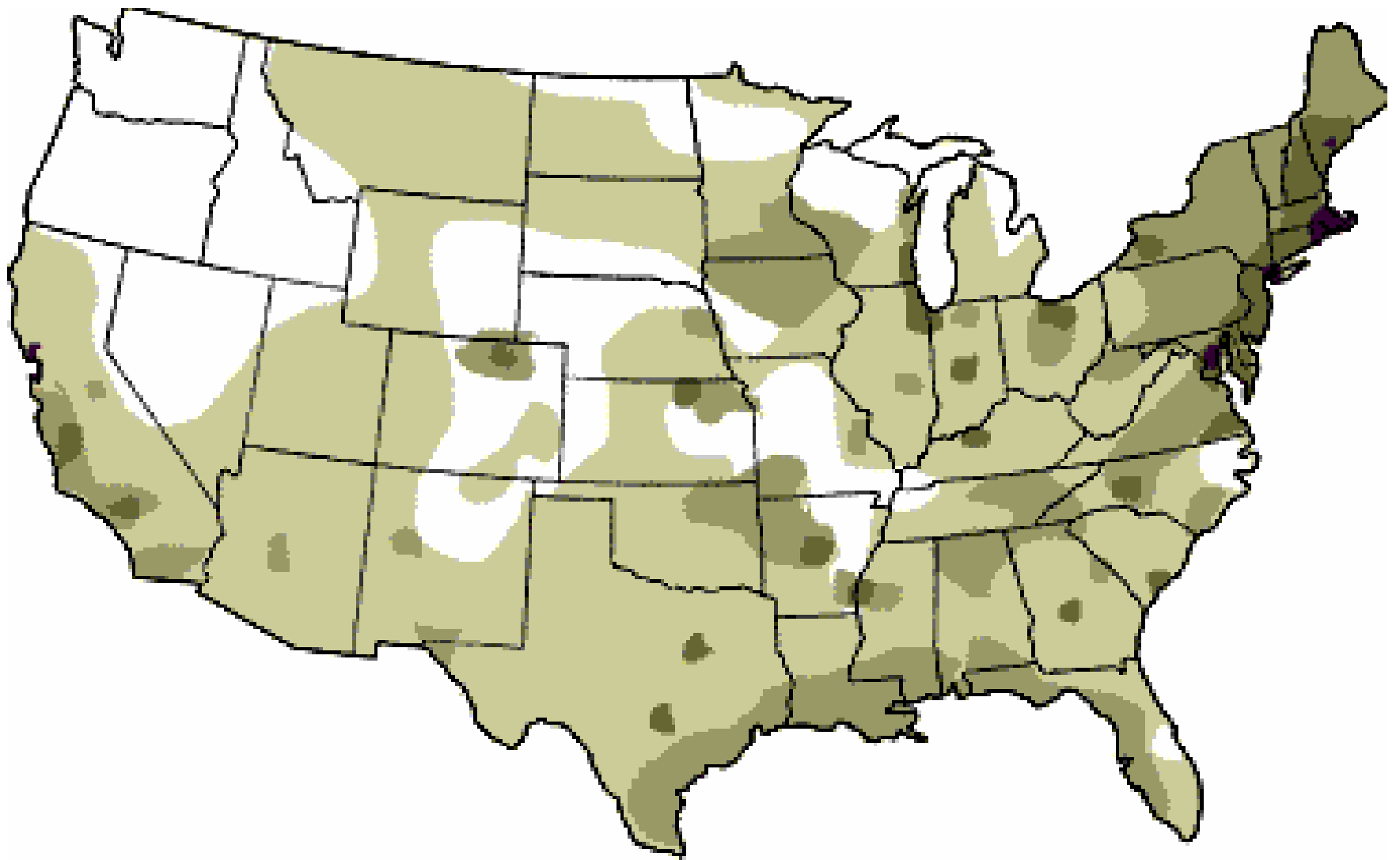
after
oct. 5

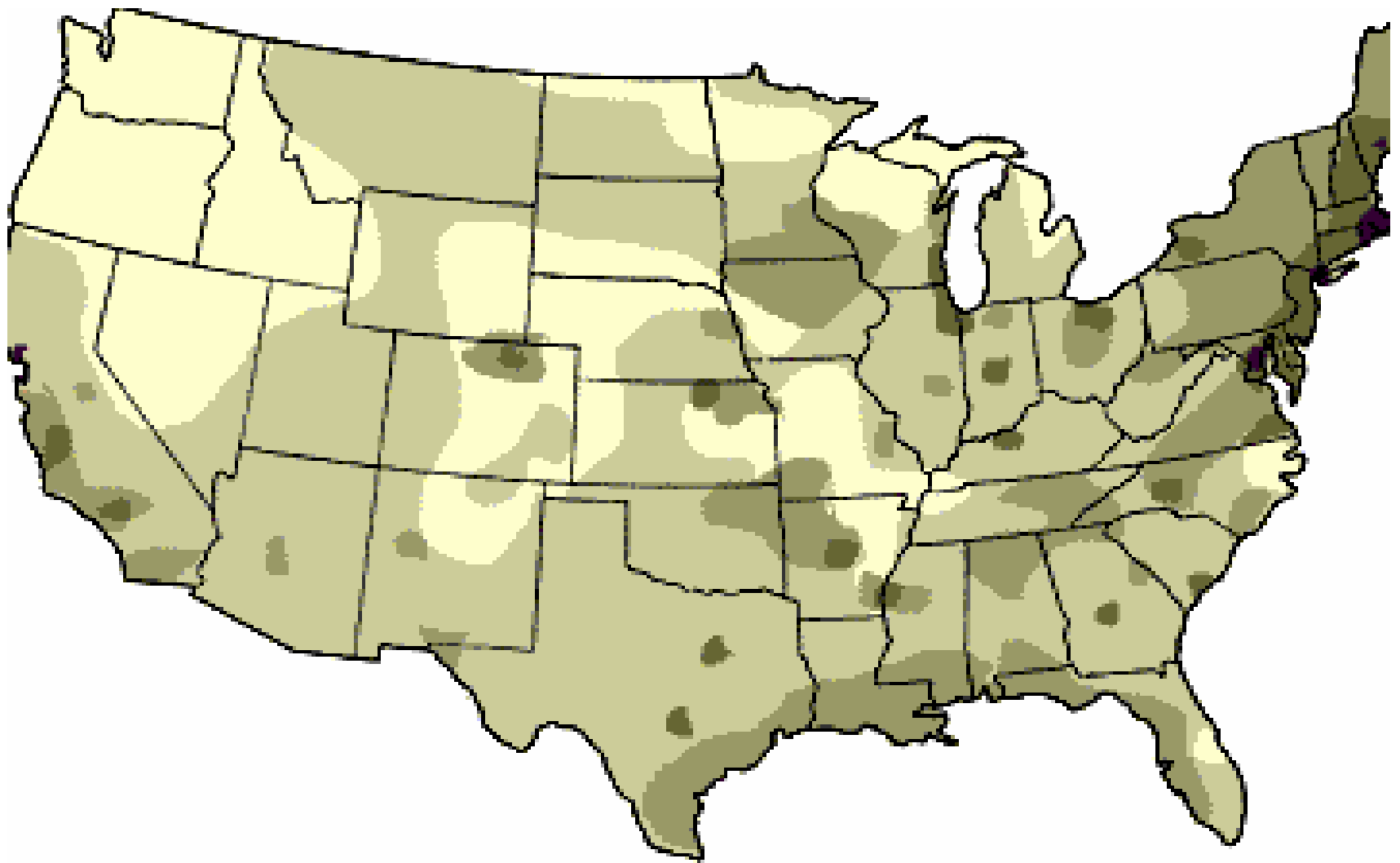
Source: *America's Forgotten Pandemic - The Influenza of 1918 - 1989*



before sept. 14	between sept. 14 - 21	between sept. 21 - 28	between sept. 28 - oct. 5	after oct. 5







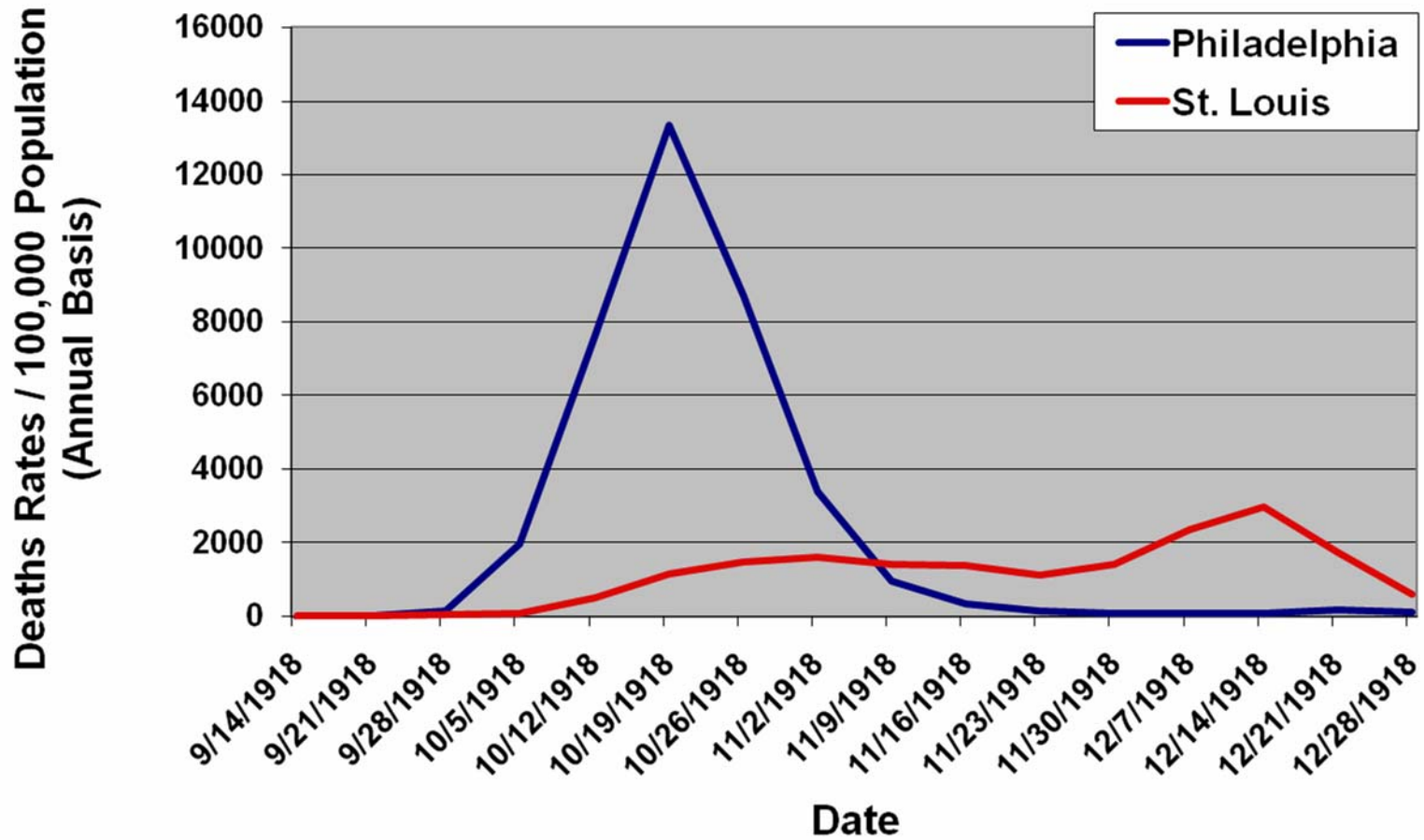
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Liberty Loan Parade - Philadelphia September 28, 1918

Photo # NH 41730 F5L aircraft hull in Liberty Loan parade in Philadelphia, 28 Sept. 1918

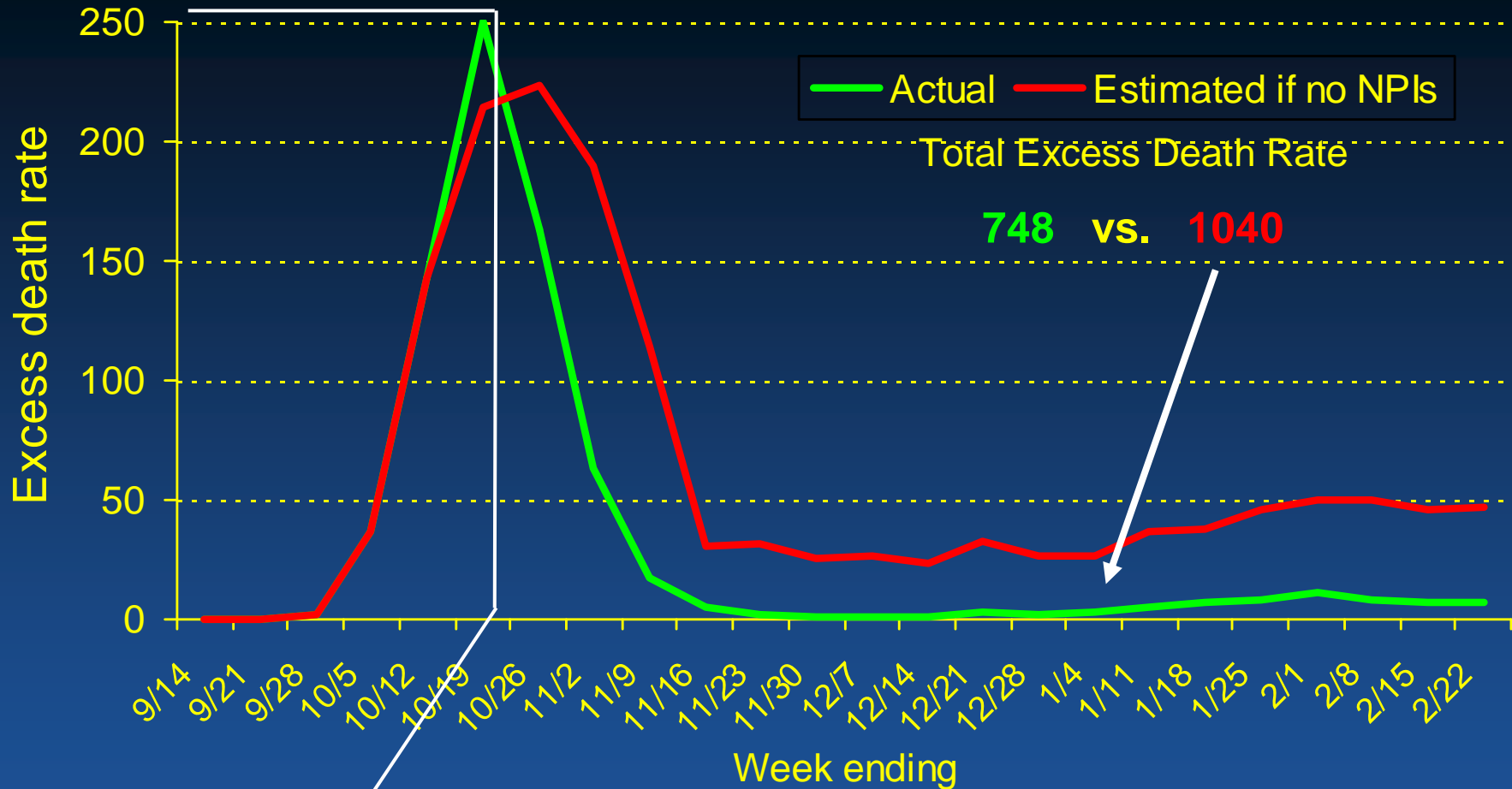


1918 Death Rates: Philadelphia v St. Louis



Weekly mortality data provided by Marc Lipsitch (personal communication)

Excess Death Rates (per 100,000) - Philadelphia



Public gathering ban

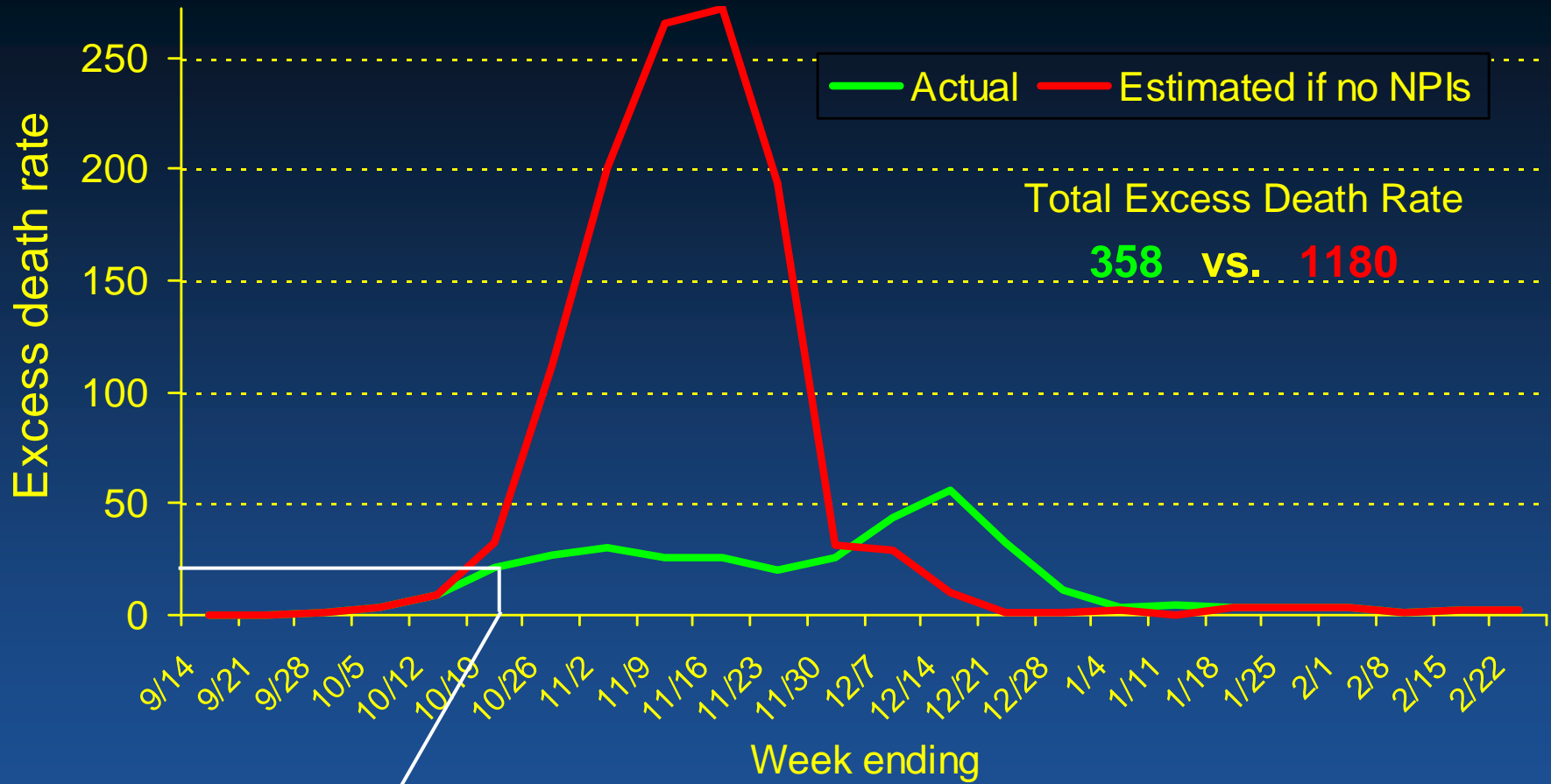
School closure

Business regulations



Note: NPI=non-pharmaceutical intervention

Excess Death Rates (per 100,000) - St. Louis



- Public gathering ban
- Schools closed
- Business hours altered

