H1N1 Influenza Pandemic Retrospective

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Outline

- Epidemiology of H1N1
- NYSDOH response
- Clinical guidance
- H1N1 Vaccine distribution
- Risk Communication: Media/Educational materials
- Lessons Learned – Continuing Challenges

The Pandemic Begins March - Early April 2009

- 2008-2009 Annual Flu Season is winding down in the N. Hemisphere
- 2008-2009 - “mild” seasonal flu
- Something is not quite right…
  - Mexico experiencing outbreaks of respiratory and influenza like illness
  - cases of severe pneumonia and death
- April 12, 2009- Mexico reports: Outbreaks in Veracruz to Pan America Health Organizations

2009 Influenza Season #1 Seasonal Influenza

2009 Influenza Season #2 H1N1 First Wave

2009 Influenza Season #3 H1N1 Second Wave
H1N1 Flu Confirmed Cases by Age
NYS (excluding NYC), thru 7/25/09

H1N1 Flu Confirmed Case Rate by Age
NYS (excluding NYC), thru 7/25/09

H1N1 Flu Hospitalization Rate by Age
NYS (excluding NYC), thru 7/25/09

Age Distribution of Hospitalized Seasonal and H1N1 Influenza Cases

H1N1 in Pregnancy Study
- Studied 788 pregnant women in the US with 2009 H1N1 influenza with symptom onset from April through August;
  - 30 died, 5% of all reported H1N1 influenza deaths. 6-fold increased risk
  - 509 hospitalized women, 115 (22.6%) to an ICU.
  - Early antiviral treatment appeared to be associated with fewer admissions to an ICU and fewer deaths
  - Only 1 death in those treated within 2 days of symptoms.

JAMA 2010;303(15):1517-1525
H1N1 Influenza Epidemiology

Key Points

- Most cases throughout pandemic relatively mild, low mortality overall
  - Highest hospitalization rate in 0-4 year age group (60.2/100,000)
  - Highest mortality rate in 50-64 year age group (1.77/100,000)
- Some groups at very high risk
  - Pregnant women
  - Excess pediatric deaths

NYS DOH Response Process

- DOH IMS Activated- 4/23/09- 6/25/09 Response (64 days)
- DOH IMS Planning- 6/26/09-10/12/09 (109 days)
- DOH IMS Response- 10/13/09-2/2/10 (113 days)
- 286 days IMS activated

IMS Branch Organization

- Vaccination
- Epidemiology Surveillance
- Laboratory Surveillance
- Healthcare Surger/Triage
- Healthcare Infection Control
- Occupational Health and Safety
- Community Mitigation
- Clinical Management
- Public Information Risk Communication
- Informatics
- Legal Issues
- Education
- Long Term Care
- Emergency Medical Service
- Stockpile/Logistics
- Planning

IMS Products

- 39 Situation Reports Developed
- IMS Conference Calls Conducted - 85
- DOH Management Calls Conducted - 18
- County Health Department Calls Conducted - 22
- MAC Meetings Conducted - 6

Health Commerce System (HCS)

September 9, 2009-Present

- 142 notifications of the availability of H1N1 related documents (194,000 e-mails)
- Vaccine Campaign - 26 separate transmission by direct emails to 5,000 registered providers, 2 separate transmission to 64,000 registered medical providers (250,000 emails)
- 57 H1N1 related documents were posted on HCS resulting in 692,739 downloads and 5,941,646 access transactions.
- Vaccine registration/order history - 162,232 access transactions.

H1N1 Clinical Guidance Issued by NYSDOH

- General clinical guidance on H1N1 diagnosis, prophylaxis and treatment;
- Subsequent updates;
- Checklist for provider offices on preparedness to deal with H1N1 patients/issues;
- Advisory on peramivir;
- Advisory on update on antiviral medication issues (early treatment, compounding, mixing with liquids, IV zanamivir, IV peramivir, dosing errors);
- One-pager for OB/GYN physicians to encourage consideration of prophylaxis/presumptive treatment and vaccination of pregnant women;
- Infection Control guidance for facilities.
H1N1 Vaccine Doses Administered as a Percentage of Doses Shipped

- Adult Practices - 19%
- Family Practices - 23%
- OB/GYN Practices - 19%
- Pediatric Practices - 27%

Reported doses administered
Doses approved

2009 H1N1 INFLUENZA
Public Information and Risk Communication

Public Information Goals

- Use risk communication best practices to ensure accurate, consistent, timely messages
  - Acknowledge uncertainty
  - Honest, open and transparent
  - Many voices, one message

Media Relations

- 43 press releases issued between April 2009 and January 2010
- Weekly flu activity updates on website
- Number of Press calls
- Number of Briefings
- Dr. Daines radio and TV interviews
- Satellite media tours
- Media events

Media Events

- H1N1 Preparedness Town Hall Meetings
- Buffalo, Rochester, Syracuse, Lake Placid, Westchester County, Long Island
- Dr. Daines’ flu shot

H1N1 patient education pieces

- One-pager for pregnant women;
- Patient fact sheet for flu prevention;
- Patients fact sheet for home care;
- Fact sheets on antivirals;
- Fact sheet on H1N1 testing parameters.
Educational Materials

- Action steps for employers
- School Action Kit
- 20 new fact sheets
- 3 new posters
- Go to the Head of the Line bus card
- Pre-event materials updated

Bus Poster Campaign

- Radio ads
  - "Peak Flu Season"
  - "H1N1 Available to All"
  - "Get a healthy start in 2010"
  - "Health Care Worker-Right Thing to Do"
  - "Pregnant Woman—Why I’m Getting Vaccinated"
  - "Know what to do about the flu"

- TV ads
  - "Spread the Word, Not the Virus"
  - "Your H1N1 vaccination protects us all"
  - "Stay healthy in the workplace"
  - "Know what to do about the flu"

Mass Media Campaign

New Media

- Twitter account
  - Media outlets among followers
- Facebook/spreadthewordnotthevirus
  - About 300 fans to date
- YouTube posting for TV Public Service Announcements

Lessons Learned -- Continuing Challenges

- For the next influenza pandemic:
  - Manage expectations about vaccine supply;
  - Improve vaccine manufacturing;
  - Develop better triage mechanisms for sick persons.

- For seasonal influenza:
  - Move to universal influenza vaccination;
  - Increase health care system capacity to deliver routine immunizations.

- For overall public health preparedness:
  - Preserve the workforce, partnerships, etc. built during the pandemic response.