

Cook County
Department of Public Health



Novel H1N1 Influenza:
Pandemic Update &
Recommendations for Schools

September, 2009

Presentation Overview

1. Describe the clinical and epidemiological characteristics of novel H1N1 influenza
2. Identify strategies for preventing the transmission of novel H1N1 influenza in schools
 - a) School-based Infection Control Guidance
 - b) School-based Surveillance
3. Provide an overview of H1N1 Vaccine and proposed mass vaccination strategy
4. Discuss proposed school involvement and planning activities for mass vaccination effort

Novel H1N1 Influenza

- Novel H1N1 (referred to as swine flu early on) is a new influenza virus that is spreading from person-to-person.
- The United States government has declared a public health emergency in the U.S. in response to the novel H1N1 outbreak.
- The World Health Organization declared a global pandemic (Phase 6) on June 11, 2009 in response to the ongoing global spread of the novel influenza A (H1N1) virus.

Novel Vs. Seasonal Influenza

- Influenza is always serious:
 - Each year in the United States, seasonal influenza results, on average, in an estimated 36,000 deaths and more than 200,000 hospitalizations from flu-related causes.
- The novel H1N1 outbreak is at least as serious as seasonal flu, if not more so, especially given the fact that there currently is no vaccine against this virus.
- Because this is a new virus, most people will not have immunity to it, illness is more widespread as a result.

Signs and symptoms of novel H1N1

- H1N1 signs and symptoms are similar to seasonal influenza
- Include:
 - Fever of 100°F or greater
AND any of the following:
 - Cough
 - Sore Throat
 - Stuffy/Runny Nose
 - Diarrhea/Vomiting

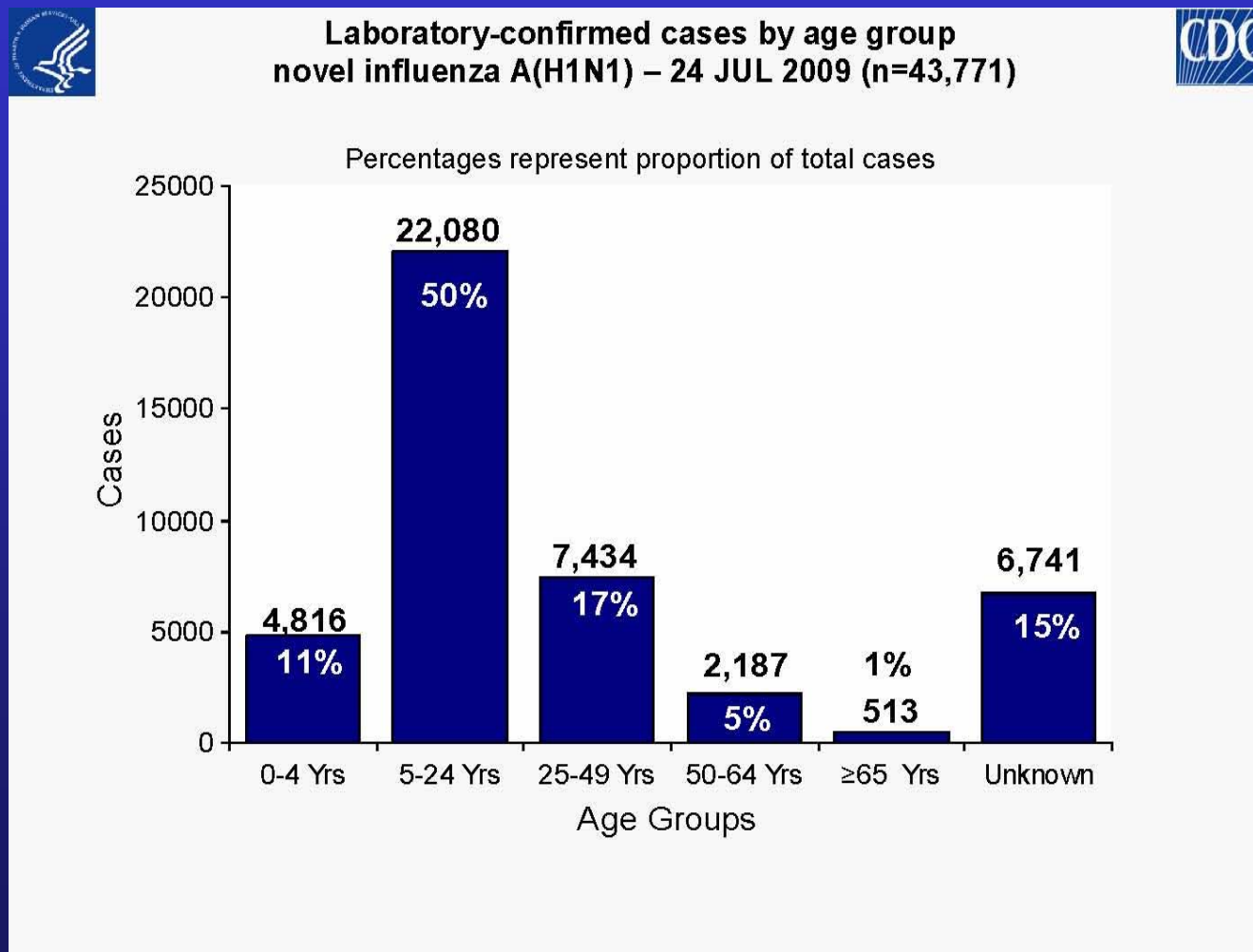


How does novel H1N1 Influenza spread?



- This virus is thought to spread the same way seasonal flu spreads
- Primarily through respiratory droplets
 - Coughing
 - Sneezing
 - Touching respiratory droplets on yourself, another person, or an object, then touching mucus membranes (e.g., mouth, nose, eyes) without washing hands

Novel H1N1 Cases by Age Group



Summary of Key Epidemiologic Findings

- Distribution of cases/hospitalizations/deaths
 - Highest incidence lab confirmed infections in school age children
 - Highest hospitalization rates among 0 through 4 year olds
 - Hospitalization rates for Apr-Jul 2009 approach cumulative rates for seasonal influenza among school age children and 19 through 49 year old adults

Summary of Key Epidemiologic Findings

Continued

- Distribution of cases by age group is markedly different compared to seasonal influenza
 - Higher proportion of hospitalized cases in children and young adults
 - Few cases in older adults
 - No outbreaks among elderly in long term care facilities
- 70% of hospitalized cases have an underlying medical condition that confers higher risk for complications
- Pregnancy is a higher risk condition

Take these everyday steps to protect your health

STEP 1: CLEAN

- Wash your hands often with soap and warm water, especially after you cough or sneeze. Wash for 15 – 20 seconds.
- Alcohol-based hand wipes or gel sanitizers are also effective.



Take these everyday steps to protect your health

STEP 2: COVER

- Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it
- Avoid touching your eyes, nose or mouth.
Germs spread this way
- Avoid contact with sick people

If you get sick...

STEP 3: CONTAIN

- Stay home if you are sick for 24 hours after resolution of fever, without the use of fever-reducing medications
- If you are sick, limit your contact with other people as much as possible



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CDC Guidance for School Responses

- Purpose
 - Provide guidance on suggested means for reducing exposure of students and staff to influenza during the 2009-2010 school year
- Goals
 - Decrease spread of flu among students and staff
 - Minimize disruption of day-to-day social, educational, and economic activities

Recommended School Responses

- Stay home when sick
- Separate ill students and staff
- Hand hygiene and respiratory etiquette
- Routine cleaning
- Consideration of selective school dismissal

Recommended Strategies: Stay Home when Sick

- Individuals with ILI should remain home for at least 24 hours after they are free of fever or feverishness without the use of fever-reducing medications
 - 3 to 5 days in most cases
 - Avoid contact with others
- Can shed virus before fever, > 24 hours after fever ends, without any fever, and while using antivirals
 - Hand hygiene
 - Respiratory etiquette
- Longer exclusion period may be appropriate for settings with high numbers of high-risk persons

Recommended Strategies: Separate Ill Students and Staff

- Move students and staff with ILI symptoms to separate room immediately until they can be sent home
 - Have them wear surgical masks when near others
 - Designate non-high-risk staff to mind students
- Staff who provide care for persons with ILI should use appropriate personal protective equipment

Recommended Strategies: Hand Hygiene and Respiratory Etiquette

- Wash hands often – especially after coughing or sneezing
- Time, facilities and materials should be provided for students to wash hands as needed
- Alcohol-based hand cleaners are also effective
- Cover nose and mouth to cough or sneeze
- Discard tissue after use

Recommended Strategies:

Routine Cleaning

- Regularly clean areas and items likely to have frequent hand contact and when visibly soiled
- Use cleaning agents usually used
- Not necessary to disinfect beyond routine cleaning
- Train custodians and others who clean

Recommended Strategies: Selective Dismissals

- May be considered based on population of individual schools
- Rare event
- Local decision
- Goal of protecting students and staff at high risk
- Not likely to have a significant effect on community-wide transmission
- School districts are responsible for reporting school dismissals to the CDC

http://www.cdc.gov/h1n1flu/schools/dismissal_form/dismissal_form.htm

Influenza-like Illness (ILI) Surveillance: *In Schools*

- Important measure
- Indication that school is at risk of being a setting for transmission
- Schools should coordinate their approach with LHD
- Send home students with symptoms of acute respiratory infection (fever ≥ 100 degrees and cough or sore throat)
- Be vigilant throughout the day

ILI Surveillance: Triggers for Action

Scenario 1

- If a school nurse sees 5 or more cases of ILI at school in one day
 - School sends a letter to parents stressing the need to keep sick children home, for 24 hours after resolution of fever, without use of fever-reducing medications
 - Remind parents not to dose children with fever-reducing medications for febrile illness prior to attending school

ILI Surveillance: Triggers for Action

Scenario 2

- If a school experiences “excessive” influenza activity -- defined as 5 percent of the student body (at least 10-15 children) being seen by a school nurse for ILI on a single day
 - Supervising nurse should visit the school to assess the situation
 - Determine # students at high risk of influenza complications -- asthma, diabetes, heart disease, metabolic conditions, neurologic and neuromuscular disorders, pregnancy

ILI Surveillance: Triggers for Action

Scenario 2 ... continued

- School sends a letter to parents stressing the need to keep sick children home, for 24 hours after resolution of fever, without use of fever-reducing medications
- Remind parents not to dose children with fever-reducing medications for febrile illness prior to attending school
- Report to LHD

Absenteeism Surveillance

- Absenteeism by itself is not a measure of influenza activity
- No standardized method -- value of this information may vary by school/school district
- Absenteeism may be due to numerous causes
- Significance of an increase may require calls to students' (or a sample of students') homes to determine reason

Absenteeism Surveillance

Continued

Scenario 1

- If a school sees 5 or more students from the same group (e.g., a single grade, classroom, athletic team, arts club etc.) absent within 1 week due to ILI

Scenario 2

- If a school sees an absenteeism rate of 5-10 percent due to ILI
 - Spike in absenteeism due to ILI may be used to reinforce key messages with students, parents, and teachers -- e.g., hygiene and staying home when ill
 - Report to LHD

Absenteeism Tracking Form

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
Week Ending	Number of students with ILI*	Number of students enrolled that week	Percentage of students absent with ILI
Examples	10	800	1%
	20	800	3%
	40	800	5%
	80	800	10%
9/18/2009			
9/25/2009			
10/02/2009			

Reporting Form

Case Reporting

- Prudent to assume that influenza H1N1 is circulating in Illinois communities, and not depend on test results for decision making in schools
- Most individuals with influenza do not seek medical care and are not tested
- Many physicians rely on rapid tests for clinical decision-making, and these tests may produce false positive and false negative results
- Schools will not be expected to report cases of novel H1N1 to the LHD

If Severity Increases: School Dismissals

- Preemptive dismissals
 - CDC will consider need to recommend based on global and national risk assessments
 - Goal: decrease spread of influenza virus and reduce demand on health care system
 - Use early and in conjunction with other strategies
 - If dismissing, do so for 5 to 7 days and reassess
 - Allow staff to continue to use facilities
 - Plan for prolonged dismissals and secondary effects

Lessons Learned from Schools that have had Outbreaks of ILI

- Do not require a doctor's note for return to school
 - this requirement overtaxes busy MD offices and EDs
- Eliminate, or relax attendance awards when influenza is circulating
 - this may have the unintended consequence of increasing transmission in schools
- Communicate with parents, teachers, and staff
 - encourage parents to seek medical attention for children with ILI who have underlying conditions, and children with signs of serious illness

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Novel H1N1 Vaccine

General Information

- Two (2) types of H1N1 vaccine will be available
 - Live attenuated
 - Administered via nasal spray
 - Inactivated
 - Administered via injection
- Anticipated that 2 vaccinations approximately 21 days apart will be required to provide immunity.
- Adults may require only 1 vaccination (based on information released 9.10.2009).

Novel H1N1 Vaccine General Information

- Immunity (protection) develops approximately 2 weeks after administration.
- Side effects are anticipated to be similar to seasonal influenza vaccination.
- Signed consent will be required for vaccination.
- Vaccination is voluntary.

Note: This information may change as a result of the clinical trials.

Novel H1N1 Vaccine Anticipated Side Effects

- Live Attenuated Side Effects
 - Fever less than 100.4⁰
 - Rhinorrhea (runny nose)
 - Pharyngitis (sore throat)
- Inactivated Side Effects
 - Fever less than 100.4⁰
 - Erythema (redness) at the injection site
 - Soreness at the injection site

Initial Priority Groups*

(if vaccine available in sufficient amounts)

- Pregnant women
- Infants/children/young adults 6 months through 24 years of age
- People who live with or care for infants younger than 6 months of age
- Healthcare and emergency services personnel
- People aged 25 through 64 years who have health conditions associated with higher risk of medical complications from influenza

*Together, these key populations equal 159 million.

Secondary Priority Groups

(if vaccine available in *limited* amounts)

- Pregnant women
- People who live with or care for infants younger than 6 months of age
- Healthcare and emergency services personnel *with direct patient contact*
- Infants/children 6 months through 4 years of age
- Children 5 through 18 years of age who have chronic medical conditions

CCDPH Mass Vaccination Plans: Proposed Two-Pronged Approach

1. Population model

- Regional public health clinics
 - Cook County Health and Hospitals System clinics and staff will assist in vaccination efforts
- Child care centers
 - Voluntary registration for suburban child care centers
- School-based vaccination centers*
 - Voluntary registration for public and private suburban schools

* If enough vaccine is available, initial push will be in Kindergarten through Eighth Grade

CCDPH Mass Vaccination Plans: Proposed Two-Pronged Approach

2. Personal model includes vaccine distribution to:
 - Federally Qualified Health Centers (FQHC)
 - Vaccine for Children (VFC) Providers
 - Hospitals
 - Emergency Medical Systems
 - Private specialty providers (based on risk group)
 - College student health centers
 - Retail pharmacy groups

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What is the vaccination schedule?

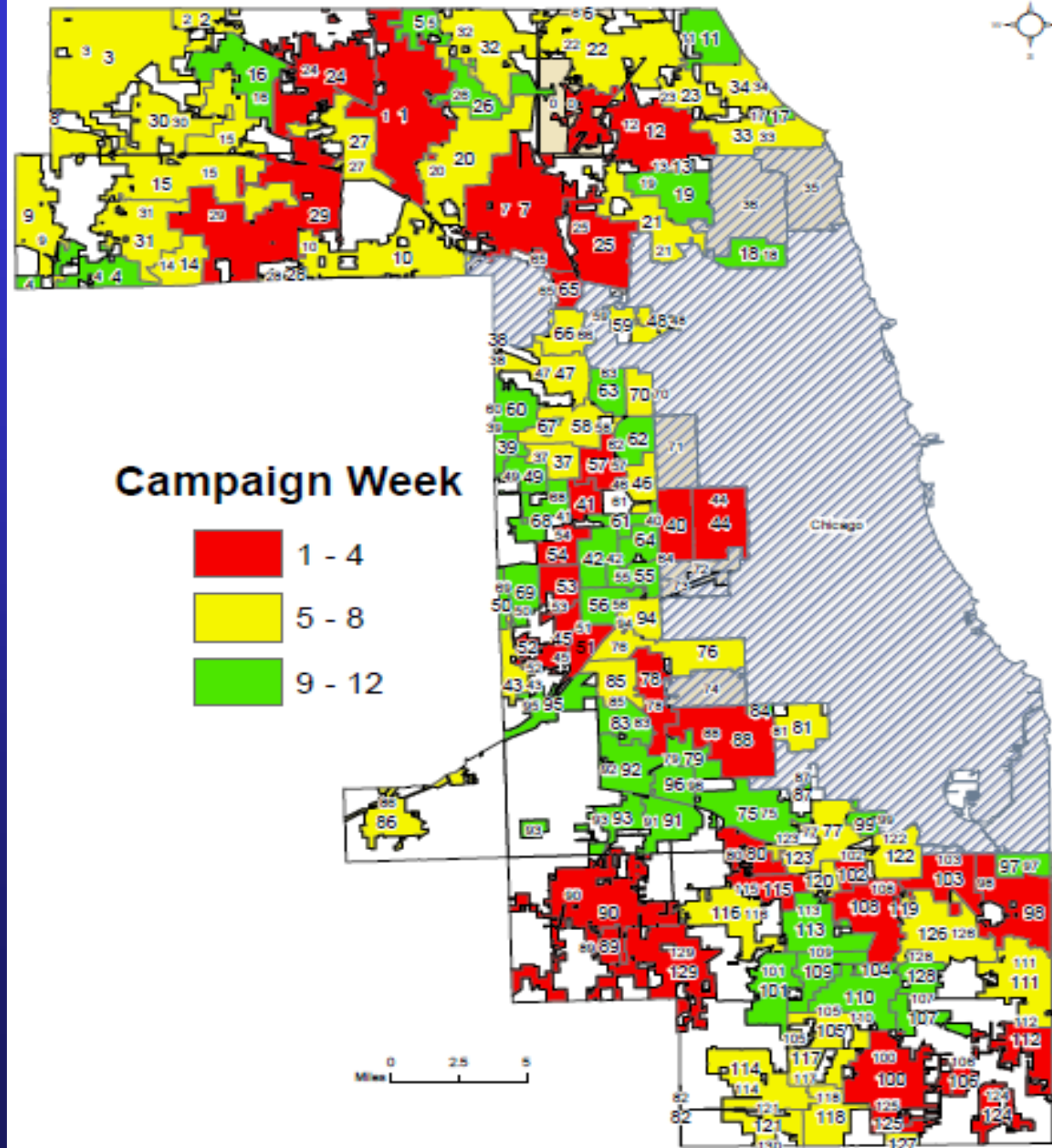
- Vaccinations will occur by zip codes.
- The vaccination ‘schedule’ was based on:
 - The number school-aged children within a school district (i.e. districts with the largest number of children);
 - Access to healthcare and income; and
 - Geography (i.e. assuring regional distribution).

Why was this approach taken?

- To reach the most ‘at-risk’ people fastest;
- To ensure suburban Cook County achieves the highest number of at-risk people with immunity; and
- To support families in their efforts to vaccinate their members with minimal disruption to work and school routines.

CCDPH
H1N1 School
Vaccination
Campaign 2009

Vaccination Plan
by 4 Week Period



When will vaccinations occur?

- *Vaccinations will occur between October 2009 and January 2010*

This depends on:

- Receipt of school district's MOA
- Timing and amount of vaccine delivery
- Staffing and volunteer availability
- Disease patterns and trends
- Unknown/unforeseen circumstances or events

School District Role

- Review and obtain signature for the MOA
- Share introductory parent letter with district's schools
- Provide a contact at the District level to CCDPH
- Assist to organize a zip-code meeting

School Role

- Attend zip-code meeting and fill out planning check-list including:
 - Confirm vaccination date
 - Provide all needed contact information
 - Address space and equipment needs (e.g. clinic space, refrigeration, furniture etc.)
 - Agree to distribute, collect, and later copy parental consent forms

School Role

- Distribute parental letter and consent
- Identify routine school volunteers such as room parents to assist on assigned vaccination date
- Determine flow of students through vaccination e.g. by class, grade, homeroom

Municipal Role

- Assist to organize and attend zip-code meeting
- Liaison and assist with school in advance regarding traffic, safety, and any other issues
- Assist as needed with public information distribution

CCDPH Role

- Share tentative vaccination ‘schedule’
- Provide required forms to school for distribution to parents including:
 - Instructions to parents
 - Consent for vaccination
 - Vaccine Information Sheets (VIS)
- Staff clinic with vaccinators
- Deliver and pick-up vaccine, medical supplies, and medical waste
- Maintain original consent form
- Accept volunteers

Immediate next steps

- Schools:
 - Obtain School Board approval to participate and MOA send to CCDPH
 - Wait for CCDPH to contact school district and municipality
 - For immediate questions:
 - Call at 708-492-2828
 - Email at BeAware@ccdph.net

Additional Information

- For the most current information on the H1N1 influenza outbreak, visit <http://www.cdc.gov/h1n1flu/>
- Visit CCDPH website often
<http://www.cookcountypublichealth.org>
- Obtain additional information from the following resources:
 - <http://www.cdc.gov/h1n1flu/espanol/>
 - 1-800-CDC-INFO (1-800-232-4636)
 - <http://www.who.int/csr/disease/swineflu/en/index.html>

Questions and Feedback

- How can we help you prepare?
- What information do you need to assist CCDPH?
- Are there any observations or suggestions you have based on the H1N1 outbreak and CCDPH's response in the spring (e.g. What went well? What did not?)
- What can CCDPH do to support your preparedness efforts?

Contact Information

- For communicable disease inquiries: 708-492-2150
- For preparedness and planning information:
 - Phone: 708-492-2828
 - Email: BeAware@ccdph.net
- To volunteer:
 - Phone: 708-492-2820
 - Email: Volunteer@ccdph.net