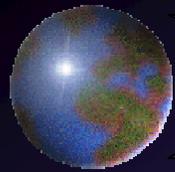


# *Planning for Pandemic Influenza*

Pegi McEvoy, MN, ARNP



Safety and Security Department  
Seattle Public Schools



# *A Pandemic Occurs.....*

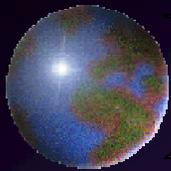
## When 3 criteria are met:

1. Novel subtype where people do not have immunities, AND
2. Humans are infected and severe illness is caused, AND
3. Virus spreads easily



H5N1 meets criteria 1 and 2

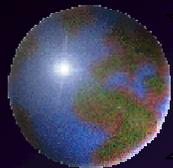




# World Health Organization

## Phases of an Influenza Pandemic

Phase	Definition
1	<b>Inter-pandemic Period</b> No new flu subtypes in humans. Possibly present in animals. Risk to humans is low.
2	<b>Inter-pandemic Period</b> No new flu subtypes in humans. A circulating animal flu subtype poses a substantial risk of human disease.



# World Health Organization

## Phases of an Influenza Pandemic

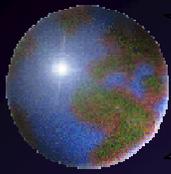
Phase	Definition
3	<b>Pandemic Alert Period</b> Human infections with a new subtype. No human-to-human spread, or rare instances of spread to a close contact.
4	<b>Pandemic Alert Period</b> Small clusters, limited human-to-human transmission. Spread is highly localized: Virus is not well adapted to humans.
5	<b>Pandemic Alert Period</b> Larger clusters, but human-to-human spread still localized: Virus becoming better adapted to humans.
6	<b>Pandemic Period</b> Increased and sustained transmission in general population.



***The World Health Organization (WHO)  
defines six pandemic alert phases***

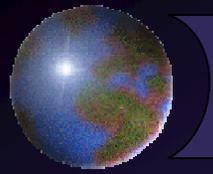
***We are currently at Phase 3***

**1 2 3 4 5 6**



# *Potential Impact of Pandemic Flu in the US and Locally*

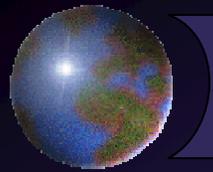




# *Who are We?*



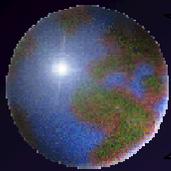
- 46, 000 students
- 7,000 staff
- 97 different home languages
- 93 schools
- Funding issues
- Leadership issues



# *Who are We?*



- Near the Canadian border
- 6,000 persons per day arrive from Asia
- City Emergency Management Office
- County Emergency Management Office
- City/County Public Health Department



# Integrating NIMS and School All-Hazard Plans

**National Response Plan**  
December 2004

King County  
Emergency Management Plan

**KING COUNTY, WASHINGTON  
EMERGENCY MANAGEMENT PLAN  
BASIC PLAN-2005**

**I. INTRODUCTION**

**A. MISSION**

In the event of natural or technological disasters, it is the policy of the government of King County to provide the emergency organization and resources to minimize loss of life, protect public property, the economy, and the environment, in unincorporated King County. Additionally, King County will provide support to other cities and special purpose districts and to King County Councilmembers as available.

... of basic county government operations and services the King County Hazards Identification and Vulnerability Plan will establish appropriate governmental responsibilities agencies and disasters.

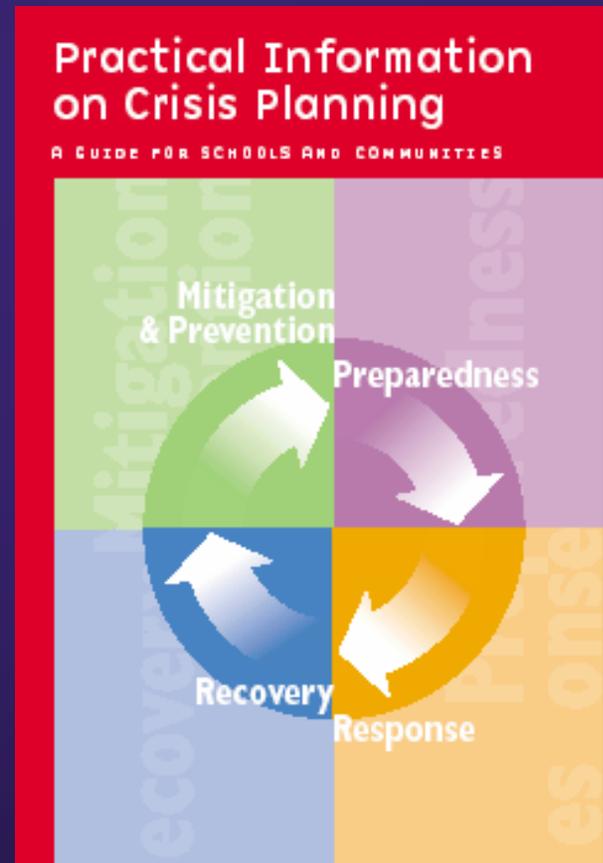
... government organization of King County including the local branches. Due to the size and complexity of King County application to unincorporated residents and regional and jurisdictions (cities and towns), and special purpose districts, schools, hospitals, flood, drainage districts, and Port of King County as separate political entities, may be assisted if in details emergency management responsibilities of County as and speaks to what those organizations can and extent of Emergency Management (OEM) will maintain, public safety emergency support functions (ESPF), as needed.

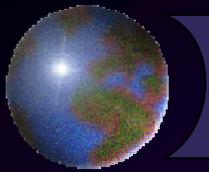
... serty, public safety and health, use the primary concerns of unincorporated jurisdictions will perform emergency management responsibilities as mandated by RCW 36.52.070 Local jurisdictions outside such territorial limits as may be required and, and current resolutions, ordinances, and mutual aid agreements and purpose jurisdictions are not mandated under RCW 36.52 to planning or services, King County recognizes that such appropriate mitigation, preparedness, response and recovery

1 10303

**Seattle All-Hazards Mitigation Plan**

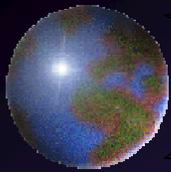
City of Seattle  
Seattle Police Department  
Emergency Preparedness Bureau  
Emergency Management Section



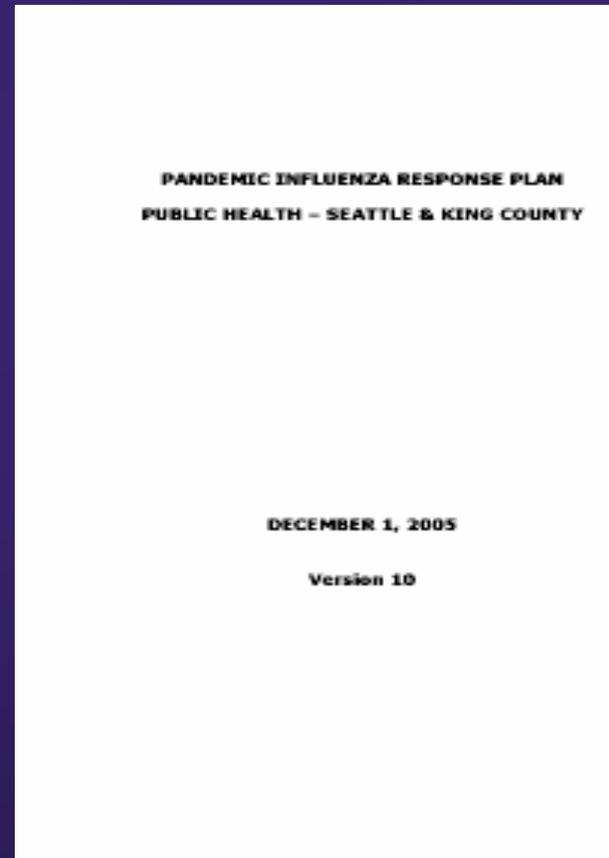
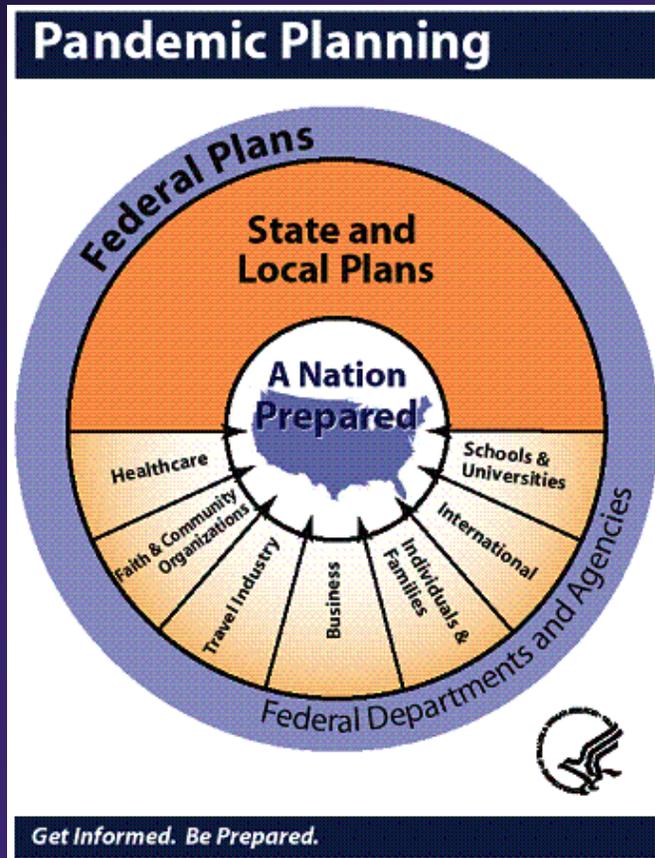


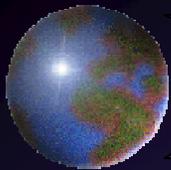
# All Hazard Plan

<b>Basic Plan</b>	<i>Mission and responsibilities</i>
<b>Appendices</b>	<i>Authorities, terms, and acronyms</i>
<b>Emergency Support Functions</b>	<i>Policies, planning assumptions, and concept of operations</i>
<b>Implementing Procedures</b>	<i>Details</i>



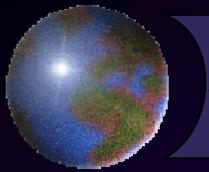
# Integrating NIMS and Pandemic Plans





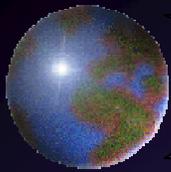
## *Local Impact: Health Status*

- In the first 6 weeks of a pandemic:
  - 1.2 million people are infected
  - 245,000 - 612,000 are clinically ill
  - 180,000 - 470,000 outpatient medical visits
  - 24,436 – 57,216 people are hospitalized
  - Up to 11,500 people are dead



# *So What Did that Mean to Us?*

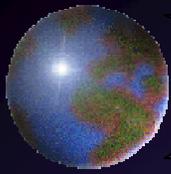
- Schools may be closed for up to 2 months for health and safety reasons, but we may run out of staff first (and soap)
- Essential functions are different in a pandemic
- Acronyms are different
- Lead agency is different (plans are vague in city emergency plan)
- Pandemic table tops start off slow
- Legislature has not dealt with funding issues for prolonged emergencies
- School staff resist planning- *"This is not an emergency."*



# ***Goals in a Pandemic: Public Health***

## ***Protecting the Public's Health***

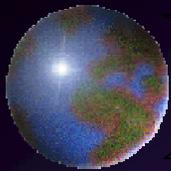
- ❖ Limit death and illness
- ❖ Preserve continuity of essential government and business functions
- ❖ Minimize social disruption
- ❖ Minimize economic losses



# Goals in a Pandemic - Schools

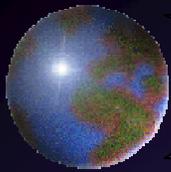
- ❖ Limit death, illness, and emotional trauma
- ❖ Preserve continuity of essential business functions
- ❖ Minimize social and educational disruption
- ❖ Minimize economic losses





# Phases of an Influenza Pandemic *and* School Incident Management

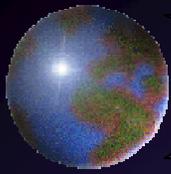
Phase	Definition	
3	<b>Pandemic Alert Period</b> Human infections with a new subtype. No human-to-human spread, or rare instances of spread to a close contact.	
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5	<b>Pandemic Alert Period</b> Larger clusters, but human-to-human spread still localized: Virus becoming better adapted.	
6	<b>Pandemic Period</b> Increased and sustained transmission in general population.	



# Updating Plans: *Pandemic Influenza*

- **It is different than other types of planning**
- **Get ready for lots of questions**
- **Have the answers or ... talk about where the community is in the process**



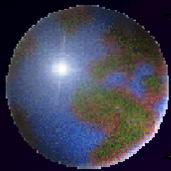


# *Pandemic Influenza: Prevention/Mitigation*

## With the Community:

- Review newest World Health Organization (WHO), Centers for Disease Control (CDC), PHD recommendations, PHD plan, and local emergency plans





# Public Health Department *Proactive Measures*

School  
closures

**APPENDIX D**  
**Protective Measures to Reduce the Spread of Pandemic Influenza**

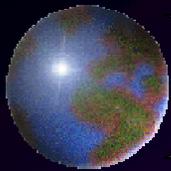
June 2009

**Pandemic Phase**

	Phase I - II	Phase II	Phase III	Phase IV
Public information and education campaigns	Yes	Yes	Yes	Yes
Individual health services for new cases	Yes	Yes	Yes	Yes
Closed facilities or schools of influenza cases	Yes	Yes	Yes	Yes
Restrictions on public gatherings and in countries impacted by pandemics	Yes	Yes	Yes	Yes
Close all public and private schools, colleges, and universities	Yes	Yes	Yes	Yes
Restrict large public and private events to implement an interim emergency risk management plan	Yes	Yes	Yes	Yes
Restrict large public and private events and limit community	Yes	Yes	Yes	Yes
Restrict large public events (sports events, concerts)	Yes	Yes	Yes	Yes
Close theaters, theaters and other places where crowds gather	Yes	Yes	Yes	Yes
Restrict use of public transit only for essential travel	Yes	Yes	Yes	Yes

**Proactive Measures**

*(A green oval highlights the 'Close all public and private schools, colleges, and universities' row, and a dashed arrow points from the text 'School closures' to this row.)*

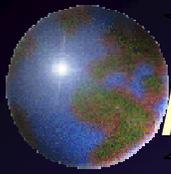


# Public Health Department *Proactive Measures*

School  
closure  
authorities



APPENDIX I Decision Making for School Closures (Individual, School, Community, and Public Health)				
	Decision Makers			
	Individuals (School)	Schools	City/County	Public
Education and monitoring of health care system resources and operations.	Red			
Individual and/or school closure orders.	Red			
Communication and/or school closure orders.	Red			
Risk Communication: managing the response process, the public and the media.	Red	Blue	Blue	
Public education campaigns for the community.	Red	Blue	Blue	
Development of public policy based on scientific and/or legal requirements.	Red	Blue	Blue	
Encourage public and private sector to implement pandemic response mitigation plans.	Red	Blue	Blue	
Closure of public and private schools, colleges and universities.	Red	Blue	Blue	
Closure of churches, theaters, and other places of assembly.	Red	Blue	Blue	
Temporary closure of shopping centers, restaurants.	Red	Blue	Blue	
Temporary closure of facilities not dedicated to pandemic response or food production.	Green			
Encourage and publicize availability for essential staff.	Green			



# Pandemic Influenza: Prevention/Mitigation

## At the District Level:

### Review District Emergency Management Plan and update:



Basic Plan:

Authorities

control and direction

Appendices:

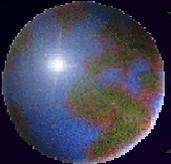
Continuity of business  
acronyms

ESF # 8:

Beyond biological  
terrorism

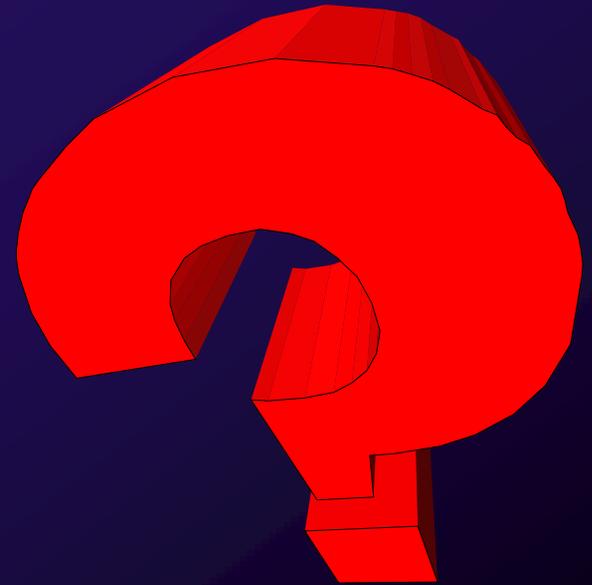
Implementing Procedures: Surveillance

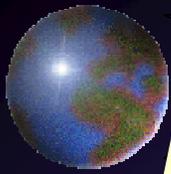
resource management



# F. A. Q. S #1, 5, 6, 7, & 16

How is it spread and how do we protect our staff and students? How sure are we of the information we are relaying?





# *Pandemic Influenza: Prevention/Mitigation*

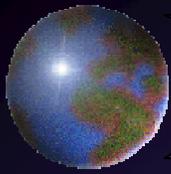
## Isolation & Infection Control Procedures

- Isolation precaution options:
  - Standard, contact, droplet, airborne
- Respiratory hygiene and cough etiquette

## CDC *Division of Healthcare Quality Promotion*

- Precaution recommendations ratings:

Category	1A	Lots of Empirical
Category	1B	Suggestive Evidence
Category	II	Strong Theoretical
Category	NR	No Recommendation; Unresolved Issue



# *Pandemic Influenza: Prevention/Mitigation*

## Isolation Precautions

## Category

### • Administrative controls

1B

- Education
- Adherence to precautions

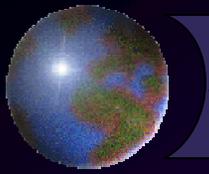
### • Infection control precautions

1B

- Hand washing, gloves, gowns
- Environmental controls
- Use of masks

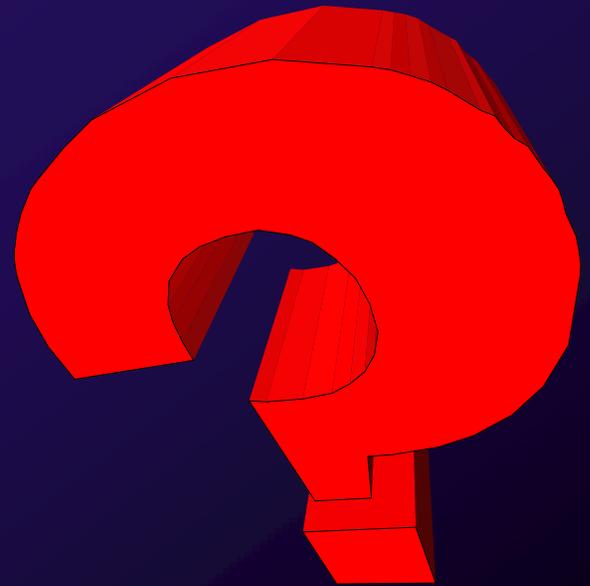
### • Social distancing techniques

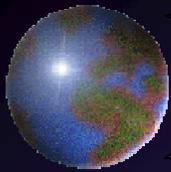
1B, II, NR



# F. A. Q. #2

If a child comes to school ill, when should avian flu be suspected?





# Pandemic Influenza: Preparedness

## Influenza-like Illness (ILI) Surveillance

- Temperatures above 100.4° F

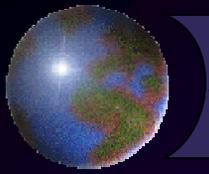
AND

- One or more of the following: cough, sore throat, **or** shortness of breath

AND

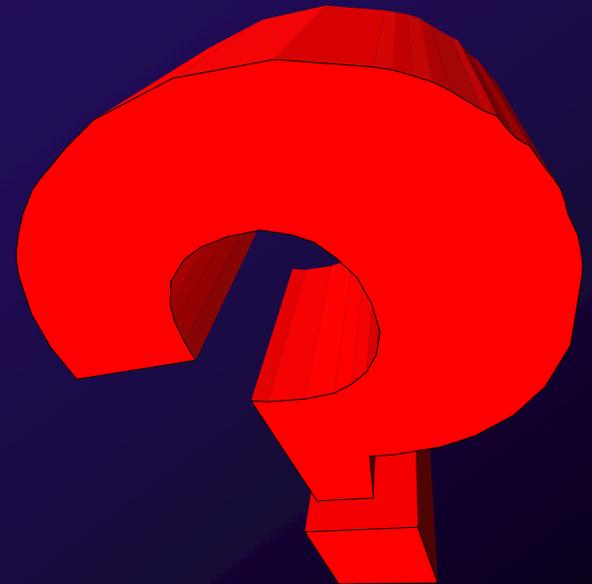
- History of contact with domestic poultry **or** known or suspected case of H5N1 in an H5N1 affected county within 10 days of symptoms

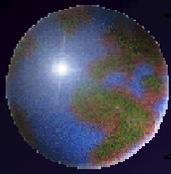




# F. A. Q. #3

What is social distancing?



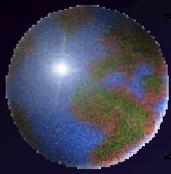


# *Pandemic Influenza: Prevention/Mitigation*

## Authorities

- Social distancing
  - District closures (snow days vs. labor strike)
  - School closures
  - Libraries, malls, after school day care centers
- Transportation
  - Public
  - Private/contractors
  - School owned
- Isolation and quarantine
- Union contracts



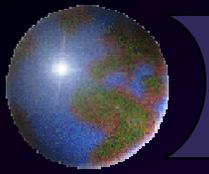


# *Pandemic Influenza: Prevention/Mitigation*

## Continuity of Business

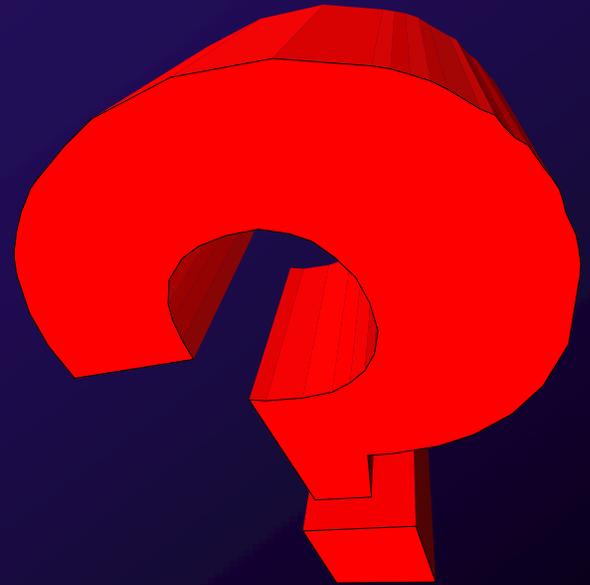
- ✚ Maintenance of essential services
- ✚ Information technology capacity
- ✚ Telecommuting

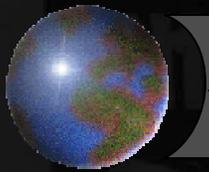




# F. A. Q. #4

How long will it take the avian flu to spread throughout the U.S.?

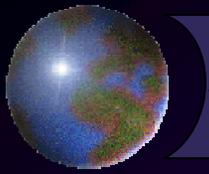




...a newly emerging influenza virus can wreak catastrophic damage worldwide in a matter of months.

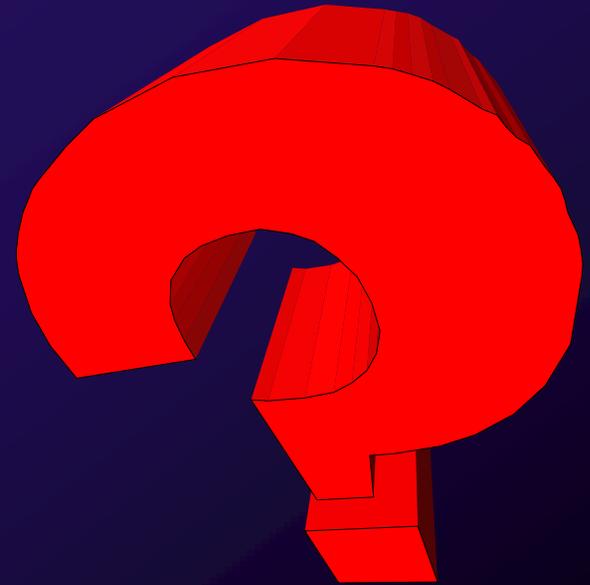
*Anthony S. Fauci, M.D.  
Director, National Institute of Allergy  
and Infectious Diseases*

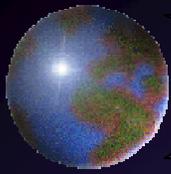




# F. A. Q. #8

What is the local government plan related to pandemic events?





# *Pandemic Influenza: Prevention/Mitigation*

## Surveillance

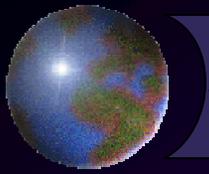


Sentinel program –

Absences beyond 10% with respiratory symptoms:

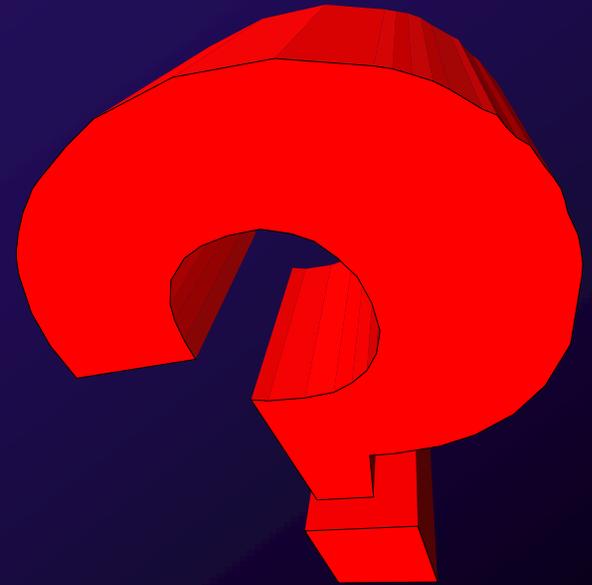
- Monitored by IT/safety & security & schools
- Student absences
- Staff absences

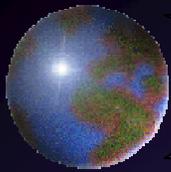




# F. A. Q. #9

What is the best way to teach students about avian flu?





# *Pandemic Influenza: Preparedness*

## **INFLUENZA**

FREQUENTLY COMPLICATED WITH

## **PNEUMONIA**

IS PREVALENT AT THIS TIME THROUGHOUT AMERICA.

THIS THEATRE IS CO-OPERATING WITH THE DEPARTMENT OF HEALTH

### **YOU MUST DO THE SAME**

IF YOU HAVE A COLD AND ARE COUGHING AND  
SNEEZING. DO NOT ENTER THIS THEATRE

### **GO HOME AND GO TO BED UNTIL YOU ARE WELL**

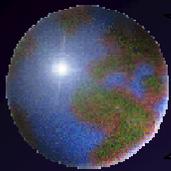
Coughing, Sneezing or Spitting Will Not Be Permitted In The Theatre. In case you must cough or Sneeze, do so in your own handkerchief, and if the Coughing or Sneezing Persists Leave The Theatre At Once.

This Theatre has agreed to cooperate with the Department Of Health in disseminating the truth about Influenza, and thus serve a great educational purpose.

### **HELP US TO KEEP CHICAGO THE HEALTHIEST CITY IN THE WORLD**

**JOHN DILL ROBERTSON**

COMMISSIONER OF HEALTH



# Pandemic Influenza: Preparedness

## Education Staff

**消滅病菌，保持健康！**

咳嗽或噴嚏時，請遮住口鼻。

如果病了，請在家休息。

**使用肥皂** **沖淨雙手** **沖淨杯** **用紙(巾)擦**

**勤洗手，保持健康！**

● 每次洗手要超過 20 秒鐘。  
● 沖淨雙手。  
● 沖淨杯。  
● 用紙(巾)擦。

**Stop the spread of germs that make you and others sick!**

# Cover your Cough

Cover your mouth and nose with a tissue when you cough or sneeze or cough or sneeze into your upper sleeve, not your hands.

Put your used tissue in the waste basket!

# Clean your Hands

after coughing or sneezing.

Wash hands with soap and warm water

or clean with alcohol-based hand cleaner

**CDC** **MDH** **APIC**

Flu Season and Schools 1

**The Center for Health and Health Care in Schools**

School Health Issues: Flu Season and Schools

Flu is an unwelcome visitor to many homes and communities this winter. Schools can help educate students, their families, and school staff about how to reduce the chance of getting the flu as well as reduce the likelihood of spreading flu to others. Additional information from the experts is available from the links below.

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**FIVE FAST FLU FACTS**

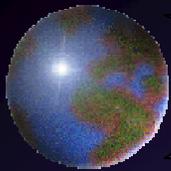
From the Centers for Disease Control and Prevention  
[www.cdc.gov/flu/index.htm](http://www.cdc.gov/flu/index.htm)

- \* Flu symptoms include fever, headache, chills, body aches, tiredness, dry cough, sore throat, and nasal congestion.
- \* Flu is spread when a person who has the flu coughs, sneezes, or speaks and sends the flu virus into the air. The virus enters the nose, throat or lungs of a person and multiplies. Flu spreads less frequently when a person touches a surface that has flu viruses on it.
- \* If you get the flu: rest, drink plenty of liquids, and avoid alcohol and tobacco.
- \* Antibiotics like penicillin will not cure the flu. The best way to prevent the flu is to get a flu shot. Over-the-counter medications may relieve symptoms of flu. The National Institute for Allergies & Infectious Diseases recommends acetaminophen (Tylenol) for children; aspirin or acetaminophen for adults. Decongestants, cough suppressants, and use of a humidifier can provide symptomatic relief.
- \* In addition to flu shots, three antiviral medicines are available by prescription that will help prevent flu infection: Tamiflu, Flumadine and Symmetrel.

The Center for Health and Health Care in Schools  
1350 Connecticut Avenue, Suite 505, Washington, DC 20036, ph: 202/466-3196, f: 202/466-3467  
<http://www.healthin-schools.org>

**Make Bubbles Not Germs.**

**Handwashing is Very Groovy, Baby!**



# Pandemic Influenza: Preparedness

## Education



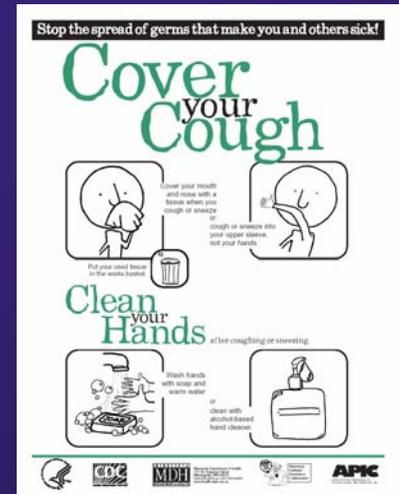
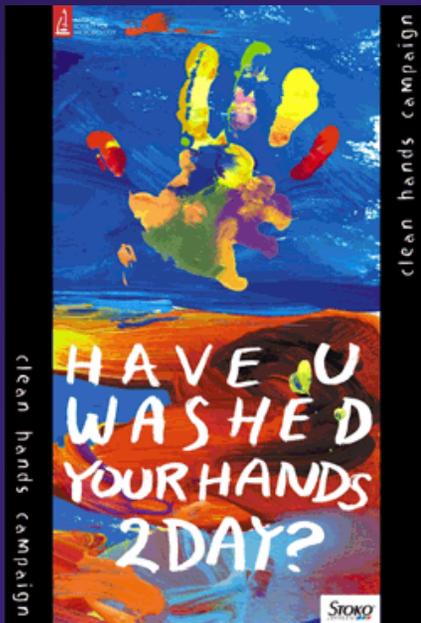
Staff

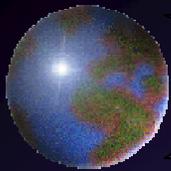


Students:



Posters





# Pandemic Influenza: Preparedness

## Education



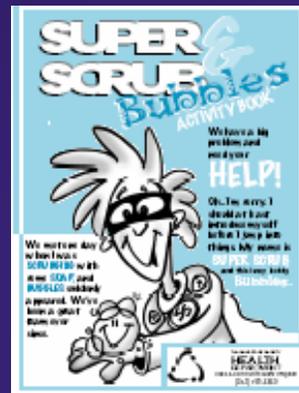
Staff



Students:

Posters

Curricula



**LOOK! This Could Be You!**

Enter the SNAP National Recognition Program today! You could receive:

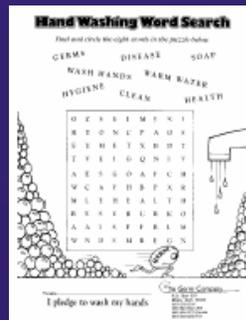
- One Top Classroom Award Recipient: All-expense paid trip for three to Washington, D.C. Special celebration for class!
- Two Runner-Up Classrooms: Cash award of \$250 each!

All Participating Classrooms: Certificate of Recognition! Special feature on the Clean Hands Honor Roll at the SNAP Web site ([www.itssnap.org/](http://www.itssnap.org/))!

**Project Deadline: March 1st.**

Brought to you by: CDC, SDA, and others.

For more details visit: [www.itssnap.org](http://www.itssnap.org)



The #1 product for teaching handwashing, isolation techniques, aseptic techniques, and general infection control

**handwashing quiz**

Check your understanding of handwashing with this quiz. Answers appear below!

- 13 Just rinsing hands with water will do the job. *True* *False*
- 21 Using hot water will clean your hands best. *True* *False*
- 31 I should wash for at least 15 - 20 seconds. *True* *False*
- 41 I can wash only my palms and fingers and be ok. *True* *False*
- 51 It's best to dry my hands on my pants. *True* *False*

**Why Wash?**

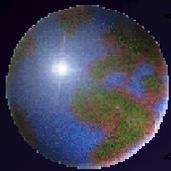
Most germs are harmless, but you can pick up germs that cause diseases. When we forget to wash our hands, or don't wash them properly, we can spread germs to other people, or give them to ourselves by touching our eyes, mouth, nose or cuts on our bodies.

**IT'S A HANDS CAMPAIGN**

**HAVE U WASHED YOUR HANDS 2DAY?**

Supported in part by educational grants from STOKO's New Care.

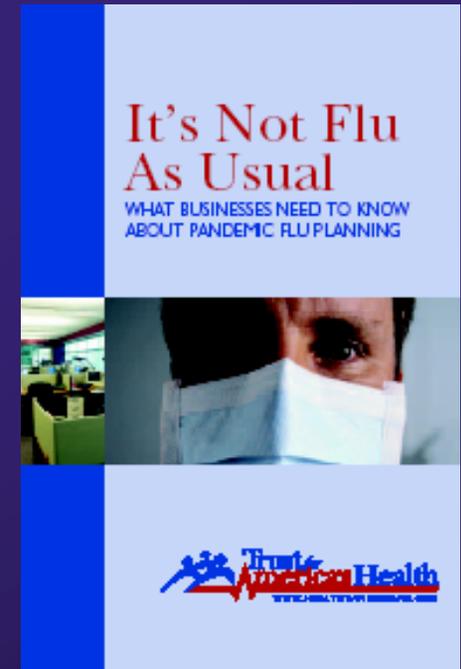
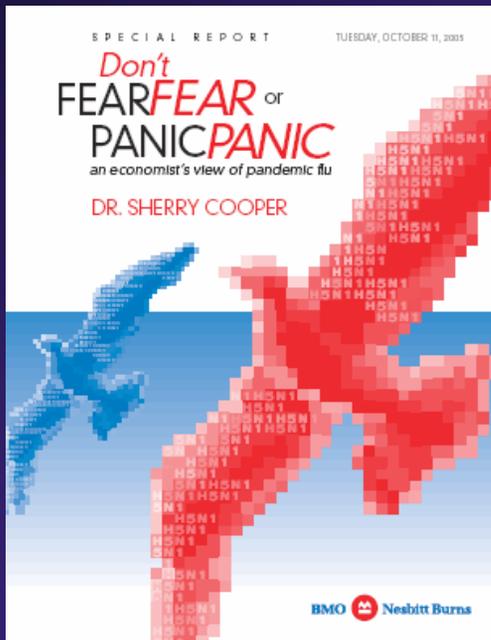
**STOKO**

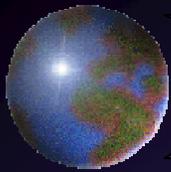


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## Education

- Staff
- Students
- Parents/volunteers
- Vendors/agencies

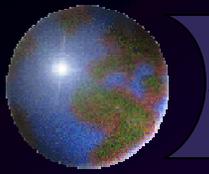




# *Pandemic Influenza: Preparedness*

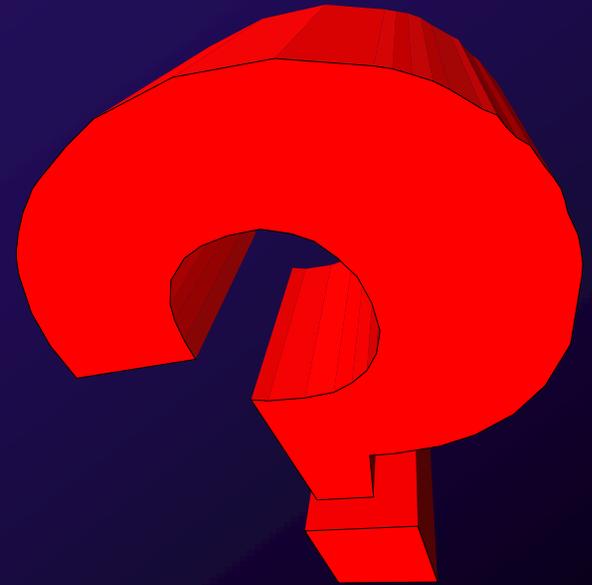
- **Education**
- **Resource management**
- **Simulations and drills:**
  - **Table top**
  - **Functional exercises**

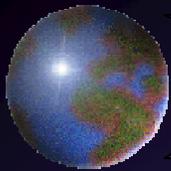




# F. A. Q. #10

How is mortality and morbidity predicted for the avian flu?



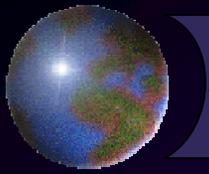


# Formula for Estimating Health Impacts

(per 1000 persons)

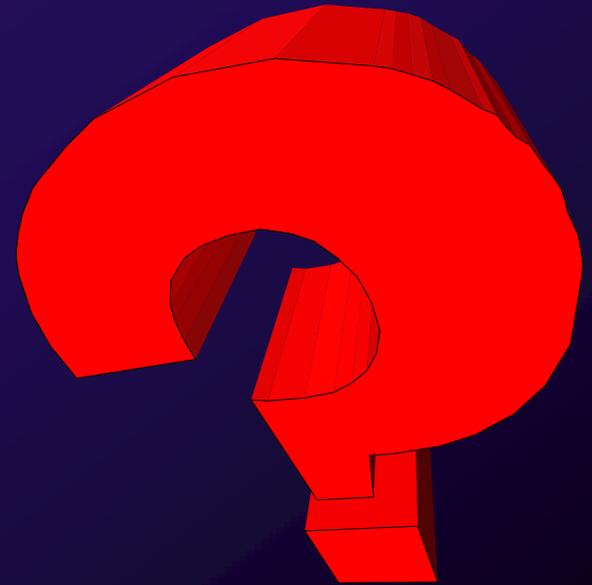
	Health risk	Students			Staff		
<b>Outpatient visits</b>	High	289	-	403	70	-	149
	Other	165	-	230	40	-	85
<b>Hospitalizations</b>	High	2.1	-	9.0	0.9	-	5.1
	Other	0.2	-	2.9	0.18	-	2.8
<b>Deaths</b>	High	0.13	-	7.65	0.1	-	5.7
	Other	0.014	-	.13	0.025	-	.09

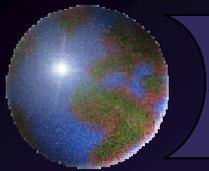
Meltzer, M., Cox, N. and Fukuda, K. 1999. The Economic Impact of Pandemic Influenza in the United States: Priorities for Intervention. Emerging Infectious Diseases, vol. 5:5.



# F. A. Q. #12

How does the district predict how many staff might be affected?

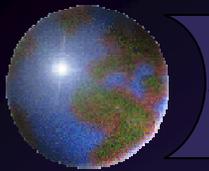




# *Estimated Health Impacts*

*for a District of 50,000 students and 7,000 staff*

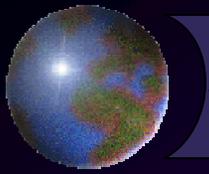
<b>District with....</b>	<b>Other students</b>	<b>5% High-risk students</b>	<b>Other staff</b>	<b>10% High- risk staff</b>
<b>Outpatient visits</b>	8,250	8,560	280 595	256.9
	11,500	11,933		639.8
<b>Hospitalizations</b>	10	14.25	1.3 19.6	1.73
	145	160.25		21.21
<b>Deaths</b>	0.7	1.65	0.2 0.6	0.2
	6.5	25.3		4.6



# Estimated Health Impacts

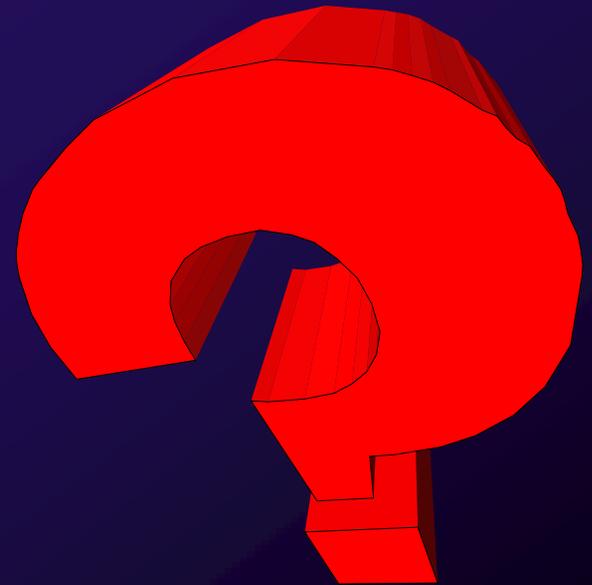
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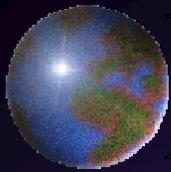
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# F. A. Q. #18

What are essential services for schools and school districts?





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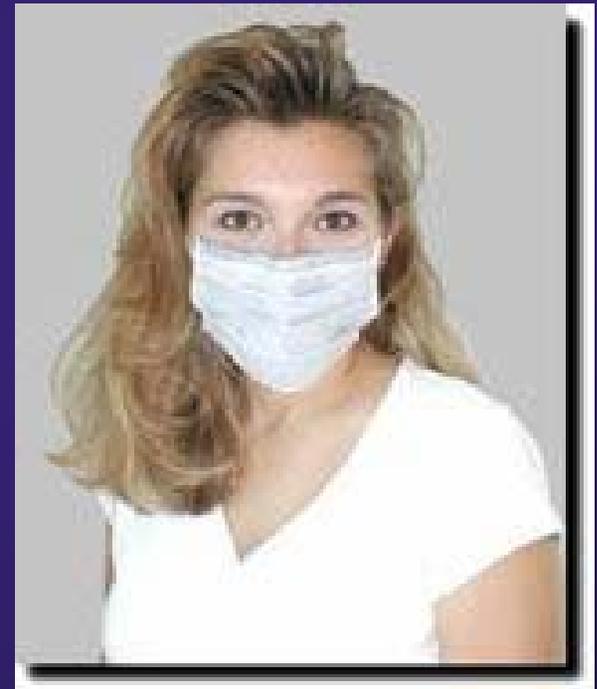
## Resource Management

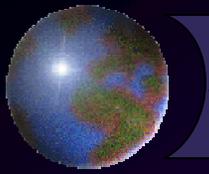
### Human resources

- ▣ Flex time
- ▣ Telecommuting
- ▣ Reassignment of staff to essential services:
  - Retraining
  - Union contracts

### Personal protective equipment

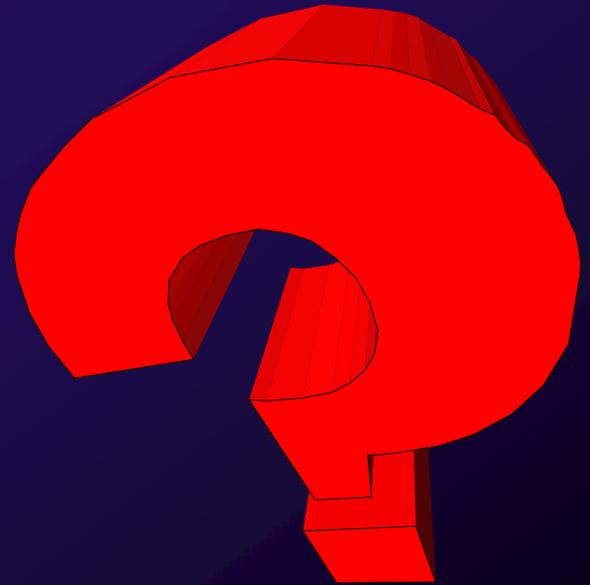
### Vaccination priority list

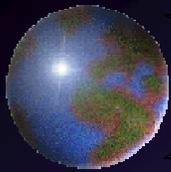




# F. A. Q. #20

What can the schools do to help the community during a pandemic?





# *Pandemic Influenza*

**If schools and day care centers are closed, who will take care of our responder's children?**

- Develop a volunteer roster to help support their families

