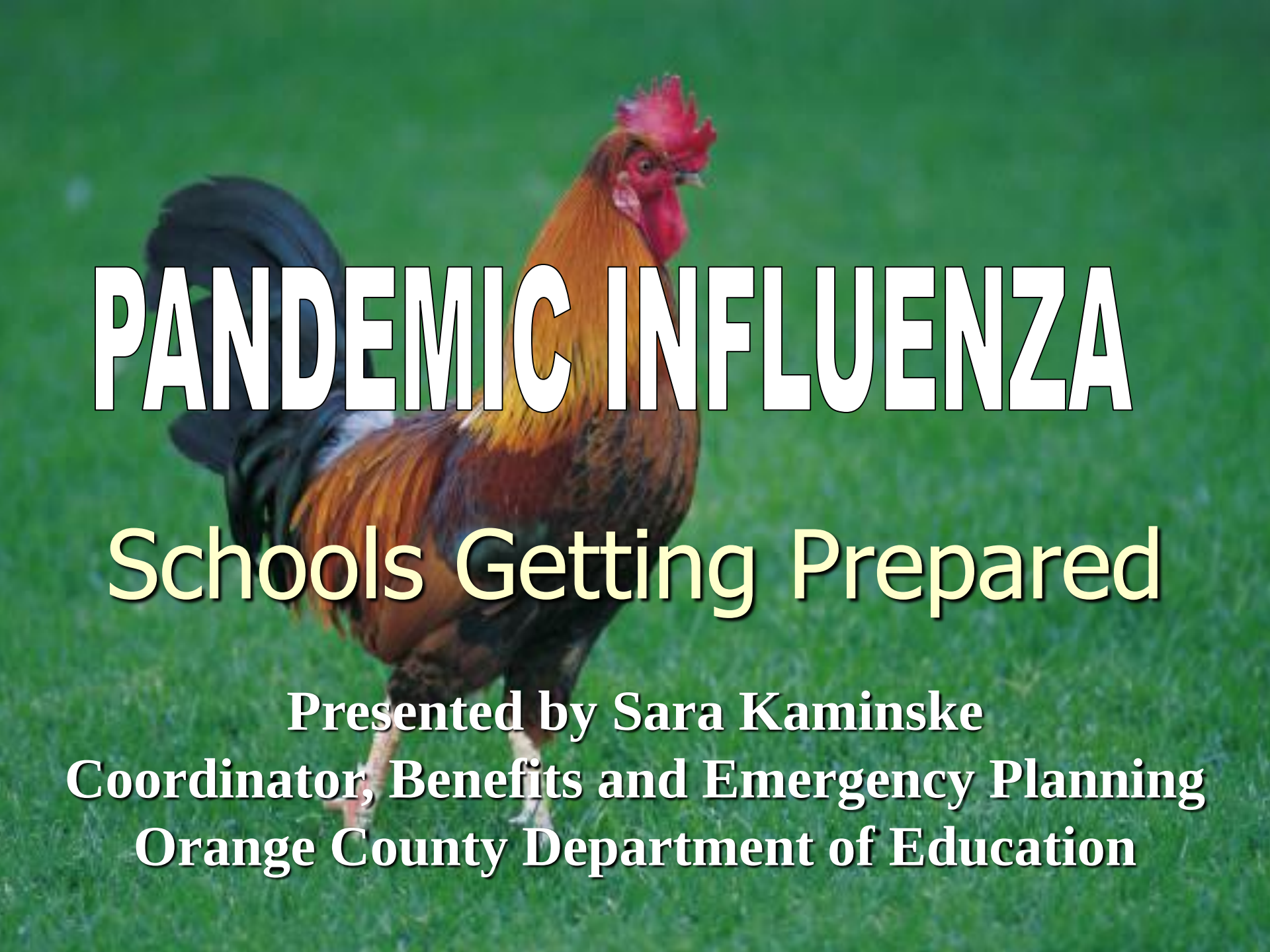


A rooster with a red comb and wattle, and feathers in shades of brown, orange, and black, stands on a green lawn. The rooster is facing right.

PANDEMIC INFLUENZA

Schools Getting Prepared

**Presented by Sara Kaminske
Coordinator, Benefits and Emergency Planning
Orange County Department of Education**

True or False?

- Ducks can spread the H5N1 virus without showing any symptoms of illness.
- **True** Ducks are an exception. Most birds that spread the disease become ill themselves. Ducks may not.

True or False?

- The Hong Kong flu of 1968-1969 is the same influenza that is spreading worldwide today.
- **False** The virus has mutated since then.

True or False?

- Travel advisories have been issued for U.S citizens traveling to countries where H5N1 has spread.
- **False** No travel advisories have been issued. Travelers do not appear to be at risk if they avoid poultry farms and live food markets.

True or False?

- Anyone who might be exposed to the H5N1 virus, such as a poultry worker, should be vaccinated for seasonal influenza.
- **True** While the seasonal vaccine will not protect a person from H5N1, co-infections can and do occur.











The Decon Station







Pandemics of the Past

Millions of deaths

Social disruption

Profound economic loss

PANDEMICS OF THE 20TH CENTURY

**Three worldwide (pandemic)
outbreaks in the 20th century
1918, 1957, and 1968.**

**The Spanish Flu of 1918 killed
20-40 million people worldwide and
500,000 in the U.S.**

PANDEMICS HIGH U.S. TOLL

Age in Years	Projected Deaths Based on Current Population and Deaths in 1918-1919
<5	233,200
5-14	74,553
15-24	214,582
25-34	378,639
35-44	268,602
45-54	43,948
55-65	123,451
>65	426,689
Total	1,763,664

Why is it called H5N1?

Type A is the deadliest of three types of viruses
(A, B, & C)

Virus contains two proteins:

Haeagglutinin – 15 varieties

Neuramidase – 9 varieties

Creating 135 possible varieties

H5N1

H5N1 – AVIAN INFLUENZA

- Since 1997 H5N1 has occurred in a large number of birds
- Started in Asian countries
- Has spread to Russia and Kazakhstan
- Human infections have occurred
- 58% mortality rate



THE “BIRD FLU”

- **Influenza virus Type A**
- **All birds are susceptible**
- **Wide spectrum of symptoms**
 - **mild illness to rapid death**
- **Migratory waterfowl are the most resistant to infection**

H5N1 is one of many types of avian influenza viruses

CLINICAL SYMPTOMS IN BIRDS



- Sudden death
- Lack of energy and appetite
- Decreased egg production
- Soft-shelled or misshapen eggs
- Swelling of the head, eyelids, comb, wattles,
- Purple discoloration of the wattles, combs, and legs
- Nasal discharge
- Coughing, sneezing
- Lack of coordination
- Diarrhea



Domestic poultry
are particularly
susceptible



Transmitted from farm
to farm by
mechanical means

Live bird
markets spread
the disease





THE GREAT CONCERN

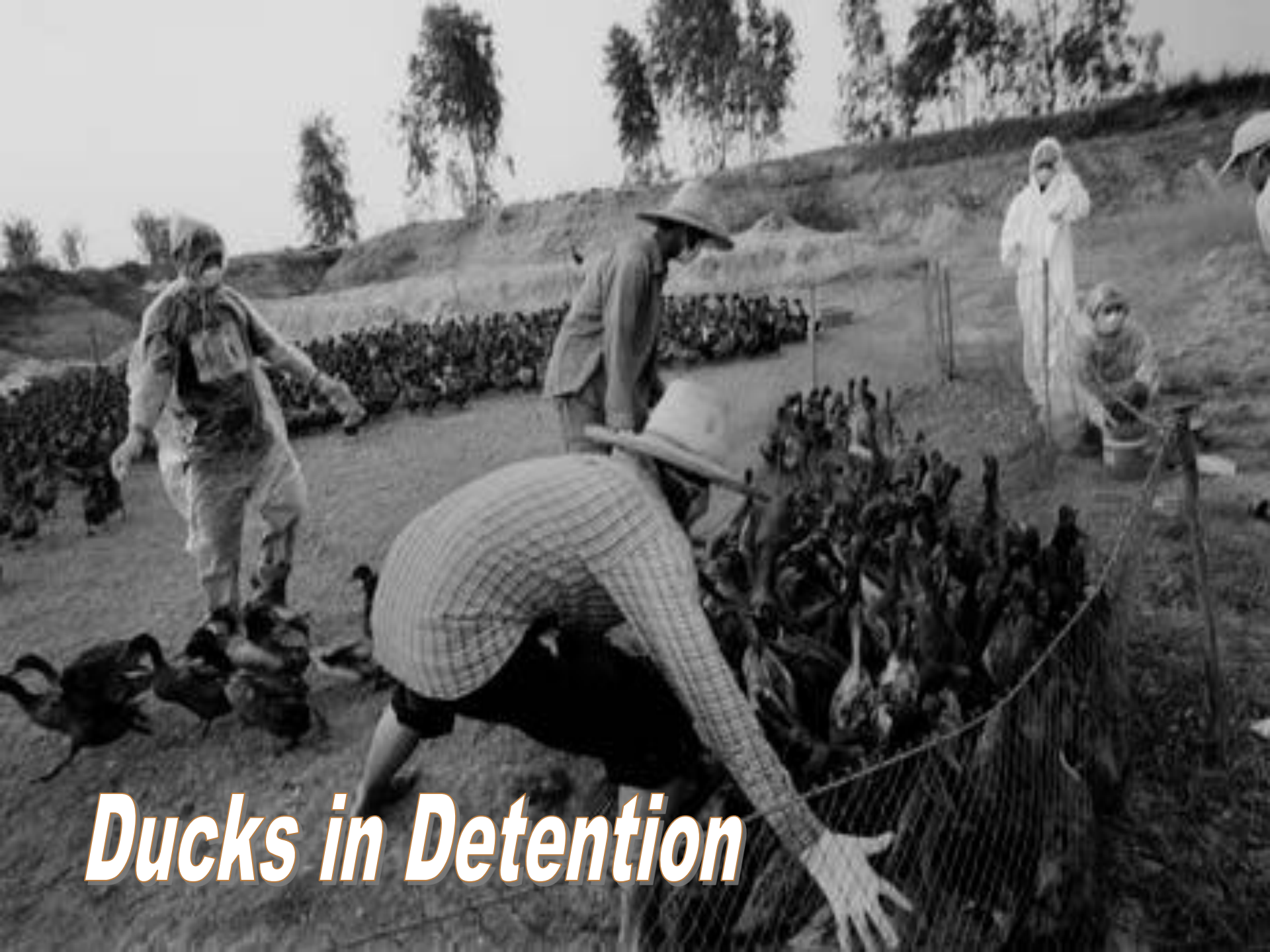
**Almost all cases reported so far are
from poultry to human contact**

**Very rare human to human
transmission**

A CONSTANTLY MUTATING VIRUS



Cats can be
infected,
too!



Ducks in Detention

THE GREAT CONCERN

Pandemics occur 3-4 times each century

Unpredictable

A constantly mutating virus

If the H5N1 virus doesn't cause a pandemic, another one will!



No one is immune to H5N1

Rapid spread could kill millions of
people

PANDEMIC!



(AFP PHOTO)

Colored chicks on sale in Indonesia

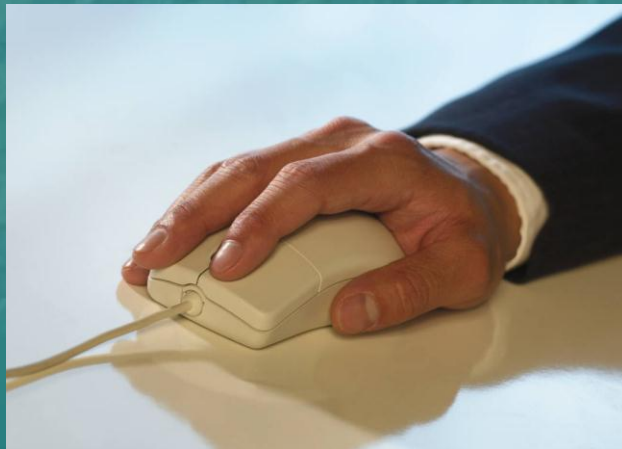


HUMAN SYMPTOMS

- High fever
- Headache
- Extreme tiredness
- Dry cough
- Sore throat
- Runny or stuffy nose
- Muscle aches
- Stomach symptoms

TRANSMISSION

- Coughing and Sneezing within three feet
- Touching a surface with the virus



COMPLICATIONS

- Bacterial Pneumonia
- Dehydration
- Worsening of chronic conditions
- Sinus problems and ear infections

Compromises The Immune System

TREATMENT

Tamiflu and Relenza

*Limited supply and Treatment
not proven*





A close-up photograph of a white turkey's head. The turkey has a large, dark eye surrounded by red, wrinkled skin. Its beak is also red and pointed. The turkey is looking through the vertical bars of a metal cage. The background is blurred, showing some indistinct shapes and colors.

RISK IN THE OC

**Isolation
Quarantine**

What if?

CDC Estimates for OC

Population 2,846,289

35% ill = 996,201

19% outpatient visits = 540,795

0.4% hospitalized = 11,385

0.1% dead of flu-related causes = 2,846

Based on 2000 census population data



PREVENTION

- Produce a vaccine
- Education on preventing exposure – good hygiene
- Early detection and isolation
- Rapid laboratory testing



PREVENTION

- Tracing and quarantine
- Public education on avoiding illness
- Preparing for mass vaccination
- Monitoring effectiveness of treatment





AS OF OCTOBER 31, 2006

**256 Reported Cases
Since 2003**

152 Deaths

DEAD AND DYING BIRDS ON A BEACH IN CHINA



An aerial satellite image of a hurricane, showing a well-defined eye and spiral cloud bands. The hurricane is positioned over a coastal area with green land and blue water. The text "Disaster Service Workers" is overlaid in the top left, and "Category Four" is written in a large, stylized font across the center and right side of the image.

Disaster Service Workers

Category Four



Psychosocial Issues for School Personnel

- **Concern about children and family**
- **Constant pressure to keep performing**
- **Domestic pressures caused by school closures**
- **Stress of working with symptomatic others**
- **Difficulty maintaining self-care**
- **Fear of contagion & transmitting to others**



Exacerbated by...

- **Lack of information or misinformation**
- **Loss of faith in health institutions**
- **Mass casualties and death among children**
- **Belief that resources are not available**
- **Personal resiliency to stressors**

Psychosocial Issues for Families of School Personnel

- Staff may be tired, worried, irritable, etc.
- Staff may be less optimistic and understanding
- Increased emergency workload may complicate communication with family
- Family members may be at risk of contagion



Impact on School Personnel

- Increased risk of exposure
- Illness & death among children and staff
- Ethical dilemmas – DSW status
- Frustration with “business as usual”
- Physical isolation associated with infection control



YOUR SCHOOLS ROLE

*Ask students and staff with
fever and respiratory
symptoms about travel to
areas affected by influenza
A (H5N1) in the 10 days
prior to illness*



Confirmed Human Cases



**Cambodia, China,
Indonesia, Iraq, Thailand,
Turkey, Vietnam, Egypt,
Azerbaijan, Djibouti**

COUNTRIES WITH CONFIRMED BIRD FLU CASES

Austria, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Cambodia, China, Croatia, France, Egypt, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Iran, Iraq, Italy, Kazakhstan, Malaysia, Mongolia, Niger, Nigeria, Pakistan, Poland, Romania, Russia, Serbia and Montenegro, Slovak Republic, Slovenia, Switzerland, Thailand, Turkey, Ukraine, Vietnam



No H5N1 cases have been reported in North America, South America, Australia, or the South Pacific

Waiting for customers





Out of six different phases
we are currently at Phase 3

*New virus, no or very limited
person-to-person transmission*

Inter-pandemic Phase New virus in animals, no human cases	Low risk of human cases	1
	Higher risk of human cases	2
Pandemic Alert New virus, causes human cases	No or very limited human-to-human transmission	3
	Evidence of increased human-to-human transmission	4
	Evidence of significant human-to-human transmission	5
PANDEMIC	Efficient and sustained human-to-human transmission	6

What if?

High rate of absenteeism – ADA

Staff absences – Substitutes?

**Communications – Internal and
external**

Deaths of students and staff

RECOMMENDATIONS FOR SCHOOLS

If ill students or staff have not traveled to affected countries, there is no concern for avian influenza.





INFORMATION

PREPARATION

COOPERATION

Considerations for Schools

**Who coordinates decisions
on closing schools or
quarantining kids?**

If classes shut down
for weeks, how will
a district keep kids
from falling
behind?

**Who will keep the
payroll running, or ease
the fear of parents, or
provide food to
children who count on
school meals?**

RECOMMENDATIONS FOR SCHOOLS

If ill students or staff have traveled to an affected country

- **refer them to health care provider or school based clinic/community clinic**
- **ask them to notify physician of their health and travel status**



RECOMMENDATIONS FOR SCHOOLS

**The health or attendance clerk should
report these cases to the school
nurse who the should report to
Orange County Epidemiology
immediately**

(714) 834-8180

A white swan is the central focus, swimming towards the right. Its long neck is extended, and its reflection is clearly visible in the calm water. In the background, several ducks are swimming, their forms slightly blurred. The water is a muted grey-blue.

Follow CDC recommendations for Respiratory Hygiene and Health Care

<http://www.cdc.gov/flu/professionals/pdf/resphygiene.pdf>

<http://www.cdc.gov/flu/school/>

Common Sense

Staff and students that are sick should stay home!

- ❖ **Cover nose and mouth with a tissue**
- ❖ **Wash hands often with soap and water**
- ❖ **Try not to touch eyes, nose, or mouth**
- ❖ **Disinfect keyboards, phones, desks daily**

ORANGE COUNTY HEALTH CARE AGENCY PREPARES

- Pandemic Influenza surveillance
- Laboratory Support
- Education of medical community
- Education of the public
- Outreach to Vietnamese community, travelers, community organizations, etc.

ORANGE COUNTY HEALTH CARE AGENCY PREPARES

- Mass prophylaxis/vaccination plan
- Isolation and quarantine procedure
- Training and exercises
- Workforce support - Psychosocial considerations and information needs

<http://www.ochealthinfo.com/epi/af/>

WHO and the Global Outbreak Alert & Response Network

A collaboration of existing institutions and networks who pool human and technical resources for the rapid identification, confirmation and response to outbreaks of international importance

http://www.who.int/csr/disease/avian_influenza/en/

Additional Links/ Resources

Official US Government Website

www.pandemicflu.gov

Centers for Disease Control & Prevention

www.cdc.gov/flu/avian/gen-info/index.htm

World Health Organization's Disease website at:

www.who.int/csr/disease/avian_influenza/en

World Health Organization's Human Case Count

www.who.int/csr/disease/avian_influenza/country/en

Precautions for Travel to Countries Reporting H5N1

www.cdc.gov/travel/other/avian_influenza_se_asia_2005.htm

www.ocde.us
**Click on Emergency
Preparedness icon**

SCHOOL DISTRICT PLANNING GUIDE

<http://www.pandemicflu.gov/plan/pdf/schoolchecklist.pdf>



We must prepare!

Don't get mad, get ready!!



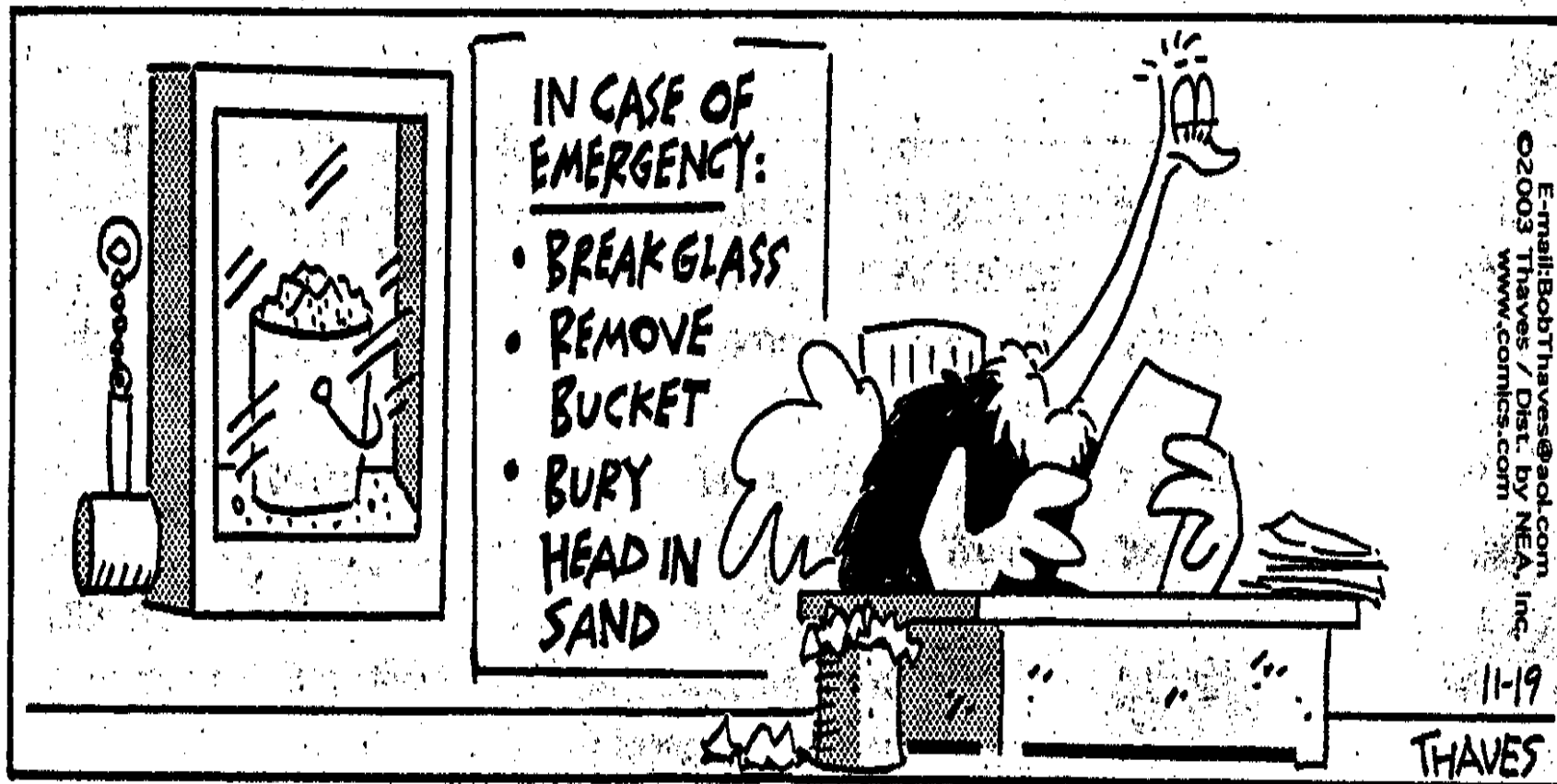


It's here and it's bad!!

- What contingencies are predictable and need to be planned for?
- How will you work with local agencies in sharing information and coordinatine strategies?
- How will you deal with staff shortages?
- What are the public safety concerns?

It's here and it's bad!!

- How will staff members get paid?
- How will you communicate with staff, students, parents?
- How will you monitor the current phase of the pandemic?
- What psychological components should be considered/planned for?





TOM'S SHELL

*Self
Serve*

*Cash or
Credit*

Regular

ARM 9

Plus

LEG 9

Premium

**First 9
Born**

**And you
thought a
pandemic
was scary!**