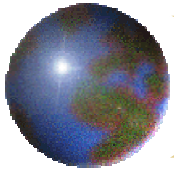


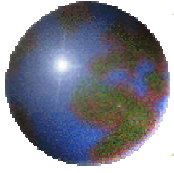
Influenza Pandemic What, When and Then What?

Portage County Health Department
Kelly Engelhart, RN, BSN
Nursing Director



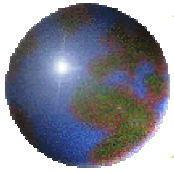
Objectives

- ❖ Define Pandemic
- ❖ Define the difference between a pandemic and Avian Influenza
- ❖ What does it mean to Portage County
- ❖ What public health does
- ❖ What you can do



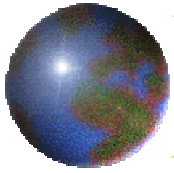
What is a Pandemic?

- ❖ Pandemic: from the Greek pandemos (pan + demos), meaning all the people
- ❖ Caused by a new virus that has not affected people before and people have little or no immunity



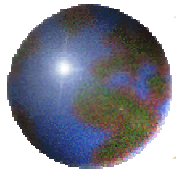
*Pandemic Influenza is different
than Avian Influenza
(Bird Flu)*





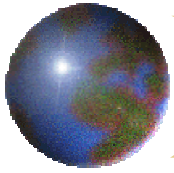
Avian Influenza (Bird Flu)

- Bird Flu is just that....Influenza A virus that infects birds
- It has been around in birds for a long time
- What is different now?
- It is now infecting humans

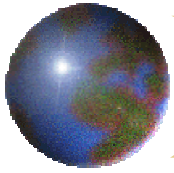


Cumulative Number of Confirmed Human Cases of Avian Influenza March 2006: World Health Organization (WHO)

Country/Territory	Total cases	Deaths
Cambodia	4	4
Indonesia	28	21
Thailand	22	14
Viet Nam	93	42
China	15	10
Iraq	2	2
Turkey	12	4
Total	176	97



*Influenza pandemics have been
recurring events*



Twentieth Century Influenza Pandemics

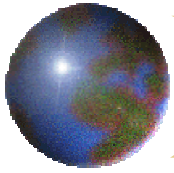
1918: "Spanish flu"
H1N1

The most devastating flu pandemic in recent history, killing more than 500,000 people in the United States, and 20 million to 50 million people worldwide.

1957-1958: "Asian flu"
H2N2

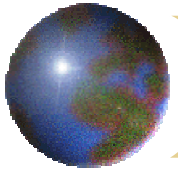
First identified in China, this virus caused roughly 70,000 deaths in the United States. This strain has not circulated in humans since 1968; no one under 30 years old has immunity to this strain.

1968-1969: Hong Kong flu" H3N2
First detected in Hong Kong, this virus caused roughly 34,000 deaths in the United States during the 1968-69 season. H3N2 viruses still circulate today.

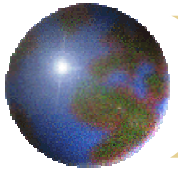


Why all the hype now?

- Bird Flu has been infecting people since 1997
- Since 2003 the number of human cases and deaths has increased
- Could Avian Influenza be our next pandemic virus?



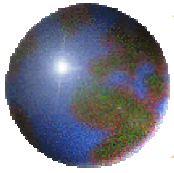
*Several things have to
happen before this virus
can become the next
pandemic virus*



Antigenic Shift and Pandemics

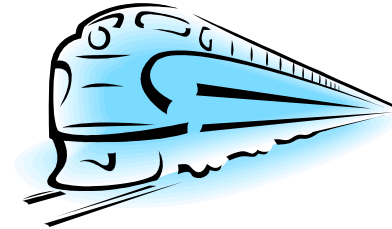
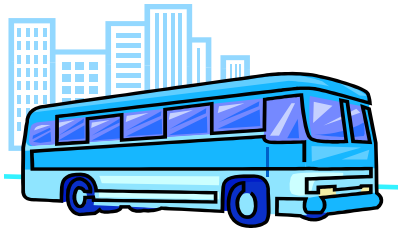
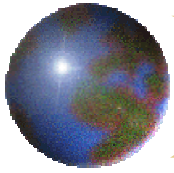
Requirements

- ⊕ Person to person transmission
 - ⊞ Bird flu has not achieved this ability.....yet?
 - ⊞ People infected have had substantial contact with birds
- ⊕ The Virus has to be strong
 - ⊞ The Avian virus has this very high death rate

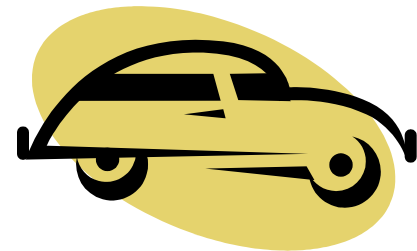
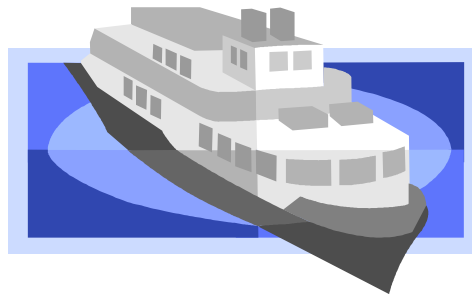


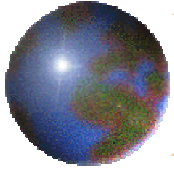
Who is at highest risk?

- ⊕ We all are!
- ⊕ Everyone has the same risk because no one has previous immunity
- ⊕ This is a new virus that we have never been exposed to before
 - ⊞ Why the death rate is high in pandemics



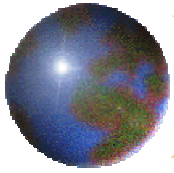
*All Countries, States and
Counties may be affected at the
same time*





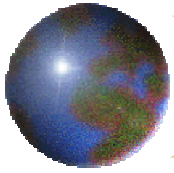
Portage County Flu Surge Estimates

- PCHD using predictive software from CDC
- Used demographic data for Portage County from the 2000 census-152,061
- Hospital resources:
 - Total staffed beds 148
 - Staffed ICU beds 16
 - Total Ventilators 10



Portage County Flu Surge Estimates

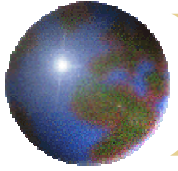
- | | |
|--|--|
| • Least impact 15%
attack rate and 6
week duration | • Worst case Scenario
35% attack rate and
12 week duration |
| • Hospital admissions:
319 | • Hospital admissions:
744 |
| • Total deaths: 61 | • Total deaths: 142 |



What does this all mean to Portage County?

- ❖ It means our traditional healthcare systems will be overwhelmed with sick and dead people
- ❖ It means that potentially 50% of our health care workers and first responders could be sick too





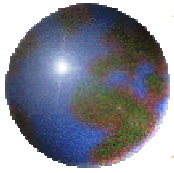
More Bad News

- ❖ Economic impact: \$71.3-166.5 billion

- ❖ Population affected: 15-35%

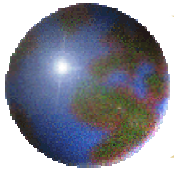
(US population: 290 million)

Meltzer M, et al. Emerging Infectious Diseases 1999; 5:659-671.



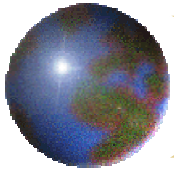
How are we Preparing in Portage County?

- Preparedness and Communication
 - Pre-pandemic education
- Surveillance and Detection
 - Detect early so early notification
- Response and Containment
 - Limit the spread
 - Mitigate the health, social and economic effects of the pandemic



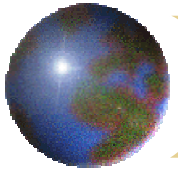
What will need to happen

- Hospitals normal practices will need to change
 - Staffing: surge capacity plans
 - Make separate wings for pan flu patients
- Schools will be closed
- No mass gatherings/meetings
- Alternate healthcare workers and EMS
- Sheltering and Alternative care sites



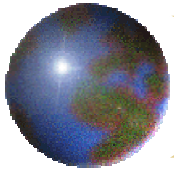
What is Public Health's role?

- ⊕ Surveillance: Tracking the disease
- ⊕ Education
- ⊕ Testing
- ⊕ Epidemiological investigations
- ⊕ Isolation and Quarantine
- ⊕ Containment measures
- ⊕ Mass Vaccination



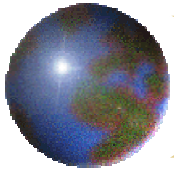
Pandemic Vaccine

- ✿ Annual vaccine is trivalent (3 strains), pandemic vaccine will be monovalent.
- ✿ Production using current technologies would likely take 4-5 months → may not be available before 1st pandemic wave
- ✿ There will be vaccine shortages initially
- ✿ 2 doses may be necessary to ensure immunity



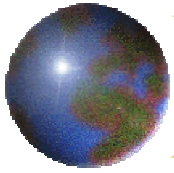
What can the private sector do?

- ❖ Establish an ethic of infection control in the workplace now
- ❖ Contingency plans to maintain services
- ❖ Mechanisms for employees to work from home
- ❖ Partner with other businesses to provide mutual support to maintain essential services during pandemic



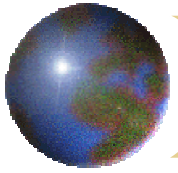
What can you do?

- To protect yourself and your family?
 - Have a plan
 - Infection control
 - Stockpile food and supplies
 - See Family Flu planning checklist

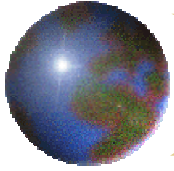


Best Protection: Infection control

- The use of normal infection control measures in a pandemic setting is questionable, priorities should include:
 - Droplet transmission precautions
 - Masks
 - Cohorting of patients
 - Isolation

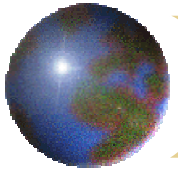


WASH YOUR HANDS
&
COVER YOUR COUGH
&
DON'T GO TO WORK SICK



Are We Ready?

- ❖ Can we ever say we are 100% prepared?
- ❖ But working together collaboratively we are confident that we can respond effectively to any emergency in Portage County
- ❖ We have the support of one another



For More Information

✚ Portage County Health Department

330-296-9919

✚ www.co.portage.oh.us/dept/health

✚ www.cdc.gov Centers for Disease Control

▣ www.pandemicflu.gov

✚ www.who.int/en World Health Organization