Pandemic Flu: What To Know and What To Do

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What causes pandemic flu?

- Appearance of a new flu virus
- New virus passes easily from person to person
- Few, if any, people have any immunity
- This allows it to spread widely, easily and to cause more serious illness
Wild aquatic birds are the main reservoir of influenza A viruses. Virus transmission has been reported from wild waterfowl to poultry, sea mammals, pigs, horses, and humans. Viruses are also transmitted between pigs and humans, and from poultry to humans. Equine influenza viruses have recently been transmitted to dogs. (From Fields Virology (2007) 5th edition, Knipe, DM & Howley, PM, eds, Wolters Kluwer/Lippincott Williams & Wilkins, Philadelphia. Fig 48.1)
Reassortment in pig

Migratory water birds
Reassortment in humans

Migratory water birds
Big droplets fall on people, surfaces, bed clothes

Courtesy of CDC
World Experience With Flu Pandemics
20th Century “Pandemic Flu”

1918: “Spanish Flu”
- 20-40 million deaths
- 20-40 million deaths

1957: “Asian Flu”
- 1 million deaths

1968: “Hong Kong Flu”
- 1 million deaths

1976: “Swine Flu”
- Turned out to be a limited outbreak and not a true pandemic

- This was not considered a true pandemic
Who’s Most At Risk for 2009 H1N1?

- Students in K-12
- 6 months or younger
- Pregnant woman
- Younger than 65 and underlying health conditions
- Healthy and 18-24 years
Containing Pandemic Flu
Methods to Reduce Transmission and their Impacts

- Education
- Isolation
- Social Distancing
- Personal Protective Equipment

- Vaccines and Anti-virals
How do antiviral drugs work?

• Prevents the flu virus from rapidly reproducing
• Treatment can shorten the illness by a day and reduce hospitalizations by an estimated 50% (based on seasonal flu)
• To be effective, must be taken within 48 hours of the onset of flu symptoms
Vaccines

- Trigger immune cells to recognize and remember the flu virus
- 4 to 6 months to produce, or longer
- Unlikely to be available during the early stages
- Will immunize whole population as soon as possible
- Vaccines will be given according to nationally agreed priorities
2009 H1N1 Vaccine Target Groups

- Pregnant women
- Household contacts and caregivers for children younger than 6 months old
- Healthcare and emergency medical services personnel
- All people from 6 months through 24 years of age
- People aged 25 through 64 years with chronic health conditions (including asthma, heart disease, diabetes, HIV, and other disorders)
What You Can Do To Prevent the Flu

– Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it. If a tissue is unavailable, cough or sneeze into your shoulder or elbow instead of your hands.
– Wash your hands often or use hand sanitizer.
– Avoid touching your eyes, nose, or mouth.
– Get the seasonal flu vaccine and/or the 2009 H1N1 flu vaccine, if recommended.
– Try to avoid close contact with sick people.
– Keep sick children at home.
– If you have flu-like symptoms (fever with cough or sore throat), stay home for at least 24 hours after you are free of fever without the use of fever-reducing medications.
THE Sources of Accurate Information

- www.flu.gov
- http://health.utah.gov/epi/h1n1flu/