

1. Title Slide	Welcome Statement
2. Agenda	The presentation and discussion today will cover the following subjects: An overview of influenza, the sickness commonly known as the “flu.” Definition of, and a deeper look at the history of pandemic influenza. We will talk about one particular strain of the flu, the H5N1 avian flu, which is causing concern in Asian and Europe right now. And finally, the presentation will discuss how families and communities can prepare themselves for an influenza pandemic, or any large scale disaster.
3. Influenza Overview	Influenza is different than what people commonly call the “stomach flu.” The “stomach flu” may be a bacteria or a virus, and though you may have a fever, and aches, usually only impacts the digestive system. Influenza, in contrast, is a respiratory illness, that is always caused by a virus. Flu is spread through what is known a “droplet transmission” or coughing, sneezing, and then touching items that are covered in those droplets. People infected with the flu can spread it 1-2 days before they know that they are ill, and during the first 7 days of illness.
4. Photo	This is a photo of the respiratory “droplets” that can spread the flu.
5. Seasonal Influenza	Every year, we have a “flu season.” Different strains of flu are spread throughout the community, and while most people recover within 7-14 days, some people become seriously ill from the seasonal flu. Every year in the United States, 36,000 people die as a result of the flu, 200,000 people are hospitalized. The flu costs the US \$10 billion in health care costs. It is important to repeat that most healthily people do recover from the flu in 1-2 weeks. The best way to prevent getting the seasonal flu, and this is especially important for people who may have existing health problems, or work in schools or hospitals, is to get a flu shot every year.
6. Avian Influenza	Not just humans are susceptible to the flu, other mammals like dogs, pigs, horses, cats, and birds can also become infected with different strains of the flu. Right now, the World Health Organization is particularly concerned with a strain of flu that is in birds. Birds are what is called the “natural reservoir” for influenza, all strains of flu originate from birds. They may have changed over time, but at some point all types of flu were in a bird. Like humans, birds get a respiratory infection from influenza, and can be spread between wild and domestic birds. All birds can carry the disease, and we can attempt to control the disease in birds through vaccination and separating domestic birds from wild birds. Also, if birds are infected, they are often culled, or destroyed.

7. Avian Influenza H5N1 Virus	The flu virus that has been in the news lately is a specific strain called the H5N1 virus. This strain has been devastating to birds in Asia, Europe, and now Northern Africa. Over 200 million domestic birds have been killed throughout regions with infected birds. In limited, circumstances the H5N1 virus has infected humans, and when infected with this strain of flu, human become very sick, and often die. Over 50% of humans who have become infected with the H5N1 virus have died.
8. Bird to Human Transmission	Human can get the H5N1 flu virus in a few different ways. Through contact with the feces of infected birds, handling infected birds, eating raw infected poultry or ingesting raw blood from poultry, disposing of dead infected birds, contact in bird markets, children have been infected through playing with infected birds.
9. Humans and H5N1	The first case was diagnosed in Hong Kong in 1997, and the majority of cases have been in the last 2 years. As of August 10, 2006 there were 236 confirmed cases of H5N1 in humans, and 138 deaths. The virus cannot be effectively transmitted from one human to another, but the more virus that exists in birds and humans, the greater the opportunity for the virus to mutate and become easier to spread from human to human.
10. Asian Regional Map	This map shows the places where H5N1 exists in domestic poultry and wild birds. The red squares show places where humans have become infected with the virus.
11. Pandemic Influenza	In light of the spread of the H5N1 virus in birds throughout the world, the issue of a global outbreak of the flu is on the minds of many people in the scientific community. A pandemic is defined as a global outbreak of disease that spreads rapidly and effects may people worldwide. Many health officials believe that it is not a matter of if there will be another flu pandemic, but when.
12. Conditions of a Pandemic	In order for a disease, like the flu to be called a pandemic, it has to meet specific conditions. It must be infectious to humans , cause serious illness, and be easily transmitted from human to human. Right now, the H5N1 virus has the top two conditions, but is not transmittable between humans,
13. WHO's 6 Stages of a Pandemic	The World Health Organization has been monitoring the current risk of a pandemic, and we are in pandemic alert stage 3 with no or limited human to human transmission.
14. Pandemic of 1918-1919	A historic look at the greatest influenza pandemic in recent history, the pandemic that happened in 1918 through 1919, helps us understand the issue of pandemic influenza, and how it may impact individuals and communities. This pandemic was responsible for at least 40 million deaths worldwide. Because of the nature of this particular strain of flu, many of

	<p>the people that died were in their 20's to 40's, and it is estimated that as many of 8 to 10% of all young adults alive at that time were killed in the influenza pandemic. More people died in a year than were killed by the Plague in the Middle Ages, and more people died in 24 weeks than AIDS has killed in 24 years.</p>
15. Photo	<p>This is a photo of World War I army barracks full of soldiers ill with influenza. It is thought that the influenza of 1918 perhaps originated in Kansas. It is known for certain that soldiers in WWI were often victims of the flu, and their close living quarters helped spread the disease.</p>
16. Photo	<p>Again, soldiers with the flu, lined up on cots.</p>
17. Photo	<p>Police officers wearing masks during the 1918 pandemic. It is unknown if these types of surgical masks protect people from catching the flu, but like the more recent SARS outbreak in Asia and Toronto, masks were common sight during the pandemic.</p>
18. Photo	<p>This man in being denied passage on the streetcar because he is not wearing a mask.</p>
19. Photo	<p>A public health sign that attempts to control the spread of disease in the community.</p>
20. Photo	<p>In an attempt to stop the spread of disease many public gatherings were canceled during the pandemic.</p>
21. Other 20 th Century Influenza Pandemics	<p>There have been other, more mild pandemics in the 20th century.</p>
22. WHO	<p>The spread of the H5N1 virus prompts the World Health Organization to report that the world may be on the brink of another pandemic of influenza.</p>
23. What might pandemic flu look like in my community?	<p>So what might pandemic flu look like? As evidenced by past pandemics, illness comes in "waves" and can last weeks to months. People may be asked to practice "social distancing," limiting contact with others, and maintaining a distance of 3 feet from others. Public gatherings may be canceled, and daily life may be disrupted with school and or work closings.</p>
24. Economic Implications	<p>Economically, borders may be closed. It is estimated that up to 30% of people may be out of work at any given time, ill or caring for sick relatives.</p>
25. Health Implications	<p>Given the large number of sick people there may not be enough medical supplies. Hospitals and clinics would be overwhelmed, and as a result of the flu significant numbers illness and death would occur.</p>
26. Projections for US during a Pandemic	<p>These are projections of death and illness for the United States the Ramsey County populations, based on a moderate and severe influenza pandemic. This medical care and</p>

	hospitalization is on top of current needs, so you can see how the health care system could be easily overwhelmed. Excess ventilators are in short supply, with 85% currently in use every day.
27. Seasonal Flu Prevention Strategies	So how can you prevent getting the flu? It is important to practice good hand hygiene, cough into your arm, and wash your hands often with soap and water. If you are sick, practice social distancing, stay home, and stay an arms length away from others. Getting a flu vaccine every year is also a great way to protect yourself from the flu.
28. Pandemic Flu	Primarily, good hygiene will be very important in slowing the spread of the flu. Additionally, social distancing measures will be encouraged. This may include on-line banking, meetings by phone, and working at home for those that can. Isolation and quarantine may be used. Isolation separating from the general population people that are already ill, and quarantine is separating people from the general population that have been exposed to illness. In recent history both were used with the SARS outbreak in Toronto, and done on a voluntary basis. If disease becomes widespread in a community, quarantine will most likely not be used.
29. Other Methods of Protection	Other methods of protection from flu are masks; the one in the photograph is called an N95 mask, and would be used for those with direct patient care. A limited supply of vaccine may be available for use, with priority going to those in health care and other “essential services.”
30. “In a pandemic...”	For individuals and communities, the best way to ensure the safety of your family and your community is to prepare.
31. Mental Preparations	The most important preparation that you can make is to believe that preparations are necessary. Think about events of the recent past, 9/11, Hurricane Katrina. How would you, your family, your community have reacted to those events. Or think about other disasters, floods, fires, or tornadoes. Disasters do happen in Minnesota, they impact real people, and if you are prepared they will impact you, you family, and your community less.
32. Principles of Preparation	Preparation for disasters, or an event like a pandemic is a continuous process, and it works if you take frequent small steps. Though pandemic flu is the focus of this presentation, it makes sense to prepare for all types of disasters.
33. How can I prepare?	As shown by recent disasters, namely the Hurricane Katrina, when faced with a large disaster, the government will not be able to immediately respond to all effected people. It is the responsibility of individuals to prepare for emergencies. You can prepare by making an individual or family plan, and putting together an emergency supply kit.

34. Family Communication Plan	A family communication plan will help your family communicate in the event of an emergency. This card (hold up form) can be filled out, and each family member should carry it with them in their wallet, or in their backpack. If you have children, talk to schools, and daycares about their emergency plans. Likewise if you have elderly or handicapped relatives, or family members in a nursing home.
35. Emergency Kit	An emergency kit can help you prepare for emergencies. This (hold up pamphlet) list can be a guide to what to include in that kit. It is recommended that for all emergencies you should have at least 72 hours worth of food and water for all people. For pandemic preparedness, this may be longer, 2-3 weeks worth per person.
36. Special Needs	Special populations need special consideration. Infants, adults with medical needs, and seniors all have specific needs that need to be thought about when planning for emergencies.
37. Special Needs	Pets also need to be included in emergency plans. Extra food, and care plans should be considered.
38. Financial Records	It is also important to organize financial and other records in the event of an emergency. There is a resource here from FEMA that is included in the "Internet Resources" handout. Have a safe place where you can access important records such as bank accounts, social security numbers, medical information such as height and weight for all family members, and medical insurance information.
39. Emergency Preparations	Most importantly in preparing for an emergency, make the preparations work for you and your family. The provided brochures, and sheet on "Internet Resources" can help to guide your personal preparedness activities.
40. Community Preparations	In addition to individual and family preparedness, it is vital that communities begin to have conversations about emergency preparedness. Individuals can become more involved in community preparations by getting to know their neighbors, in particular those that are elderly, isolated, or have disabilities. People can serve their community by taking a first aid class, or becoming involved in Medical Reserve Corp. the Red Cross, other citizen preparedness groups. If anyone would like more information on these groups you can see me after or contact Ramsey County Public Health.

41-2 Community Preparations	Facing pandemic flu, individuals can take specific steps to prepare. Government, at the federal, state and local level is working hard at planning and preparing for many types of emergencies, including an influenza pandemic. Still, there are many issues that need to be thought about on the community level. Where would kids go if schools, rec centers and day cares closed? How would communities worship if services were canceled? Who are the people in your community that would need extra help in the even of a pandemic? What can your community do now to help prepare all people in your community for an emergency?
-----------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------