

Recent News and Local Planning and Preparation
For a Potential Pandemic Influenza
(Through February 16, 2007)

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Note to Readers

The Lincoln-Lancaster County Health Department and our state and local partners have been planning and preparing for a possible pandemic for just over a year. Our message has been that everyone (individuals, families, businesses, schools, hospitals, government agencies, the faith communities and community organizations) has a role in preparing in order to minimize the adverse consequences of a pandemic (sickness, mortality, economic and social disruptions).

Have you begun making plans yet? If not, there's information available on this webpage and at www.pandemicflu.gov to assist and inform you about local, state and national preparations for the next influenza pandemic. If you've begun planning, these pages provide updated information that may be valuable in your efforts.

Pandemic Influenza Status

The World Health Organization (WHO) continues to designate the current situation as being Pandemic Phase, Level 3—No or very limited human-to-human transmission. There has been no change in

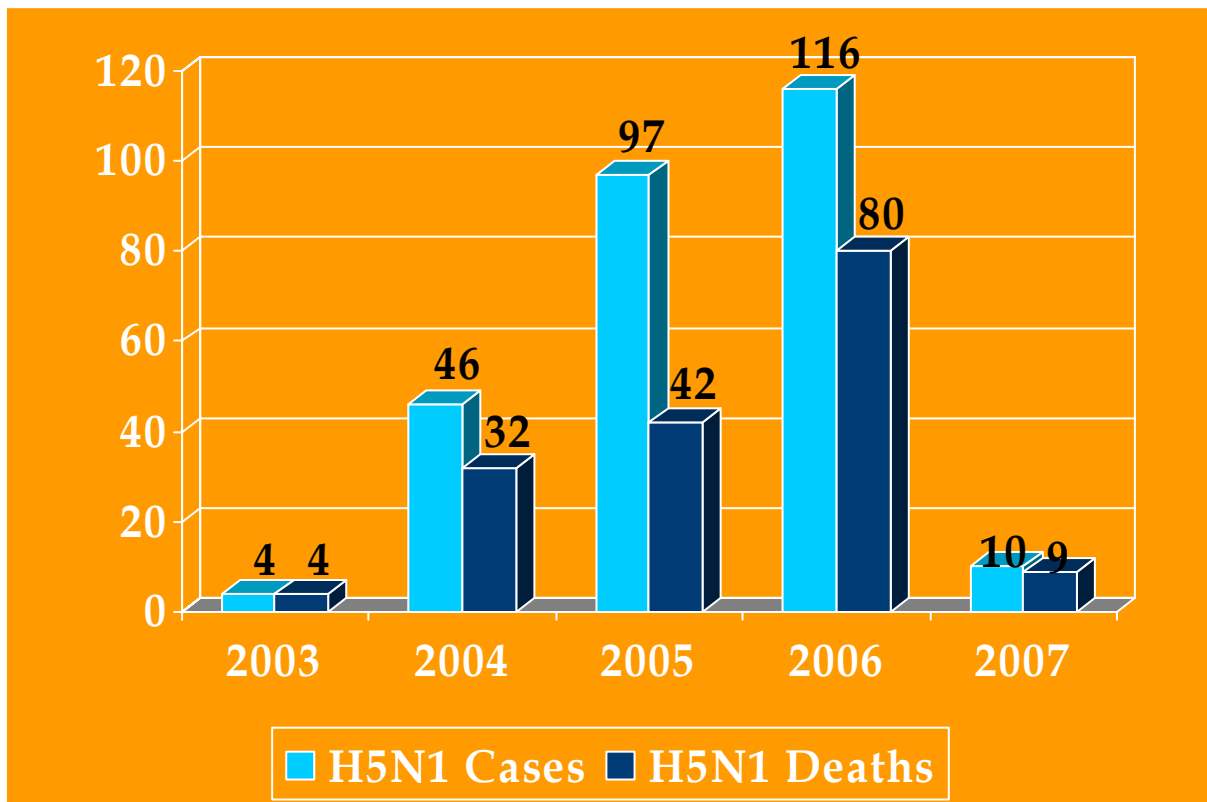
the alert status—the world is on alert but there currently is no pandemic. Under the World Health Organization’s (WHO) phasing system, the world is still in **Phase 3, Pandemic Alert** status. The WHO characterizes this phase as “**No or very limited human-to-human transmission**” of a new or novel strain of influenza. Except for a family cluster in Sumatra in early 2006 where human-to-human transmission occurred and a few other suspect incidents of person-to-person transmission within a family; the vast majority of the humans diagnosed with avian influenza (H5N1) have contracted it from close contacts with infected birds, not through human-to-human transmission. Even where family members have contracted the disease from another person in the family, the virus has not infected health care workers or persons not in close contact with patients who have bird flu (H5N1).

Despite the relatively small number of human cases and the inability to the H5N1 virus to be easily transmitted from person to person, many scientists feel that the next influenza pandemic (a worldwide epidemic of a new influenza strain which is easily transmitted and against which few people have any immunity) is inevitable. It may not be H5N1, but another novel flu virus (perhaps H7 or H9) could become a human virus that spreads easily. In a sense, the world is overdue for the next pandemic since the last pandemic flu was in 1968-69 and there’s history of roughly three pandemics per century. Given the incidence of H5N1 influenza in Asia, and its expansion to the Middle East, Africa and Europe, there’s a concern that this virus may become the next pandemic flu. First, it must mutate to become easily transmissible and that mutation thankfully hasn’t happened.

Human Cases. In addition to the fact that avian influenza (H5N1) is responsible for the death of millions of birds, H5N1 has also killed 166 of the 272 humans who have contracted the disease. All but a few contracted H5N1 directly from sick birds. After a lull in new human cases in November and December of 2006, there have been 10 new cases in 2007; and 9 of the 10 have died. Updates can be found at online at http://www.who.int/csr/disease/avian_influenza/en/.

As of February 16th, 2007, 167 of the 273 people diagnosed with H5N1 (avian flu) since 2003 have died from the disease. The 2007 cases have been in Indonesia (6), Egypt (3) and Nigeria (1), and all

cases have been fatal except for one Indonesian case. The overall mortality rate is 61% based on 2003 through 2007 numbers, while the mortality rates in 2006 (69%) and 2007 (90%) are higher. (See the following chart for a display of human H5N1 cases and deaths.) Nevertheless, it's considered unlikely that a human pandemic virus would have such a high mortality rate. The 1918 "Spanish flu," which is the worst pandemic on record, had a mortality rate of just over 2 percent in the U.S., and that is the pandemic we are using as our "worst case" scenario for pandemic planning.



Avian Flu (H5N1) in Birds. While humans have never experienced the full range of influenza A subtypes, birds have been known to have been infected with all possible subtypes (some combination of the possible surface proteins—there are 16 Hs and 9 Ns). Some avian influenza viruses have very limited effects. The highly pathogenic avian influenza (HPAI), H5N1 virus, has proven to be the most destructive virus to ever affect the bird population. HPAI H5N1 or the "Asian strain of H5N1" kills most domestic poultry (chickens, ducks and geese) and some wild swans and ducks. Other wild birds seem to tolerate the virus, and migratory birds may spread the disease.

There's been a rather active debate as to whether wild birds pose a problem, and the consensus seems to be that the biggest danger is imported live poultry or mishandled bird carcasses. The latter is being implicated as a potential source of the H5N1 virus in the case of the British turkey farm discussed below.

H5N1 is now considered to be endemic in the bird populations in many Asian and Far Eastern countries; and it has reappeared in late 2006 and early 2007 in bird populations in South Korea, China, Thailand and Vietnam. Many of these countries had once thought they had all but eliminated the disease through culling, other protective procedures and vaccination of birds. Most recently, during the first week in February 2007, H5N1 was found on a turkey farm in Great Britain, resulting in the death of 159,000 birds by culling. The reemergence of H5N1 in bird populations and its expansion to new areas, even without corresponding human cases in those countries, heightens the worries of those who think that H5N1 poses as the greatest threat to become the next pandemic flu virus.

Monitoring and routine testing of both wild and domestic bird flocks in the United States has not resulted in the discovery of the Asian strain of H5N1 (see: <http://wildlifedisease.nh.gov/ai/>). Nevertheless, U.S. wildlife officials will continue to test for H5N1 in the North American bird population. Ducks, geese and swans in several states have been shown to have either a "low pathogenic" avian influenza (LPAI) strain of H5N1 known as the "North American strain" of H5N1. In some cases where it appeared initial test results found H5 and N1 proteins, further testing did not confirm those results. While the Asian strain of H5N1 makes domestic birds very sick—it is very virulent and usually fatal—the North American strain (LPAI) of H5N1 may cause only minor sickness in birds. Nevertheless, as a precaution, hunters should be cautious in handling birds they've shot—washing hands after skinning or touching wild game birds. When cooked, it is recommended that birds should be cooked until a meat thermometer used properly indicates at least 165 degrees.

Bird Flu in Other Animals. Other mammals can contract H5N1, and there is some concern that mammals with the disease might be the source of a mutated virus that will cause the pandemic in humans. A dog in Thailand was confirmed to have contracted HPAI H5N1 so

dogs have now been added to the list of animals (e.g., tigers, porpoises, cats and martens) contracting H5N1 from eating, or being in close contact with, infected birds. In fact, as many as 20% of cats in Indonesia have been determined to have H5N1 antibodies in their blood, meaning that they may have been infected with the disease by eating dead chickens. While no cat has been known to shed the flu virus directly to humans, they might be the intermediary in the mutation of a bird virus into a form that is easily transmitted from person to person.

Fear of Complacency. While H5N1 has largely been out of the headlines until the recent incidence on the British turkey farm, many Americans may have become complacent about the possibility of a pandemic. (A recent New York Times article made the same conclusion: <http://www.nytimes.com/2007/02/15/health/15avian.html>.) The news media has understandably focused on other health issues (including the seasonal flu) or events such as the E. coli, salmonella and winter storms; and the general public has many more pressing issues. Moreover, there's no certainty that H5N1 will become the next pandemic virus. With no immediate threat it may seem like maybe we can put off planning. That would be a big mistake—it's better to prepare now, even if the event may never happen, than to be caught unprepared if it does.

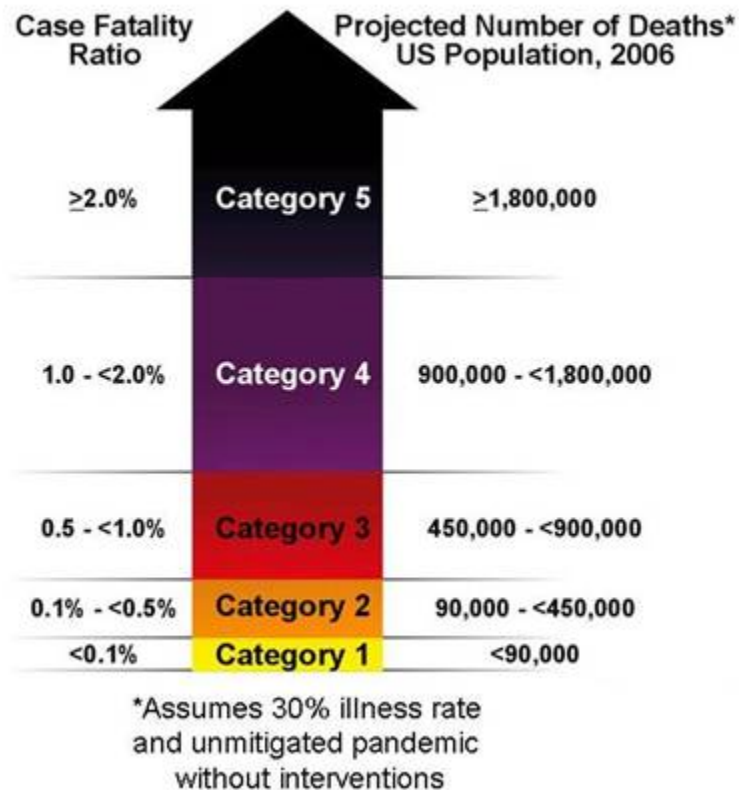
Even if a pandemic is farther away than a few years, the time to plan and prepare is now, not later. And, as opposed to those other threats, the impact of a pandemic flu is much more dramatic and widespread; and potentially much more devastating to our community's health, social functioning and economy. Both federal and state authorities have warned all U.S. communities that we are likely to be "on our own" once a pandemic begins. However, in a worst case scenario, if a pandemic strikes, especially in the near term, no amount of planning and preparation may be enough to minimize the impact on Lincoln and Lancaster County. No local agency has the resources to address every potential impact of a fairly severe pandemic. We can, however, lessen the adverse effects if we get our plans in place. Once the plans are drafted, they can be exercised and updated every year the pandemic is put off. In a best case scenario, we'll plan and prepare and there won't be a pandemic, or its effects will be minor.

CDC's Categorization of Pandemics and Mitigation Strategies

The Centers for Disease Control and Prevention (CDC) has recently provided guidance for the use of nonpharmaceutical measures (also called "social distancing") in their publication entitled **Community Strategy for Pandemic Influenza Mitigation**, posted February 1 (<http://www.pandemicflu.gov/plan/community/commitigation.html>) on www.pandemicflu.gov.

Of value for planners is the categorization of pandemics as the measures recommended to be taken in the case of a severe pandemic should be quite different than those in the case of a mild pandemic (i.e., one that doesn't cause excess or high numbers of mortality). The categories are shown on the following diagram with Category 1 (less than 90,000 projected deaths) being the mildest and Category 5 (1.8 million or more deaths) being the worst. If past pandemics had been categorized, the "Asian flu" of 1957-1958 and the Hong Kong flu" of 1967-1968 would have been Category 2 pandemics; the "Spanish flu" of 1918-1919 would have been a Category 5 pandemic.

The concept of categories to rank pandemics is a good way to communicate to the public about the seriousness of the disease since everyone is somewhat familiar with categories of hurricanes (category 5 is much more severe than category 1).



Depending on the categorization of a pandemic influenza virus (based on a determination of its symptoms, incubation and transmission properties and virulence) communities may need to adjust the intervention strategies (isolation and quarantine, school and business closure, changes in work practices) and their degree while we wait for a vaccine to be produced. As you can see, some tactics such closing schools for up to 3 months in a Category 4 or 5 pandemic might create serious hardships, and therefore the tactic needs further discussion in our community as we work on local plans.

Interventions* by Setting	Pandemic Severity Index		
	1	2 and 3	4 and 5
Home			
Voluntary isolation of ill at home (adults and children), combine with use of antiviral treatment as available and indicated	Recommend †§	Recommend †§	Recommend †§
Voluntary quarantine of household members in homes with ill persons † (adults and children); consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient	Generally not recommended	Consider **	Recommend **
School			
Child social distancing			
-dismissal of students from schools and school based activities, and closure of child care programs	Generally not recommended	Consider: ≤4 weeks ††	Recommend: ≤12 weeks §§
-reduce out-of school social contacts and community mixing	Generally not recommended	Consider: ≤4 weeks ††	Recommend: ≤12 weeks §§
Workplace / Community			
Adult social distancing			
-decrease number of social contacts (e.g., encourage teleconferences, alternatives to face-to-face meetings)	Generally not recommended	Consider	Recommend
-increase distance between persons (e.g., reduce density in public transit, workplace)	Generally not recommended	Consider	Recommend
-modify, postpone, or cancel selected public gatherings to promote social distance (e.g., stadium events, theater performances)	Generally not recommended	Consider	Recommend
-modify work place schedules and practices (e.g., telework, staggered shifts)	Generally not recommended	Consider	Recommend

Local Planning Efforts. Federal funds have been allocated to states and localities to assist in planning for a potential pandemic so we will not be caught totally unprepared. We have used the funding to increase public awareness about pandemic influenza, to draft a plan and to exercise how to respond to a pandemic scenario with our community partners. If we put off planning until there are cases of a pandemic flu, it will definitely be too late to prepare. Scientists estimate that once the new flu virus becomes efficient in infecting human beings anywhere in the world a pandemic flu will likely circle the globe within three months; and, once it appears anywhere within the U.S., it will cross our nation within two weeks time. Well thought

out and exercised plans might make any future pandemic less burdensome, and preparations for a pandemic should prove useful in many other events, such as ice or snow storms, or disruptions in normal services due to natural hazards.

Awareness Activities. From the very beginning the Lincoln-Lancaster County Health Department's pandemic flu planning efforts have been focused on making residents of Lincoln and Lancaster County aware of the potential impact of a pandemic. Department representatives have made numerous presentations and provided information to the general public, local businesses and public and private agencies to be sure they have a plan in place to lessen the potential adverse effects of a pandemic on the community. Staff members from the Department have now given almost 100 presentations and more are being scheduled.

The Department continues to welcome calls from groups wishing to have a pandemic presentation. Call Mark Hosking, Pandemic Flu Coordinator, at 402/441-6204 to make a request and he will see if we can accommodate the request.

LLCHD's Community Pandemic Coordinating Committee. The Community Pandemic Coordinating Committee met as a whole on October 12th in the Health Department's training center. Just over 100 people were in attendance. After discussion of some of the overall planning, the Coordinating Committee was broken up into work groups to discuss issues from various perspectives, and to get feedback on the draft plan that had been distributed to them. It was a very productive day as evidenced by the work products developed. The Board of Health was provided an update on the Plan at their December 12th meeting.

Since then, we have worked with subcommittees of the overall planning group to enhance their plans. We met with representatives of the utility groups in January, and a meeting of our health partners is scheduled for this week. The next step is to make changes in the draft plan to address the issues and comments received from the reviewers. We are in the process of revising the plan to address the issues and recommendations that were raised at the October 12th meeting and subsequent subcommittee meetings.

City Website, InterLinc. One of the ways we inform the community about our local planning is via the Internet. The Health Department uses the City's InterLinc website, www.Lincoln.ne.gov, as a means to get information out to the public. Readers may have noted our featured box where the latest news updates and items of note are highlighted. An easy way to find information from the InterLinc homepage is search for "flu" or "pandemic."

General Prevention Practices. While we plan and prepare for a potential pandemic, this is a reminder that we are in the midst of the normal seasonal flu season. On average, seasonal flu results in 200,000 hospitalizations and 36,000 deaths in the United States so please don't ignore the impact of seasonal or "common" flu.

Practices that will help us all avoid the seasonal flu or other germs and viruses will also be our recommendations in a pandemic:

- Wash your hands properly (wash your hands in warm water with soap for 20 seconds) or use a hand sanitizer when water is not available. Wash your hands often.
- Avoid crowds and stay a safe distance (3 feet or more) from someone who's sick. (Wash your hands often if you share a computer or touch items others touch.)
- Stay home from work or school if you are sick,
- Cover your cough or sneeze with your sleeve or tissue. Dispose of the tissue after use to prevent being re-contaminated.

These practices, along with having as many families as we can convince to have a couple of weeks of food and water (and necessary medicines) stockpiled, will go a long way in early prevention efforts such as self isolation. More than two weeks would be better, but two weeks will allow families to make it through other emergencies, too, so that's an easier sell. There's a list of items that should go into the stockpile on our website or on under the individual and family checklist available on www.pandemicflu.gov.

NOTE to Readers.

Visitors to our website are asked to complete a short survey if you have the time—your feedback is appreciated as it will help us know

more about your needs and interests related to pandemic and avian flu.

Also, since the Latest Update on this website truly only covers the latest activities, which generally means what has happened during the last month or so, anyone who is interested can use the Archive link to follow local planning activities since November 2005.