



Pandemic Influenza: **Where Are We Now?**

A NATIONAL UPDATE
By Barbara B. Citarella

It has been a little over a year since the National Association for Home Care & Hospice (NAHC) took the initiative and conducted the first National Pandemic Flu Conference for Home Care and Hospice. While the pandemic influenza doesn't exactly make headlines anymore, it is creating more worldwide concern as each day goes by. Last year the avian flu was only in 10 countries. Now, it is in 55 countries. The worldwide number of cases of avian flu as of April 10, 2007 is 291, with a death toll of 171. The mortality rate still remains high. It is over 58 percent.

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As the apprehension about an upcoming pandemic influenza is mounting, the push is on in the United States from all levels of government, (federal, state, and local) to get prepared and get prepared quickly. Every state has a pandemic influenza plan, and while every plan is different, there are some components that are relatively consistent. Every state struggles with resolution of the same main issues:

- Providing care to all those who need it.
- Having enough resources.
- Keeping essential personnel healthy.

WHERE ARE WE NOW?

As monitoring and surveillance continue to be the first line of defense, we are still monitoring migratory birds in the United States. We have tested over 35,000 birds and still have no evidence of H5N1 in this country. Government agencies continue to trend data from nationwide syndromic surveillance programs, looking for signs and symptoms of any and all outbreaks. Some surveillance programs, such as that from the Department of Defense, look at data in real time.

ANTIVIRAL MEDICATION AND VACCINE

Part of the preparation for a pandemic is based upon the use of antiviral medications and vaccine development and distribution. In the last year, a vaccine registry has been developed to assess vaccine distribution, safety, and efficacy once the capability to develop a vaccine occurs. Over one billion dollars has been devoted to vaccine research. Every state has a vaccine distribution plan. Some states have taken that plan down to the local level. Among them is Indiana, which has included all of its 92 counties in such a distribution plan. Relenza and Tamiflu are being accumulated in the Strategic National Stockpile. At a minimum, \$782 million dollars has been allocated for this purpose. There are 36 million courses of antiviral medication available as of March 2007. It is anticipated that by the end of

2008, there will be 50 million courses of antiviral therapy. This will account for 25 percent of the country's population.

PERSONAL PROTECTIVE EQUIPMENT

The spread rate of a pandemic is expected to be two days per second. At that rate, by day 85 of a pandemic, virtually every country in the world will have approximately 3 percent of its population ill with the flu. It is no surprise then that the use and stockpiling of personal protective equipment is paramount. There are currently 73.1 million N95 respirator masks in the Strategic National Stockpile. An additional 31.8 million masks are on back order.

However, federal and state agencies continue to disagree on the type of mask to be used in an influenza pandemic. CDC is recommending the use of a particulate respirator, such as an N95 particulate respirator mask (as part of Standard Precautions). The National Pandemic Implementation Plan from the Department of Health and Human Services calls for the use of a surgical mask. Some state health departments have sent out memorandums recommending surgical masks. Most of the agencies in the home health and hospice industry are planning to use N95 respirator masks. It is anticipated at some point, as the pandemic influenza moves through in waves, that eventually the supplies will be exhausted.

The avian flu not only has a high mortality rate, but over 50 percent of people infected with H5N1 require mechanical ventilation. In an effort to meet the ventilator needs, 25 million dollars has been designated towards the stockpiling of ventilators. Even with this major effort to meet the person protective equipment (PPE) needs, there is movement underway at all levels of government, to begin setting guidelines to triage the use of PPE and ventilators. New York is one of the first states to develop a triage classification system to determine allocation eligibility for patient ventilator placement. Many of the triage systems being discussed nationwide are based on Canada's experience with severe acute respiratory syndrome (SARS).

As states begin exploring options and plans for rationing of supplies, many are using ethicists to help develop policies, procedures, and processes. State and federal government agencies are cognizant of the short and long-term effects that rationing will have on families, communities, health care providers, and first responders. These agencies also understand the need to be good stewards of our resources. Hurricane Katrina has demonstrated how quickly resources are consumed in a disaster.

NON-PHARMACEUTICAL INTERVENTIONS

The Centers for Disease Control and Prevention (CDC) has issued guidelines for non-pharmaceutical interventions (NPI). The 1918 pandemic was contained with non-pharmaceutical intervention. These interventions primarily include social distancing activities such as:

- Closing schools;
- Canceling public gatherings;
- Voluntary isolation;
- Voluntary quarantine; and
- Liberal work policies.

The purpose of these activities is not only to impede the spread of the flu, but to minimize the number of cases and perhaps delay the peaking of the outbreak. NPI can create some concerns for continuity of services and care. Social distancing has an impact on businesses, revenues, and human resources. The closing of schools will force some employees to remain at home and care for their families. Closed businesses may mean an inability to obtain necessary supplies.

In addition to just the physical logistics of the situation, many organizations are really grappling with the effect NPI has on personnel policy development. Some issues that continue to be problematic are working from home, communications among personnel, return to work policies, sick leave, no more sick leave left, antiviral use for employees, continuing health care benefits, and most importantly, continuing payroll for employees who must remain at home to care for their families. While the document from the CDC is only a guideline, it does make one begin to think about some very critical issues that each organization will have to answer.

INCLUSION OF HOME CARE AND HOSPICE IN PANDEMIC PREPAREDNESS

The home care and hospice industry has been written into the response plan of some states, such as Washington, New Mexico, New York, and New Jersey. These states have received some grant funding (to the state home care associations) for pandemic influenza education. In each of these states, the state department of health emergency disaster planners and pandemic influenza planners have attended and participated in these programs. The visibility and accessibility of these state planners have helped them to understand better the home care industry and its role in a disaster.

Likewise, home care and hospice agencies have gotten not only a better understanding of their local and state plans, but also have a clearer understanding of their importance and role in disaster preparedness. The state of North Carolina, with its impressive out-of-the-box thinking, and entrepreneur-like disaster planners (North Carolina State Medical Response System) has made an exciting push forward to incorporate home care and hospice into its state teams. These teams will be utilized and deployed for use not only throughout the state, but on their mobile units as well. These mobile units can provide care and even perform surgery, as well as having the ability to cohort patients in the event of a pandemic influenza.

In addition, home care and hospice agencies will be included in the use of the national mandatory triage tags. Those tags, which are bar coded and have a large plastic storage bag for personal items such as medications, will also have a sticker for home care personnel to place on their patients' doors in the event of an evacuation. The North Carolina State Medical Response System (NCSMRS) has committed resources, set up all day education programs, and will be establishing memorandums of understandings with the home care and hospice agencies. This model is based upon their on-site experience in Mississippi with Hurricane Katrina. That experience has led to including the entire health care system in their state plan.

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The Department of Homeland Security, being Hurricane Katrina-sensitive (and in its effort to include a pandemic response) has taken on the incredible task of rewriting the National Response Plan (NRP). The NRP is an all discipline, all hazards plan for the management of domestic incidents. It was established in response to Homeland Security Presidential Directive 5. It requires the Department of Homeland Security to coordinate with other federal departments and agencies such as local, state, and tribal nations to establish a National Response Plan and a National Incident Management System. (NIMS)

The draft document containing the new revisions will be available for review sometime in the fall. Revisions have been made to many of the support functions such as mass evacuation, health, companion animals, and the definition of special needs. Now, for the first time, home care and community care is included in the draft of the National Response Plan.

Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO

COUNTRY	YEAR										TOTAL	
	2003		2004		2005		2006		2007		CASES	DEATHS
	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS		
Azerbaijan	0	0	0	0	0	0	8	5	0	0	8	5
Cambodia	0	0	0	0	4	4	2	2	1	1	7	7
China	1	1	0	0	8	5	13	8	2	1	24	15
Djibouti	0	0	0	0	0	0	1	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	16	4	34	14
Indonesia	0	0	0	0	20	13	55	45	6	5	81	63
Iraq	0	0	0	0	0	0	3	2	0	0	3	2
Lao People's Democratic Republic	0	0	0	0	0	0	0	0	2	2	2	2
Nigeria	0	0	0	0	0	0	0	0	1	1	1	1
Thailand	0	0	17	12	5	2	3	3	0	0	25	17
Turkey	0	0	0	0	0	0	12	4	0	0	12	4
Vietnam	3	3	29	20	61	19	0	0	0	0	93	42
Total	4	4	46	32	98	43	115	79	28	14	291	172

Total number of cases includes number of deaths.

Who reports only laboratory-confirmed cases.

All dates refer to onset of illness.

Along with revisions to this document, there has been much attention given to groups that have special needs. The deficits in planning for people with special needs became so very apparent during Katrina. Many of these special needs groups receive home health and hospice care such as the elderly, people with an inability to read, those with limited proficiency in English, diverse cultural groups, children, medically fragile, and the transportationally disadvantaged. The Department of Homeland Security and its work groups have been incredibly dedicated and aggressive in carrying out this task.

The pandemic influenza continues to be very much on the minds and in the activities of the local, state, and federal government agencies responsible for disaster preparedness. Now, as an industry and as individuals, we too must move forward with a personal disaster plan and a business continuity plan. Being ready for the unthinkable may not only help our families and communities, but may just help to preserve our American way of life.

*Sources:

Centers for Disease Control and Prevention (CDC).
World Health Organization
North Carolina Department of Health
New York State Department of Health
Department of Homeland Security
OSHA. Guidance on Preparing Workplaces for an Influenza Pandemic



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