

All Politics, Pandemics, and Plans are Local

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As the threat of a flu pandemic becomes more of a possibility with each passing month, local health departments are busy preparing local flu pandemic plans. Local health departments tasked with the mission of protecting the public health have taken the lead in local preparedness for such an event. This is a daunting task.

North Carolina's local health departments were originally established in the early 1900s to help deal with significant communicable disease threats like typhoid, yellow fever, and tuberculosis. As these diseases were controlled with interventions such as improved sanitation, vaccines, and antibiotics, the infrastructure and funding support for these communicable disease programs drastically deteriorated. Most current local health department staff members have never dealt with a large, serious local epidemic of a communicable disease, and none have dealt with a true pandemic. This situation is analogous to a fire station that has not fought a fire in a very long time. With only limited state and federal government support, local public health departments have struggled to maintain or rebuild their epidemiology functions.

Federal bioterrorism funding provided to state public health departments since September 11, 2001 has somewhat improved this situation because the processes and interventions for bioterrorism are similar to those for other emerging infectious diseases of natural origin like a flu pandemic. Furthermore, North Carolina laws have been strengthened to help state and local departments deal with serious communicable disease threats. Also, local health department staff members have been trained in incident command system (ICS). The ICS emergency structure, initially developed by the United States Forest Service to fight fires, is now used by all types of emergency responders

during various incidents or disasters. For example, both hurricane Ernesto and the *Tall Ships* event in Morehead City used ICS in 2006. This system allows all emergency responders to speak the same language and to read from the same page when a crisis occurs.

The newest challenge for local health departments is to slow the onset and progression of an influenza pandemic within their communities until a vaccine is available. Although many in our society may expect a solution for pandemic problems to come from space-age science labs far away or from the Centers for Disease Control and Prevention, the truth is that the most powerful interventions will likely be basic sanitation methods that have proven themselves for thousands of years. During a pandemic, simple things like cough etiquette, hand washing, and social distancing can make the difference between life and death. Educating people with this critical information expeditiously and in an easily understandable format is one

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of our greatest challenges today. These interventions will be most effective if the behaviors are well ingrained among the population *before* the pandemic arrives.

North Carolina prides itself as being one of the best prepared states for disasters. Much of this confidence is attributable to the state's extensive experience responding to hurricanes and other weather-related events. However, unlike a weather event, a pandemic will likely impact the entire state simultaneously and be much longer in duration (eg, 12–18 months). Unlike a hurricane or similar local disaster, the cavalry is not coming to save the day during a pandemic. It will be left up to the local communities to sustain themselves and care for their families and neighbors for an extended period of time.

The most valuable lesson that I learned as a local health

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director from Hurricane Floyd is that, in a time of crisis, most people will do what you ask them to and even more. Although laws may exist for enforcing social distancing measures, it is unlikely that they will actually be enforced on the local level during such a crisis. However, I believe the public will self-enforce most of these public health interventions. People will respond to the public messages they receive. Therefore, it is critical that public information come from a trusted source and be accurate.

A bigger public health problem during a pandemic will be controlling limited assets that will be in high demand when many people fall ill. Included in this list will be hospital beds, ventilators, and antiviral medications. We will need to distribute these fairly and in an open manner. This is where local boards of health can be helpful. Local boards of health exist in every county and serve as the policy-making body for the health departments. In the setting of a pandemic (or any other public health crisis), the local Board of Health (BOH) can be a critical component to maintaining social order and in the continuation of local government operations. The eleven member BOH is appointed by the County Commission and is composed of seven professional members representing medicine, nursing, pharmacy, dentistry, optometry, veterinary medicine, and engineering. Three additional at-large members and one representative from the County Board of Commissioners fill the remaining seats. During a pandemic, this board can help reassure a skeptical public that limited services and supplies like vaccines and antiviral medications are distributed in a fair and equitable fashion. The Board of Health can help ensure an objective and nonpartisan review of these very acute and complicated public health problems and can also help to insulate elected officials from these potentially volatile issues. The other advantage the Board of Health has is that, unlike ordinances passed by the County Board of Commissioners, the rules approved by the Board of Health have jurisdiction for the whole county, including all of its municipalities. Infectious diseases like influenza have no respect for political boundaries, thus our public health

interventions must also not be restricted by these.

The types of interventions that will be necessary will depend upon which pandemic phase we are in. For instance, if the initial cases of a flu pandemic present themselves in a North Carolina county, as in World Health Organization (WHO) phase 4,¹ then isolation, quarantine, and antiviral treatment and prophylaxis may all need to be quickly instituted. On the other hand, if our counties are not affected until late in the pandemic (WHO phase 6²), then isolation and quarantine may be of little use and the supply of antiviral medications will likely not be sufficient for all those in need. Guidance from the World Health Organization, Centers for Disease Control and Prevention, and North Carolina Division of Public Health will likely be adjusted throughout the pandemic as we learn more about the virus and its transmission and treatment.

Local pandemic plans must be flexible enough to quickly adjust to these different scenarios. These plans should be designed by a multidisciplinary team including representatives from local governments, businesses, hospitals, schools, religious groups, and volunteer and other community organizations. These plans must be cross-checked with other agency and entity plans to make sure that resources are not planned to be in two or more places at the same time, and to make sure that roles and procedures are clear to everyone involved. The plans need to be agreed to and signed by the major partners and should be updated annually. They should also be exercised on a regular basis to identify what works well and what doesn't. As we witnessed with hurricane Katrina, it doesn't matter how well the federal and state plans are written if they cannot be effectively implemented on the local level.

In facing this challenge of preparing for the next pandemic influenza, we must prepare ourselves, our families, our workplaces, and our communities. Effective preparation efforts are already under way, but certainly much more can be done to help every community feel ready. Our goal in the east is to be as well prepared for a pandemic as we are for a hurricane. I just hope and pray that the pandemic and hurricane don't happen at the same time." **NCMJ**

REFERENCES

- 1 According to the World Health Organization Global Influenza Preparedness Plan, Phase 4 of a pandemic occurs when there are, "small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans." WHO Global Influenza Preparedness Plan. Department of Communicable Disease Surveillance and Response, Global Influenza Program. World Health Organization. Available at: http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5.pdf. Accessed February 7, 2007.
- 2 According to the World Health Organization Global Influenza Preparedness Plan, Phase 6 of a pandemic occurs when the pandemic has "increased and sustained transmission in [the] general population." WHO Global Influenza Preparedness Plan. Department of Communicable Disease Surveillance and Response, Global Influenza Program. World Health Organization. Available at: http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5.pdf. Accessed February 7, 2007.