

## Pandemic Influenza: The Consequences beyond Public Health

Major General Gerald A. Rudisill, Jr. (ARNG Ret.)

Nearly everyone who has lived in North Carolina during the past ten years has some experience responding to a natural disaster. The many hurricanes, floods, tornadoes, and snow and ice storms that hit the state in the past decade have tested our ability to respond to emergencies in virtually every corner of the state. Those experiences may prove invaluable if there is an influenza pandemic. No one knows exactly how a flu pandemic would impact our lives or how long it would last. However, such an epidemic would greatly challenge the emergency response capacity of our state—and country—and stretch our resources in ways never experienced before.

Most weather-related disasters that impact North Carolina have a warning period. The disaster is usually of short to moderate duration, and the aftermath's impact on facilities, infrastructure, crops, animals, and people is somewhat predictable. Technological disasters such as transportation accidents, hazardous materials events, and fixed nuclear facility accidents would likely impact people suddenly with little warning, but would only directly affect people and property relatively near the incident. An influenza pandemic would be an entirely different type of disaster. It would impact large percentages of the population over long periods of time and require innovative, immediate, and continual responses.

Aside from the staggering impacts to public health, the potential impacts of an influenza pandemic on manpower levels and critical systems could be tremendous. As people are affected, the workforce supply would be reduced, whereas demand for goods and services would rise. The impact would be not only

local, but global in nature. Consider this: as the flu spreads, providers of essential services such as food, transportation, fuel, medicine, utilities, and banking could be devastated by manpower shortages reaching 40%. Attempts to prevent the spread of flu through the implementation of social distancing measures could further reduce the workforce, thus reducing production and supply. It is conceivable that the services we take for granted such as electricity, potable water, sanitation, and

*“It is conceivable that the services we take for granted such as electricity, potable water, sanitation, and natural gas could cease.”*

natural gas could cease. Social interaction would also be curtailed because social distancing measures would limit participation in faith communities, civic groups, sports, and public entertainment activities.

The workforce challenges facing health care agencies would be no different.

Furthermore, while some businesses can expect to see a decline in activity during a pandemic emergency, health care institutions will experience an overwhelming increase in demand for services.

The North Carolina Department of Crime Control and Public Safety is the state agency charged with coordinating disaster response among local, state, and federal governments. The State Emergency Response Team (SERT) is an arm of state government that is comprised of more than 40 state agencies, nonprofits, and volunteer organizations that work as a team to mobilize the state's assets to support local governments and affected citizens. It is this group that assesses and responds to local community or regional health, safety, utility, transportation, food, and housing needs following any man-made or natural disaster.

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**Maj. Gen. Gerald A. (Rudy) Rudisill, Jr. (ARNG Ret.),** is Deputy Secretary of the North Carolina Department of Crime Control and Public Safety. The Department's mission is to improve the quality of life for North Carolinians by reducing crime and enhancing public safety. It coordinates the state response to emergencies and directs relief efforts to disaster victims. Deputy Secretary Rudisill was a member of the NC Division of Public Health and NC Institute of Medicine Task Force on Ethics and Pandemic Influenza Planning. He can be reached at [grudisill@nccrimecontrol.org](mailto:grudisill@nccrimecontrol.org) or 4701 Mail Service Center, Raleigh, NC 27699-4701.

## Bad News of the Past may Mean Good News for the Future

Fortunately, years of experience responding to numerous hurricanes, floods, ice storms, and other severe weather events have provided North Carolina with a solid foundation for any ongoing response necessitated by an influenza pandemic. For natural disasters, the SERT frequently activates 24 to 48 hours before a disaster and remains operational long enough to respond to the immediate needs of the disaster victims. Depending on the nature of the event, the group can be working around the clock for several days to several weeks. Following Hurricane Floyd in 1999, the SERT was activated for more than five months while the state recovered from devastating floods. During that same time, the SERT also responded to the January 2000 blizzard that dumped nearly two feet of snow in central North Carolina. In the past decade, the SERT has been activated more than 50 times in response to hurricanes, ice storms, blizzards, tornadoes, and chemical explosions.

Those incidents provided the SERT numerous opportunities to work with dozens of agencies and hundreds of communities. That experience and those relationships will be vital during an influenza pandemic. In such an event, the SERT would likely be activated for weeks and possibly months. Representatives from the North Carolina Division of Public Health (DPH) would serve as technical advisors to the SERT leadership and the governor. DPH would help develop strategies to protect the public, predict future impacts, and make recommendations for protective action. The governor, SERT, and DPH leaders, in coordination with local governments, would then implement any recommended actions.

Coordination and collaboration at the local level will be imperative. A flu pandemic would cross state boundaries, thus greatly reducing the ability of the Federal Emergency Management Agency (FEMA) to support North Carolina. Assistance from many of the other traditional government and private support organizations, such as the National Guard, Red Cross, Salvation Army, and faith groups, could also be very limited due to the widespread nature of a flu crisis.

Rising concerns about safety and fears of the unknown could spark chaos. It is imperative that all levels of government – local, state, and federal—as well as private institutions, such as health care facilities, be prepared to provide essential law enforcement and public safety services to maintain public order. Public safety systems must be planned, organized, and exercised well before an event occurs. DPH and the Division of Emergency Management each have already sponsored flu pandemic exercises and training to educate our response and recovery personnel on the potential issues that may arise and appropriate responses. Leaders throughout the state's communities should actively discuss ways to partner during an influenza pandemic to keep people connected, calm fears, and offer hope for the future.

## Preparing for Pandemic

The most significant need during a flu pandemic will be for solid, steady leadership that relays critical, honest, and concise information and direction to the public throughout the developing crisis. Some of that vital information is available already. To help individuals and families prepare for all types of disasters, the Department of Crime Control and Public Safety launched an emergency preparedness website—[readync.org/](http://readync.org/). The site provides basic information about what to do during floods, hurricanes, tornadoes, earthquakes, fires, winter storms, a terrorism act, or a disease outbreak. It instructs users how to prepare for evacuation, as well as what to do if they must seek shelter in their homes for an extended period of time. Information and links are included to help citizens understand what preparations the government is taking and what individuals must do to ensure their safety. For instance, to prepare for a flu pandemic outbreak, families are encouraged to stockpile enough food, bottled water, medicine, cash, and fuel for several weeks.

Community cooperation where neighbors help neighbors will be the key to weathering a pandemic outbreak. A shortage of goods will spark tendencies to control limited supplies and competition for resources could become violent, even deadly, if not properly managed from the beginning. Safety and survival will depend upon the willingness of neighborhoods and communities to come together for the common good. Government will have to establish supply lines and deliver critical resources to local receiving and distribution centers just as they would after any large disaster.

To ensure other essential government services are not disrupted, last summer Governor Easley required every state agency to prepare a Continuity of Operations Plan to guarantee ongoing operations in the event that substantial numbers of employees become incapacitated due to illness. Contingency plans must evaluate and prepare for reassignment of personnel responsibilities and for conducting business long term from remote locations. Personnel are encouraged to develop alternate family care plans for periods during which they are away performing critical functions. Those plans have been developed and will be tested through mock disaster drills in the coming months.

Hospitals, public health departments, physicians' offices, and emergency medical service providers also have been preparing for an influenza pandemic emergency for the past two years. Each hospital has a plan for providing health care during an emergency, including an alternate care facility for when the hospital is overwhelmed or otherwise unavailable. Although readiness levels can never be achieved to address every possible health care contingency, tremendous progress has been realized over the past year.

When many people consider the possibility of a disaster, they think, "It isn't going to happen here. If it does happen here, it won't be that bad. If it does happen here, and it is that bad, then the government will be here to take care of me." Unlike the response to a natural disaster, the communicable

nature of the flu pandemic may mean that the government response will not be as quick and seamless as expected.

The truth is our nation is totally dependent upon the systems we have built. Grocery stores, restaurants, gas stations, water systems, electricity, flushing toilets, television, radios, cell phones, internet, pharmacies, law enforcement, emergency management services, hospitals, fire departments, banking, and credit systems are all part of our way of life. If a flu pandemic develops as a major statewide event, and likely national and worldwide event, none of these systems could be relied upon to operate continually and consistently. Everyone will experience shortages and those who are dependent upon the luxuries in our modern life may have a more difficult time surviving.

I honestly believe the key to success lies in communities

pooling existing local resources and sharing what is available. This is a foreign concept to many Americans, except in a disaster environment. Government can and must lead the population during a pandemic event. A three-tiered response involving cities and counties, the state, and federal government will be necessary despite the new and unanticipated demands placed on these systems.

No one knows what the future holds. However, as we plan for emergencies, our responsibility is to consider the possibilities, define the assets and liabilities, and plan for the deficits. Government cannot be expected to do it alone. Individuals and families must prepare themselves and communities must band together. We must all accept some responsibility and do what is necessary to ensure our safety, health, and welfare. **NCMJ**



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