

## **Pandemic Influenza – Nature’s Bioterrorist Threat**

The nation is under a threat seen only three times in the last century – a threat that once unleashed will impact every citizen, our social fabric, our economy, and some would say our very way of life. The NCCIA – a disparate group of experienced leaders, academics, practitioners, and trained crisis responders – met last March to discuss the looming threat from a pandemic influenza. They concluded that there is much that we need to do to prepare our nation for the possibility of an outbreak and that time is limited if those actions are to be effective.

The threat from a pandemic influenza sounds innocuous enough, after all we experience influenza every year and it has limited periodic impact. But the seasonal influenza is as different to a pandemic influenza as a tidal surge is to a tsunami – And make no mistake this impending pandemic influenza could impact the nation with the lethality of the most recent tsunami in South East Asia and, at the present time we are almost as unprepared as the inhabitants of those tragically impacted islands.

Past pandemic influenza outbreaks have left lethal trails across the nation and the world ranging from tens of thousands of deaths (1957: 70,000 - U.S., 100,000 - worldwide; 1968: 35,000 – U.S., 700,000 - worldwide) to millions (1918: 550,000 – U.S., 100,000,000 - worldwide). The current threat, derived from the H5N1 Avian influenza that is endemic in South East Asia, looks more like the 1918 variety than its milder 1957/1968. So what are we doing about this threat? The NCCIA meeting in March concluded that it is not nearly enough. In the opinion of the NCCIA, and an increasing number of other organizations that have studied the threat, our current efforts are too limited, too slow, and not nearly as well coordinated as they need to be given the possible impact and imminence of the threat posed by a pandemic influenza episode.

The NCCIA concluded that we need coordinated action with designated and capable leadership to address the threat, we need a focus for the planning and testing of our response capability, we need to inform the public of the risks and their roles in any response, and we need to build a capacity to respond to the threat where it will have its greatest impact - at the community level. We must develop coordinated, comprehensive, resilient approach, and a public health response in our communities that is augmented by the capability provided by vaccines and treatments. Reliance on vaccines and treatments as our first line of defense fails to recognize the limitations in supply, distribution, effectiveness, and use. The disparities in the access to such limited responses will only exacerbate the impact of the pandemic influenza and further render our communities vulnerable to social splits and erode the trust that is the essential glue of our social networks and our culture. Our failure to address this threat will further divide the cultural fault lines in our society and diminish the fragile trust that exists between the government and the governed. An influenza pandemic represents a critical

incident of enormous proportion, but it is one that can be mitigated by actions that we can identify and take right now – the NCCIA is convinced of the need for action and has some specific recommendations based on its recent consideration of the problem.

**What makes a future pandemic influenza a critical issue/incident?**

In the United States, influenza is a largely misunderstood, under-appreciated, and often overlooked disease. Influenza in its routine, seasonal appearance causes 20,000 to 40,000 annual deaths here and 250,000 to 500,000 deaths worldwide. But, this annual impact is only a hint of the threat that the disease in its pandemic form represents.

The 1918 epidemic, for example, killed an estimated 550,000 Americans in ten months; that’s more Americans than died in combat in all the wars of the last century. Current Institute of Medicine estimates suggest that a new pandemic based on an H5N1 avian flu strain would have significant impact:

**U.S. Impact Estimates for the Next Influenza Pandemic**

	Number of People	Percentage
Deaths	89,000 – 207,000	0.03 – 0.07
Hospitalizations	314,000 – 733,000	0.1 – 0.3
Outpatient Care	18,000,000 – 42,000,000	6 – 15
Total Infected	43,000,000 – 100,000,000	15 - 35
Absent vaccination, health-related economic impacts = \$71 to \$166 billion.		

The historical accounts abound with descriptions of a disease that exhibits frightening characteristics. One facet that was documented in the IOM report and which represents a very disturbing potential future prospect was the fact that in the 1918 pandemic there was a profound impact in terms of the increased mortality in young adults. If the outbreak targets those in the age range 20-50 it will cripple the agencies and health capacity that the nation would depend on to provide support to the citizens.

Other characteristics of pandemic influenza that must be considered when assessing the impact of an outbreak include:

- ❖ Simultaneous impacts in communities across the U.S., thereby limiting the ability of any jurisdiction to provide support and assistance to other areas. Communities face the possibility of responding to influenza with minimal external resources or support – or none at all.
- ❖ An overwhelming burden of ill persons requiring hospitalization or outpatient medical care
- ❖ Likely shortages and delays in the availability of vaccines, antiviral drugs and relevant medical equipment e.g., hospital isolation rooms and respirators.
- ❖ Disruption of national and community infrastructures including transportation, commerce, utilities and public safety

- ❖ Global spread of infection with outbreaks throughout the world. With the world's growing – and increasingly urban-based – population, the speed and volume of travel provides a basis for widespread and rapid transmission of disease.
- ❖ There will be significant differences in the responses between affected countries. Some will rapidly respond to a shift in the disease state while others will be more reticent and their inaction may precipitate a much bigger problem.

If a critical incident is defined as:

*'A relatively brief occurrence involving injury, loss, or conflict of significant proportion, with the potential to change existing societal norms. Critical incidents are usually traumatic, threatening the bonds of trust that bind democracies.'*

Then a pandemic influenza qualifies as a critical incident in every sense. An outbreak of pandemic influenza will critically impact the health of the nation but will also impact our societal norms, our cultural values, our national security, and our trust in governments. Moreover, our lack of a coherent, comprehensive, and actionable plan to deal with such an episode leaves us vulnerable to a major threat that can readily be described as a clear and present danger.

At the March meeting the NCCIA concluded that: The anticipated pandemic will place tremendous stresses on and among federal, state and local governments and their constituencies. Without proper preparation for pandemic management these stresses will have the potential for not only eroding trust in governments, even threatening civil disorder and the cohesiveness of our democracy.

Pandemic management will force governments at all levels to make difficult and unprecedented choices. These choices will be less painful and problematic if they are made or at least contemplated well in advance of the pandemic. Furthermore, successful pandemic response will necessitate resources, which must be acquired in advance; and their distribution will have to be determined, or at least thought through, in advance of the event.

### **Why now?**

A pandemic is the viral equivalent of a perfect storm. There are three essential conditions, which rarely converge, and they are impossible to predict. But the requirements are clear.

1. A new flu virus must emerge from the animal reservoirs that have always produced and harbored such viruses – one that has never infected human beings and therefore one to which no person would be immune.
2. Second, the virus has to actually make humans sick. (Most don't.)
3. Finally, it must be able to spread efficiently - through coughing, sneezing, or a handshake.

For the avian flu virus H5N1 the first two conditions have been met. Pandemic influenza outbreaks occur when all three requirements are met. For H5N1 ,

transfer to humans has been documented and the effects are deadly (30-70+% lethality) but the transmission rates to humans and between humans are still relatively low. However recent reports suggest that the virus is mutating and adapting in ways that may increase its probable fulfillment of the third criteria – once adapted the avian flu will have the potential to become a pandemic and time will be short. Once the human-to-human transfer begins it is estimated that unless it is rapidly controlled in the locality of the outbreak then with current levels of international travel it will become a pandemic and thus a global problem in a matter of weeks.

There was no doubt at the NCCIA conference that, faced with an evolving and advancing disease state and with so much needing to be done to try and mitigate the impact of pandemic influenza on the nation, it is imperative that we act now.

### **Why NCCIA?**

The answers to the previous two questions included reference to a pandemic influenza as a future critical incident. The NCCIA is an interdisciplinary consortium of academicians, professionals, and experts dedicated to improving the public's ability to understand and cope with critical incidents, and government's capacity to anticipate, prevent, and manage them effectively. During the course of the analysis of the potential impact of a pandemic influenza it was clear that the NCCIA should seek to play a key role in developing the nations awareness and response and that there were several aspects to which NCCIA could direct its efforts and talents. These include:

- ❖ Using its connectivity to agencies and individuals in positions of responsibility to raise awareness about the possible imminent threat from pandemic influenza and to catalyze:
  - Identifying mitigating actions at federal, state, and local levels,
  - Seeking to accelerate the development of national, state, and community plans, policies, and procedures that would be used during an outbreak,
- ❖ Utilizing NCCIA links to the full range of media outlets to improve the understanding of the issue and the role of the media in all its forms to inform, educate, and guide the public before and during any future pandemic episode,
- ❖ Seeking further opportunities to develop an understanding of the potential impacts of a pandemic influenza by hosting workshops, meetings, providing expert testimony, etc that can inform and guide the planning process that the nation must implement.
- ❖ Recommending that a federal Pandemic Influenza Task Force (PITF) be established to examine the pandemic threat, identify actions required to prepare for its management, and to make recommendations to the President. Issues that the PITF should consider without delay are:

- Encourage governors to establish state task forces that will mirror the federal task force in order to facilitate coordination in planning and response.
- Development and testing of fail-safe systems and protocols allowing rapid communication among federal and state task forces.
- Design and implement pandemic influenza simulations and stress upon ultimate decision-makers (including the President) the need for them to participate in the exercises. (See section below regarding the importance of simulations.).
- Identification and designation of the most appropriate group or agency to advise the government concerning the disease.
- Identification of a credible person(s) who can speak authoritatively about the disease to the media and public and designate as official spokesperson at the federal level.
- Development of an aggressive public information program to educate the U.S. population about the disease and the critical need for public cooperation in mitigating its effects.
- Identification of persons whose status and/or credibility will draw the attention of all social and ethnic groups to the problem e.g., the President, television and film personalities and pop entertainers. It is not suggested that these persons deliver the message, but rather that they validate the urgency of the message and sponsor or vouch for the messengers.
- Establish a process through which authoritative and credible information can be delivered to the public *during the course of the outbreak*.
- Resource acquisition and allocation to include, among other things:
  - ❖ Fast-tracking development of appropriate vaccine when feasible.
  - ❖ Stockpiling and staging appropriate anti-viral drugs.
  - ❖ Ensuring adequate protective equipment for first responders and hospital personnel.
  - ❖ Emergency funding to sustain persons unable to work due to containment measures.
- Assessment of legal, logistical, military, law enforcement and political aspects of containment/quarantine to include, among other measures:
  - ❖ Closing of borders.
  - ❖ Eliminating or minimizing international travel by air or sea.
  - ❖ Restricting interstate travel.
  - ❖ Delaying or modifying rotation of U.S. forces, diplomatic personnel and private contractors into and out of overseas posts.

- Provide for continuity of government in the event administration officials are incapacitated.

### **Conclusion.**

This is something different. It is a future critical incident. It is an evolving situation that is moving so fast that it changes every week – and none of the recent changes have diminished the threat. In the period between the March conference and now the World Health Organization, the President of the United States, several countries around the world, and the CDC have all taken actions that are focused on avian flu and its potential as a precursor for a new pandemic influenza – but it is not nearly enough. Nor is it focused on the needs of the nation. Each day the threat becomes more real and as the Director of the CDC noted on 20<sup>th</sup> May ‘We agree that the question is not if a pandemic will occur, it is when will the pandemic occur’.

NCCIA believes that we must:

- Create a Presidential Task Force as outlined in this document. It must be empowered and begin work immediately.
- Bolster communication at the state level. We need to engage the Governors in this issue. It is no longer a distant and remote possibility. This threat is too large and too credible for the inaction to continue. This will happen in their ‘back yard’ and on their ‘watch’ - all of them. The Governors must be informed and prompted to act quickly.
- Develop a greater awareness of the threat posed by a pandemic influenza. The information on the disease and our response to it must be accurate, concise, and must not shy away from hard and unpleasant facts.
- Engage the public in developing actionable plans that provide clear advice on the public’s role as individuals and communities that will be the focus of this disease. Our defense against this threat and our national vulnerability begins and ends in our communities.

The pandemic influenza threat is a ‘clear and present danger’ and must be acted on with all the effort that such a designation generates.

It is not yet too late but it will be soon – action is the order of the day. Action now, not tomorrow.