Avian Aviators Case Study
Pandemic Influenza and Policy Development

Globalization has created almost limitless opportunities for nations to advance the good of their citizens. The opening of borders to trade and immigration, while not without controversy, allows for the rapid dissemination of information and the import/export of goods and people. Unfortunately, this is a double-edged sword, and more open policies have increased the potential for the spread of unwanted elements. In this age of open borders and swift travel, nations must be cognizant of the threats to their national security. These threats are not just from physical force, but other factors that can greatly effect the health and economy.

The great Spanish Flu pandemic of 1918 is an excellent case in point. In a period of two years this flu strain traversed the globe and caused the deaths of 20-50 million people, 675,000 of which were in the United States, making it the most deadly flu outbreak in modern history. The early control of this disease was hampered by the continued movement of people (troops) and the lack of a clear national response policy. States, and even communities, were often left to respond to the outbreak as best they could and follow recommendations to the extent they saw fit. Globalization and ease of travel have increased exponentially since 1918, but treatment of the flue virus has changed little. It is therefore imperative that the nation, in close cooperation with the states, create an effective response plan and policy for pandemic flue before one appears again.

In Illinois, the influenza outbreak started up in Northern Illinois at the Great Lakes Naval Training Station with the first activity reported September 8, 1918. During the next weeks, 4 to 5 percent of those at the base in North Chicago with the flu would die. Due to the area being very populated, the disease rapidly spread to metropolitan Chicago. On October 1st the disease spread to Camp Grant, located near Rockford causing high morbidity and mortality. More than 100 men died there on a single day and the toll eventually passed 500. A number of cases were also reported in the community of Elco by the middle of September. As this was a small community and isolated, the epidemic quickly ran its course and did not spread to neighboring villages. The epidemic did not reach southern Illinois until several weeks later.

On September 25, 1918 the State Health Department responded to the outbreak with the passing of rules and regulations for the control of influenza. These rules called for the reporting of all cases of influenza and suspected cases. The regulations required the isolation of the patient and other precautionary measures. On September 28th, the Council of National Defense created an Illinois Influenza Commission. The Commission, which met daily, was made up of representatives from the army, navy, US Public Health Service, American Red Cross, Illinois Department of Public Health and the Chicago health department. Because of the frequency of meetings, the State Department of Public Health opened an office in Chicago.

The first death in Chicago was reported September 21, 1918 followed by 57 cases of flu reported within the next few days. Despite the many servicemen afflicted by this new strain of flu and the rapid amount of new civilian cases reported after the first death in Chicago, the city's health commissioner, Dr. John Dill Robertson, laughed at the suggestion that the city was in the middle of an epidemic on September 24th. Dr. Robertson stated that "there is no cause whatever for alarm".[5] Due to the events of that week however, he was forced to change his tone with the deaths of 18 Chicagoans. In just eight weeks the death toll reached its peak on Thursday, October 17, 1918 when the combined death toll from influenza and pneumonia was 381. Hardest hit were men and women between the ages of 20 and 40. The death toll in Chicago from the Spanish Influenza in the autumn of 1918 was 8,510 people.

Early in the epidemic, communities across the state were requesting assistance, mostly in the request for physicians and nurses. There was a shortage due to the number of Illinois physicians in the military because of World War 1. In response to this, the State Department of Public Health created a bureau for supplying physicians and nurses. They worked with the US Public Health Service by providing funds for salaries and traveling expenses of physicians. The physicians were temporarily commissioned as acting assistant surgeons. For nurses, the state worked with the Central Division of the American Red Cross. These physicians and nurses worked along with the State Department of Public Health's field staff and employees to not only provide medical and nursing care but they also opened special hospitals. These hospitals were opened in school buildings, public halls, churches and other buildings. Community kitchens were set up to provide food to the ill in their homes.

The Surgeon General of the US Public Health Service recommended in early October that places of public gathering throughout the state be closed. In Illinois as the outbreak did not occur throughout the state at one time, it was difficult to uniformly pass rules simultaneously. It was determined that the rules and restrictive measures needed to be applied according to the conditions existing at the time in the individual communities. The rules for the control of influenza were revised on Oct. 2nd, Oct. 12th and Oct. 16th. The State Department of Public Health issued orders prohibiting public dances, public funerals, and stock sales. They also called for the closing of theatres and motion pictures and prohibited all public gatherings not necessary for the war efforts. Schools were allowed to stay open with the provision that they had adequate medical and nursing supervision. This was deemed to be wise as the employment of medical inspectors and school nurses prevented the spread of influenza among the school children it also helped control other communicable diseases at the same time.

In Springfield, the population was approx. 56,000 in 1918. They were hit hard with influenza outbreak and the health authorities took actions to help stop the spread. On October 10th the Health Authorities in Springfield issued strict orders that children were to be kept off the streets and confined to their own backyards. They took further action on October 13th with canceling all lodge meetings, all high schools, theaters, and places of amusement. The outbreak continued so they passed a new ordinance, "stating that no more than three people could congregate on the streets"[2]. Quarantine placards

were ordered for homes where influenza was present, and a $200.00 fine was established for their premature removal. Schools were closed on October 21st and the local militia was sent out to patrol the streets. Churches were closed on October 25th. In Springfield the outbreak was beginning to decline in early November, so quarantine was lifted and theaters, schools and meetings were allowed on November 8th.

One of the greatest difficulties was to provide isolation for all persons suffering from colds as there was no definitive test for influenza. The rules of the State department of health required that "all persons suffering from apparent "common colds"" were regarded as victims of influenza and were isolated and placed under proper restriction. The department also required that face masks be worn by physicians and nurses while attending influenza patients and required the same precaution on the part of all visitors in hospitals, who were admitted only in case of grave emergency."[3]

Not only was the 1918 influenza outbreak devastating by causing the death of thousands, but another toll was taken on those it left behind. An account from a survivor tells how she and her siblings would sit and watch for bed linen being hung out to dry. This was a sign that someone had died. This particular family lost their mother. The five children saw their mother being carried off and placed on a wagon never to be seen again. Churches were closed and it was forbidden to congregate in public places. Families were forced to find comfort from one another, their prayers and songs are what kept them strong. Children never knew who would be next to die.

The symbolic and political aspects of disease are largely unchanged from what they were in the middle ages. Many social groups that already bear some sort of stigma are in a ready position to be blamed for new outbreaks (e.g. Jews for bubonic plague in medieval Europe and Irish for cholera in the US).[7] It seems that the Spanish flu outbreak avoided this stigmatization for two reasons. One is the far reaching nature of the disease. Being highly contagious, all levels of society were affected. The other is the swift appearance and passing of the incidence waves (two waves in 1918-1919). Thus the disease came and went before social blame could be assigned to groups.

The political challenges facing the country *vis a vis* flu pandemic are daunting and subject to many of the same biases and compromises that the 1918 virus exhibited. One challenge is widespread provision of correct information. In the 1918 pandemic, newspapers were sometimes the cause that led to an increased panic. They would report cases in other states or cities and not in their own. They also made little of the epidemic, and what they and officials said at time bore no resemblance to what people saw in their daily lives.[8]

The national response to the 1918 flu was neither cohesive nor timely. The infectiousness and virulence of the strain caught most by surprise. The national focus on the war in Europe drew attention away from the seriousness of the situation and divided opinions about how to address it. As discussed in this paper, the US Surgeon General made recommendations concerning public activities, but it was up to the individual states to apply and enforce them. Even in Illinois measures to restrict public gatherings were

implemented in phases and differing geographical locations with mixed results. Lacking definitive terms, there was dissention on what a "case" was and how isolation measures should be implemented.

A second challenge is the development of a comprehensive national policy to address the many concerns. In 1918, early quarantine and containment measures were not taken due to the ongoing war in Europe. Though it is seen that early cases and disease spread were found in military camps, troop movements were not restricted. It took some months for the military to forestall troop transfers, both intra- and internationally, to limit increased flu spread. In the same manner, national policy must make disease containment and minimization a priority from the onset. This plan must also account for the hardships it will necessarily place upon segments of society. For example, forced quarantine or school cessation will have a disproportionate impact upon the poor who cannot afford to miss work or pay for child care for children no longer in school.

In 1918 virus was not understood immediately, but a long list of measures was taken to prevent people from spreading the disease once the threat of an epidemic was realized. The city and state health departments were unable to conclude whether these measures controlled the Spanish flu, but it was reported that vice was lessened and the community was a better place morally.[6] The time is now for which the nation and the states need to develop a comprehensive policy and plan that will be effective in preventing, mitigating and shortening the course of pandemic flu. This policy must address different disparities (e.g. those too poor to stay home from work), economic impacts (e.g. that upon a small business forced to close for a significant time) and the world at large. In this age of globalization and travel, every nation is our backyard. We cannot afford to ignore the situations in other countries, assuming we can keep out borders secure against such a threat. Pandemic by definition is one that encompass the globe, and this cannot be avoided.

> "No man is an island, entire of itself; every man is a piece of the continent, a part of the main." - John Donne

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[3]Illinois Health News, IL State Board of Health and State Department of Public Health. Vol. V, 1919.

[4]The Illinois Department of Public Health, Second Annual Report. July 1, 1918 to June 30, 1919.

[5]Chicago Sun Times. 1918 Outbreak Ravaged U.S.: Spanish Influenza turned Chicago into a City Under Siege. October 16, 2005.

[6]Municipal Reference Collection, Chicago Public Library. Deaths, Disturbances, Disasters and Disorders in Chicago. Compiled by Reference Librarians Ellen O'Brien and Lyle Benedict. Last Updated November, 1996

[7]Bennett D. The politics of pandemics. The Boston Globe. Available at: http://www.boston.com/news/globe/ideas/articles/2005/11/13/the_politic_of_pandemics/. Accessed December 25, 2005.

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Attachment 1

Deaths in Illinois in 1918 from
Influenza and Pneumonia

The influenza-pneumonia mortality for 1918 was 32,324, or about 8,000 more than the total mortality from all communicable disease during an average Illinois year. The total mortality in the State for 1918 was 103,138, showing that influenza-pneumonia caused approximately thirty-one person of deaths from all causes.[4]

County	Deaths	County	Deaths	County	Deaths
Adams	288	Hardin	46	Ogle	77
Alexander	101	Henderson	20	Peoria	594
Bond	51	Henry	160	Perry	105
Boone	84	Iroquois	124	Piatt	50
Brown	28	Jackson	146	Pike	64
Bureau	210	Jasper	39	Pope	13
Calhoun	28	Jefferson	97	Pulaski	90
Carroll	44	Jersey	25	Putnam	51
Cass	79	JoDaviess	57	Randolph	80
Champaign	283	Johnson	44	Richland	25
Christian	201	Kane	498	Rock Island	586
Clark	67	Kankakee	260	Saline	118
Clay	65	Kendall	31	Sangamon	511
Clinton	94	Knox	181	Schuyler	42
Coles	144	Lake	1,333	Scott	24
Cook (excluding Chicago)	1,455	LaSalle	563	Shelby	89
Crawford	74	Lawrence	68	Stark	19
Cumberland	39	Lee	87	St. Clair	612
DeKalb	127	Livingston	123	Stephenson	124
DeWitt	88	Logan	149	Tazewell	181
Douglas	69	Macon	250	Union	117
DuPage	105	Macoupin	204	Vermilion	426
Edgar	98	Madison	554	Wabash	43
Edwards	23	Marion	168	Warren	65
Effingham	97	Massac	86	Washington	42
Fayette	64	McDonough	86	Wayne	205
Ford	65	McHenry	80	White	70
Franklin	310	McLean	248	Whiteside	118
Fulton	270	Menard	49	Will	599
Gallatin	35	Mercer	49	Williamson	209
Greene	93	Monroe	38	Winnebago	1,660
Grundy	114	Montgomery	127	Woodford	89
Hamilton	30	Morgan	180		
Hancock	95	Moultrie	56		