
# Stockpiling Solutions:

## North Carolina's Ethical Guidelines for an Influenza Pandemic

**April 2007**

**North Carolina Institute of Medicine**

In collaboration with the North Carolina Department of Health and Human Services, Division of Pubic Health

Funded by the North Carolina Department of Health and Human Services, Division of Pubic Health

health policy

*North Carolina Institute of Medicine*

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The full text of this report is available online at:
**http://www.nciom.org/projects/flu_pandemic/ethics.html**

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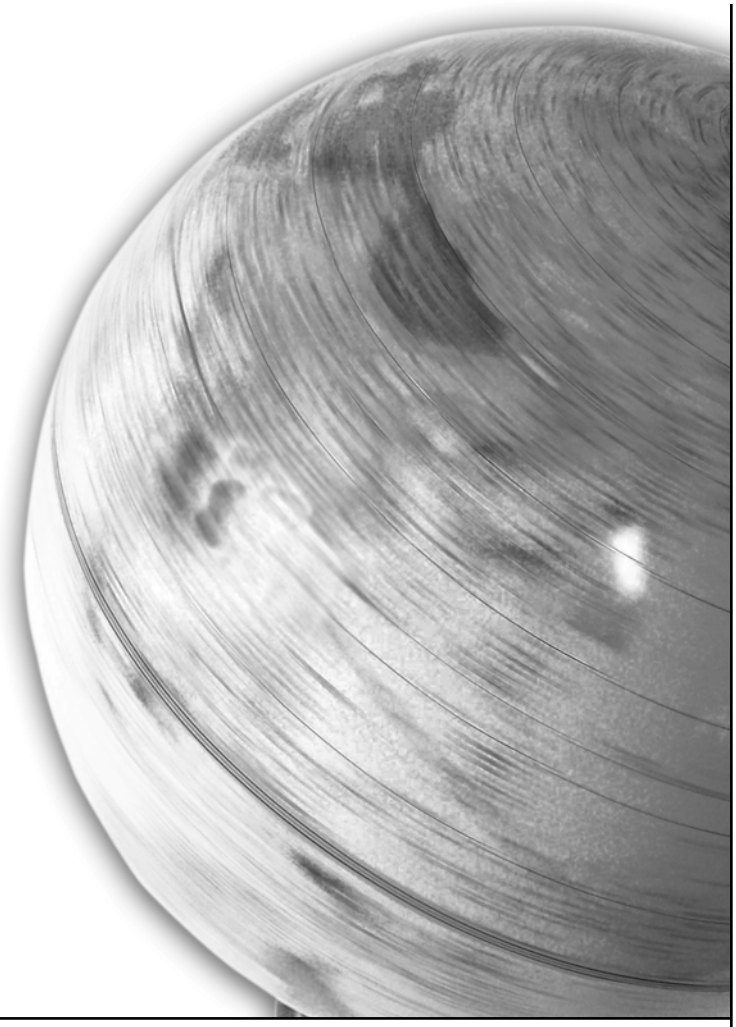

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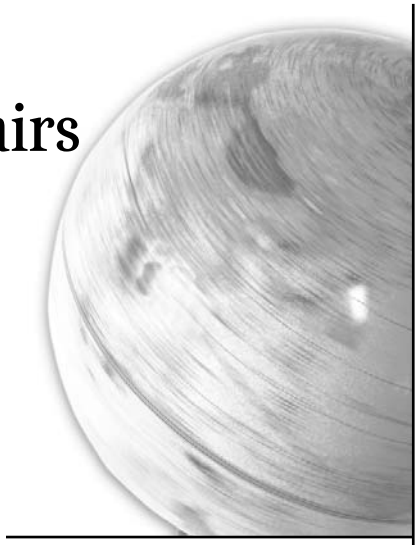
# Comments from the Task Force Co-Chairs



The United States government is preparing for a possible influenza pandemic, but so far its preparedness plan has focused largely on developing and distributing a vaccine and stockpiling antiviral medications. However, no preparedness plan is complete without addressing the ethical issues likely to confront our society during a pandemic. There are difficult moral questions that the North Carolina Division of Public Health and the North Carolina Institute of Medicine are asking *now* while there is still time to think critically, carefully, and calmly about what ethical values should guide decision makers, healthcare workers, workers in other critical industries, and the general public when an influenza pandemic strikes.

There is a strong likelihood that a widespread pandemic coupled with scarce resources will force all of us to confront some very hard questions. Can critical workers be expected, as a matter of duty, to help flu victims even if doing so means risking their own lives or those of their families? And if critical workers courageously accept the risks society wishes to impose upon them, what will society give them in return? When Americans are faced with the implications of isolation, quarantine, and social distancing measures, how will they react? Who shall live when not all can live? Who should have priority for limited healthcare supplies such as vaccines, antivirals, and ventilators?

As important as an ethics of justice will be during an influenza pandemic, even more important will be an ethics of care. Under dire circumstances, the value of the common good must be weighed more heavily than the value of respecting individual rights and personal autonomy. During a pandemic, rationing can help us maintain the value of justice, provided it is done ethically—that is, by directing scarce resources to where they will do the most good for us all and by letting everyone know why it is we have chosen a particular distribution method. It is the ethics of caring that will see us through this crisis.

In the end, we human beings are a very vulnerable lot. We are radically dependent on each other for survival, and we need to view ourselves as passengers in a lifeboat in the middle of the ocean with no visible sign of rescue. If there aren't enough supplies to go around until help arrives, we can do several things: we can ask for volunteers to jump off the boat; we can start drawing straws for whom gets pushed off the boat; we can have a majority vote about which lives are most dispensable; or we can look in each others' eyes and see ourselves—fearful, hopeful, and in need of compassion—and then we can start paddling together to get to shore, knowing that although we might not all make it, we didn't turn on each other in our panic. What we most need to weather a pandemic is an ethics of trust, reciprocity, and solidarity. If we have that, we will have the most precious health care resource of all.

*Rosemarie Tong, PhD*
*Leah Devlin, DDS, MPH*

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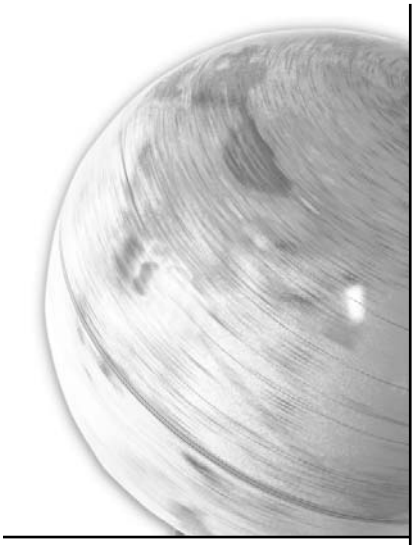
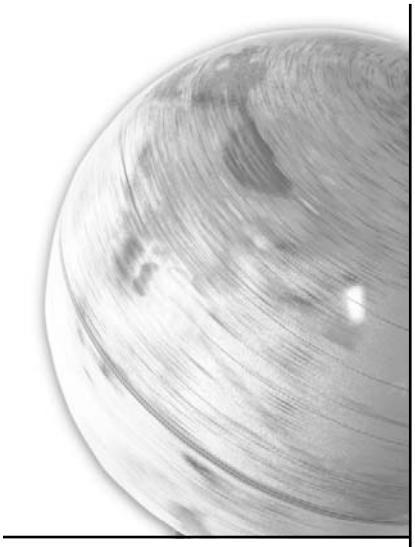


# Acknowledgements



The Task Force was a collaborative effort between the North Carolina Department of Health and Human Services, Division of Public Health (DPH) and the North Carolina Institute of Medicine (NC IOM).

The NC IOM extends special recognition to its two Co-Chairs: Leah Devlin, DDS, MPH, State Health Director, North Carolina Division of Public Health, and Rosemarie Tong, PhD, Director, Center for Professional and Applied Ethics, Department of Philosophy, University of North Carolina at Charlotte, who helped set the agenda and gave overall direction to the Task Force. The Task Force's work and clarity of vision would not have been possible without their leadership. The NC IOM also wants to thank the 37 members of the Task Force and Steering Committee (listed below) who gave freely of their time and expertise over the past 12 months to try to address this important issue.

In addition to Task Force and Steering Committee Members, we would like to extend special appreciation to our partners with the Division of Public Health. J. Steven Cline, DDS, MPH, Deputy State Health Director; Jeffrey Engel, MD, State Epidemiologist and Chief of the Epidemiology and Communicable Disease Section; and Kristina Simeonsson, MD, MSPH, Chief Planner with the Division of Public Health, were instrumental to the work of the Task Force. They provided the Task Force with background information about the epidemiology of the pandemic influenza and state and federal pandemic planning, and helped provide overall guidance to facilitate the work of the Task Force. Special thanks are also due to the other members of the steering committee, including Lou Turner, DrPH, and Maribeth Wooten with the Division of Public Health, and Joanna Forrester, MSW, LCSW, Division of Mental Health, Developmental Disabilities and Substance Abuse Services, for helping to plan meetings, arrange speakers and presentations, and obtain state-level data.

Pam Silberman, JD, DrPH, President and CEO of the NC Institute of Medicine, guided the work of the Task Force, facilitated three of the public meetings, and was the primary author of the final Task Force report. Mark Holmes, PhD, Vice President of the NC Institute of Medicine, helped facilitate Task Force and public meetings, and assisted in the writing and editing of the report. Kristen L. Dubay, MPP, E. Kiernan McGorty, JD, MA, and Kimberly M. Alexander-Bratcher, MPH, Project Directors at the North Carolina Institute of Medicine, also helped write and edit the reports, assisted with the logistical arrangements of the meetings, and facilitated breakout sessions at the public meetings. In addition, Ms. McGorty was the primary author of an issue brief on this topic for the *North Carolina Medical Journal*. Key staff support was also provided by Adrienne Parker, Director of Administrative Operations, and Thalia Fuller, Administrative Assistant, with the NC Institute of Medicine.

The Task Force wants to recognize the following people for making presentations to the Task Force and providing background information. Specifically, we would like to thank Alison Thompson, PhD, Post Doctoral Fellow, Centre for Research on Inner

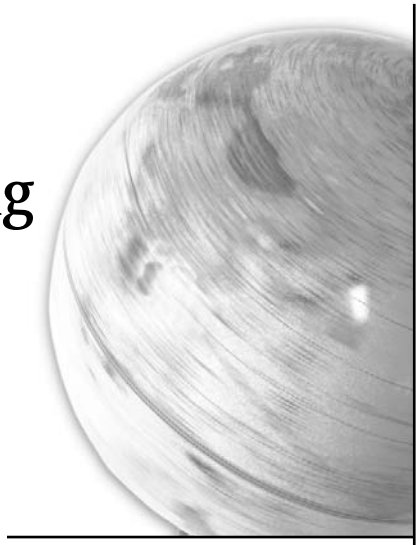
# Acknowledgements

City Health, St. Michael's Hospital & Research Associate, University of Toronto Joint Centre for Bioethics, who gave one of the first presentations and discussed the ethical issues that arose during the SARS epidemic in Toronto. Her presentation helped provide context for the work of the Task Force. We would also like to thank Cheryl A. Perry, JD, Assistant Attorney General, NC Department of Justice, Crime Control Section, who provided information on state and local officials' authority to protect the public during natural disasters. We want to give special recognition to Jill Moore, JD, Associate Professor, School of Government, who provided advice to the task force on many of the legal issues that arose during task force deliberations. She also attended many of the task force meetings and reviewed multiple versions of the task force report. Janelle A. Rhyne, MD, FACP, NC Medical Society, NC Medical Board; Linda Burhans, RN, MSN, Practice Consultant, NC Board of Nursing; and Tom Williams, RRT, RCP, NC Respiratory Care Board, NC Society of Respiratory Care, provided the Task Force with important information about the ethical obligations of licensed health professionals (physicians, nurses, and respiratory therapists, respectively) to work during a pandemic, and Barbara Bisset, PhD, MS, MPH, RN, Executive Director, Emergency Services Institute, WakeMed, spoke about the hospital's reciprocal obligations to protect workers. Jon Kerin, Director, Health & Safety, Progress Energy Service Company, LLC, and James Ball, Food Safety Director, Food Lion, also made excellent presentations about how their industries were trying to prepare for an influenza pandemic. In addition, we would also like to thank Scarlette Gardner, JD, NC Medical Society, and Ken Burgess, JD, Poyner & Spruill, LLP, who helped provide the Task Force with information about existing malpractice and workers compensation laws.

The NC IOM would like to thank the following people for their participation and contributions to the public meetings: Thea Monet, Executive Director, Old North State Medical Society; and M. Zulayka Santiago, MPA, Executive Director, El Pueblo, Inc., and her staff in Raleigh. We also extend our gratitude to these public health representatives who gave presentations or helped facilitate at the public meetings: Brant Goode, BSN/RN, MPH, Pandemic Influenza Grant Program Coordinator, North Carolina Division of Public Health; Stephen Keener, MD, MPH, Medical Director, Mecklenberg County Health Department; Thomas Morris, Team Leader, North Carolina Regional Surveillance Team 2; John Morrow, MD, MPH, Health Director, Pitt County Health Department; Phyllis Rocco, North Carolina Public Health Regional Surveillance Team 6; Keith Rowland, Environmental Health/Industrial Hygiene Consultant, North Carolina Public Health Regional Surveillance Team 6; Martha Salyers, MD, MPH, Team Leader, North Carolina Public Health Regional Surveillance Team 6. We would also like to thank the following organizations for graciously letting us host Task Force or public meetings in their facilities: North Carolina Hospital Association, North Carolina Medical Society, Carolinas HealthCare System & Charlotte Area Health Education Center, Cornerstone Missionary Baptist Church in Greenville, and Hill St. Missionary Baptist Church in Asheville.

Finally, the NC Institute of Medicine would like to thank the graduate students who helped assist with the work of this Task Force. We would like to specifically recognize the work of Natasha Harrison, who helped review and write some of the earlier drafts of the report. We also would like to thank Aaron Augustino and Vijay Brihmadesam, who helped with the preparation of some of the earlier Task Force meetings.

# NC IOM DPH Task Force on Ethics and Pandemic Influenza Planning



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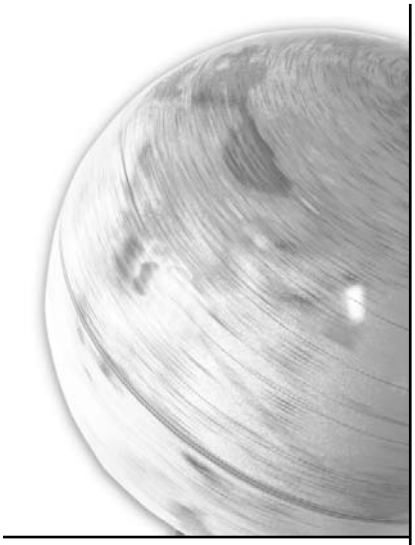
# Executive Summary



Recent human cases of the bird flu have heightened the public's awareness of the possibility of a flu pandemic in the near future. Many experts warn it is not a question of *if* but *when* the next flu pandemic will arrive. A severe pandemic influenza would most likely be widespread and last for six to eight weeks at a time. A pandemic could consist of one wave or multiple waves. During the height of an influenza pandemic, approximately 40% of workers will be out of the workforce due to their own illnesses or the need to care for a sick family member. This prediction is alarming, particularly as it impacts the healthcare industry, which may be overwhelmed by demands for services to treat the ill. Other critical industries, such as utilities, food, and transportation, also will require workers to provide the goods and services needed to maintain the basic functioning of society.

In addition to workforce shortages, a severe pandemic is likely to overwhelm our healthcare system, with shortages in providers, medications, hospital beds, and equipment. In North Carolina alone, a *severe* pandemic may result in 1.6 million outpatient visits to healthcare providers, 290,000 hospitalizations, and 65,000 deaths over an eight-week period. We, as a state, will confront many ethical challenges during a severe pandemic. Questions will arise such as who should get first priority for limited healthcare resources, how should we balance the rights of individuals versus the need to protect the public, and what responsibility do people have to work when working could place the individual or his or her family at heightened risk.

During an influenza pandemic, there will not be enough time to engage in a public discussion of the ethical trade-offs inherent in these critical decisions. Further, it is impossible to anticipate all the critical decisions that may need to be made during an outbreak. Therefore, it is important to develop an ethical blueprint that incorporates public input in advance of a pandemic and to follow this blueprint during the crisis. These efforts will help assure the public that decision makers are making reasoned responses to the crisis. Public acceptance of the ethical framework will increase the likelihood that society maintains order during the emergency.

When an influenza pandemic arrives, it will be up to the North Carolina Department of Health and Human Services, Division of Public Health (DPH), other state and local agencies, and partner organizations to coordinate a public health response to help reduce morbidity, mortality, and social disruption. DPH determined the need to involve a larger group of stakeholders and the public to develop an ethical framework for implementation of its Pandemic Influenza Response Plan. DPH asked the North Carolina Institute of Medicine (NC IOM) to convene a task force with broad stakeholder representation to explore some of the ethical issues the state may face during an influenza pandemic.

The Task Force identified key ethical principles that should guide the state's response to any future influenza pandemic. The Task Force weighed different ethical considerations in developing its framework, including the need to ensure accountability, equitable treatment among similarly situated individuals,

proportionality of actions, and inclusiveness and timeliness in decision making. Government must act as the public's steward, operate in a transparent fashion, and make decisions that are reasonable and responsive in order to garner the public's trust. The Task Force recognized the importance of fostering cooperation and collaboration among different governmental agencies, the public and private sectors, and private citizens. Taking these ethical principles into account, the Task Force developed an ethical framework for guiding decision making in the following areas: responsibilities of healthcare workers and other critical workers to work during the pandemic and reciprocal obligations to these workers, the balance between the rights of individuals and protection of the public, and prioritization and utilization of limited resources.

## Responsibilities of Healthcare Workers to Work and Reciprocal Obligations to Workers

An influenza pandemic in North Carolina would place unprecedented strains on the healthcare system. Public health and the broader healthcare system will face tremendous challenges trying to prevent people from becoming ill and providing appropriate care for thousands of patients who become ill with acute and/or life-threatening infections. In addition, the healthcare system will still need to provide care to others who are ill or injured unrelated to the flu.

North Carolina's healthcare organizations have experience maintaining essential functions during natural disasters such as hurricanes and ice storms. However, an influenza pandemic would place unparalleled stresses on the healthcare sector due to its duration, lack of workers, limited outside support, and risk of secondary infection. Most natural disasters affect limited geographic areas over short periods of time, allowing other communities to provide support to the affected area. In contrast, a pandemic likely will involve most, if not all, of the state and country, limiting the availability of outside support. Further, it may be difficult to find sufficient healthcare workers due to personal or family illnesses or fear of infection. Because the problems of staff shortages and lack of appropriate resources are likely to arise, healthcare professionals may be called upon to assume responsibilities outside their normal scope of work.

The Task Force believes that healthcare personnel have a duty to provide care during an influenza pandemic because of their professional and employment obligations, and a general human responsibility to care for others. In return, government and healthcare organizations have a responsibility to provide these workers with available protections and support. Front line healthcare workers who are at increased risk of infection should have priority in receiving personal protective equipment, vaccination, antiviral medications, and other nonmedical control measures. In addition, healthcare professionals and organizations should be provided qualified immunity from liability if they act in good faith to provide needed healthcare services during the emergency.

## Duty of Workers in Critical Industries to Work and Reciprocal Obligations to Workers

Healthcare is not the only sector that will be critical to the basic functioning of society during a pandemic. Other sectors such as government, banking, utilities,

transportation, agriculture and food, telecommunications, and information technology also provide essential services. These industries will need to continue to operate throughout a pandemic and will need to develop contingency plans to account for the possibility of up to 40% employee absenteeism. Thus, the Task Force recommended that employers and contractors develop business continuity plans to prepare for events such as an influenza pandemic.

The business continuity plans should identify those positions that are critical to the continued operation of the industry and determine whether these jobs need to be performed on-site or can be adequately performed off-site. As with healthcare workers, the Task Force believes that workers in critical industries have a responsibility to work during a pandemic. By choosing to work in a critical industry, employees have accepted a heightened responsibility to work. However, employers and government have a reciprocal obligation to these workers to keep them as safe as possible and to provide them with the support needed to enable them to work.

## Balancing the Rights of the Individual and the Need to Protect the Public

Public health leaders are specifically charged with promoting and protecting the overall health and well-being of the population during emergencies. In a pandemic, public health officials may need to implement measures to limit the spread of disease. These community disease control measures, including isolation, quarantine, or other forms of social distancing, may interfere with personal liberties and individual privacy. Other social distancing measures may include, but are not limited to, closing schools and day care centers and asking churches to suspend their normal services. The goal of these measures is to reduce close contact with potentially infected individuals. For the individuals and families involved, restrictions on personal liberties can pose significant difficulties, such as loss of income and social support. Businesses may be affected by the loss of workers or other sources of income. Thus, it is important to limit these community disease control measures to the least restrictive alternatives reasonably necessary to protect the public and to ensure that the restrictions are equitably applied.

The Task Force recognized the importance of keeping the public informed and engaged as a partner to be successful at every stage of the pandemic. Every attempt should be made to ensure the public is aware of the need for epidemic-related restrictions of individual liberties. Public feedback should be sought and public education should be provided regarding the measures, ideally prior to implementation. Informing the public about the reasoning behind these social distancing measures likely will improve compliance. During a pandemic, public health officials and other state and local officials have an ethical obligation to ensure that the public is provided with timely, accurate health information in order to keep the public informed of the progress of the pandemic and the measures that people can take to protect themselves and their families. Government should disseminate information via the media and trusted community leaders to help ensure that information reaches people at risk. Providing timely and accurate information will help reduce the spread of misinformation and panic.

Depending on the length and severity of the pandemic, there may be an unprecedented demand on government to help families meet their basic subsistence needs. Without some support, families may be unable to comply with isolation, quarantine, or other efforts needed to reduce interpersonal contact. This increased need for assistance will cause tremendous logistic challenges because of the need for agencies to engage in social distancing efforts to prevent the spread of disease. Government, social relief agencies, and other community groups will need to coordinate efforts to help families meet their needs for food, shelter, and healthcare during the pandemic. To prepare for this event, government, businesses, community groups, and individual families should engage in prepandemic planning.

## Prioritization and Use of Limited Resources

In crisis situations, citizens often look to the government to manage the allocation of limited resources. During a pandemic, the demand for certain healthcare resources will exceed the supply. Deciding who should have priority to receive limited resources during an influenza pandemic will be among the most difficult ethical dilemmas facing government officials, policy makers, and healthcare providers. These difficult allocation decisions should be based on widely-accepted and reasoned criteria and applied equitably.

The Task Force considered multiple prioritization options and obtained feedback from the public on how limited resources should be allocated. The Task Force ultimately concluded that the priority given to the allocation of certain preventive resources (eg, vaccines or personal protective equipment) is not the same as the priority that should be given to the allocation of limited healthcare resources needed to treat a patient who is already sick (eg, ventilators or hospital beds). In general, priority for the allocation of preventive resources should be given to those critical workers who are at increased risk of contracting the disease and who are necessary to assure the functioning of society. These critical workers would include healthcare workers providing direct patient care with flu patients, care and public safety officers, or ambulance drivers who are working with infected people. The use of these limited resources also should be made with the goal of minimizing the spread of disease. In contrast, the primary goal in allocating treatment resources (eg, antiviral medications, hospital beds, and ventilators) should be to reduce illness, hospitalization, and death.

The Task Force recognized that it is just as important to articulate the criteria that should ***not*** be used in making allocation decisions. Medical decisions should be based on clinical and epidemiological factors only. Government and healthcare professionals should not make allocation decisions based on socioeconomic or political factors, or on other factors unrelated to controlling the spread of disease or reducing the impact of disease.

## Conclusion

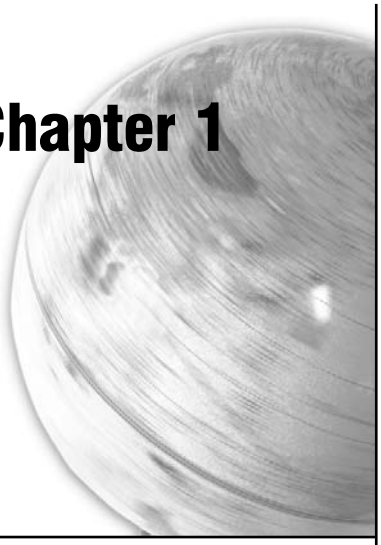
In major emergencies, decisions have to be made in a timely manner under high stress conditions and often in the face of incomplete information. This predicament is the situation the state will most likely confront in the event of an influenza pandemic. Decisions by the federal government, state agencies, healthcare professionals, emergency management responders, and other critical institutions should be coordinated and will directly affect large numbers of residents. Under

such conditions it is important to have a set of ethical principles that serve as a blueprint for the coordinated response.

The work of the NC IOM/DPH Task Force on Ethics and Pandemic Influenza Planning encouraged stakeholders from a variety of backgrounds and perspectives to consider and discuss the ethical dilemmas that are likely to arise in the event of an influenza pandemic. Advance notice of these dilemmas may help people adjust to and prepare for the difficult decisions that may affect them later. The unpredictable nature of influenza pandemics requires that individuals, industries, and governmental entities continue to examine and adapt their roles in pandemic influenza preparation.

# Introduction

**Chapter 1**



Recent cases of avian influenza have heightened the public's awareness of the possibility of a flu pandemic in the near future. Many experts warn it is not a question of *if* but *when* the next flu pandemic will arrive. A severe pandemic influenza would most likely be widespread and last for six to eight weeks. During the height of an influenza pandemic, approximately 40% of workers will be out of the workforce due to their own illnesses or the need to care for a sick family member.[1] This prediction is alarming, particularly as it affects the healthcare industry, which may be overwhelmed by demands for services to treat the ill. Additionally, other critical industries, such as utilities, food, and transportation, will need to continue functioning in order to prevent damage to society's infrastructure or mass social unrest.

*North Carolina will confront many ethical challenges if faced with a severe pandemic.*

A severe pandemic is likely to overwhelm our healthcare system, with shortages in medications, hospital beds, and equipment, in addition to workforce shortages. In North Carolina alone, a severe pandemic may result in 1.6 million outpatient visits to healthcare providers, 290,000 hospitalizations, and 65,000 deaths over an eight-week period.[2] We, as a state, will confront many ethical challenges if faced with a severe pandemic. Questions will arise such as who should get first priority for limited healthcare resources, how should we balance the rights of individuals versus the need to protect the public, and what responsibility do people have to work when working could place the individual at heightened risk.

When an influenza pandemic arrives, it will be up to the North Carolina Department of Health and Human Services, Division of Public Health (DPH) and local public health agencies to coordinate a public health response to help reduce morbidity, mortality, and social disruption. DPH determined the need to involve a larger group of stakeholders and the public to develop an ethical framework from which to base implementation of its Pandemic Influenza Response Plan. DPH asked the North Carolina Institute of Medicine (NC IOM) to convene a task force to explore some of the ethical issues the state may face during an influenza pandemic.

The Task Force's work was informed by the experience in Toronto, Ontario, of an outbreak of Severe Acute Respiratory Syndrome (SARS) in early 2003 and by the ethical dilemmas that our country faced in responding to the Katrina disaster. Upon reflecting on their experiences during the SARS epidemic, public health and government leaders in Toronto realized that the healthcare system had been unprepared to deal with the difficult ethical choices that arose during the crisis, and they spoke of the need to develop an ethical framework in advance of a future pandemic:

> ...as the SARS crisis became more severe, and restrictions were imposed, there were concerns over access to care and the allocation of medicines, access to safety equipment, who had to work and under what protections, and the sharing of vital information. People started raising the issues of whose values should prevail during a public health emergency.

*The lesson learned from the SARS crisis is to establish the ethical framework in advance, and to do it in a transparent manner.*

Leaders in governments and health care systems had not previously developed an ethical framework or held prior consultations on how to deal with the suite of ethical issues forced on them by SARS. Decision makers had to balance individual freedoms against the common good, fear for personal safety against the duty to treat the sick, and economic losses against the need to contain the spread of a deadly disease. Decisions had to be rapid, and were as transparent as possible given the limitations of the time. Therefore the lesson learned is to establish the ethical framework in advance, and to do it in a transparent manner."[3]

## Background on Pandemic Influenzas

There are three different types of influenza viruses: A, B, and C. The most common influenza for humans is seasonal influenza, which is a highly contagious viral respiratory disease caused by influenza types A and B. In an average year, seasonal influenza results in 36,000 deaths, mostly among the elderly and very young, and in 200,000 hospitalizations.[4] Type A, B, and C influenza viruses can all infect humans, but only type A has the potential to become a pandemic, a world-wide outbreak of a disease.

All known flu viruses in birds (ie, avian flu viruses) are of type A influenza.[a] Migratory waterfowl serve as the primary carriers of avian influenza. While most avian influenza strains do not infect humans, there are at least four strains that have caused diseases in humans.[b] Avian influenza in humans may not cause the same symptoms as the seasonal influenza. It can be quite mild or can cause death.

A strain of avian influenza infecting humans does not necessarily create a pandemic. For a flu pandemic to occur there must be a major change in the genetic material of a type A virus. The change could be the result of an avian virus and a human virus infecting the same cell, forming a new strain of the virus, or the gradual adaptation of an avian virus, allowing it to directly infect humans. Regardless, an avian virus in humans is not a pandemic until it becomes a new human virus and becomes highly transmissible between humans. The World Health Organization (WHO) has identified six stages in the development of an influenza pandemic. (See Table 1.1.) According

**Table 1.1**
**Current Phase of Alert in the WHO Global Influenza Preparedness Plan, March 2007[5]**

| | | |
|---|---|---|
| Inter-pandemic phase | Low risk of human cases | 1 |
| New virus in animals, no human cases | Higher risk of human cases | 2 |
| Pandemic alert | No or very limited human-to-human transmission | (3) |
| New virus causes human cases | Evidence of increased human-to-human transmission | 4 |
| | Evidence of significant human-to-human transmission | 5 |
| Pandemic | Efficient and sustained human-to-human transmission | 6 |

a Type A influenza viruses are distinguished from each other based on the different protein combinations that are on the surfaces of the viruses. All Type A viruses are made up of some combination of hemagglutinin (H) and neuraminidase (N) proteins.

b There are many more types of avian influenza circulating than there are types of influenza in humans. Avian influenzas that have caused disease in humans include H5N1, H7N7, H9N2, and H7N2.

to the WHO, we are currently in Phase 3, with animal-to-human transmission of the avian influenza, but limited human-to-human transmission.[5]

Because an influenza pandemic will arise from a completely new strain of influenza virus, people will not have any immunity to this new flu virus even if they have had seasonal flu in the past. The seasonal flu vaccine will not protect people from this new pandemic flu strain. A different flu vaccine must be made for this new flu virus. Because people have little or no immunity to a new virus and because there will be no vaccine immediately available, the disease can sweep across the country and around the world in a very short time.

Unlike seasonal influenza, a pandemic can occur at any time of year. Most likely, an influenza pandemic would result in multiple simultaneous epidemics worldwide and would potentially occur in several waves, each lasting six to eight weeks.[6] A second wave can occur as much as six to twelve months after the first wave. An influenza vaccine will probably not be available for six to twelve months after a new strain is recognized due to limitations of current vaccine manufacturing technology.[7]

*The disease can sweep across the country and around the world in a very short time because people have little or no immunity to a new virus and because there will be no vaccine immediately available.*

History indicates that there are typically three influenza pandemics each century. Three influenza pandemics occurred in the 20th century: Spanish influenza (1918-1919), Asian influenza (1957-1958), and Hong Kong influenza (1968-1969).[8]

- *The Spanish Flu (H1N1 virus) in 1918-1919* led to at least 675,000 deaths in the United States and up to 50 million deaths worldwide. The Spanish Flu pandemic remains the deadliest epidemic since the Black Death (bubonic plague) of 1346. During the Spanish Flu, 20% to 40% of the worldwide population became ill. The attack rate and mortality was highest among adults between the ages of 20 and 50.
- *The Asian influenza (H2N2 virus) in 1957-1958* led to at least 70,000 deaths in the United States and up to 2 million deaths worldwide. The virus arrived in the United States in the summer, and children spread it when they went back to school in the fall. Infection rates were highest among school children, young adults, pregnant women, and the elderly.[9] The elderly had the highest mortality rates.
- *The Hong Kong influenza (H3N2 virus) in 1968-1969* led to about 34,000 deaths in the United States and 700,000 deaths worldwide. There are several reasons why this virus resulted in fewer deaths:[9] people may have had some immunity due to the Asian flu virus, the virus peaked when school was out of session, and medical treatment for influenza had improved.

According to the WHO and other public health experts, we are closer now to an influenza pandemic than at anytime since the last outbreak in 1968-1969.[5] Experts suggest that a new influenza pandemic in the United States would lead to approximately 45 million outpatient visits, 865,000 to 9,900,000 hospitalizations, and 209,000 to 1,903,000 deaths, depending on the virulence of the disease.[1] Unlike the seasonal influenza, an influenza pandemic could affect people regardless of age. During a regular flu season, the people who are most likely to die are the very old, very young, and people who have heightened health risks. However, pandemics can affect younger, healthier individuals.

Recently, the World Health Organization and other public health and government officials have been following a subtype (H5N1) of type A influenza. Between 2003 and March 1, 2007, there have been 277 human cases of the H5N1 bird flu. More than half (167) of these cases have been fatal.[10] The H5N1 bird flu has infected humans in twelve countries.[c] This outbreak could result in a pandemic if the virus mutates so that it can spread easily between people through coughs or sneezes. It is important to note that if this virus does become a pandemic strain, experts do not think that half of the cases will be fatal.

## Impact of an Influenza Pandemic on North Carolina

*A major challenge facing public health officials is that they do not know when the next influenza pandemic will occur or how severe it will be.*

Pandemic influenza will probably begin in a developing country where there is close contact between humans and animals and a limited public health infrastructure. The virus is likely to be introduced into the United States by an international traveler. A major challenge facing public health officials is that they do not know when the next influenza pandemic will occur and how severe it will be.

In all likelihood, a flu pandemic will result in large numbers of people getting sick with the flu. In a regular flu season lasting about six months, North Carolina typically experiences about 750,000 doctor visits, 6,000 hospitalizations, and 1,100 deaths.[11] The vast majority of deaths occur in people over the age of 65 years. Compared to the regular flu season, more people will need to be hospitalized and more will die in an influenza pandemic. Table 1.2 shows the projected differences between doctor visits, hospitalizations, and deaths for a moderate pandemic and a severe pandemic. In North Carolina, a *moderate* pandemic wave lasting approximately eight weeks could result in about 3 million infected individuals, 1.6 million doctor visits, 35,000 hospitalizations, and 8,000 deaths. An influenza pandemic could also result in a larger number of younger people dying compared to the seasonal flu. A severe pandemic like the Spanish Flu of 1918 could cause as much as eight times more hospitalizations and deaths.

**Table 1.2**
**Impact of Regular Flu versus Projected Impact of Pandemic Flu in North Carolina[2,d]**

| Characteristic | Moderate Pandemic (1957-like) | Severe Pandemic (1918-like) |
|---|---|---|
| Illness | 2,989,442 | 2,989,442 |
| Outpatient medical care | 1,594,655 | 1,594,655 |
| Hospitalization | 35,252 | 289,762 |
| Deaths | 7,949 | 65,334 |

## Government's Role during a Pandemic

State and local public health and other government leaders are charged with protecting the public during emergencies—whether natural or man-made. An influenza pandemic that affects thousands of people would fall into the category of

c The following countries have confirmed human cases of H5N1 influenza: Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Nigeria, Thailand, Turkey, and Vietnam.

d These estimates were obtained using FluAid 2.0 software available online at the National Vaccine Program website: http://www2.cdc.gov/od/fluaid/default.htm. The figures were calculated using North Carolina's total population of 8,541,263, obtained from 2004 population estimates available at http://demog.state.nc.us/frame_start.html, and a clinical attack rate of 35%.

a natural disaster, and the response would follow the guidelines set forth in the North Carolina State Emergency Operations Plan. Under these conditions, state and local government officials must take actions needed to maintain order and protect lives. For example, government might restrict movement or the operation of businesses where people congregate. (See Appendix B for a description of state and local government responsibility and authority during emergencies in North Carolina.)

When an influenza pandemic arrives, state and local public health agencies have primary responsibility for protecting the public's health. The public health response will be an integral part of a larger state and national emergency response effort. The State Health Director is charged with examining and testing persons that may have been exposed to the virus, procuring and allocating vaccines and prophylactic treatment, and taking steps necessary to prevent the spread of disease. DPH prepared the *North Carolina Pandemic Influenza Response Plan* and, in conjunction with other state and local agencies and partner organizations, will work to reduce morbidity, mortality, and social disruption.[2] The core components of this plan include command and control, surveillance, vaccine preparedness and response, antiviral preparedness and response, medical surge, preparedness in healthcare facilities, and risk communication. An influenza pandemic will affect the entire nation, so North Carolina cannot count on significant assistance from other states or federal agencies.

## Overview of Ethical Considerations

DPH identified a need to develop an ethical framework to use in implementing the Pandemic Influenza Response Plan. Such an ethical framework also can help guide other governmental and private actions and will help inform the public of its rights and responsibilities during an influenza pandemic. DPH asked the NC IOM to convene a task force with broad stakeholder participation to explore some of the ethical issues the state may face during an influenza pandemic.

During a major influenza pandemic, it is likely there will not be enough time to discuss the ethical trade-offs inherent in critical decisions. Likewise, it is impossible to anticipate all of the key decisions that could be required during an emergency. Therefore, it is important to identify ethical principles that should be considered while deliberating key decisions. Developing an ethical blueprint that incorporates public input in advance of a pandemic and later applying these recommendations during a pandemic will help assure the public that decision makers are making reasoned responses to the crisis, and that the actions taken to protect the public are equitably applied.

The Task Force identified key ethical principles that should guide the state's response to any future influenza pandemic. These principles include the need to ensure accountability, equitable treatment among similarly situated individuals, proportionality of actions, and inclusiveness and timeliness in decision making. Government must act as the public steward, operate in a transparent fashion, and

### The Task Force considered the following ethical principles in developing its ethical blueprint:

- Accountability
- Cooperation and collaboration
- Duty to work
- Equity
- Honesty and truth-telling
- Inclusiveness
- Proportionality
- Protecting individual liberties and privacy rights
- Protecting the public
- Reasonableness
- Reciprocity
- Responsiveness
- Stewardship
- Timeliness
- Transparency
- Trust

make decisions that are reasonable and responsive in order to garner the public's trust. Public trust and cooperation is essential to controlling the spread of disease and maintaining social order. The Task Force also recognized the importance of fostering cooperation and collaboration among different governmental agencies, the public and private sectors, and private citizens. The summary of the ethical principles is listed below, with a more complete description provided in Appendix A.[e]

During an influenza pandemic, some of these ethical considerations may take precedence over others. For example, in order to protect the public and prevent the spread of disease, we may need to restrict freedom of movement, normally a valued personal liberty. Although certain ethical principles or values may assume greater weight during an influenza pandemic, the Task Force considered all of these principles in developing this plan. After the Task Force completed its work, the Ethics Subcommittee of the Advisory Committee to the Director, Centers for Disease Control and Prevention, published its own ethical guidelines for an influenza pandemic.[12] The topics addressed and the conclusions reached in that document are similar to the ones presented in this report.

*The Task Force recognized the importance of fostering cooperation and collaboration among different governmental agencies, the public and private sectors, and private citizens.*

## Task Force Work

The NC IOM/DPH Task Force on Ethics and Pandemic Influenza Planning met over a period of nine months to examine the issues and develop an ethical framework for an influenza pandemic. The Task Force was cochaired by Leah Devlin, DDS, MPH, State Health Director, and Rosemarie Tong, PhD, Professor, Department of Philosophy, and Director, Center for Professional and Applied Ethics, at the University of North Carolina at Charlotte. The Honorable Carmen Hooker Odom, Secretary of the NC Department of Health and Human Services, served as the honorary co-chair. The Task Force was comprised of 34 other members, including representatives of public health and other governmental agencies, healthcare providers, business and industry, the faith community, advocacy groups, community leaders, healthcare ethicists, and representatives of underserved communities.

The work of the NC IOM/DPH Task Force on Ethics and Pandemic Influenza Planning was an initial attempt to get stakeholders to think about the ethical dilemmas that are likely to arise in the event of an influenza pandemic. In addition, NC IOM partnered with DPH, the Old North State Medical Society, and El Pueblo to host four regional forums, in order to obtain public input into these difficult ethical decisions. (See Appendix C.) These forums were targeted to the public and included outreach to racial and ethnic minorities and other underserved populations to ensure that their input was considered in the priority-setting process.

The Task Force was charged with developing an "ethical template" to guide public health officials, other government officials, business and community leaders, and individuals. It was impossible for the Task Force to consider all of the ethical issues that decision makers may encounter during a pandemic (eg, how are we going to deal with the deceased, are we going to recognize patient's personal treatment wishes, are we going to reallocate resources from less infected locations to more

e In developing its ethical principles, the Task Force reviewed the pandemic preparedness planning of the University of Toronto, Joint Center for Bioethics.[3,13]

infected locations, what are the opportunity costs of investing so much time and money into pandemic influenza preparation when there are many other public health concerns already occurring). Ultimately, the Task Force decided to focus on four areas:

(1) Responsibilities of healthcare workers to work and reciprocal obligations to protect and support these workers;

(2) Responsibilities of critical workers to work and reciprocal obligations to protect and support these workers;

(3) Rights of individuals versus protection of the public; and

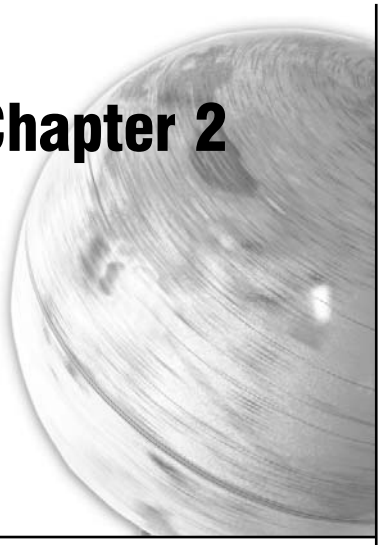
(4) Prioritization and utilization of limited resources.

The following chapters discuss these areas in more detail.

References

1. Dept. of Health and Human Services. Pandemic planning assumptions. Available at: http://www.pandemicflu.gov/plan/pandplan.html. Accessed Nov. 14, 2006.
2. North Carolina Div. of Public Health. North Carolina pandemic flu plan. Available at: http://www.epi.state.nc.us.libproxy.lib.unc.edu/epi/gcdc/pandemic.html. Updated Feb. 2007.
3. University of Toronto, Joint Center for Bioethics. Stand on guard for thee: Ethical considerations for pandemic preparedness planning. Available at: http://www.utoronto.ca.libproxy.lib.unc.edu/jcb/home/documents/pandemic.pdf. 2005.
4. Centers for Disease Control and Prevention. Key facts about influenza and the influenza vaccine. Available at: http://www.cdc.gov/flu/keyfacts.htm. Accessed Dec. 11, 2006.
5. World Health Organization. Current WHO phase of pandemic alert. Available at: http://www.who.int.libproxy.lib.unc.edu/csr/disease/avian_influenza/phase/en/index.html. Accessed Feb. 7, 2007.
6. Dept. of Health and Human Services. What would be the impact of a pandemic? Available at: http://www.pandemicflu.gov/general/index.html#impact. Accessed Dec. 11, 2006.
7. Dept. of Health and Human Services. Questions and answers: How much time does it take to develop and produce an influenza vaccine? Available at: http://answers.pandemicflu.gov/cgi-bin/pandemicflu.cfg/php/enduser/std_alp.php. Accessed Dec. 11, 2006.
8. Dept. of Health and Human Services. Pandemics and pandemic threats since 1900. Available at: http://www.pandemicflu.gov/general/historicaloverview.html. Accessed Feb. 14, 2007.
9. National Vaccine Program Office. Pandemics and pandemic scares in the 20th century. Available at: http://www.hhs.gov.libproxy.lib.unc.edu/nvpo/pandemics/flu3.htm. Accessed Dec. 11, 2006.
10. World Health Organization. Cumulative number of confirmed human cases of Avian Influenza A/(H5N1) reported to WHO. Available at: http://www.who.int.libproxy.lib.unc.edu/csr/disease/avian_influenza/country/cases_table_2007_03_01/en/index.html. Accessed Mar. 4, 2007.
11. Engel J. Pandemic influenza: Making tough decisions. Presentation at: Public Meeting on Pandemic Flu; Oct. 21, 2006; Charlotte, NC.
12. Kinlaw K, Levine R. Ethical guidelines in pandemic influenza–recommendations of the Ethics Subcommittee of the Advisory Committee to the Director, Centers for Disease Control and Prevention. 2007.
13. Thompson AK, Faith K, Gibson JL, Upshur RE. Pandemic influenza preparedness: An ethical framework to guide decision-making. BMC Med Ethics. 2006;7:E12.

# Chapter 2



# Healthcare Workers' Responsibility to Provide Care during an Influenza Pandemic

*Public health and the broader healthcare system will face tremendous challenges trying to prevent the spread of infection, while at the same time providing appropriate care for thousands of patients who become ill with acute and/or life-threatening infections.*

An influenza pandemic in North Carolina will place unprecedented strains on the healthcare system. Public health and the broader healthcare system will face tremendous challenges trying to prevent the spread of infection, while at the same time providing appropriate care for thousands of patients who become ill with acute and/or life-threatening infections. In addition, the healthcare system will still need to provide care to others who are ill, injured, or need other nonelective procedures unrelated to the flu. The services of a wide variety of healthcare institutions (eg, hospitals and nursing facilities),[a] healthcare organizations (eg, public health departments, home health and hospice), and businesses (eg, physicians' offices, drug stores, pharmaceutical manufacturers, and other medical suppliers), as well as licensed and unlicensed healthcare personnel (eg, physicians, nurses, respiratory therapists, behavioral health professionals, nurse aides, administrators, hospital-based spiritual care workers, and hospital maintenance staff) will be essential to respond effectively to such a pandemic. Throughout this section, we refer to healthcare institutions, organizations, and businesses as healthcare *organizations* and licensed and unlicensed healthcare workers as healthcare *personnel* or *workers* (unless specifically referring to licensed healthcare professionals). When we use the term "obligation" or "duty," we refer to a formalized commitment to care based on professional licensure or contractual obligations between employer and employee. When we refer to "responsibilities," we are referring to a general ethical commitment to assist others.

North Carolina healthcare organizations and personnel have had experience dealing with natural disasters such as floods, hurricanes, and ice storms. However, an influenza pandemic would differ from these natural disasters in the length of the crisis, the amount of outside support, the lack of healthcare workers, and the risk of secondary infection. Natural disasters tend to be short in duration, with the direct impact generally lasting less than a week, although there can be long term consequences. In contrast, a virulent influenza pandemic would likely consist of multiple waves of six weeks or longer in duration. Healthcare personnel and organizations from outside the directly affected area often volunteer to provide assistance in the aftermath of a natural disaster. In contrast, there would be few outside volunteers available during a pandemic, as healthcare personnel would be needed to care for infected individuals in their own communities. While healthcare organizations often have to operate with limited staff for short periods of time during a natural disaster, during a pandemic the healthcare system may experience much higher absenteeism rates. Additional complications may further reduce the availability of workers. Healthcare personnel generally do not put their own lives at risk during a natural disaster, but they may do so in the event of an influenza

a When we refer to healthcare institutions throughout this document, we include both public and private healthcare institutions. Public institutions include state and county hospitals, state psychiatric hospitals, alcohol and drug treatment centers, developmental centers, special care center, and schools for emotionally disturbed children. Private institutions include both not-for-profit and for-profit entities.

pandemic by increased exposure to flu patients. Healthcare personnel may also have conflicting family responsibilities that are not easily addressed during a pandemic. For example, healthcare personnel with young children may have no one to care for their children during a pandemic. Other resources, such as emergency daycare services, may be unavailable during a pandemic because of the possibility of exposing children to the infectious disease.

Because problems of shortage of staff and lack of appropriate resources are likely to arise, healthcare professionals may be called upon to assume responsibilities outside their normal scope of work. For example, a psychiatrist might be asked to intubate a patient if no anesthesiologists, surgeons, or emergency physicians are available; nurses who normally work in outpatient clinics and offices may be called upon to manage intensive care patients; or a pathologist may have to help triage and treat patients in an emergency setting. In the event of an adverse health outcome, this assumption of new responsibilities could potentially subject the healthcare professional to a malpractice suit.

### *Professional Obligation*

Licensed and nonlicensed healthcare professionals have an ethical obligation to provide care because:

1. The ability of physicians and other licensed healthcare professionals to provide care is greater than that of the public, thus increasing their obligation to provide care.
2. The licensed professions have a social contract, resulting from the privilege of self-regulation and self-licensure, that calls on members to be available in times of emergency.
3. By freely choosing a profession or job devoted to caring for the ill, healthcare personnel have assumed an ethical obligation to act in the best interests of the ill and to assume a proportional share of the risks to which their professions and/or employment setting expose them.

Healthcare personnel, healthcare organizations, licensure boards, and government must work together to maximize the likelihood that the healthcare system can respond to the crisis while at the same time providing necessary healthcare services to others with ongoing healthcare needs. Healthcare licensure boards and healthcare personnel should acknowledge duties to provide care during an influenza pandemic. Moreover, both government and healthcare organizations have a reciprocal duty to help keep the workers safe and to provide the financial, medical, and nonmedical support needed to help people work during a pandemic.

## Duty to Care

The duty of healthcare personnel to provide care during an influenza pandemic stems from three main sources: professional, employment, and general moral responsibilities to care for others.

*Professional obligation:* Licensed healthcare *professionals* (eg, doctors, nurses, and psychologists) have a *professional* duty that results from their choice of profession. This obligation is based on the fundamental professional commitment to care for the sick, the special expertise of healthcare professionals, the social privileges granted to healthcare professionals by reason of their exclusive scope of practice, their authority to self-regulate their profession, and the collegial obligation to assume a proportionate share of the risks inherent in care for patients in need.[1,2] For example, the American Medical Association states that:

> National, regional, and local responses to epidemics, terrorist attacks, and other disasters require extensive involvement of physicians. Because of their commitment to care for the sick and injured, individual physicians have an obligation to provide urgent medical care during disasters. This ethical obligation holds even in the face of greater than usual risks to their own safety, health or life. The physician workforce, however, is not an

> unlimited resource; therefore, when participating in disaster responses, physicians should balance immediate benefits to individual patients with ability to care for patients in the future.[b]

*Employment obligation:* All healthcare personnel, including licensed and unlicensed healthcare personnel, share an employment obligation to the healthcare organization(s) where they work. In return for their compensation, employees have a contractual obligation to meet their job responsibilities and to support the work of the organization. Society has an expectation that healthcare organizations will provide care in the event of a public health emergency. Organizations can only operate if they have adequate staffing, so employees must recognize a higher commitment to work when they accept employment within a healthcare organization. By choosing to work for an organization that provides healthcare services, all healthcare personnel have an employment obligation to provide care or to support the organization's provision of care to the public.

*Human responsibilities to care for others:* The welfare of everyone in the community is enhanced when all its members recognize their moral responsibility to assist each other in times of need. Healthcare personnel, just like other people in the community, have a moral responsibility to help others in need.

*The welfare of everyone in the community is enhanced when all its members recognize their moral responsibility to assist each other in times of need.*

## Countervailing Considerations

Although healthcare personnel have an ethical obligation to work during a pandemic, their responsibility is not absolute. The responsibility to provide care to patients and to work in a healthcare setting must be balanced against other potentially competing obligations. For example, healthcare professionals have a responsibility to care for themselves, so they can continue to provide care for the sick during and after the pandemic is over. Healthcare personnel may also have responsibilities to care for family members who are ill. Further, healthcare professionals also have a duty not to harm others by transmitting the disease and, therefore, must protect themselves to limit the spread of the disease.

## Reciprocal Obligations of Government and Healthcare Organizations to Enable Healthcare Personnel to Work during a Pandemic

Government agencies and healthcare organizations have a reciprocal obligation to protect and support healthcare personnel who are placing their own health at greater risk during a pandemic. In the SARS epidemic in Canada, for example, 43% of people who contracted the disease were healthcare workers.[2] Providing healthcare personnel with available protection and support will help enable them to carry out their duties to provide care during an influenza pandemic. Such duties of

b AMA Statement E-9.067 Physician Obligation in Disaster Preparedness and Response. The AMA Guidelines also state: "In preparing for epidemics, terrorist attacks, and other disasters, physicians as a profession must provide medical expertise and work with others to develop public health policies that are designed to improve the effectiveness and availability of medical care during such events. These policies must be based on sound science and respect for patients. ...Moreover, individual physicians should take appropriate advance measures to ensure their ability to provide medical services at the time of disasters, including the acquisition and maintenance of relevant knowledge." Issued December 2004 based on the report "Physician Obligation in Disaster Preparedness and Response," adopted June 2004.

protection and support may take many forms. For example, *healthcare organizations* should develop an influenza pandemic plan and identify the healthcare personnel or positions that are critical to the ongoing operation of the organization. The US Department of Health and Human Services has developed a series of planning checklists for healthcare providers, along with business, community and governmental organizations, to use in developing an influenza pandemic plan. (See Appendix G.) Healthcare organizations have a duty to inform workers that they are accepting a higher risk and responsibility when accepting employment in a healthcare organization.

## *Reciprocal Obligation*

Government and healthcare organizations have reciprocal duties to healthcare personnel:

1. Healthcare organizations have reciprocal obligations to ensure that the work asked of healthcare personnel does not exceed their professional capabilities, and that the tasks assigned are targeted to addressing the existing emergency. May involve "Just in Time" training.
2. Government and healthcare organizations have reciprocal duties to ensure that healthcare workers are suitably protected, compensated, and supported.
3. Government should provide healthcare personnel and organizations with qualified immunity from liability from malpractice or other suits if they act in good faith to provide needed health services during the pandemic.

Healthcare organizations should ensure that the work asked of their healthcare personnel does not exceed their professional capabilities. Prior to an influenza pandemic, healthcare organizations should develop staffing plans, cross-train healthcare personnel, and develop "just in time" training capabilities.[c] While healthcare organizations may need to ask staff to provide care outside their normal scope of work during an emergency, healthcare organizations should ensure that healthcare workers have the appropriate training needed to assume new responsibilities. The worker's best judgment about his/her personal capabilities and potential for harm should be recognized; in some circumstances, action by a worker who has not been suitably or recently trained may lead to a greater harm than failure to act.

Healthcare organizations have a duty to ensure that tasks assigned to healthcare personnel during an influenza pandemic are targeted to addressing the existing emergency. Organizations should only require workers to work on-site if they cannot adequately perform their duties at home or off-site through social distancing methods and if the healthcare needs cannot be met through other personnel who volunteer to work during the pandemic.

Healthcare organizations also have a reciprocal responsibility to provide resources to ensure workers are as safe, compensated, and supported as possible. Safety should be ensured, as much as possible, according to the standards set out by the Occupational Safety and Health Administration (OSHA) and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). For example, any worker with an increased risk of infection (eg, frontline healthcare workers who have daily contact with infected individuals) should be on the priority list to receive personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures. All employees needed for the ongoing operation of healthcare organizations should have access to behavioral health services[d] and other goods or services needed to enable them to work.

c "Just in time" trainings are specially tailored to help prepare healthcare personnel to assume new responsibilities. These trainings can be offered during a pandemic when specific gaps are identified and individuals are needed to assume new roles.

d Government and/or healthcare organizations should ensure workers have access to behavioral support services (including educational and training materials) to deal with the strain and stress of the influenza during and after the crisis.

Healthcare organizations also should assist critical healthcare personnel with dependent care and other appropriate services to enable those individuals to come to work. Similarly, healthcare organizations should provide ongoing support for the workers and their families, to ensure that the needs of the worker and his or her family will be met if the worker becomes ill or dies because of the influenza. Critical healthcare workers may be more likely to work if they know that their families will receive financial support if they get ill or die.

*Government* should ensure that individuals with direct influenza patient contact or those at increased risk of infection due to their required work be given priority access to personal protective equipment, vaccinations, antiviral medications, and other nonmedical control measures so as to protect these workers and prevent the spread of disease. (See Section on Prioritization for the Use of Limited Resources.) In addition, as discussed more fully below, there may be a degradation of the standard of care that can be provided in the event of a severe pandemic. Government should provide healthcare personnel and organizations with qualified immunity in the event of an adverse health outcome that results when healthcare workers need to assume responsibilities outside their normal scope of work, although liability should not be removed for gross negligence or malicious misconduct. Government agencies and individual healthcare organizations should also develop and disseminate clear plans for responding to an influenza epidemic. By providing protection and support for healthcare professionals, government and employers enable healthcare personnel to recognize and fulfill their duties to care for pandemic victims.

Thus, the Task Force believes that healthcare personnel have a duty to work, but that government and employers have a reciprocal obligation to provide them with support and protection that will enable them to work.

## Recommendation 2.1:

(a) **All healthcare personnel in healthcare settings have an ethical responsibility to perform their regular employment duties during an influenza pandemic and to assume new responsibilities for which they are trained, as long as actions by the healthcare personnel will not lead to greater harm than the failure to act.**

(b) **Government and healthcare organizations have a reciprocal responsibility to ensure that healthcare personnel are protected and supported to the extent possible. Frontline healthcare workers and others at increased risk of infection should have priority in receiving available personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures. All critical healthcare personnel should receive behavioral health services and other goods or services needed to enable them to work. In addition, organizations have a responsibility to ensure that workers are appropriately trained to fulfill the tasks assigned to them during a crisis.**

## Recommendation 2.2:

**Healthcare organizations should design business continuity plans to prepare for events such as a pandemic. Plans should identify the critical functions that must be continued and those positions that are critical to the continued operation of the healthcare organization. Workers who would be required to work should be made aware of the expectation to work during events such as a pandemic flu upon hiring or upon the adoption of the plan. The healthcare organization should specify the anticipated supports that will be available to the critical healthcare personnel to enable them to work, as well as the sanctions if critical healthcare personnel fail to show up for work when otherwise required to do so.**

**Scenario 1:** A psychiatrist has been called in to help hospital personnel cope with the stresses of the flu pandemic. Suddenly, while waiting to speak with emergency department physicians, a patient on a gurney begins to turn blue and struggle to breathe. All of the other physicians and healthcare workers are busy with equally ill patients. The psychiatrist knows that she must intubate the patient (eg, insert a breathing tube into the patient's airway) to help him breathe but has concerns because she has not intubated a patient since she was an intern 10 years ago. Should she intubate the patient? Is the risk of him dying greater than the risk of her injuring him while attempting to intubate him? What if something goes wrong?

**Scenario 2:** A nurse volunteers to help out at a local hospital during the first wave of the flu pandemic, though for the last 10 years he has worked exclusively in an outpatient clinic setting. The intensive care unit (ICU) nurses have been hit hard by the pandemic so many volunteer nurses at the hospital are being asked to help with ICU patients. The nurse in question has little, if any, experience managing such extremely ill patients, especially with the currently limited oversight by others with more experience. He does not know whether he should indeed help with the ICU patients or seek another way to help.

Depending on the nature of the influenza virus, healthcare professionals may face disproportionate health risks in caring for sick individuals. Healthcare personnel may be asked to work longer hours or under more stressful work conditions than generally allowed. If healthcare organizations are short-staffed because of increased demand for care or increased health personnel illnesses or absenteeism, other healthcare personnel may be called upon to provide services outside their normal scope of practice. Healthcare personnel and organizations may also have to ration services, and may not be able to offer the full array of healthcare services normally available to patients. For example, in the event of a virulent influenza epidemic, there may be insufficient ventilators to meet the respiratory needs of every infected individual in the state. Physicians and other healthcare personnel may be required to determine who receives ventilator services. If there is an adverse health outcome because of the need to ration healthcare services or the need for healthcare providers to work outside their normal scope of professional responsibility, healthcare personnel and organizations may be subject to professional liability lawsuits or other legal challenges.

In addition, healthcare workers who are required to be vaccinated in order to continue to provide healthcare services during an influenza pandemic should be compensated if they are injured due to the vaccine. Current state workers compensation laws offer protection to people who were injured because they were required to receive the smallpox vaccination, NCGS §97-53(29).[e] Similar protections do not exist for workers who are required to receive an influenza vaccine as part of their job responsibilities.

## Recommendation 2.3: In order to ask healthcare providers and other healthcare personnel to assume greater risk and responsibilities, The North Carolina General Assembly should:

**(a) Modify existing laws to clarify that in the case of a declared disaster under the North Carolina Emergency Management Act (NCGS Ch. 166A, Art. 1):**

**(i) The standard of care to be applied in any medical negligence action arising out of healthcare provided during an influenza pandemic is the standard of practice among members of the same healthcare profession with similar training and experience, practicing under the same circumstances including the unique circumstances presented by an influenza pandemic, and situated in the same or similar communities at the time the healthcare is rendered.**

e Current law considers certain conditions to be occupational diseases, compensable under workers compensation laws. This includes "Infection with smallpox, infection with vaccinia, or any adverse medical reaction when the infection or adverse reaction is due to the employee receiving in employment vaccination against smallpox incident to the Administration of Smallpox Countermeasures by Health Professionals, section 304 of the Homeland Security Act, Pub. L. No. 107-296 (Nov. 25, 2002)(to be codified at 42 USC §233(p)), or when the infection or adverse medical reaction is due to the employee being exposed to another employee vaccinated as described in this subdivision."

(ii) Healthcare personnel and healthcare organizations have qualified immunity from liability. Individuals and organizations should not be liable for damages due to injury or death, unless there is clear and convincing evidence that the harm was caused by gross negligence, wanton conduct, or intentional wrongdoing.

(iii) Healthcare personnel and healthcare organizations will be indemnified for the costs of defending the lawsuit, including attorneys' fees, unless the injury or death is found to be a result of gross negligence, wanton conduct, or intentional wrongdoing.

(b) Modify the workers compensation laws to provide benefits to individuals who are injured because they were required to obtain an influenza vaccination or other prophylaxis as part of their job responsibilities.

While the Task Force members believe that healthcare personnel have an obligation to work during an influenza pandemic by reason of their professional, employment, and general human responsibilities, the licensure boards are silent on this issue. Neither the North Carolina Medical Board, the North Carolina Board of Nursing, nor the North Carolina Respiratory Care Board have specific ethical or licensure requirements that these healthcare professionals have to work during a pandemic.[3-5] In the SARS epidemic, most healthcare personnel continued to work despite considerable personal risk.[2] Yet, some healthcare professionals refused to provide care to infected individuals, and some people left the profession or lost their jobs due to the refusal to report for work. A 2003 survey of US physicians found that 80% of physicians reported that they were willing to continue to care for patients in the event of a potentially deadly outbreak. A smaller percentage (55%) thought there was a duty to treat patients when endangering one's own health; fewer still (40%) were willing to put themselves at risk of contracting a deadly illness to save other lives.[6]

The Task Force believes that the ethical responsibilities of licensed healthcare personnel should be clarified by state licensure agencies.

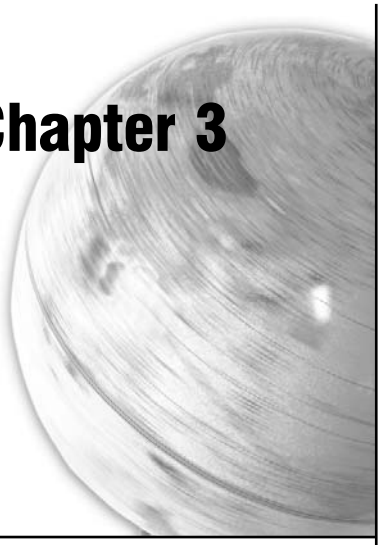
## Recommendation 2.4: The North Carolina Healthcare Licensure Boards should develop formal guidelines on the duty to provide care during emergencies, including outbreaks of infectious diseases. The guidelines should specify healthcare professionals' ethical duties, as well as the limits of such obligations.

The North Carolina Healthcare Licensure Boards should develop formal guidelines on the duty to provide care during emergencies, including outbreaks of infectious diseases. The guidelines should specify healthcare professionals' ethical duties, as well as the limits of such obligations.

References

1. Ruderman C, Tracy CS, Bensimon CM, et al. On pandemics and the duty to care: Whose duty? Who cares? *BMC Med Ethics.* 2006;7:E5.
2. Reid L. Diminishing returns? Risk and the duty to care in the SARS epidemic. *Bioethics.* 2005;19:348-361.
3. Rhyne J. Ethical obligations for physicians to work during a pandemic influenza outbreak. Presentation at: NC IOM/DPH Task Force on Ethics and Pandemic Influenza Planning meeting; Jun. 7, 2006; Cary, NC.
4. Burhans L. Ethical responsibility of healthcare workers to work and responsibility of healthcare institutions to support healthcare workers and other critical workers during a pandemic. Presentation at: NC IOM/DPH Task Force on Ethics and Pandemic Influenza Planning meeting; Jun. 7, 2006; Cary, NC.
5. Williams T. Ethical responsibility of healthcare workers to work and responsibility of healthcare institutions to support healthcare workers and other critical workers during a pandemic. Presentation at: NC IOM/DPH Task Force on Ethics and Pandemic Influenza Planning meeting; Jun. 7, 2006; Cary, NC.
6. Alexander GC, Wynia MK. Ready and willing? Physicians' sense of preparedness for bioterrorism. *Health Aff (Millwood).* 2003;22:189-197.

# Chapter 3



# Responsibility of Workers in Critical Industries to Work During an Influenza Pandemic

An influenza pandemic would have widespread, significant effects on North Carolina's workforce. During a flu pandemic, 40% of workers may be out ill, creating challenges for businesses and organizations to maintain normal operations. The US Department of Homeland Security (US DHS) identified seventeen critical industries that comprise the national infrastructure and would require protection in the event of a terrorist attack or other hazard:

(1) Agriculture and food;
(2) Energy;
(3) Public health and healthcare;
(4) Banking and finance;
(5) Drinking water and water treatment systems;
(6) Information technology;
(7) Telecommunications;
(8) Postal and shipping;
(9) Transportation systems;
(10) Chemical;
(11) Commercial facilities;
(12) Dams;
(13) Government facilities;
(14) Emergency services;
(15) Nuclear reactors, materials and waste;
(16) The defense industrial base; and
(17) National monuments and icons.[1]

*During a flu pandemic, 40% of workers may be out ill, creating challenges for businesses and organizations to maintain normal operations.*

Most of these industrial sectors, such as banking, utilities, transportation, communication, agriculture and food distribution, will need to continue functioning to provide society's essential goods and services during a pandemic. As with the healthcare industry, North Carolina's critical industries have experience maintaining essential functions during natural disasters such as hurricanes and ice storms. However, an influenza pandemic would place unprecedented stresses on the ability of an industry to function due to its duration, the likelihood of limited outside support, lack of workers, and risk of secondary infection. Thus, North Carolina's critical industries will face unprecedented challenges in the event of a virulent pandemic.

Critical industries will need to continue providing their essential goods and services during a flu pandemic, despite the difficulties. Workers in critical industries should acknowledge a responsibility to continue to work in times of crisis so that essential goods and services are provided to maintain the functioning of society. Unlike

# Responsibility of Workers in Critical Industries to Work During an Influenza Pandemic

**Scenario:** A manager at a local grocery store designates cashiers and shelf stockers as critical workers for an influenza pandemic. Months later there is news of an outbreak of pandemic influenza. The manager knows that the public will need food, but he is worried he will not be able to keep the grocery store open. Although he has informed his cashiers and shelf stockers that they are critical workers, the manager is not sure that these low-wage employees will report to work during a pandemic. His employees are afraid of becoming infected; they have expressed concerns about handling money and being in close proximity to customers who may be sick. The store does not have enough income to pay employees more for their work during the pandemic, and the manager is worried that the threat of termination will not be well received. He believes several of his employees would rather quit than work during a pandemic. In addition to these problems, the store does not have enough income to pay the employees that have not been designated as critical workers to stay home.

healthcare professionals or others who work directly with infected individuals, most critical workers will not have significantly increased risk of exposure to the disease. Nonetheless, some workers in critical industries may be at increased risk over those who stay at home or who work in more controlled environments. An individual may be contagious for several days before experiencing signs of illness. Thus, some individuals who work closely with the public may have a heightened risk of infection because they inadvertently may be exposed to someone with the virus. Employers and government should accept their reciprocal responsibility to provide a safe working environment, as well as necessary financial, medical, and nonmedical support to help employees work during a pandemic.

## Duty to Work

Most workers in critical industries may not have a strict "ethical" obligation to work during an influenza pandemic. Instead, the duty to work stems from workers' contractual obligation to their employers and from the general responsibility we all share to help others during times of crisis. However, workers in critical industries who have professional licenses may have an ethical obligation to work that emanates from their professional training. Similar to the obligation of healthcare workers, the enhanced obligation to work during a crisis stems from three main responsibilities: professional, employment, and general human responsibilities to care for others. But just as with healthcare workers, the obligation of workers in critical industries to work must be balanced against other considerations, including the responsibility to care for family members who are ill. Further, workers in critical industries who may themselves be ill or who may have been exposed to someone who is ill have a responsibility not to work so as to prevent transmitting the disease to others.

## Reciprocal Responsibilities of Government and Businesses

Critical industry employers and contractors, as well as government, have a reciprocal responsibility to protect and support workers to enable them to continue working during a flu pandemic. Depending on the nature of the influenza virus, workers in critical industries may face disproportionate health risks. Workers may be asked to work longer hours or under more stressful work conditions than generally allowed. If critical organizations are short-staffed because of increased demand, worker illnesses, or absenteeism, other workers may be called upon to provide services outside their normal scope of work.

Critical industries should develop an influenza pandemic plan, including identification of the personnel and positions essential to the industry's ongoing operation. (See Appendix G for information about the business preparedness checklist developed by the US Department of Health and Human Services.) Industries should only

require employees or contractors to work on-site if their job functions are necessary and cannot be handled adequately by working off-site, and if the job responsibilities cannot be met through other personnel who volunteer to work during a pandemic. Employers should be sensitive to the appearance of favoritism or inequity that could result if only lower-paid employees are required to work on-site while the higher paid executives or managerial staff is allowed to work off-site. To address this concern, the pandemic preparedness plan should ensure that the analysis of which functions are necessary to be performed on-site is guided solely by the responsibilities of the job and not by salaries, job titles, or any other aspects unrelated to job function. Workers should be informed of the increased need to work during a crisis if part of a critical industry. Employers should ensure that workers are not asked to assume work responsibilities that exceed their training and/or experience, unless they are first provided the training needed to perform the required functions.

*Employers should ensure that workers are not asked to assume work responsibilities that exceed their training and/or experience, unless they are first provided the training needed to perform the required functions.*

Government and critical industries have a reciprocal responsibility to assure that workers are as safe, compensated, and supported as possible. Thus, critical workers who are more likely to be exposed to infected individuals (eg, law enforcement or people who have extensive in-person interaction with the public) should be on the priority list to receive personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures.

Critical industry employers and contractors also should aid employees in other ways, as needed, to enable employees to work. Employers and/or contractors may need to assist workers in obtaining dependent care and other appropriate family services to enable these workers to come to work. Similarly, workers may be more likely to work if they know that their families will receive financial support if they become ill or die because they came into work and fulfilled their essential functions.

*Government* should ensure that individuals with direct contact with infected individuals or those at increased risk of infection due to their required work be given priority access to personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures. Due to the stress critical workers will be under during an influenza pandemic, they also should receive behavioral health services and other goods or services needed to enable them to work. Government agencies and the critical industries should also develop and disseminate clear plans for responding to an influenza epidemic. By providing protection and support for critical workers, government and employers enable workers to meet their job responsibilities so as to assure the necessary functioning of society.

## Recommendation 3.1:

**(a) Workers in critical industries have an ethical responsibility to perform their regular employment duties during an influenza pandemic and to assume new responsibilities for which they are trained, as long as actions by personnel will not lead to greater harm than the failure to act.**

(b) Government and employers have a reciprocal responsibility to ensure that workers are protected to the extent possible. For example, workers in critical industries at increased risk of infection should receive priority for available personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures. All critical workers should receive behavioral health services and other goods or services needed to enable them to work. In addition, employers have a responsibility to ensure that workers are appropriately trained to fulfill the tasks assigned to them during a crisis.

**Recommendation 3.2:** Employers and contractors should design business continuity plans to prepare for events such as a pandemic. Plans should identify those positions that are critical to the continued operation of the industry and whether the job needs to be performed on-site or can be adequately performed off-site. Workers who would be required to work should be made aware of the expectation to work during events such as a pandemic upon hiring or upon the adoption of the plan. Employers and contractors should specify the supports that will be available to the critical workers to enable them to work, as well as the sanctions that will be enforced if critical workers fail to show up for work during a time of crisis.

## Critical Infrastructure

As noted previously, US DHS has designated 17 key business and industrial sectors that are considered critical to the national infrastructure. However, these sectors are broad categories and do not adequately describe all of the specific businesses that are part of the critical infrastructure in a particular community. For example, US DHS lists "agriculture and food" as part of the critical infrastructure. However, US DHS does not specify which "food" businesses will be critical in the context of an influenza pandemic. Presumably, we will need farmers to continue to produce food and grocery stores to sell food during a pandemic. But will we need fast food organizations to continue their businesses as usual during a particularly virulent pandemic? Are all segments of the food industry "critical" to the functioning of society or should some organizations close or otherwise limit their contact with the public so as to prevent the spread of disease? The determination of which industries are critical in a particular community is a dynamic process that may change with the spread of the pandemic or depend on the epidemiology of the virus.

Government has the primary responsibility to determine the essential industries needed to maintain the basic functioning of society during a pandemic. However, businesses and industries have an independent responsibility to determine if they are essential to the community. Businesses and organizations should consider the effects not providing their services would have on the population in determining whether they are a critical industry. Businesses also may consider whether they can restructure their operations during a pandemic to help meet essential community needs. For example, rather than continue to provide food to the general public during a pandemic, fast food restaurants may consider working with governmental or community organizations to prepare and deliver food to homebound individuals and to utilize their drive-thru capacity. Regardless of whether an industry is considered "critical," all businesses and industries have a legal and a moral obligation to follow public health guidelines in order to minimize the spread of the disease.

## Recommendation 3.3:

(a) Federal, state, and local governments have the primary responsibility to identify the types of businesses that are essential to meet society's basic healthcare needs. Other businesses and organizations should also examine their services to determine if they provide essential goods and services for society.

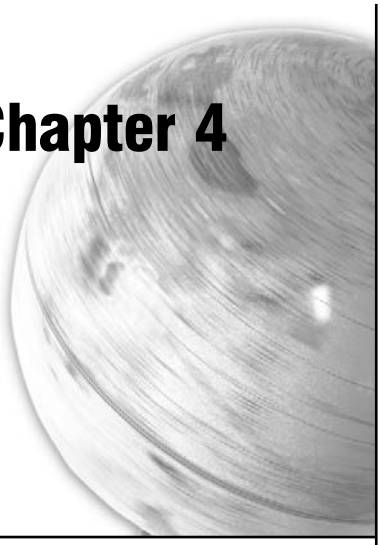
(b) During an influenza pandemic, organizations should prioritize the health of their employees and reduction of the spread of disease over the financial position of the organization.

(c) Organizations have a duty to follow the recommendations, guidelines, and restrictions that public health and other government officials provide. For example, if social distancing measures are recommended, organizations not in critical industries should comply with these recommendations.

### References

1. Dept. of Homeland Security. National infrastructure protection plan, executive summary. Available at: http://www.dhs.gov/xprevprot/programs/editorial_0827.shtm. Accessed Jan. 17, 2007.

# Balancing the Rights of the Individual and the Need to Protect the Public



## Chapter 4

One of the primary roles of government is to help protect the public from harm and to ensure the public's welfare. Public health leaders are specifically charged with promoting, protecting, and improving the health of communities. As a result, it is public health's responsibility, along with other government officials, to act to protect the overall health and well-being of the population during emergencies. In acting to protect the public, these officials may need to take steps which interfere with the rights of individuals. (See Appendix B for explanations of the authority of the governor and state and local government during disasters and emergencies.) This potential conflict between the rights of individuals and the need to protect the public raises ethical issues.

In a pandemic, public health officials may need to implement measures to limit illness and death or to slow the progress of the epidemic. These measures can conflict with personal liberties and individual privacy. Public health "community mitigation" measures may include isolation, quarantine, or other forms of social distancing, as well as selected release of personal health information. Isolation applies to individuals who actively have a disease.[a,b] Public health officials may require individuals with influenza or those suspected of having the pandemic influenza to remain at home, in temporary housing, or in a healthcare facility to prevent the spread of the disease to others. Quarantine applies to individuals who may have had contact with an infected person and may be contagious to others. As with infected individuals, public health officials may require exposed individuals to remain at home or in a special location. Isolation and quarantine are most effective in the early stages of an influenza pandemic, when not many people have been infected. The goal is to keep infected people or people who have been exposed to infected individuals away from the general public in order to minimize the spread of the disease.

Other types of social distancing measures may be necessary once the influenza virus is more widespread. The goal of social distancing measures is to reduce contact with potentially infected individuals. Such measures may include, but are not limited to: closing schools or day care centers, suspending large social gatherings (such as

*In a pandemic, public health officials may need to implement measures to limit illness and death or to slow the progress of the epidemic. These measures can conflict with personal liberties and individual privacy.*

a The North Carolina General Statutes already give the State Health Director and local health directors the authority to order quarantine and isolation. However, this power can only be exercised "when and so long as the public health is endangered, all other reasonable means for correcting the problem have been exhausted, and no less restrictive alternative exists." NCGS §130A-145. An individual who has had his/her freedom of movement curtailed through a public health official's orders can appeal the decision to Superior Court. The hearing on the public health order generally must be held within three days. The individual who requests the court review can be represented by an attorney or have an attorney appointed if the person is poor. Normally, a person's freedom of movement may not be limited for more than 30 days. The authorized public health official must obtain a court order to restrict a person's movement for more than 30 days.

b A more complete overview of public health's authority to issue isolation and quarantine orders is available.[1]

sporting events), or asking churches to suspend their normal services.[c] Public health or other government officials may also request that employees work off-site if they can, and may request that nonessential personnel voluntarily stay home from work. (See Appendix F for the US Department of Health and Human Services guidelines for use of different community mitigation strategies.)

*Social distancing can help reduce the spread of disease during influenza pandemics.*

Evidence suggests that social distancing can help reduce the spread of disease during influenza pandemics.[2] During a wave of the Spanish Flu, St. Louis was able to keep its death rate low by imposing restrictions on public gatherings (eg, conventions, theaters, schools, pool halls, dance halls, and lodges) early in the course of the pandemic (ie, when only 2.2% of people were infected), compared to Philadelphia which had a much higher death rate.[d] Philadelphia did not impose restrictions until more than 10% of its population had contracted the disease.

In addition to social distancing measures, it may be necessary for public health authorities to obtain confidential health records.[e] For example, healthcare professionals may need to release the name and contact information of infected individuals to public health officials in order to identify individuals who may need to be quarantined or isolated. Public health officials may need to take preventive measures that have not been fully tested in the early stage of the pandemic. These public health measures will be based on the best evidence available at the time. The Task Force recognized that it was not prudent to wait for epidemiological test results in the face of a rapidly spreading and potentially lethal influenza pandemic.

The NC IOM/DPH Task Force on Ethics and Pandemic Influenza Planning recognized that it may be necessary for public health or governmental officials to restrict individual liberties and privacy rights to limit the number of epidemic-associated illnesses and deaths or to slow the progression of the epidemic. Social distancing measures may also help reduce the risk infectious individuals pose to others.

The need to protect the public must be balanced with the rights and needs of the individual. Restrictions on personal liberties can pose significant difficulties for the individuals and families involved. Individuals and families may be adversely affected by the loss of income (eg, forgone wages, revenues, or other financial support) and social support (eg, inability to visit other family and friends). Other individuals—not subject to the restrictions—may be directly affected by the lack of access to family, friends, or colleagues, as well as indirectly affected by the lack of services or income provided by those individuals. Business and industry may be

c North Carolina local governments also have the authority to adopt ordinances that authorize local officials to restrict movement in public places; the operation of offices, businesses, and other places where people congregate; and the activities or conditions which may be needed to maintain order and protect lives or property during a disaster. NCGS §14-288.12(b). Local government officials may order these actions only to the extent permitted by their local ordinances, which vary across the state. However, the Governor may order any of these actions in any part of the state, whether or not the actions are addressed by local ordinances, if the Governor determines a state of emergency exists and local control is insufficient to protect lives and property. NCGS §14-288.15(c).

d Mortality data for 1918 provided by Marc Lipsitch (personal communication).[3]

e Healthcare professionals are required to report to the local health director any communicable disease specified by the North Carolina Commission for Health Services. NCGS §§130A-134, 135. Healthcare professionals must report any known or suspected novel influenza virus infection immediately and any influenza virus causing death in any individual younger than 18 within one day. 10 NCAC §§41A.0101(a)(29)(43). The personal health information that is reported to the local health director and to DPH is confidential and cannot be released further, except under very limited circumstances. NCGS §§130A-143.

affected by the loss of workers, customers, or other sources of income. Individuals charged with enforcing the control measures may be put at risk from interactions with infected and potentially distressed individuals.

Safeguards are needed to ensure that infringements on personal liberties are proportional to the need to protect the public and are applied equitably to all similarly situated individuals. For example:

(1) Public health officials should choose the least restrictive and least intrusive effective alternative that is necessary to protect the public.

(2) Public health interventions should be as just and fair as possible. Justice requires that affected individuals have due process rights to challenge the restrictions and that restrictions be applied equitably to similarly situated individuals.

(3) Public health should only seek the release of personal health information when needed to protect the public. The released information should be as limited as possible and the public should be aware of the safeguards in place to protect any information collected.

Thus, the Task Force recommends that:

## Recommendation 4.1: Government leaders should implement restrictions on personal liberties deemed likely to be effective to limit illness and mortality in the context of a pandemic, but should limit these measures to the least restrictive alternative reasonably necessary to protect the public.

Scenario: *Airline passengers arriving at Charlotte Douglas International Airport*

One of the passengers on a flight from Los Angeles to Charlotte has become ill with high fever and coughing. She is returning from a two week trip to Indonesia, where outbreaks of H5N1 in poultry are widespread and an increasing number of person to person clusters of illness have been reported. There have been no confirmed cases of the H5N1 virus in North Carolina. Upon arrival at Charlotte, she is taken off the plane first and evaluated by EMS. The decision is made to have her tested for avian influenza. Local and state public health officials, in conjunction with the Centers for Disease Control and Prevention's Division of Global Migration and Quarantine, are establishing a quarantine facility at the airport for the passengers on the flight from Los Angeles to Charlotte.

Two of the passengers have expressed a concern at being delayed. First, a prominent businesswoman needs to catch a connecting flight to Atlanta in four hours. She cannot afford to miss her flight or it will result in the loss of a large business contract. She is refusing to be delayed or put in quarantine. The other passenger is an unaccompanied 6-year-old boy who was traveling from his home in California to visit his grandparents in Gastonia. He is very frightened and has started to cry. He was supposed to meet his grandparents at the gate. His grandmother is in the terminal demanding to be reunited with her grandson.

Every attempt should be made to ensure that the public is aware of the need for epidemic-related restrictions of individual liberties. Informing the public about the reasoning behind these social distancing measures likely will improve compliance. Public feedback should be sought and public education should be provided regarding the measures, ideally prior to implementation. The public education campaign

should inform the public of the need for the measures, what the measures might include, ways individuals can prevent the spread of the disease, and the availability of due process hearings if they are subject to isolation or quarantine orders.[f] The government should use multiple media outlets (eg, newspaper, television, radio, internet) and telephone hotlines, and should work with trusted community leaders to educate the public about pandemic influenza preparedness and pandemic influenza symptoms. Additional education is also needed for court officials and other law enforcement officials who may be called upon to help enforce the public health measures.

## Recommendation 4.2:

**(a) Prior to and during the course of an pandemic, the North Carolina Department of Health and Human Services should partner with local health departments to develop a public outreach campaign to foster community awareness and understanding of pandemic influenza. The outreach campaign should:**

**(i) Include other stakeholders, community groups, and the media;**

**(ii) Ensure that the public is well informed of the potential need to use community mitigation efforts or to prioritize the use of limited resources; and**

**(iii) Include mechanisms to obtain ongoing feedback from the community prior to and during the course of an influenza pandemic.**

**(b) The North Carolina Department of Health and Human Services should continue to work with the North Carolina Justice Academy, Administrative Office of the Courts, local law enforcement, UNC School of Government, North Carolina National Guard, and North Carolina Department of Crime Control and Public Safety to create an understanding of the need to use social distancing measures and other community mitigation efforts to prevent the spread of disease in an influenza pandemic.**

During a pandemic, it will be critically important that accurate health information be conveyed to the public in a timely manner to minimize the spread of misinformation or panic. Public health officials as well as other officials in state government have an ethical obligation to ensure that the public is provided with timely, accurate health information in order to keep the public informed of the progress of the pandemic and measures the public can take to protect themselves and their families. The public information campaign should include facts about the origin of the virus and how the virus is spread in order to dispel rumors, innuendo, and prejudice. In addition, information should be provided about pandemic influenza symptoms, services that are available, and treatment that can be provided at home. The public is likely to demand a continuous source of information about the pandemic. To address this need, the NC Department of Health and Human Services, in collaboration with the Department of Crime Control and Public Safety, should provide a source of continuous up-to-date information such as a 24-hour television or radio show, telephone hotline, and/or a website to provide continuous information to the public. The information should be made available in several languages and in mediums that are accessible to people with visual or hearing impairments.

f Information should be available through multiple venues, including but not limited to the internet, newspapers, television, radio, etc., and in the multiple languages spoken by residents of North Carolina.

To address this need, the Task Force recommends:

**Recommendation 4.3:** **The Governor's Office, in conjunction with the North Carolina Department of Health and Human Services and the Department of Crime Control and Public Safety, should develop a coordinated communications plan, to ensure that the public obtains timely, accurate and continuous information about the influenza pandemic. Special attention should be paid to assure that this information is communicated to special populations, including, but not limited to, low-income communities, non-English speakers, and people who have visual or hearing impairments.**

Before a pandemic happens, government officials, as part of their communications plan, should disseminate information through community leaders (eg, faith leaders and physicians) and at community gathering places (eg, religious institutions, barber shops, beauty parlors, and funeral homes). Once a pandemic occurs, government officials may have to rely on these community leaders to get information to individuals and to discourage individuals from congregating.

Limits on individual rights should not be implemented in a manner that suggests the limits are punitive. The ill and exposed individuals are innocent victims who did not choose to become infected; thus they should not appear to be punished for their infection or exposure. For example, individuals who have been put in isolation or quarantine should not be detained in jails or prisons. Rather, any necessary institutional housing should be provided in nondegrading locations. In addition, public acceptance of social distancing measures will be enhanced if the public believes that it is being equitably applied based on sound scientific reasons intended to prevent the spread of disease. Thus, it is important to ensure that restrictions on personal liberty are not imposed on, or perceived as disproportionately falling on, any particular subpopulation (eg, low-income populations, people of a certain race or ethnicity).[q] If it is necessary to impose greater restrictions on certain subgroups (eg, because of greater housing density in certain communities), then the rationale based on the best science available must be clearly communicated to the public.

Individuals who have had their property seized by the state are entitled to just compensation.[r] Similarly, government should ensure that people who are subject to isolation or quarantine have their basic necessities met (including food, shelter, water, healthcare, utilities, and the ability to communicate with family and friends). Similar strategies may be necessary to support compliance with voluntary distancing measures as some individuals and families will have difficulties complying with social distancing requests without further assistance. Many people live from paycheck-to-paycheck and do not have jobs where they can work off-site. Without some help, they may be unable to comply with social distancing requests to stay at home.

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g During the SARS epidemic, persons of Chinese descent were more adversely affected by restrictions and prejudice, even though most of them had not been to Hong Kong (or had contact with someone from Hong Kong) and thus were not at an increased risk of being sick or being infectious to others. This phenomenon occurred in numerous countries.[4,5]

h The Governor has the authority to seize property during an emergency and/or operate utilities and/or transportation services. NCGS §166A-6(c)(3),(8). Individuals who have had their property confiscated or seized have a right to compensation. NCGS §166A-11(a).

There will likely be an increased demand for social services (eg, food stamps, cash assistance, or Medicaid) and other governmental support (eg, unemployment compensation or housing subsidies). Other social relief or community agencies also may be called upon to help families meet their basic subsistence needs during a pandemic. This increased need for assistance will cause tremendous logistic challenges because of the need for continued social distancing efforts to prevent the spread of disease. Governmental and community agencies may need to modify their normal operating procedures in order to minimize the risk of infection. Social service and relief agencies may need to take applications by mail or on the phone, instead of requiring people to apply in person. Similarly, religious leaders may be able to meet their congregations' spiritual needs through greater use of telephone, radio, internet or other mechanisms. Governmental or relief organizations also may be called upon to provide additional or different services to support social distancing efforts. For example, schools may be enlisted to prepare food for both the children who rely on school feeding programs and seniors or other people who are homebound. Prepandemic planning is important, both to identify how to meet these critical community needs and to minimize the potential spread of the disease. The US Department of Health and Human Services has developed pandemic preparation checklists for governmental, community, and faith organizations. (See Appendix G for references to these checklists.)

To ensure that families have the means to comply with social distancing orders and to prevent major social upheaval, the Task Force recommended:

## Recommendation 4.4:

**(a) All levels of government should ensure that individuals who are affected by isolation or quarantine orders receive needed assistance in accessing resources to meet their basic needs while they are subject to restrictions.**

**(b) Government, social relief agencies, and other community groups should coordinate efforts to address the basic subsistence needs of individuals who have been adversely affected by an influenza pandemic.**

Businesses and private organizations can also assist in promoting social distancing. Not only is it important for businesses to comply with public health orders, but it is also important for these institutions to provide continuing financial and other support to their employees, to the extent that they are financially able to do so. In their business continuity plans, businesses should identify both how they are going to take care of employees they ask to work during a pandemic as well as employees they send home during a pandemic. Businesses need to consider the impact that lost income and lost benefits might have on their employees.

## Recommendation 4.5:

**In developing business continuity plans, businesses should consider the impact that lost income and lost benefits will have on their employees. Businesses should strive, to the extent possible, to continue to provide financial and other assistance to their employees during an influenza pandemic.**

# Balancing the Rights of the Individual and the Need to Protect the Public

**Chapter 4**

A severe influenza pandemic will be a public health crisis of enormous magnitude. The economic impact on businesses and families will be unprecedented. Government, institutions, and businesses will try to assist individuals and keep social order, but they may be overwhelmed. Ultimately, individuals and families will also need to make some sacrifices. Individuals and families can help prepare for the crisis by engaging in prepandemic planning. While every family may not have the financial resources to stockpile food or other supplies, every family can learn how to limit the spread of germs and prevent infection. Families should review the checklist to prepare to the extent possible. (See Appendix G for references to the checklist for individuals and families.)

Adults with dependent family members (either old or young) will need to develop plans for how their families' needs can be addressed if child care, school, or adult day care facilities are closed. Families may also be called upon to assume new responsibilities during a pandemic. During a pandemic there will be a shortage of healthcare workers and limited space in medical facilities; consequently, the government may ask people to take care of sick family members at home. Government and other organizations can assist in these efforts by providing the public with information about how to protect family members from becoming infected, as well as how to treat family members who are ill. Ultimately, individuals and their families have a shared responsibility with government, businesses, and community groups to prepare for an influenza pandemic, and to help, when possible, in times of crisis.

The Task Force recommends:

**Recommendation 4.6:** **Individuals have a responsibility to prepare for an influenza pandemic. They should have reserve supplies and have plans to care for family members during a pandemic. In the event of a pandemic, individuals who are capable of going without government assistance should do so. Individuals should be encouraged to help out fellow citizens during this time of crisis.**

References

1. Moore J. The North Carolina public health system's isolation and quarantine authority. *Health Law Bulletin*. Available at: http://ncinfo.iog.unc.edu.libproxy.lib.unc.edu/pubs/electronicversions/pdfs/hlb84.pdf. 2006.
2. Jordan EO. Epidemic Influenza: A Survey. Chicago, Ill.: American Medical Association; 1927.
3. LeDuc JW. Is the pandemic upon us? H5N1 avian influenza—current status and preparedness activities. Presentation at: 9th Annual Force Health Protection Conference; Aug. 6-11, 2006; Albuquerque, NM.
4. Person B, Sy F, Holton K, Govert B, Liang A, National Center for Infectious Diseases/SARS Community Outreach Team. Fear and stigma: The epidemic within the SARS outbreak. *Emerg Infect Dis*. 2004;10:358-363.
5. Zheng G, Jimba M, Wakai S. Exploratory study on psychosocial impact of the severe acute respiratory syndrome (SARS) outbreak on Chinese students living in Japan. *Asia Pac J Public Health*. 2005;17:124-129.

# Chapter 5

# Prioritization and Use of Limited Resources During an Influenza Pandemic

In crisis situations, citizens often look to the government to manage the allocation of scarce essential resources. Many essential resources are likely to be limited in the event of an influenza pandemic. In particular, there will be a sudden increase in demand for medical supplies such as vaccines, antiviral medications, and ventilators. These demands, as well as the large numbers of ill persons, will stress the healthcare system's limits. Furthermore, large numbers of ill persons may make it difficult to maintain the normal functioning of many critical industries. As a result, there may be insufficient supplies of food, fewer essential services provided (eg, reduced frequency of garbage pick-up), and restrictions on certain utilities. Deciding who should have priority to receive limited resources during an influenza pandemic will be among the most difficult ethical dilemmas facing government officials, policy makers, and healthcare providers. Therefore, it is important to develop a framework for allocation decisions prior to the onset of a pandemic, and it is important to educate healthcare providers, policy makers, and the general public about the framework. These difficult allocation decisions should be based on widely-accepted, reasonable criteria. During an influenza pandemic, the reasoning behind the prioritization and distribution of limited resources should be acceptable to any group of individuals seeking to cooperate with others on mutually justifiable terms.[1] To gain public support, the reasoning, as well as the process used in developing the criteria, should be open and transparent.

*Deciding who should have priority to receive limited resources during an influenza pandemic will be among the most difficult ethical dilemmas facing government officials, policy makers, and healthcare providers.*

In its effort to gather public input into the processes for prioritizing resources in the event of an influenza pandemic, the Centers for Disease Control and Prevention (CDC) conducted the Public Engagement Pilot Project on Pandemic Influenza (PEPPPI) in 2005.[2,a] PEPPPI sought public input to identify the priorities which should be used to guide the distribution of limited influenza *vaccines*. While the PEPPPI goals were to develop a framework to distribute limited vaccines, a similar framework could be developed for the distribution of any type of limited healthcare resource, including antivirals, hospital beds, and ventilators. The Task Force considered five different ways of prioritizing limited healthcare resources:

- *Priority should be given to assure the functioning of society.* This goal would give priority in the distribution of limited resources to people who help in vaccine production and distribution, provide health and life-saving services, or are needed to maintain civil order or assure the provision of other critical services (ie, utilities, food distribution, or communications industries).
- *Priority should be given to reduce the incidence or spread of disease.* Under this system of prioritization, individuals who are most likely to contract or spread the disease would be given priority in the distribution of limited

a The participants discussed five potential goals in distributing limited vaccines: (1) save those most at risk; (2) put children and younger people first; (3) limit the larger effects on society; (4) use a lottery system; or (5) use the principle of "first come, first serve."

resources. These individuals may be people in certain professions (eg, healthcare providers or law enforcement personnel) who may contract the disease and inadvertently spread it to others (prior to being symptomatic), or other subpopulations who are more likely to spread the disease. For example, during a regular flu season, children are generally the most likely to spread the disease[3] although this may vary depending on the epidemiology of the pandemic influenza strain.

- *Priority should be given to reduce illness, hospitalizations, and death due to influenza.* Priority for limited healthcare resources should be given to those most likely to benefit from the resources. The population who would be most likely to benefit from the resources will vary based on the epidemiology of the particular outbreak and the resource being considered.[b] This priority group could include those who are more likely to catch the disease or those at greatest risk of influenza complications. Depending on the resource, it also might mean identifying those subpopulations who have the best chance of surviving the disease, but only if they get the resource as soon as possible.
- *Priority should be given to protect people with the most years of life ahead of them.* Priority for limited healthcare resources should be given to individuals who have the most productive years left to contribute to society. This goal would help ensure that younger people are given a priority for limited resources, as they have more years left to live.
- *There should be no groups that receive priority for the distribution of limited healthcare resources, in order to ensure that everyone has an equal chance of being protected.* Instead, individuals would be eligible for limited resources on a first-come, first-serve basis or through a lottery.

The Task Force recognized that these goals were not an exhaustive list of potential prioritization options.[c] Further, the priority given to the allocation of certain preventive resources (eg, vaccines) may not be the same as the priority that should be given to the allocation of limited healthcare resources needed for a patient who is already sick (eg, ventilators or hospital beds). One way to conceptualize the allocation decisions is to classify medical resources as either *pharmaceutical* or *nonpharmaceutical*. Furthermore, the resources may be used to either *prevent* someone from getting sick or to treat someone who has already contracted the disease. There may be reason to distribute vaccines and antivirals to healthcare workers and workers in critical industries so that they can maintain the basic infrastructure of society. However, this same priority system may not apply equally well to the distribution of hospital beds and/or ventilators, as seriously ill healthcare workers or other critical workers are less likely to be in a position to provide the critical services. Further, clinical factors

b For example, although the expectation is gererally that children and the elderly will be most at risk ofr mortality, some indications are that young adults may be more susceptible; for example, in the 1918 influenza, mortality rates were highest in 20-44-year-olds.

c Further, this was not an exhaustive list of possible prioritization principles. Additional objectives could include the quality of life years left or the life cycle principle. This idea is that "each person should have an opportunity to live through all the stages of life," modified to give priority to 20-year-olds over 1-year-olds because "the older individuals have more developed interests, hopes and plans but have not had an opportunity to realize them."[4]

may dictate that a ventilator might be more appropriate for one person over another irrespective of their regular job responsibilities. In addition, there may be different priorities established at different stages of the pandemic. For example, in the early stages of a flu pandemic, there may be a reason to limit vaccines to health professionals and to exposed individuals to prevent or impede the spread of the disease. Later, as vaccines become more widely available, there may be a broader group of individuals who should be in the priority list.

**We, as a society, value the inherent social worth of all individuals.** Thus, the priority an individual receives for limited healthcare resources should not be based on his or her preinfection health condition or disability status. Ethically, the goal of the treatment is to return the patient to his or her preinfection condition. The equity principle in Appendix A outlines a list of characteristics by which allocation decisions should not be made, such as race, color, religion, nationality, ethnicity, gender, age, disability, sexual orientation, geography, economic status, or insurance status.

**Scenario:** Three patients are afflicted with the flu and in need of a ventilator but only one ventilator exists. The three patients are a 10-year-old, a 40-year-old physician, and a 65-year-old retiree. Suppose that without the ventilator, the 70-year-old has a 30% chance of survival, the 40-year-old has a 50% chance of survival, and the 10-year-old has a 40% chance of survival. Who should get the priority to use the ventilator, and on what grounds should the decision be made? What if the 70-year-old was not retired, but an infectious disease doctor who had previously been treating patients with the pandemic influenza? Should the decision be changed?

**Overall, the ultimate goals of all allocation methods are to minimize deaths, illness, and social disruption.** Any prioritization list will be controversial as some people will benefit and others will not. Nonetheless, the Task Force members believe that having a priority system that serves different goals (depending on the different healthcare resources) is better than offering services on a first-come, first-serve basis. Given this framework, the Task Force created a recommended prioritization system that recognizes different goals for different resources: vaccines, personal protective equipment, antivirals, and curative resources.

There will be a very limited supply of vaccines when they are first made available. Once they are available, priority should be given to healthcare workers or other critical workers who are at increased risk of contracting the disease. This will help ensure the basic functioning of society and that there are sufficient healthcare personnel to care for people who become ill. Allocation also should be made with the goal of minimizing the spread of the disease among high-risk populations. Ultimately, the federal government may issue mandates or recommendations for how to distribute vaccines. (See Appendix D for recommended priority lists.) If mandatory, state and local agencies will be required to follow these guidelines. However, there is likely to be some discretion in how vaccines should be distributed within priority groups. In that event, the state should follow the recommendations specified herein.

*Personal protective equipment* will be critical early during a pandemic, when vaccines are not yet available. Personal protective equipment and other nonpharmaceutical prevention resources may be the only way to minimize the likelihood of contracting the virus. These limited resources should be first allocated to healthcare workers or other critical workers who are at increased risk of contracting the disease and to those who are at increased risk of spreading the disease. These individuals would include healthcare workers with direct patient care (including physicians, nurses, and nurse aides caring for people infected with the virus), public safety officers or ambulance drivers who are

working with infected people, and other critical workers at increased risk.

The Task Force identified a different priority system for allocating limited *antivirals* to treat those people who were infected with the pandemic influenza. In a regular flu season, certain individuals are more likely to experience serious complications from contracting the flu. These individuals, including the very young, very old, and those with high-risk conditions, are less likely to survive if they catch the flu. While the epidemiology of an influenza pandemic is not yet known, presumably there will be some individuals who are at higher risk of dying if they become sick. These individuals should have priority for antiviral medications. In addition, other healthcare workers or critical workers necessary to maintain the functioning of society during the pandemic should be given priority, so that they can recover their health and return to work. As with vaccines, the federal government will likely issue guidelines for the distribution of antiviral medications. (See Appendix E for recommended distribution list.) If there is discretion, the state should follow the guidelines specified herein.

Priority for these *curative resources*, such as ventilators or other limited hospital services, should be given to those who are most likely to benefit. The decision should be based on two related factors: the severity of the illness and the likelihood of recovery if provided the healthcare resources. Individuals who are critically ill but who are not likely to survive even if given the healthcare services should not have as high a priority as someone who is equally ill but who is likely to survive. The decision regarding who should obtain the limited healthcare resource should be based solely on clinical or epidemiological factors. Individuals who do not receive these potentially life-saving resources should still be eligible to receive palliative care.[5]

**Table 5.1**
**Task Force's Recommended Priority System**

| | **Pharmaceutical** | **Nonpharmaceutical** |
|---|---|---|
| **Prevention** | Vaccines | Personal Protective Equipment ( i.e., masks) |
| | *Goal: Assure the functioning of society and secondarily prevent spread of disease* | *Goal: Assure the functioning of society and minimize the spread of disease* |
| **Treatment** | Antiviral Medications | Treatment Services (i.e., ventilators, hospital beds) |
| | *Goal: Minimize illness, hospitalizations and death, and secondarily assure the functioning of society* | *Goal: Reduce illness, hospitalizations and deaths* |

The Task Force's recommended priority system is shown below in Table 5.1:

Even though a person may fall into a priority group, he/she may be unable to obtain needed vaccines, antiviral medications, or access to other healthcare resources if the resources are unavailable. Ideally, allocation methods should be based on clinically-based algorithms akin to organ transplantation prioritization methods, which identify clinical considerations that would guide the provision of services to one individual over another. For example, someone who would normally fall into one of the priority groups for vaccines may not be an appropriate candidate because they have a severe egg allergy

**Recommendation 5.1:** Limited healthcare resources should be allocated according to the following criteria:

(a) Allocation of vaccines (pharmaceutical prevention resources) should be made with the primary goal of assuring the functioning of society and the secondary goal of minimizing the spread of the disease.

(b) Allocation of nonpharmaceutical prevention resources (such as personal protective equipment) should be made with the goal of assuring the functioning of society and preventing the spread of the disease.

(c) Allocation of antivirals (pharmaceutical treatment resources) should be made with the primary goal of minimizing illness, hospitalization, and death and the secondary goal of assuring the functioning of society.

(d) Allocation of nonpharmaceutical treatment resources (eg, ventilators and hospital beds) should be made with the goal of reducing illness, hospitalization, and death.

or have reacted to other flu vaccines in the past. Similarly, if there are two individuals who need a ventilator, a decision may need to be made about who is most likely to survive if provided the ventilator. The equipment also may guide who receives the services. Ventilators for newborns will not work for adults and vice versa. It may not be possible to develop such algorithms early in the course of the pandemic, when data are limited about the prevalence of the disease among certain subpopulations and about long-term survival rates. In fact, such algorithms might not ever be possible.

There are many concerns regarding how one should prioritize and choose between individuals who need the healthcare resources. There are many studies that show that certain groups in our society do not have the same access to services or receive the same services as others, including the uninsured,[6,7] racial and ethnic minorities,[8] and people with disabilities.[9] The inequities in our current system are likely to be exacerbated during a pandemic. To try to reduce this likelihood, it is important to develop systems in advance of a pandemic to ensure that resource distribution decisions are made on objective, clinical, or epidemiological factors, and not based on subtle subconscious prejudices or due to overt political or financial influence. Ideally, allocation guidelines should be developed at the state level in advance of a pandemic. Individual healthcare institutions should use these guidelines when allocating limited resources. This will help prevent wide discrepancies across healthcare systems in the allocation of limited resources and minimize the likelihood that inappropriate factors are used to make decisions.

Even with state-level allocation guidelines, there may be times when healthcare providers or institutions are faced with individual decisions about who should receive a potentially life-saving resource (for example, if two people present at the hospital at the same time with equal chances of survival if provided with the healthcare services). To the extent possible, teams of providers within healthcare organizations—rather than individual practitioners—should be involved in these difficult allocation decisions. Such decisions should adhere to the ethical principles that value all human lives. The decisions should be based on clinical evidence and not on the patient's race, color, religion, nationality, ethnicity, gender, age, disability, sexual orientation, geography, economic status, insurance status, or other conditions if they do not affect the clinical outlook of the patient. Further, to the extent possible, individuals who do not make the priority list for life-sustaining care should be provided palliative care.[5]

## Recommendation 5.2:

(a) During an influenza pandemic, disease control and medical decisions should be based on clinical factors, the epidemiology of the spread of disease, and assuring the functioning of society. Decisions about which people to treat and what services to provide during an influenza pandemic *should not be made* based on socioeconomic or other factors unrelated to these criteria.

(b) Healthcare organizations need to create mechanisms in advance of a pandemic to ensure that clinical decisions are made according to the ethical principles set out in these guidelines.

The ideal method of allocating limited resources is to have a transparent process by which those decisions are made. Such a process would involve multiple perspectives and external consultation. It is necessary to try to include as many stakeholders as possible, as well as to educate the public as much as possible, in order to reduce potential public concern associated with resource distribution.[d] When stakeholders from a variety of groups are included in the decision-making process, it is less likely any particular group will be marginalized and, at least in its perception, unfairly treated by rationing decisions. Carefully educating the public on the need to prioritize and ration prior to a pandemic may help the public understand why a particular allocation system has been adopted and why it is in everyone's overall best interests to adhere to it. (See Recommendation 4.2.) The advance notice may help people adjust to and prepare for the difficult decisions that may affect them later. The unfortunate alternative is for people to discover that resources are limited only when they need the resources and cannot access them, which can lead to significant anger and panic.

Despite advance notice and preparation, there still is the possibility for public panic and attempts to procure limited resources in the event of shortages. For example, during Hurricane Katrina, some individuals broke into closed grocery stores to obtain needed food. Thus, it may be necessary to protect the people who have responsibility for distributing limited resources.

## Recommendation 5.3: State, local, and national law enforcement should provide appropriate protection, based on available resources, for individuals and organizations in custody of and responsible for distribution and administration of limited resources such as vaccines and antiviral medications.

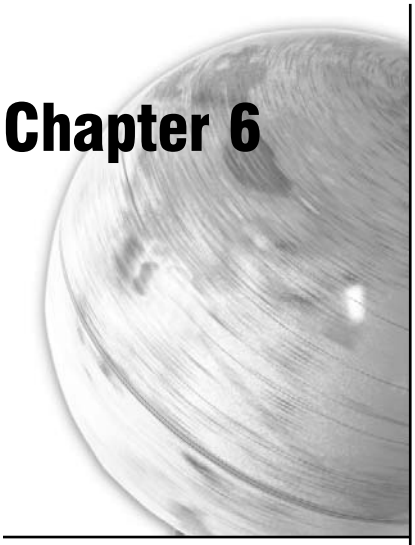
d Information should be available through multiple media and venues, including but not limited to the internet, newspapers, television, radio, etc., and in the multiple languages spoken by residents of North Carolina.

### References

1. Daniels N, Sabin J. Setting Limits Fairly: Can We Learn to Share Medical Resources? Oxford University Press; 2002.
2. Public Policy Center, University of Nebraska. Citizen voices on pandemic flu choices: A report of the public engagement pilot project on pandemic influenza. Available at: http://digitalcommons.unl.edu/publicpolicypublications/2/. 2005.
3. Centers for Disease Control and Prevention. Protecting children from flu. Available at: http://www.cdc.gov/flu/school/. Accessed Nov. 14, 2006.
4. Emanuel EJ, Wertheimer A. Public health. Who should get influenza vaccine when not all can? *Science.* 2006;312:854-855.
5. Rosoff PM. A central role for palliative care in an influenza pandemic. *J Palliat Med.* 2006;9:1051-1053.
6. Hadley J. Sicker and poorer: The consequences of being uninsured, executive summary. Available at: http://www.kff.org.libproxy.lib.unc.edu/uninsured/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=13971. Accessed Feb. 14, 2007.
7. Committee on the Consequences of Uninsurance, Institute of Medicine. Insuring America's Health: Principles and Recommendations. Washington, DC: National Academies Press; 2004.
8. Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington, DC: National Academies Press; 2003.
9. Melville C. Discrimination and health inequalities experienced by disabled people. *Med Educ.* 2005;39:124-126.

# Conclusion and Recommendations

# Chapter 6



In major emergencies, decisions must be made in a timely manner under high stress conditions and often in the face of incomplete information. This is the situation the state will confront in the event of an influenza pandemic. Decisions by the federal government, state agencies, healthcare professionals, emergency management responders, and other critical institutions will directly affect large numbers of residents and must be coordinated. Under such conditions, it will be important to have a set of ethical principles that serve as the blueprint to the coordinated response.

The Task Force addressed four ethical issues that the state is likely to face in the event of an influenza pandemic. Individuals (workers and their families), healthcare organizations, businesses, and faith and community organizations must work collaboratively with government in order to reduce the spread of infection, minimize illnesses and deaths, and prevent mass social disruption. The following are the Task Force's recommendations along with the groups that have primary responsibility for implementing these recommendations.

| | Government | Workers | Healthcare Organizations | Businesses | Families | Other |
|---|---|---|---|---|---|---|
| **Duty of Healthcare Workers to Work and Reciprocal Obligations of Government and Employers** | | | | | | |
| **Rec. 2.1:**<br>(a) All healthcare personnel in healthcare settings have an ethical responsibility to perform their regular employment duties during an influenza pandemic *and* to assume new responsibilities for which they are trained, as long as actions by the healthcare personnel will not lead to greater harm than the failure to act.<br>(b) Government and healthcare organizations have a reciprocal responsibility to ensure that healthcare personnel are protected and supported to the extent possible. Frontline healthcare workers and others at increased risk of infection should have priority in receiving available personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures. All critical healthcare personnel should receive behavioral health services and other goods or services needed to enable them to work. In addition, organizations have a responsibility to ensure that workers are appropriately trained to fulfill the tasks assigned to them during a crisis. | ✓ | ✓ | ✓ | | | |

| | Government | Workers | Healthcare Organizations | Businesses | Families | Other |
|---|---|---|---|---|---|---|
| **Rec. 2.2:**<br>Healthcare organizations should design business continuity plans to prepare for events such as a pandemic. Plans should identify the critical functions that must be continued and those positions that are critical to the continued operation of the healthcare organization. Workers who would be required to work should be made aware of the expectation to work during events such as a pandemic flu upon hiring or upon the adoption of the plan. The healthcare organization should specify the anticipated supports that will be available to the critical healthcare personnel to enable them to work, as well as the sanctions if critical healthcare personnel fail to show up for work when otherwise required to do so. | | ✓ | ✓ | | | |
| **Rec. 2.3:**<br>The North Carolina General Assembly should:<br>(a) Modify existing laws to clarify that in the case of a declared disaster under the North Carolina Emergency Management Act (NCGS Ch. 166A, Art. 1):<br>(i) The standard of care to be applied in any medical negligence action arising out of healthcare provided during an influenza pandemic is the standard of practice among members of the same healthcare profession with similar training and experience, practicing under the same circumstances including the unique circumstances presented by an influenza pandemic, and situated in the same or similar communities at the time the healthcare is rendered.<br>(ii) Healthcare personnel and healthcare organizations have qualified immunity from liability. Individuals and organizations should not be liable for damages due to injury or death, unless there is clear and convincing evidence that the harm was caused by gross negligence, wanton conduct, or intentional wrongdoing.<br>(iii) Healthcare personnel and healthcare organizations will be indemnified for the costs of defending the lawsuit, including attorneys' fees, unless the injury or death is found to be a result of gross negligence, wanton conduct, or intentional wrongdoing.<br>(b) Modify the workers compensation laws to provide benefits to individuals who are injured because they were required to obtain an influenza vaccination or other prophylaxis as part of their job responsibilities. | ✓ | ✓ | ✓ | | | |
| **Rec. 2.4:**<br>The North Carolina Healthcare Licensure Boards should develop formal guidelines on the duty to provide care during emergencies, including outbreaks of infectious diseases. The guidelines should specify healthcare professionals' ethical duties, as well as the limits of such obligations. | | | | | | ✓ licensure boards |

| | Government | Workers | Healthcare Organizations | Businesses | Families | Other |
|---|---|---|---|---|---|---|
| **Rec. 3.1:**<br>(a) Workers in critical industries have an ethical responsibility to perform their regular employment duties during an influenza pandemic and to assume new responsibilities for which they are trained as long as actions by the healthcare personnel will not lead to greater harm than the failure to act.<br>(b) Government and employers have a reciprocal responsibility to ensure that workers are protected to the extent possible. For example, workers in critical industries at increased risk of infection should receive priority for available personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures. All critical workers should receive behavioral health services and other goods or services needed to enable them to work. In addition, employers have a responsibility to ensure that workers are appropriately trained to fulfill the tasks assigned to them during a crisis. | ✓ | ✓ | | ✓ | | |
| **Rec. 3.2:**<br>Employers and contractors should design business continuity plans to prepare for events such as a pandemic. Plans should identify those positions that are critical to the continued operation of the industry and whether the job needs to be performed on-site or can be adequately performed off-site. Workers who would be required to work should be made aware of the expectation to work during events such as a pandemic upon hiring or upon the adoption of the plan. Employers and contractors should specify the supports that will be available to the critical workers to enable them to work, as well as the sanctions that will be enforced if critical workers fail to show up for work during a time of crisis. | | ✓ | | ✓ | | |
| **Rec. 3.3:**<br>(a) Federal, state, and local governments have the primary responsibility to identify the types of businesses that are essential to meet society's basic healthcare needs. Other businesses and organizations should also examine their services to determine if they provide essential goods and services for society.<br>(b) During an influenza pandemic, organizations should prioritize the health of their employees and reduction of the spread of disease over the financial position of the organization.<br>(c) Organizations have a duty to follow the recommendations, guidelines, and restrictions that public health and other government officials provide. For example, if social distancing measures are recommended, organizations not in critical industries should comply with these recommendations. | ✓ | | | ✓ | | |

| | Government | Workers | Healthcare Organizations | Businesses | Families | Other |
|---|---|---|---|---|---|---|
| **Balancing the Rights of the Individual and the Need to Protect the Public** | | | | | | |
| **Rec. 4.1:**<br>Government leaders should implement restrictions on personal liberties deemed likely to be effective to limit illness and mortality in the context of a pandemic, but should limit these measures to the least restrictive alternative reasonably necessary to protect the public. | ✓ | | | | | |
| **Rec. 4.2:**<br>(a) Prior to and during the course of an pandemic, the North Carolina Department of Health and Human Services should partner with local health departments to develop a public outreach campaign to foster community awareness and understanding of pandemic influenza. The outreach campaign should:<br>(i) Include other stakeholders, community groups, and the media;<br>(ii) Ensure that the public is well informed of the potential need to use community mitigation efforts or to prioritize the use of limited resources; and<br>(iii) Include mechanisms to obtain ongoing feedback from the community prior to and during the course of an influenza pandemic.<br>(b) The North Carolina Department of Health and Human Services should continue to work with the North Carolina Justice Academy, Administrative Office of the Courts, local law enforcement, UNC School of Government, North Carolina National Guard, and North Carolina Department of Crime Control and Public Safety to create an understanding of the need to use social distancing measures and other community mitigation efforts to prevent the spread of disease in an influenza pandemic. | ✓ | | ✓ | | | ✓ media, comm. groups |
| **Rec. 4.3:**<br>The Governor's Office, in conjunction with the North Carolina Department of Health and Human Services and the Department of Crime Control and Public Safety, should develop a coordinated communications plan to ensure that the public obtains timely, accurate, and continuous information about the influenza pandemic. Special attention should be paid to ensure that this information is communicated to special populations including, but not limited to, low-income communities, non-English speakers, and people who have visual or hearing impairments. | ✓ | | | | | ✓ media, comm. groups |
| **Rec. 4.4:**<br>(a) All levels of government should ensure that individuals who are affected by isolation or quarantine orders receive needed assistance in accessing resources to meet their basic needs while they are subject to restrictions. | ✓ | | | | | ✓ social relief agencies, comm. groups |

| | Government | Workers | Healthcare Organizations | Businesses | Families | Other |
|---|---|---|---|---|---|---|
| (b) Government, social relief agencies, and other community groups should coordinate efforts to address the basic subsistence needs of individuals who have been adversely affected by an influenza pandemic. | | | | | | |
| **Rec. 4.5:** In developing business continuity plans, businesses should consider the impact that lost income and lost benefits will have on their employees. Businesses should strive, to the extent possible, to continue to provide financial and other assistance to their employees during an influenza pandemic. | | | ✓ | ✓ | | |
| **Rec. 4.6:** Individuals have a responsibility to prepare for an influenza pandemic. They should have reserve supplies and have plans to care for family members during a pandemic. In the event of a pandemic, individuals who are capable of going without government assistance should do so. Individuals should be encouraged to help out fellow citizens during this time of crisis. | | | | | ✓ | |
| **Prioritization and Use of Limited Resources During an Influenza Pandemic** | | | | | | |
| **Rec. 5.1:** Limited healthcare resources should be allocated according to the following criteria:<br>(a) Allocation of vaccines (pharmaceutical prevention resources) should be made with the primary goal of assuring the functioning of society and the secondary goal of minimizing the spread of the disease.<br>(b) Allocation of nonpharmaceutical prevention resources (such as personal protective equipment) should be made with the goal of assuring the functioning of society and preventing the spread of the disease.<br>(c) Allocation of antivirals (pharmaceutical treatment resources) should be made with the primary goal of minimizing illness, hospitalization, and death and the secondary goal of assuring the functioning of society.<br>(d) Allocation of nonpharmaceutical treatment resources (such as ventilators and hospital beds) should be made with the goal of reducing illness, hospitalization, and death. | ✓ | | ✓ | | | |
| **Rec. 5.2:**<br>(a) During an influenza pandemic, disease control and medical decisions should be based on clinical factors, the epidemiology of the spread of disease, and assuring the functioning of society. Decisions about which people to treat and what services to provide during an influenza pandemic *should not be made* based on socioeconomic or other factors unrelated to these criteria. | ✓ | | ✓ | | | |

| | Government | Workers | Healthcare Organizations | Businesses | Families | Other |
|---|---|---|---|---|---|---|
| (b) Healthcare organizations need to create mechanisms in advance of a pandemic to ensure that clinical decisions are made according to the ethical principles set out in these guidelines. | | | | | | |
| **Rec. 5.3:** State, local, and national law enforcement should provide appropriate protection, based on available resources, for individuals and organizations in custody of and responsible for distribution and administration of limited resources such as vaccines and antiviral medications. | ✓ | | | | | |

The work of the NC IOM/DPH Task The work of the NC IOM/DPH Task Force on Ethics and Pandemic Influenza Planning encouraged stakeholders from a variety of groups to consider and discuss the ethical dilemmas that are likely to arise in the event of an influenza pandemic. Advance notice of these dilemmas may help people adjust to and prepare for the difficult decisions that may affect them later. These recommendations form the basis of an ethical template that can guide some of the tough ethical choices that public and private organizations and individuals will face when in the midst of a pandemic. The Task Force was unable to identify every possible ethical issue that would arise during this potential crisis. The unpredictable nature of influenza pandemics will force individuals, industries, healthcare professionals, organizations, and government officials to examine and modify these guidelines as more information becomes known.

# Appendix A

# Ethical Principles to Guide Societal Decision Making for an Influenza Pandemic

In major emergencies, whether man-made or natural, decisions have to be made in a timely manner under high stress conditions. This is the situation the state will most likely confront in the event of an influenza pandemic. Decisions by the federal government, state agencies, healthcare professionals, emergency management responders, and other critical institutions will need to be coordinated and will directly affect large numbers of residents. Under such conditions, often in the face of incomplete information, it will be important to have a set of ethical principles that serve as the blueprint to the coordinated response.

During a major influenza pandemic, there is likely to be insufficient time to discuss the ethical trade-offs inherent in critical decisions. Likewise, it is impossible to anticipate all possible key decisions that could develop during an emergency. Therefore, it is important to specify a social contract that outlines the ethical principles society determines should be considered while deliberating key decisions.[a] Developing an ethical blueprint in advance of a pandemic, seeking public input into the principles, and then applying these ethical guidelines to the decisions which decision makers will confront will help assure the public that decision makers are making reasoned responses to the crisis. Acceptance of the response will increase the likelihood that society maintains order during the emergency.

| Ethical Principles | Description |
|---|---|
| Individual liberty | Individual liberty includes some of the basic rights which we value in our society, such as freedom of movement. In an influenza pandemic, restrictions to individual liberty such as isolation or quarantine may be necessary to protect the public from serious harm. In addition, some taking of private property may be necessary. Restrictions and takings should:<br>● Be necessary given the nature of the influenza pandemic;<br>● Employ the least restrictive means needed to protect the public; and<br>● Be applied equitably to similarly situated individuals irrespective of race, color, religion, nationality, ethnicity, gender, age, disability, sexual orientation, geography, economic status, or insurance status unless there are specific clinical reasons why different groups should be treated differently. |
| Protection of the public from harm | Protecting the public is a fundamental social value. To protect the public from harm and to protect public health, governmental authorities may be required to take actions that impinge on individual liberty, such as quarantine or isolation. In making these determinations, decision makers should:<br>● Balance the harm to the public that could arise if no action is taken with the harm to the individual(s) that could result if action is taken; |

a In developing its ethical principles, the Task Force reviewed the pandemic preparedness planning of the University of Toronto, Joint Center for Bioethics.[1]

## Appendix A

# Ethical Principles to Guide Societal Decision Making for an Influenza Pandemic

| Ethical Principles | Description |
|---|---|
| | ● Provide reasons and/or incentives to encourage voluntary compliance;<br>● Employ the least intrusive means needed to protect the public and ensure that the basic necessities of the people subject to quarantine or isolation are being met;<br>● Discontinue protections as soon as circumstances permit;<br>● Specify penalties that will be used to address noncompliance (eg, jail or fines); and<br>● Establish mechanisms to address actual or perceived inequitable impositions of penalties. |
| Proportionality | Restrictions to individual liberty, or other measures taken to protect the public from harm, should not exceed what is necessary to address the actual level of risk to or critical needs of the community. |
| Privacy | Individuals generally have a right to privacy in healthcare. Healthcare providers generally have a legal responsibility to protect individual privacy. Current state and federal laws allow for the sharing of healthcare information in some circumstances, including outbreaks and other public health emergencies, if the information must be shared to protect the public's health. In addition, it may be necessary to share other nonhealth-related personal information during a disaster or emergency. Any infringement on a person's privacy should:<br>● Be limited to the information that is pertinent and relevant to the emergency;<br>● Employ the least intrusive means needed to protect the public;<br>● Be consistent with what the law permits;<br>● Be as confidential as the circumstances permit; and<br>● Be discontinued as soon as circumstances permit. |
| Reciprocity | Certain individuals will be called upon to bear a disproportionate risk to their health or life in responding to an influenza pandemic. These individuals would include healthcare professionals and other healthcare workers, emergency management workers and other first responders, and workers in other critical industries or key professions. Reciprocity requires that society support those who face a disproportionate burden in protecting the public and take steps to minimize this burden as much as possible. In some instances, reciprocity may require additional compensation, services, care or special considerations for disproportionately burdened individuals. |
| Duty to provide: healthcare workers | Inherent to all codes of ethics for healthcare professionals is the duty to provide care and to respond to suffering. Healthcare professionals, because of their training, knowledge, and commitment to care for the sick and injured, have a heightened obligation to provide healthcare during an influenza pandemic. Licensed healthcare professionals have a heightened responsibility to care for the ill because of the special privileges and monopoly conferred on licensed healthcare professionals. This obligation exists even in the face of increased risk to the healthcare professionals' health or safety. However, healthcare professionals need to balance the ability to meet the healthcare needs of individual patients during an influenza pandemic with the ability to care for patients in the future. Healthcare organizations and society, at large, owe support (reciprocity) to healthcare workers who may be putting themselves or their families at increased risk during an influenza pandemic. |

# Ethical Principles to Guide Societal Decision Making for an Influenza Pandemic

## Appendix A

| Ethical Principles | Description |
|---|---|
| Duty to work: other critical infrastructure | Continuity of social order requires certain basic services such as food, water, and utilities to be available to the public. Emergency management workers and other first responders (such as public safety workers) will be relied on heavily to maintain calm. Workers in key infrastructure industries may be called upon to work during a public health crisis, sometimes at increased health risk to themselves. Although workers in some industries likely already recognize their critical role and accept higher risks, workers in other industries may be more reluctant to accept higher risk during a public health emergency. Employers and society, at large, owe support (reciprocity) to key workers who may be putting themselves or their families at increased risk during an influenza pandemic. |
| Equity | Values of distributive justice and equity state that all people have equal moral worth. However, during an influenza pandemic, all individuals may not be able to receive all needed healthcare services. Difficult decisions will have to be made about whom to treat and about which healthcare services to provide and which to defer. Depending on the severity of the health crisis, some individuals may not be able to receive all the healthcare services needed to treat the flu (such as ventilators). Others may not be able to receive elective surgeries, emergency care, or other necessary services. Decisions about whom to treat and access to needed healthcare services during an influenza pandemic *should not be* based on an individual's race, color, religion, nationality, ethnicity, gender, age, disability, sexual orientation, geography, economic status, or insurance status, unless there are specific clinical reasons why different groups should be treated differently. Furthermore, equity concerns may arise in decisions other than treatment. For example, equity issues may arise if certain healthcare workers are not required to work during a pandemic (eg, pregnant women or single parents) or if certain workers are required to work longer hours or remain at the worksite.[b] |
| Trust | Trust is an essential component of the relationships among clinicians and patients, staff and their organizations, and the public and governmental organizations. Decision makers will be confronted with the challenge of maintaining the public's trust while simultaneously implementing various control measures during an evolving health crisis. Trust is indispensable for expectations of compliance. Trust is enhanced by transparency in decision making, equity in the application of restrictions and/or allocation of limited resources, and reciprocity toward those with an increased burden. |
| Collaboration | Response to an influenza pandemic requires collaboration and cooperation within and among governmental officials and organizations, government, public and private healthcare institutions, healthcare professionals, other public and private organizations, and individuals. It calls for approaches that set aside narrow self-interest or territoriality. |
| Stewardship | Those entrusted with governance roles or resource allocation should be guided by the notion of stewardship. Stewardship means the careful and responsible management of something entrusted to one's care. In order to achieve the common good, decisions involving resource allocations should be made to achieve the best public health outcomes. |

b NCGS §166A-12. Nondiscrimination in emergency management states that "state and local governmental bodies, organizations and personnel shall not discriminate on the grounds of race, color, religion, nationality, sex, age, or economic status in the distribution of supplies, the processing of applications and other relief and assistance activities."

# Appendix A

## Ethical Principles to Guide Societal Decision Making for an Influenza Pandemic

| Procedural Values | Description |
|---|---|
| Reasonableness | Public and private leaders must ensure that their decisions are reasonable to obtain public acceptance of the sacrifices that will need to be made in an influenza pandemic. Decisions should be based on reasons (ie, evidence, principles, and values) that are relevant to meeting the public's needs in an influenza pandemic. The decisions should be credible, accountable, and trustworthy, and should be made impartially and with objectivity. |
| Transparency | It is important to keep the public informed about the influenza pandemic, resource allocation decisions, ways to best protect personal and public health, and other relevant information so that individuals and families can make informed choices and take necessary steps to protect themselves. The process by which decisions are made should be open to scrutiny, and the basis upon which decisions are made should be publicly accessible. |
| Truth telling | Public officials, business and community leaders, and the media should provide accurate information in a timely and responsible manner to help keep the public informed. |
| Inclusiveness | Decision makers should obtain and consider public input. Decision makers have a responsibility to inform the public and engage relevant stakeholders in the course of the decision-making process. Special efforts should be made to include representatives from marginalized and vulnerable populations early on in policy discussions. |
| Responsiveness | There should be opportunities to revisit and revise decisions as new information emerges throughout an influenza pandemic. There should be mechanisms to address disputes and complaints; however, the extent of the review process must be balanced with the need to make quick decisions in the midst of an influenza pandemic. |
| Timeliness | When the state is in the midst of an influenza pandemic, state and local officials may have to make decisions quickly in order to protect the public. The general ethical principle of inclusiveness must be balanced against the need to take timely actions to protect the public's health or to maintain order. However, the underlying rationale for the decisions should be conveyed to the public as soon as possible thereafter to maintain a transparent, responsive, and accountable process. |
| Accountability | There should be mechanisms in place to ensure that decision makers are answerable for their actions and inactions and ensure that individuals, institutions, and businesses do not unfairly profit as a result of an influenza pandemic. |


References

1. Thompson AK, Faith K, Gibson JL, Upshur RE. Pandemic influenza preparedness: An ethical framework to guide decision-making. BMC Med Ethics. 2006;7:E12.

# Appendix B

# Authority of the Governor, State, and Local Government During Disasters and Emergencies

## *Questions and Answers*[1,a]

***Statutory authority for actions taken during emergencies or disasters.***

The Governor's Authority during disasters and emergencies is found in NCGS Ch.166A, Art. 1 and NCGS Ch. 14, Art. 36A. Specifically, NCGS Ch. 166A sets forth the "authority and responsibility of the Governor, State agencies, and local governments in prevention of, preparation for, response to and recovery from natural or man made disasters or hostile military or paramilitary action." NCGS Ch. 14, Art. 36A sets forth the authority and responsibility of local governments in response to riots or disorders that could arise in the event of an emergency or disaster. The Governor can only use the authority in Chapter 14 if local control of the emergency is insufficient. In addition, the State Health Director also has specific authorities to address public health emergencies found in NCGS Ch.130A, and the Secretary of Crime Control and Public Safety has authority for state emergency management activities under NCGS Ch.166A and §143B-476.

***Would these statutory provisions apply in the event of a flu pandemic?***

Yes. The statutes are written broadly enough to apply during a flu pandemic. The North Carolina Emergency Operations Center would be activated, and the State Emergency Response Team would coordinate the state's response as in any other natural disaster. For example:

- NCGS §166A-4(1) defines disaster as "An occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property ***resulting from any natural*** or man made accidental, military or paramilitary ***cause***." NCGS §166A-6(a) gives the Governor or General Assembly the authority to declare a state of disaster.
- NCGS Ch. 14, Art. 36A authorizes local governments to enact ordinances to take certain actions in emergencies, including closing public places and restricting the movement of people in public places. NCGS §14-288.1(10) defines state of emergency as "the condition that exists whenever, during times of public crisis, disaster, rioting, catastrophe, or similar public emergency, public safety authorities are unable to maintain public order or afford adequate protection for lives or property, or whenever the occurrence of any such condition is imminent." NCGS §14-288.15(a) gives the Governor the authority to intervene only if the Governor determines that a

a Ms. Perry provided the following disclaimer: The information provided to the Task Force was not an official advisory letter or advisory opinion of the Attorney General, and has not been reviewed and approved in accordance with procedures for issuing an Attorney General's opinion. Additional information was provided by Jill Moore, JD, UNC School of Government. Specific information about the State Health Director's power quarantine and isolation authority was excerpted.[2]

state of emergency exists and finds that local control of the emergency is insufficient. In those circumstances, he can exercise the authority needed to "assure adequate protection for lives and property." NCGS §14-288.15(a).

***What authority does the Governor have to protect the public during a flu pandemic?***

The Governor has broad authority to protect the public during a state emergency or disaster. For example, some of the Governor's powers include:

- Making, amending, or rescinding orders, rules, and regulations within the limit of authority conferred upon him, considering the policies of the federal government; NCGS §166A-5(1)a1.
- Delegating any authority vested in him; NCGS §166A-5(1)a2.
- Utilizing the services, equipment, supplies, and facilities of existing departments, offices, and agencies of the state and political subdivisions thereof. The officers and personnel of all such departments, offices, and agencies are required to cooperate with and extend services and facilities to the Governor upon request; NCGS §166A-5(1)a6.
- Coordinating the use of any private facilities, services, and property; NCGS §166A-5(3)f. and
- Taking actions and giving directions to state and local law enforcement officers and agencies as may be reasonable and necessary for the purpose of securing compliance with orders, rules, and regulations made pursuant to the emergency management act. NCGS §166A-6(b)(2).

***Can the Governor take private property during an emergency caused by a pandemic flu?***

The statutory authority is broad and includes the authority to take private property during an emergency. For example:

- The Governor has the authority to procure, by purchase, condemnation, seizure, or other means... facilities for emergency management without regard to limitation of existing law. NCGS §166A-6(c)(8).
- If the Governor or state seizes the property, then the individuals are entitled to compensation. NCGS §166A-11(a). The right to compensation for services or the taking or use of property only applies if it has been determined that the individual did not volunteer his or her services or property without compensation.
- Further, the individual or firm that owned the private property is not liable for the death or injury or any damage that occurs on the property if used during the emergency. NCGS §166A-15.

The statutes also give the Governor the authority to operate public utility and transportation services and facilities during a disaster. NCGS §166A-6(c)(3).

In addition, the governor can forbid the importation of livestock and poultry into the state, if the livestock or poultry in other states are known to carry infectious diseases. NCGS §106-304. The State Veterinarian, with the approval of the Governor, also has the authority to inspect and quarantine animals in order to prevent and control contagious animal diseases. NCGS §106-399.4.

***What authority does the Governor or state government have to compensate individuals during a pandemic? (eg, If the Governor closes schools or businesses to prevent the spread of disease, is there any capacity for the Governor to provide financial assistance to individuals who would be harmed by the loss of income?)***

The state and federal government each have statutory provisions for assisting individuals during a disaster. The determination of whether it is primarily the state's responsibility to assist or the federal government's responsibility to assist depends on whether it is a Type I, II, or III disaster. State government has sole responsibility to assist individuals with a Type I disaster. The higher the disaster designation, the more the responsibility for assistance is shifted to the federal government.

- Type I disasters occurs when the Governor declares a disaster, but the President has not issued a major disaster declaration. NCGS §166A-6(a1)(1)
- Type II and Type III disasters are declared only when the President issues a federal major disaster declaration which triggers federal disaster assistance that can be provided by FEMA and SBA. The difference between Types II and III disasters depends on the extent of the assessed damage (with Type III being more significant amounts of damage). NCGS §166A-6(a1)(2),(3).

In Type I disasters, the *state* can help provide individual assistance including, but not limited to: temporary housing and rental assistance; medical or dental expenses; and funeral or burial expenses. NCGS §166A-6.01(b).

In Types II and III disasters, the *federal government* can provide assistance including, but not limited to: medical, dental and funeral expenses; personal property; transportation; and other expenses. 44 CFR §206.119(b)(c). In addition, the federal government can provide disaster unemployment assistance, home disaster loans, physical disaster business loans, or economic injury disaster loans. 12 CFR Part 123; 44 CFR §206.141.

***Can the Governor require people to work during a pandemic flu emergency?***

The Governor's authority to compel public employees to work during a pandemic is more clearly specified than his authority to compel private employees to work. For example, the Governor can:

- Utilize all available State resources as reasonably necessary to cope with the emergency, including the transfer and direction of personnel or functions of state agencies or units thereof for the purpose of performing or facilitating emergency services. NCGS §166A-6(b)(1).

- In addition, if the Governor has determined that it is necessary to use the services of subunits of state government to protect the public during a disaster or emergency, the Secretary of Crime Control and Public Safety has the authority to "utilize and allocate all available state resources as are reasonably necessary to cope with the emergency or disaster, including directing of personnel and functions of state agencies or units thereof for the purpose of performing or facilitating the initial response to the disaster or emergency." NCGS §143B-476(d).

There are no specific statutory references to requiring privately employed personnel to work during an emergency. However, the Governor does have broad authority to take necessary steps to promote and secure the safety and protection of the civilian population. NCGS §166A-6(c)(6). It is unclear whether the Governor could, or would, use this authority to mandate that privately employed individuals work during an emergency. This issue has never been tested in the courts of North Carolina.

***Can the Governor control movement or restrict personal liberties during a pandemic flu?***

During a state of disaster, the Governor, with the concurrence of the Council of State, may:

- Control ingress and regress of a disaster area, the movement of persons within the area, and the occupancy of premises therein. NCGS §166A-6(c)(1).

Additionally, if local control of an emergency is deemed insufficient to assure adequate protection of life and property, the Governor can impose prohibitions and restrictions in all areas affected by the emergency. NCGS §14-288.15(c). Specifically, during a state of emergency when local control of the emergency is insufficient, the Governor can restrict:

- Movement in public places;
- The operation of offices, businesses, and other places where people congregate; and
- Other activities or conditions which may reasonably be necessary to maintain order and protect lives or property during a state of emergency. NCGS §14-288.12(b).

***What happens if people don't comply with the Governor's orders?***

In general, a person who fails to comply with the Governor's orders or proclamation after both an emergency has been declared and the local control of the emergency is determined to be insufficient is guilty of a Class 2 misdemeanor. NCGS §14-288.15(e). There are no specific penalties for noncompliance set out in NCGS §166A-1 et seq.

***What authority is delegated to the State Health Director during an emergency or disaster?***

The State emergency management program recognizes DPH as the lead technical agency for an influenza pandemic, coordinating the state's response under the

# Authority of the Governor, State, and Local Government During Disasters and Emergencies

## *Questions and Answers*

**Appendix B**

North Carolina Emergency Operations Plan. Some of the responsibilities that the State Health Director will assume under the Emergency Operations Plan include:

- An epidemiological investigation of a … biological agent;
- An examination and testing of persons and animals that may have been exposed to a … biological agent;
- The procurement and allocation of vaccines and prophylactic antibiotics;
- The allocation of the National Pharmaceutical stockpile;
- The appropriate conditions for quarantine and isolation in order to prevent further transmission of disease;
- Immunization procedures; and
- The issuance of guidelines for prophylaxis and treatment of exposed and affected persons. NCGS §166A-5(3)b1.

In addition, the State Health Director has specific authority for isolation and quarantine under NCGS §130A-145. The following description explains the State Health Director's authority for isolation and quarantine:[3]

> "Isolation authority" is the authority to limit the freedom of movement or action of a person or animal who has (or is suspected of having) a communicable disease or condition. G.S. 130A-2(3a). "Quarantine authority" most often refers to the authority to limit the freedom of movement or action of a person or animal that has been *exposed* (or is suspected of having been exposed) to a communicable disease or condition. However, quarantine authority may also be exercised to limit access by any person or animal to an area or facility that is contaminated with an infectious agent (eg, anthrax spores), or to limit the freedom of movement or action of unimmunized persons during an outbreak. G.S. 130A-2(7a). Quarantine and isolation authority may be exercised *only* when and for so long as the public health is endangered. Furthermore, isolation and quarantine authority should not be exercised unless all other reasonable means for correcting the problem have been exhausted and no less restrictive alternative exists. G.S. 130A-145(a). Quarantine or isolation orders cannot exceed 30 days if they limit freedom of *movement* or if they limit *access* to persons or animals whose freedom of movement has been limited. Note that this restriction does not apply to orders limiting freedom of *action*. If the 30-day period is inadequate to protect the public health, the local health director or state health director must seek an order extending the time period from the superior court. If the court determines by a preponderance of the evidence that the limitation of freedom of movement is reasonably necessary to prevent or limit the conveyance of a communicable disease or condition, the court shall continue the limitation for a period of up to 30 days (or up to 1 year in the case of tuberculosis). When necessary, the state health director or local health director may

return to court and ask the court to continue the limitation for additional periods of up to 30 days each (or up to 1 year for tuberculosis). G.S. 130A-145(d).

***What protections apply to healthcare providers who provide care during an influenza pandemic?***

In general, healthcare professionals must follow community standards of care when offering care to patients. The general standard of care, as defined by the North Carolina courts, requires healthcare providers who render services to patients to exercise their best judgment and reasonable care and diligence, and comply with "the standards of practice among members of the same healthcare profession with similar training and experience situated in the same or similar communities." Makas v. Hillhaven, Inc., 589 F. Supp. 736, 740 (D. N.C. 1984), citing: Wall v. Stout, 310 N.C. at 193, 311 S.E.2d at 577. While this has not been tested in the courts, the general standard of care language suggests that providers who are providing care during an influenza pandemic would be governed by the general standards of care provided by other practitioners in the community ***during an outbreak***, not by the standards of care provided by healthcare practitioners in a nonemergency setting.

In addition, healthcare providers have narrowly defined statutory protections from immunity during normal working conditions. However, these protections generally only apply to volunteers or providers acting as "Good Samaritans":

- Volunteer health providers who provide care at health departments, free clinics, and nonprofit community health centers have qualified immunity from liability as long as the provider receives no compensation for the medical services provided. NCGS §90-21.16. This immunity protects against negligence, but not against gross negligence, wanton conduct, or intentional wrongdoing. Healthcare providers working at their own places of employment also have qualified immunity when serving patients referred by the local health department or a nonprofit community health center, so long as the provider receives no compensation for those services.
- Similarly, healthcare providers who render aid or emergency treatment also have qualified immunity from liability when the "reasonably apparent circumstances require prompt decisions and actions in medical or other care, and ....delay in the rendering of treatment would seriously worsen the physical condition or endanger the life of the person." NCGS §90-21.14(a)(1),(2).

NCGS §1-539.10 also provides qualified immunity for volunteers engaged in providing emergency services without compensation. NCGS §1-539.11 defines "emergency services" as "the preparation for and carrying out of functions to prevent, minimize, and repair injury and damage resulting from natural or man-made disasters. . . . These functions include . . . medical and health services. . . ."

Providers who receive pay for their services have qualified immunity if they are operating as emergency management workers. Emergency management workers are defined as any "person performing emergency health services under G.S. 90-12.2" [ie, when the Governor has declared a state of emergency] and government employees who are performing emergency management services "subject to the order or control of or pursuant to a request of the State government or any political subdivision thereof." NCGS §166A-14(d). This statute's definition of "emergency mgmt worker" was amended in 2006 to include "any health care worker performing health care services as a member of a hospital-based or county-based State Medical Assistance Team designated by the North Carolina Office of Emergency Medical Services."

Under the statutes, emergency management workers are immune from liability for death or injury to a person or for damage to property as a result of any action taken to comply with the emergency management rules, regulations, or orders. The immunity applies to any emergency management personnel "performing emergency management services at any place in the state" and subject to the order or control or pursuant to a request of the state government or any political subdivision thereof. NCGS §166A-14(d). The protection does not apply to cases of willful misconduct, gross negligence, or bad faith. NCGS §166A-14(a).

#### *Can the Governor waive health professional licensure laws during a pandemic?*

The NC Board of Medicine has the authority to waive licensure rules during disasters and emergencies for physicians, physician assistants, and nurse practitioners.

> In the event of an occurrence which the Governor of the State of North Carolina has declared a disaster or when the Governor has declared a state of emergency, or in the event of an occurrence for which a county or municipality has enacted an ordinance to deal with states of emergency under G.S. 14 288.12, 14 288.13, or 14 288.14, or to protect the public health, safety, or welfare of its citizens under Article 22 of Chapter 130A of the General Statutes, G.S. 160A 174(a) or G.S. 153A 121(a), as applicable, the Board may waive the requirements of this Article in order to permit the provision of emergency health services to the public. NCGS §90-12.2.

Under this statute, the NC Medical Board could waive the licensure rules, for example, to allow retired physicians to practice during an emergency. However, other healthcare professional licensure boards such as nursing and pharmacy do not have the same authority.

The Governor appears to have the authority to waive licensure rules for emergency management workers. Specifically, the emergency management act provides immunity for emergency management workers:

> Any requirement for a license to practice any professional, mechanical, or other skill shall not apply to any authorized emergency management worker who shall, in the course of performing his duties as such, practice such professional, mechanical, or other skill during a state of disaster. NCGS §166A-14(c).

The Governor also has the authority to waive state licensure requirements for emergency management workers who come to North Carolina to help during an emergency, if the person holds a license, certificate, or other permit in another emergency management compact state. NCGS §166A-45.

References

1. Perry C. Governor's authority under emergency management act. Presentation at: NC IOM/DPH Task Force on Ethics and Pandemic Influenza Planning meeting; Jun. 7, 2006; Cary, NC.
2. Moore J. The North Carolina public health system's isolation and quarantine authority. *Health Law Bulletin*. Available at: http://ncinfo.iog.unc.edu.libproxy.lib.unc.edu/pubs/electronicversions/pdfs/hlb84.pdf. 2006.
3. Moore J. N.C. isolation and quarantine law. Available at: http://www2.sph.unc.edu.libproxy.lib.unc.edu/nccphp/i_and_q/I%20_Q_handout.pdf. 2004.

# Summary of Public Comments

# Appendix C

## Background

A total of 87 community members from diverse age, sex, and ethnic groups discussed the Task Force's recommendations regarding pandemic influenza planning. Groups met in Asheville ($N = 14$), Charlotte ($N = 16$), Greenville ($N = 35$), and Raleigh ($N = 22$) for four hour meetings. The groups discussed issues regarding the responsibilities of and to critical workers, balancing of individual rights versus the need to protect the public, and allocation of limited resources.

## Methods

An employee of the NC Department of Health and Human Services, Division of Public Health, provided an overview of pandemic influenza to give the audience the essential information they needed to participate in smaller group discussions. Each small group discussion examined the responsibilities of and to critical workers, balancing of individual rights versus the need to protect the public, and allocation of limited resources, but the topics were presented in different orders. An employee of the North Carolina Institute of Medicine introduced each topic with a presentation that explained ethical dilemmas likely to occur during an influenza pandemic and the Task Force's recommendations for handling these dilemmas. Participants were asked to respond to a hypothetical scenario and the Task Force's recommendations.

## Results

A more complete discussion of participants' comments is presented below according to meeting location.

### Critical Workers

Participants discussed the responsibility of critical workers to show up to work and the reciprocal responsibility that employers and the government have to those workers. The majority of participants thought healthcare workers have a responsibility to work during an influenza pandemic, especially if they are vaccinated. Participants were divided on whether critical workers in blue-collar industries (eg, grocery store clerks) have a responsibility to work. Some participants thought critical workers have a responsibility to work even if they are single parents or have sick family members at home. Most participants felt that the decision to work should be left up to pregnant women, because if a pregnant woman got sick, she could also be endangering her unborn child.

Participants discussed the responsibility that employers and the government have to protect these workers and enable them to work. Almost all participants felt employees should be given a detailed explanation of their obligations and the reciprocal obligations of employers and the government during an influenza pandemic. Participants suggested employers or the government provide employees with protective equipment, vaccines, antiviral medications, treatment, worker's compensation, death benefits, and compensatory time off. Some participants suggested critical workers receive extra pay or "hazardous duty" pay for their work

during an influenza pandemic, but other participants were concerned that people would go to work sick to make extra money. One group felt that employers or the government might need to vaccinate the families of critical workers in order to encourage the workers to work, because critical workers will not go to work if they have sick family members at home or are afraid they might be endangering their family by working and bringing home viruses. Another group felt employers or the government should make an effort to care for critical workers' family members in other ways such as providing temporary housing so family members could stay close to each other.

### Balancing Rights

Participants were asked if they would voluntarily stay home from work and church if public health or governmental authorities advised them to do so. Participants were also asked what support or information they would need to take care of sick family members at home. The majority of participants felt people's economic situations will determine whether they stay home from work. People will go to work regardless of the government's request that they stay home if they need the money and the workplace is open. To encourage people to stay home, participants suggested employers or the government ensure people have emergency supplies, pay people to stay home, assure people their job will still exist when they come back, keep people's benefits intact during and after an influenza pandemic, and/or suspend or help them pay their monthly bills.

The majority of participants thought most people would comply with requests that they stay home from church, especially if those requests came from church leaders. They felt people's spiritual needs could be met by radio broadcasts, television broadcasts, phone trees, and home visits by church leaders. The majority of participants thought people would be willing to take care of sick family members at home if they had assistance. They thought people would need information on the signs and symptoms of the flu, information on how to take care of sick family members, medical supplies, and possibly home visits by healthcare providers. They suggested that information be provided through telephone hotlines and radio and television programs dedicated to pandemic influenza preparation. One group expressed concerns about individuals being in confined quarters for long periods of time with disruptive family members (eg, individuals with substance abuse problems). The majority of participants thought people would voluntarily keep their children home from school as long as they could take care of them.

Participants were divided over whom they would most trust to deliver important information about an influenza pandemic. Some participants indicated they would trust information they received from government officials and through media broadcasts.

Other participants did not trust politicians and would prefer to get information from public health officials, church leaders, healthcare workers, employers, teachers, social workers, and interpreters. Participants pointed out that people often look to community and religious leaders for information and suggested information be

provided in locations where people congregate (eg, churches, stores, community centers, barber shops, beauty salons, and funeral homes).

### Limited Resources

Participants were asked how vaccines and ventilators should be distributed. The majority of participants thought the distribution scheme for vaccines should assure the functioning of society. They felt critical workers, especially healthcare workers, who have to work with infected individuals should be vaccinated first. Some participants were concerned that underrepresented groups might not receive vaccines under this distribution scheme. Participants were mixed on the need to vaccinate government officials. Some thought it was important to vaccinate governmental leaders, as they will help keep the public informed and assure the functioning of society during the pandemic. Several of these individuals also thought it was important to immunize recognized community leaders (eg, faith leaders or other recognized leaders) because many people will look to them for leadership. Additionally, church leaders may have a heightened risk because they will be visiting sick individuals. However, other participants expressed fear that governmental leaders or other well-connected, powerful people might obtain vaccines because of their influence. Several participants did not believe top government officials need vaccinations because they can perform their jobs without being exposed to infected individuals. In addition to assuring the functioning of society, some participants also thought reducing the number of people who get sick, reducing deaths and hospitalizations, and saving children should be prioritized. Most participants were not in favor of using a first-come, first-serve method or lottery to distribute vaccines.

Most participants felt healthcare providers would need to make the decisions regarding the distribution of ventilators, as the decision about which patients should get them will have to be made quickly and will depend heavily on the circumstances of the situation. Most participants thought physicians will need to decide who should get ventilators during an influenza pandemic because they currently make these acute decisions everyday. However, the majority of participants wanted more than one person involved in the decision of who gets the potentially life-saving services. These individuals were concerned that the decisions of individual practitioners might be influenced subconsciously by individual prejudices. They believed the likelihood of using improper decision criteria would be lessened if the decision was made by a group of providers such as an ethics committee. Some participants wanted patients with the best chance of survival with the best quality of life to have priority. Other participants felt life expectancy should be considered. Several participants felt there is no way to ethically choose between different people, so ventilators should be distributed on a first-come, first serve basis.

Participants were asked whether there were any criteria that should not be used in making rationing decisions during an influenza pandemic. All the participants agreed that decisions should not be made on the basis of an individual's race, color, religion, nationality, ethnicity, gender, age, disability, sexual orientation, geography, economic status, or insurance status, unless there are specific clinical reasons why

different groups should be treated differently. Some participants also added other criteria that should not be used including educational status, employment status, or social status. The majority of participants felt allocation of limited resources should not be based on nationality or citizenship, but some participants did. Participants were divided on whether undocumented immigrants and prisoners should have less priority.

## Conclusion

A diverse group of North Carolinians who participated in one of four public meetings were generally supportive of proposed ethical guidelines regarding pandemic influenza planning.

# CHARLOTTE PUBLIC MEETING (*N* = 16)

## Critical Workers

### Do critical workers have a responsibility to work?

When asked whether a nurse Nancy has a responsibility to work during a flu pandemic, all three groups felt that Nancy has an obligation to work, especially if she accepts a vaccine. One group felt that if Nancy does not want to come to work because she is afraid of getting sick, Nancy should be in another profession; in general, however, participants felt most nurses will go to work because nurses are one of the most dedicated groups of workers in the country.

The groups all agreed that Nancy should still work if she is a single parent if someone else can care for her child. She should already have made arrangements for that child, or the government should have a reciprocal obligation to take care of her child. If Nancy is pregnant, the groups felt the decision to work should be left up to her. The hospital might have a policy in place, and the hospital should give Nancy something else to do so she can take some of the pressure off the other nurses. The two groups that examined Nancy's responsibility to work if she has a sick mother at home felt that Nancy should find some other way besides not going to work to take care of her mother. One group did feel that Nancy's responsibility to work depends on her resources and the dependency, in terms of age and disability, of the person relying on Nancy.

The one group that examined whether Nancy should go to work if her coworker dies from the flu decided she still has an obligation to work. The one group that examined whether Nancy should go to work if she has a preexisting condition felt that Nancy needs to make that determination herself. The one group that examined whether Nancy should go to work if she is a grocery store clerk rather than a nurse were undecided about Nancy's responsibility. Some group members felt Nancy has an obligation to work because that is the job she chose to take; other group members felt grocery store clerks do not sign up for that job thinking they will be required to work during a pandemic. This group felt it was very important that people are educated about their responsibility to work during a pandemic and thought workers' obligations should be outlined in their job contracts. One group member suggested that role modeling on the part of employers may encourage employees to show up to work.

In general, the groups felt that clerk Nancy has a responsibility to make every effort to go to work that she can.

### What responsibilities do the government or employers have to critical workers?

When asked what responsibility employers and the government have to critical workers, two groups felt the employer should vaccinate nurse Nancy if a vaccine is available, but if Nancy gets a vaccine she should have to work. One group felt that Nancy should have access to the healthcare facility if she does get sick, but she should not be given priority for ventilators. One group thought the employer should hire extra disinfectant staff to protect the employees from getting sick.

Two groups did not feel Nancy should be paid extra for going to work during a pandemic because she assumes this responsibility as a nurse. However, one group member thought she should get hazardous duty pay. The third group worried that if employees are paid more for working, they might come to work sick. Group members were undecided whether the employer needs to provide Nancy with death benefits if she dies in the line of duty.

One group suggested the employer should figure out what work people can do from home, the employer should offer paid vacation days people can take after the pandemic, and employers and the government should thank all critical workers for their service. Another group suggested hospitals suspend doctors' privileges to get doctors to come to work.

## Balancing Rights

### Would you voluntarily stay home?

When asked whether people will voluntarily stay home from work, two groups explained that not going to work is not an option for many people because they need the money, and they cannot afford to lose their jobs. One group was concerned that workers will not stay home unless they are getting paid to stay home, but members of the group also said they would not want to be the "critical worker" chosen to work if everyone else is still getting paid. Another group felt employers need protection against employees faking the flu so they can stay home. One group believed the fairest solution would be rotating shifts so everybody gets paid something. This group also thought that even if workers are not getting paid to stay home, the government should mandate that employers have to keep benefits intact during this time period.

One group worried sick employees will not be sent home because the employer is understaffed. Two groups expressed the idea that there is always someone willing to replace people who do not show up to work. All groups felt there needs to be a policy in place that prohibits employers from firing employees who stay home, especially low-pay employees. One group felt employees should not have to decide between what the government and what their employer is telling them to do; if the government says stay home, the employer should not be open.

When asked whether people will voluntarily stay home from church, most group members said they would. However, one group recognized that people look to church during a crisis. They felt if the pandemic goes on for a long time, church leaders will find a way to provide spiritual support outside of a group setting. One person said she will go to church unless they cancel services, and if church members have private gatherings, she will go to them. She could be convinced to meet outdoors to reduce the risk of infection.

When asked whether people will be willing to take care of sick family members at home, all three groups thought people would, but they will need governmental assistance in doing so. One group felt the news should say hospitals are not a place where people get well to discourage people from coming to hospitals. Two groups suggested public health workers should provide support for families who lacked the resources to survive the pandemic. They suggested laypeople can be trained to provide some of these services. One group thought churches will be a good vehicle for communicating messages and providing education about how to deal with flu patients at home. This group also thought strong language and law enforcement might be needed to ensure protection of the public.

The two groups that discussed whether parents would voluntarily keep their children home from school felt parents will do so if they can care for their children themselves or can afford to pay someone else to take care of their children in the event they still have to go to work.

The one group that discussed whether people will voluntarily stay away from malls thought people will. Group members were concerned about keeping in contact with others, so they would like telephone services to be kept intact. They also recognized increased telephone and television use will increase electric bills. This increase will be especially problematic if people are not getting paid.

### Where do you want to get information from?

When asked from whom they will want to get information about the flu, the groups had different responses. Two groups did not trust politicians. One group preferred getting information through the media from public health officials. Another group felt the government should be much more involved in informing the public about public emergencies; however, they recognized that distrust of the government is a major problem in this country and that during a crisis people need to hear from people they can trust. This group suggested people trust ministers and doctors, especially those they have a personal relationship with. The third group said they will listen to the governor, public health officials, and the CDC; they will want to hear the information from at least two sources.

All groups recognized the need for more education on what could happen and about individuals' responsibilities during an influenza pandemic. One group felt the message "it's not a question of if but of when" caught their attention. Another group felt community forums and flyers in public places will be helpful.

## Limited Resources

### Who should get vaccines?

When asked which population groups should be vaccinated first, all three groups of participants thought healthcare and critical workers should have priority. They recognized healthcare and critical workers will be at an increased risk of exposure and will be likely to spread the disease. The groups felt the healthcare workers who receive the vaccine should have to work.

One group was concerned that the principle of assuring the functioning of society and the category of healthcare workers were too general and could be used to justify vaccinating the privileged. All groups wanted to make sure only workers exposed to sick people will get vaccinated. One group wanted to make sure dermatologists and plastic surgeons are not vaccinated but ambulance drivers are. They wanted to make sure that healthcare workers who have patient contact are prioritized. Two groups felt that top government, health, and public safety officials will not need vaccines because they can do all their work from phones and computers. One group thought government officials should sooth public anxiety about not getting vaccines by going without vaccines themselves.

One group was concerned that the Task Force's recommendations do not protect all population groups equally or protect those most in need. For example, one group expressed concern that minority groups will be discriminated against by proxy due to the uneven distribution of physicians to ethnic populations.

All three groups were concerned about vulnerable populations. Two groups wanted priority to be on reducing the number of people who get sick and on reducing individual deaths and hospitalizations in addition to prioritizing the functioning of society. One group suggested a dual system where some vaccines go to critical workers and some go to people who need them. Another group reasoned healthcare workers should have priority over vulnerable populations because there will be no one to take care of the vulnerable population if the healthcare workers are not vaccinated. One group suggested a lottery for everyone else after healthcare workers are vaccinated, but another group did not like the idea of a lottery. This group suggested letting individual counties decide who should get vaccines because each county has different needs.

The two groups that examined whether age should be considered in the prioritization scheme did not think people with the most life ahead of them should have priority. One group expressed concern that different groups of people have different life expectancies. This group was more comfortable prioritizing children rather than prioritizing by most life to be lived. The other group felt children should be isolated rather than vaccinated. They felt people should not be vaccinated by age or likelihood of getting sick, but by people who have to go to work.

The one group that examined whether nonresidents should receive North Carolina vaccines felt North Carolina should not give its vaccines to other states if vaccines have been distributed in proportion to state populations. However, the group suggested North Carolina set up reciprocity agreements with other states in case one state's supply is ruined. They felt North Carolina healthcare workers who live in South Carolina should receive North Carolina vaccines.

Two groups felt it was important to make the prioritization process transparent. One group thought people should know what risk groups they are in.

### Who should get ventilators?

When asked who should have priority in receiving ventilators, all three groups did not think the Task Force could provide much guidance on this issue. Two groups felt that determining whether patient A or B should get a ventilator is a decision that will be made according to the circumstances of the situation. One group did not think it is logical to give out ventilators on the same basis as vaccines and felt there will not be enough time to consider guidelines when making this tough decision. Two groups also expressed concern that healthcare workers and the government are going to do what they want to regardless of ethical guidelines.

One group commented that physicians make ventilator decisions in our current system. This group along with another group felt the decision should not be up to one individual. Both groups liked the idea of a team making the decision. One group thought healthcare workers should think about these types of decisions ahead of time so they have practiced weighing all the factors. They recognized healthcare workers might still make a mistake, but at least they will have thought about the situation ahead of time.

The one group that considered whether patient A or B should get a ventilator based on varying factors expressed conflicting views. Some group members thought critical workers should not have any preference. Other group members thought priority should be given to critical workers who get the flu from working, to set a precedent encouraging people to work during the next wave, and to highly-trained critical workers who will resume taking care of pandemic flu patients. Group members thought the priority of pregnant women, single parents, young people, and people without preexisting conditions depends on the circumstances. The group did feel that citizens and North Carolina residents should not have priority over others; they commented that everyone is human, and people should be able to go wherever they can to get the best care available.

One group felt the only criteria available for distributing ventilators is first come, first serve. They also thought about modeling ventilator distribution after the organ transplant system.

# GREENVILLE PUBLIC MEETING (*N* = 35)

## Critical Workers

### Do critical workers have a responsibility to work?

When asked whether a nurse Nancy has a responsibility to work during a flu pandemic, some members of all three groups felt Nancy should work. One group felt Nancy should definitely work if she is vaccinated. One group member felt that if certain people's normal jobs are critical to our society, they have a responsibility to work during a crisis because that is what they have made their living by and that is what is necessary to prevent the deterioration of society.

Two groups were concerned about healthcare workers not feeling an obligation to work. One member commented that healthcare providers have been trained to feel a responsibility to work, and other critical industries need to be indoctrinated to feel that same sense of duty. One group thought compliance in the military is a good model to consider.

Other members felt every worker's situation is different. The groups recognized Nancy's obligation to her work and her family. The groups were concerned that Nancy will not want to leave her family, especially if she is pregnant, has young children, or has sick family members. One group was concerned that Nancy's trepidation about going to work will impact her ability to do her job well. The one group that examined Nancy's responsibility if she was a grocery store clerk instead of a nurse felt she has as much responsibility to work.

### What responsibilities do the government or employers have to critical workers?

When asked what responsibility employers and the government have to critical workers, two groups felt it was very important for the government and employers to let employees know if they are designated as critical workers. All three groups wanted the hospital to provide training and equipment to maximize the safety of the work environment. Two groups thought the employer or government should take care of the workers' families if workers die from the flu. Two groups thought employees will be more likely to work if they received extra pay. They were concerned about workers claiming they are sick to get out of work if they can still receive sick pay. One group thought employees will be more likely to work if they receive vaccines. They thought vaccines might have to be offered to healthcare workers' families to get healthcare workers in. Otherwise, if a worker's family member gets sick, he or she will not come into work because the employee will be leaving a sick family member at home.

## Balancing Rights

### Would you voluntarily stay home?

When asked whether people will voluntarily stay home from work, all three groups said it would be an economic decision. If people need the money, they will go into work. Hourly employees may be more likely to go into work than salaried employees. One group thought most people will comply with a request by the government or their employer to stay home, if they are well informed. One group felt employers will not close unless the government offsets some of their losses. This group felt employers should have a plan in place that does not allow sick people to come to work.

All three groups recognized some ways the government could encourage people to stay home from work. One group suggested the government pay people not to go to work, similar to pay for jury duty. However, the people who are likely to need government support to stay home are the people who will struggle to navigate a complicated reimbursement system. Two groups felt employees will be more likely to stay home if they are guaranteed they have a job when they come back. One group was concerned that employees retain their benefits during the

pandemic. Two groups thought people will be more likely to stay home if the government institutes laws that protect people from late mortgage and bill payments, as the military does for soldiers off at war.

When asked whether people will stay home voluntarily from church, the groups recognized that this request will be hard for some people but felt they will probably comply, especially if the request comes from a church leader. Two groups suggested churches use radio broadcasts, television broadcasts, and phone trees to give people a sense of community. One group suggested people could meet in small groups to pray. Two groups thought it was important church leaders educate people about the sacrifices they might have to make.

When asked whether people will be willing to take care of a sick family member at home, all three groups commented that people will need training and supplies. They will need instruction on self care, personal hygiene, and infection. They might need nurses to come visit them at home. One group also suggested there be a hotline acting as a call-in triage system. Two groups thought a 24-hour TV or radio program dedicated to caring for people with the pandemic flu would be helpful. One group thought the emergency preparedness list is helpful. One group thought medicine should be available behind the counter without prescriptions.

The one group that talked about keeping students home from school suggested a curfew be set to minimize contact between children.

### Where do you want to get information from?

When asked from whom people will want to get information on the pandemic flu, members from all three groups were suspicious of politicians. People would rather hear from public health officials than politicians. People will look to the media, their employers, schools, and churches for information. One group commented that African-Americans are more likely to listen to people who look like them and suggested disseminating information through pastors, physicians, barber shops, beauty salons, and funeral homes. One group wanted public health to outline the consequences of failure to cooperate with their orders and requests.

## Limited Resources

### Who should get vaccines?

When asked which population groups should be vaccinated first, meeting participants had many concerns. In one group, most people agreed that the principle guiding distribution should be assuring the functioning of society. They felt healthcare workers, law enforcement, community leaders (eg, mayor and church leaders), media representatives (so they can report on the pandemic), and vaccine workers should have priority. Some members of that group also wanted vaccines to go to the groups most likely to get sick. Another group thought healthcare workers should get some but not all of the vaccines. They thought healthy children should have priority. They also thought the groups most likely to get sick should have priority. No members of this group liked the first-come, first-serve method of distribution, but some members thought a lottery could be used to distribute a certain percentage (eg, 10%) of vaccines. One group mentioned that people's lifestyle choices (eg, smoking) might factor into distribution decisions.

Two groups were concerned about who would make the distribution decisions and that vaccines should be given at no charge. One group wanted to make sure there would be no experimenting of the vaccine on people, citing the Tuskegee Syphilis Study. Another group wanted to make sure the distribution scheme is transparent so that the poor and uninsured are not disenfranchised. They also stressed the importance of educating the public on why certain groups are getting vaccinated.

### Who should get ventilators?

When asked who should have priority in receiving ventilators, the groups that examined this question had many concerns. Members of both groups thought ventilators should go to people with the best chance of survival with the best quality of life. Members of one group suggested distributing ventilators on a first-come, first-serve basis. Both groups felt life expectancy should factor into the decision. One group thought pregnancy should matter. Members of one group thought healthcare providers should not have priority.

One group thought more than one person should be making the decision. They wanted to know whether distribution of ventilators will be controlled by the government. This group was also concerned that decision makers be diverse and work hard to ensure that decisions are made in a fair and equitable way. The other group mentioned that doctors are making these acute decisions everyday.

### What criteria should not be used to distribute limited resources?

When asked which additional criteria should not be used to distribute limited resources, one group felt social status and income status should not be used. This group felt nationality and citizenship should not be used because the flu will not discriminate among those it infects. The other group was divided on whether nonresidents of North Carolina and undocumented workers should have the same priority as others. Both groups were divided over whether prisoners should be treated differently. Some group members thought criminals who committed violent crimes should not be treated the same as others. Some group members thought prisoners should be treated the same as everyone else, especially to avoid the appearance of discrimination against African-American males and because prison employees will return to the community at large. One group member suggested a different model for prisons might be used because the population is already quarantined, and diseases can spread quickly throughout the facility.

# ASHEVILLE PUBLIC MEETING (*N* = 14)

## Critical Workers

### Do critical workers have a responsibility to work?

When asked whether nurse Nancy has a responsibility to work during a flu pandemic, the majority of the group felt Nancy should work even if there is not a vaccine yet. They felt that Nancy chooses to work in the healthcare profession and her oath requires her to work in a variety of situations where she might get sick. They did recognize a pandemic would provide a heightened risk that healthcare workers might not have anticipated. Some group members had different opinions about Nancy's responsibility to work if she is pregnant or a single mom who cannot find childcare. If Nancy is a grocery store clerk instead of a nurse, group members were concerned that she will not feel the same sense of obligation to work during a pandemic. They wanted to make sure employers notify their employees ahead of time that they might be required to work during an emergency. One member suggested employers hire more workers during a pandemic, as stores do during the Christmas rush, to offset shortages. Another member suggested grocery stores create stockpiles for customers so they can pick up their groceries rather than shop around. One group member suggested the government provide a tool that helps employers and employees determine who should work based on the factors that ethical task forces determine are important.

### What responsibilities do the government or employers have to critical workers?

When asked what responsibility employers and the government have to critical workers, several group members wanted Nancy's employer to provide her with a clear definition of her obligation during a pandemic. They thought employers should provide workers with a contract that details employees' obligations to work and employers' obligations to offer protection. This contract might include language that an employee is not obligated to work if the employer cannot provide Tamiflu in the event the employee gets sick. To get employees into work, the group suggested employers provide vaccines, masks, Tamiflu, and worker's compensation.

## Balancing Rights

### Would you voluntarily stay home?

When asked whether people would voluntarily stay home from work, most group members felt people who need the money will go to work regardless of requests that they stay home. The group felt that unless employers close or tell their employees not to come in, employees will show up for work. One group member thought the severity of the pandemic would determine attendance: people will come into work if the flu is moderate, but people will stay home if the flu is deadly. To encourage people to stay home, the group suggested the government protect people from failing to pay their bills, provide food stamps, and protect people from getting fired. To prevent people from working when they are sick, one group member suggested employers test workers to see if they have the flu and clear people to come back to work once they have had the flu. The group also tried to think of ways people who stay home voluntarily can be helpful. They suggested these people watch the children of critical workers or distribute food. Additionally, people who volunteer to help assure the functioning of society might get vaccines sooner.

When asked whether people will stay home voluntarily from church, the group did not think that will be a problem. They felt like churches can bring people together without requiring that people are physically together (eg, radio and television broadcasts, phone banks). They thought church leaders will visit people in their homes to offer support and therefore will need to be vaccinated.

When asked whether people will be willing to take care of a sick family member at home, group members felt people will need government support. They will need information about what the pandemic flu is and how it is spread. They will want information on the signs and symptoms of the virus and what they need to do for someone

who catches it. Some group members worried fatigue might set in if people are bombarded with too much information too early. Other group members felt it is paternalistic to assume people will ignore information. If people are educated, they are at least given a chance to prepare in their own way. The group suggested a 24-hour television program be started now that contains information about good hygiene and how to handle all kinds of emergency situations. When the flu pandemic occurs, this station could be used to inform people how to take care of people at home. They also wanted a phone number people could call to talk to a healthcare provider, and, hopefully, a case record of these calls would be kept. The group said people would also need supplies, such as over-the-counter medications that alleviate symptoms, to take care of sick family members.

The only problem the group saw with keeping students home from school was that some children depend on school for their meals. Some group members who were college students wondered whether college campuses will be shut down before primary and secondary schools because the virus might spread faster due to residential housing. These students also wanted to know what colleges will do for students who cannot get home.

### Where do you want to get information from?

When asked from whom people will want to get information on the pandemic flu, most group members felt people trust their community leaders (eg, pastors, teachers, people at the local barber shop). Many people do not trust government officials (eg, the Governor) or the media. The church network might be the only network that exists for some people. During a health emergency, many people might call their family doctors for information. People with disabilities will look to the organizations that provide them with services and resources on a regular basis, but it is important media coverage be accessible to them (eg, captioned for hearing impaired individuals).

## Limited Resources

### Who should get vaccines?

When asked which population groups should be vaccinated first, most group members thought critical workers should have priority because they are going to take care of the public. During an emergency, continuity of public health is very important. Participants did want to make sure only healthcare workers who will have actual contact with patients are getting vaccinated. Some group members were concerned that affluence and influence will dictate who receives vaccines. They did not want the poor, disadvantaged, and illiterate to go without vaccines. A lottery was mentioned as a means for everyone to suffer equally. One group member was concerned that people with preexisting conditions which compromise their immune systems be prioritized because the consequences of catching the flu will be more severe. The group felt clergy and morticians should be prioritized to receive vaccines because they will be very active during a pandemic.

The group struggled with the idea of giving vaccines to family members of healthcare workers to get healthcare workers to provide care. They did think it would offer healthcare workers a good incentive, but they did not think doctors should hold their credentials hostage. One group member recognized that if a hospital needs a certain type of provider (eg, a pulmonologist) and none are willing to work unless their families get vaccinated, the hospital might need to vaccinate the family. It could be problematic if different institutions use different prioritization schemes. One group member suggested workers could be offered one or two vaccines for their family members so they have some incentive to work, with some vaccine left for others. Other group members thought it would be impossible for families to choose whom to vaccinate among themselves. The group did not determine whether family members of workers should get a higher priority than the groups the federal government has prioritized. One group member thought it is a mistake for the government to publish a list that fails to list community leaders (eg, pastors) as a priority. Several group members felt the tiers of vaccine distribution the government has listed on paper will be different than what actually happens.

Several group members recognized that distribution of scarce resources is not going to be fair. They did not want politicians to be prioritized. One group member commented that ethical decisions cannot be made about distribution of scarce resources without addressing the ethical decision to live with shortages (eg, all ventilators are in use, industries do not have any extra workers). This group member thought it was important for people to pressure decision makers into putting money and technology into eliminating shortages. Other group members thought it is important for officials to make these tough decisions within the constraints of current resources. Most group members felt it is important the federal and state government be open about their decision-making process.

Group members had a few other concerns regarding vaccines. One group member was worried about healthcare workers actually getting the vaccine because many do not get the seasonal flu vaccine. Another concern for healthcare workers is coworkers going to work the day before they know they are sick or even when they know they are sick. One group member was concerned that the initial vaccine might not work, and we might have to go through the prioritization scheme again. Several group members were concerned that people will fraudulently claim they have a cure. They felt it will be important to regulate advertising about vaccines and penalize fraudulent advertising.

### Who should get ventilators?

The group did not discuss prioritization of ventilators after one group member said the country does not have any extra ventilators.

### What criteria should not be used to distribute limited resources?

When asked which additional criteria should not be used to distribute limited resources, the group mentioned socioeconomic status, educational status, employment status, and documentation status. They thought undocumented workers should receive vaccines because they are here, might be critical workers, and can spread the virus as easily as anybody else.

# RALEIGH PUBLIC MEETING AT EL PUEBLO (*N* = 14)

## Critical Workers

### Do critical workers have a responsibility to work?

When asked whether the nurse Nancy has a responsibility to work during a flu pandemic, the majority of the group felt critical workers should work.

### What responsibilities do the government or employers have to critical workers?

When asked what responsibility employers and the government have to critical workers, the majority of the group felt the government or employers will need to ensure critical workers' families are cared for. They felt the Latino community will be more willing to work if arrangements are made for their families. For example, some employers are planning to transform buildings into housing for the families of critical workers so families can stay together during the crisis. Other members suggested there needs to be an alternative place where healthcare workers can stay during the pandemic so they do not bring any disease back to their families. Group members wanted to make sure private industries have business plans, protective equipment, and extra disinfectant in preparation for an outbreak.

## Balancing Rights

### Would you voluntarily stay home?

When asked whether people will voluntarily stay home from work, most group members felt employers will need to close to prevent people from going to work. To get small employers to close, they need to be informed ahead of time of the risks of staying open, and the government's requests will need to seem rational. For example, there might need to be exceptions for work environments with small numbers of employees who do not come in close contact with each other or for construction work because it is done outside. A group member mentioned that Latinos who accumulate a lot of leave time, with the intention of visiting family in other countries for long periods of time, might use this leave during an outbreak.

The group was concerned that even if people do not go to work, they might not stay at home. They were worried people might become restless. One group member was concerned some families might be cooped up with individuals who are addicted to substances. Another concern expressed by the group was that the Latino culture is very social, and Latinos will make efforts to pool their resources. The term "social distancing" might have a negative connotation for this group. Some Latinos might see an outbreak as God's will and feel the need to congregate to pray. One group member suggested the best protection for the Latino community might be to make sure people who come in contact with this group are not infected.

Group members were concerned that if the government wants people to stay home, it will need to provide low-income individuals with preparation materials (eg, food and water). One group member suggested groceries be distributed in a drive-thru fashion. Group members considered implementing rationing techniques (eg, assigning times to shop for groceries and get gas according to last name or license plate number) to allow commerce to continue. The group suggested people be given access to their benefits over the Internet.

When asked whether they would be willing to keep students home from school or take care of sick family members at home, group members were willing to do both as long as someone instructed them on what they should do. They want clear messages from the government and physicians, such as "stay at home unless . . . ."

### Where do you want to get information from?

When asked from whom people would want to get information on the pandemic flu, most group members said it depended on the content. People trust their employers to give them information about work. One group

member suggested making a Pandemic Flu 101 training and education video in Spanish for employers to show their employees. People trust churches, stores, community centers, public health workers, social workers, interpreters, beauticians/barbers, lay health advisors, teachers, community leaders, doctors, and pastors to give them information about health emergencies. Group members felt individuals who have had positive experiences with the government and law enforcement will trust the organizations they have worked with in the past. However, individuals who have had negative experiences with the government or law enforcement in the past (eg, counties that have passed anti-immigration ordinances) or who are fearful of being deported will distrust government and law enforcement. Because of these concerns, public health may want to avoid the use of the term "surveillance" when referring to monitoring the flu. Authorities might be able to improve their image in certain communities by passing out preparation materials. If information is coming from the government, the group felt it is important a team of officials, with representation from the Latino community, present the information. They also thought it was important the messengers stay the same throughout the crisis to promote continuity.

Group members felt many people will get their information from television and radio, so it is important these mediums be in operation during the crisis. For some isolated groups of individuals, government might have to go door to door to inform them about an outbreak. The group suggested using nonwritten materials, such as photo novellas, to communicate with people with low literacy or non-English speakers. They stressed the importance of using simple language and using complete words rather than abbreviations and acronyms (eg, use Pandemic Flu instead of Pan Flu, explain why the flu of 1918 is called the Spanish Flu, use social distancing instead of nonpharmaceutical interventions or NPIs). Some group members suggested government investigate why many Latinos have not responded to public messages about HIV/AIDS and hurricanes to determine if there are better ways to communicate with this group regarding pandemic influenza. The group pointed out that efforts aimed at the Latino community have to be done on an ongoing basis because that population is growing and changing often.

## Limited Resources

### Who should get vaccines?

When asked which population groups should be vaccinated first, most group members thought first responders should have priority because they need to take care of the public. The group specifically mentioned healthcare workers, police officers, community leaders, electricians, and vaccine distributors as first responders. Some group members felt it was important to focus on how to reduce the amount of people who get sick, especially if some population turns out to be more susceptible to the disease. Some members suggested that instead of spreading 100 vaccines across several counties, public health give all the vaccines to one county to try to actually make a difference there. If the center of the disease is known, it should be provided extra vaccines and antiviral medications. Until their area is exposed, healthcare workers should just be given protective masks, and the public should be told to stay home. An area could be declared a high-risk zone, and everyone could be required to wear masks. The group also suggested that instead of having every health department come up with its own pandemic influenza plan, a few health departments come up with a standardized plan other health departments can adopt. Businesses could engage in the same process.

### What criteria should not be used to distribute limited resources?

When asked which criteria should not be used to distribute limited resources, group members did not want documentation status to be a factor in determining resources. They expressed concerns that emergency rooms should not be able to turn away immigrants. The group suggested using residency instead of citizenship to determine who should get resources. However, they recognized the problem that a lot of people do not live where they work.

# Preliminary Vaccine Priority Group Recommendations

**Appendix D**

## US Department of Health and Human Services National Vaccine Advisory Committee (NVAC) and the Advisory Committee on Immunization Practices (ACIP) Recommendations for Prioritization of Pandemic Influenza Vaccine

### VACCINE PRIORITY GROUP RECOMMENDATIONS[*,1]

| Tier | Subtier | Description | Rationale |
|---|---|---|---|
| 1 | A | • Vaccine and antiviral manufacturers and others essential to manufacturing and critical support<br>• Medical workers and public health workers who are involved in direct patient contact, other support services workers essential for patient care and vaccinations | • Need to assure maximum production of vaccine and antiviral drugs<br>• Healthcare workers are required for quality medical care (studies show outcome is associated with staff-to-patient ratios). There is little surge capacity among healthcare sector personnel to meet increased demand. |
| | B | • Persons >65 years with 1 or more influenza high-risk conditions, not including essential hypertension<br>• Persons 6 months to 64 years, with 2 or more influenza high-risk conditions, not including essential hypertension<br>• Persons 6 months or older with history of hospitalizations for pneumonia or influenza or other influenza high-risk condition in the past year | • These groups are at high risk of hospitalization and death. Excludes elderly in nursing homes and those who are immunocompromised and would not likely be protected by vaccination. |
| | C | • Pregnant women<br>• Household contacts of severely immunocompromised persons who would not be vaccinated due to likely poor response to vaccine<br>• Household contacts of children <6 months old | • In past pandemics and for annual influenza, pregnant women have been at high risk; vaccination will also protect the infant who cannot receive the vaccine.<br>• Vaccination of household contact of immunocompromised and young infants will decrease risk of exposure and infection among those who cannot be directly protected by vaccination. |
| | D | • Public health emergency response workers critical to pandemic response<br>• Key government leaders | • Critical to implement pandemic response such as providing vaccinations and managing/monitoring response activities<br>• Preserving decision-making capacity also critical for managing and implementing a response |

# Appendix D Preliminary Vaccine Priority Group Recommendations

US Department of Health and Human Services National Vaccine Advisory Committee (NVAC) and the Advisory Committee on Immunization Practices (ACIP) Recommendations for Prioritization of Pandemic Influenza Vaccine

| Tier | Subtier | Description | Rationale |
|---|---|---|---|
| 2 | A | • Healthy persons ≥65 years<br>• Persons 6 months to 64 years with one high-risk condition<br>• Healthy persons 6-23 months old | • Groups that are also at increased risk but not as high risk as population in Tier 1B |
| | B | • Other public health emergency responders<br>• Public safety workers including police, fire, 911 dispatchers, and correctional facility staff<br>• Utility workers essential for maintenance of power, water, and sewage system functioning<br>• Transportation workers transporting fuel, water, food, and medical supplies as well as public ground transportation<br>• Telecommunications/IT workers for essential network operations and maintenance | • Includes critical infrastructure groups that have impact on maintaining health (eg, public safety or transportation of medical supplies and food); implementing a pandemic response; and on maintaining social functions |
| 3 | | • Other key government health decision makers<br>• Funeral directors/embalmers | • Other important societal groups for a pandemic response but of lower priority |
| 4 | | • Healthy persons 2-64 years not included in above categories | • All persons not included in other groups based on objective to vaccinate all those who want protection |

* The committee focused its deliberations on the US civilian population. ACIP and NVAC recognize that Department of Defense needs should be highly prioritized. DoD Health Affairs indicates that 1.5 million service members would require immunization to continue current combat operations and preserve critical components of the military medical system. Should the military be called upon to support civil authorities domestically, immunization of a greater proportion of the total force will become necessary. These factors should be considered in the designation of a proportion of the initial vaccine supply for the military. Other groups also were not explicitly considered in these deliberations on prioritization. These include American citizens living overseas, noncitizens in the US, and other groups providing national security services such as the border patrol and customs service.

This priority list is preliminary and may be modified based on additional input from the public. These are recommended priority lists. However, the Committee noted that "the specific composition of some priority groups may differ between states and localities based on their needs and that priority groups should be reconsidered when a pandemic occurs and information is obtained on its epidemiology and impacts."

References

1. Dept. of Health and Human Services. HHS pandemic influenza plan, Appendix D: NVAC/ACIP recommendations for prioritization of pandemic influenza vaccine and NVAC recommendations on pandemic antiviral drug use. Available at: http://www.hhs.gov/pandemicflu/plan/appendixd.html. Accessed Feb. 9, 2007.

# Recommendations on Pandemic Antiviral Drug Use[*,1]

## Appendix E

### US Department of Health and Human Services National Vaccine Advisory Committee (NVAC)

## PANDEMIC ANTIVIRAL DRUG USE RECOMMENDATIONS

| | Group | Strategy[**] | Rationale |
|---|---|---|---|
| 1 | Patients admitted to hospital[***] | T | Consistent with medical practice and ethics to treat those with serious illness and who are most likely to die. |
| 2 | Healthcare workers (HCW) with direct patient contact and emergency medical service (EMS) providers | T | Healthcare workers are required for quality medical care. There is little surge capacity among healthcare sector personnel to meet increased demand. |
| 3 | Highest risk outpatients—immunocompromised persons and pregnant women | T | Groups at greatest risk of hospitalization and death; immunocompromised who cannot be protected by vaccination. |
| 4 | Pandemic health responders (public health workers, vaccinators, vaccine and antiviral manufacturers), public safety (police, fire, corrections), and government decision makers | T | Groups are critical for an effective public health response to a pandemic. |
| 5 | Increased risk outpatients—young children 12-23 months old, persons >65 yrs old, and persons with underlying medical conditions | T | Groups are at high risk for hospitalization and death. |
| 6 | Outbreak responders in nursing homes and other residential settings | PEP | Treatment of patients and prophylaxis of contacts is effective in stopping outbreaks; vaccination priorities do not include nursing home residents. |
| 7 | HCWs in emergency departments, intensive care units, dialysis centers, and EMS providers | P | These groups are most critical to an effective healthcare response and have limited surge capacity. Prophylaxis will best prevent absenteeism. |

| | Group | Strategy** | Rationale |
|---|---|---|---|
| 8 | Pandemic societal responders (eg, critical infrastructure groups as defined in the vaccine priorities) and HCWs without direct patient contact | T | Infrastructure groups that have impact on maintaining health, implementing a pandemic response, and maintaining societal functions. |
| 9 | Other outpatients | T | Includes others who develop influenza and do not fall within the above groups. |
| 10 | Highest risk outpatients | P | Prevents illness in the highest risk groups for hospitalization and death. |
| 11 | Other HCWs with direct patient contact | P | Prevention would best reduce absenteeism and preserve optimal function. |

* The committee focused its deliberations on the domestic US civilian population. NVAC recognizes that Department of Defense (DoD) needs should be highly prioritized. A separate DoD antiviral stockpile has been established to meet those needs. Other groups also were not explicitly considered in deliberations on prioritization. These include American citizens living overseas, noncitizens in the US, and other groups providing national security services such as the border patrol and customs service.

** Strategy: Treatment (T) requires a total of 10 capsules and is defined as 1 course. Postexposure prophylaxis (PEP) also requires a single course. Prophylaxis (P) is assumed to require 40 capsules (4 courses) though more may be needed if community outbreaks last for a longer period.

*** There are no data on the effectiveness of treatment at hospitalization. If stockpiled antiviral drug supplies are very limited, the priority of this group could be reconsidered based on the epidemiology of the pandemic and any additional data on effectiveness in this population.

References

1. Dept. of Health and Human Services. HHS pandemic influenza plan, Appendix D: NVAC/ACIP recommendations for prioritization of pandemic influenza vaccine and NVAC recommendations on pandemic antiviral drug use. Available at: http://www.hhs.gov/pandemicflu/plan/appendixd.html. Accessed Feb. 9, 2007.

# Community Strategy for Pandemic Influenza Mitigation

# Appendix F

US Department of Health and Human Services[1]

**Table F.1**
**Summary of Community Mitigation Strategy by Pandemic Severity**

| | Pandemic Severity Index | | |
|---|---|---|---|
| **Interventions[*] by Setting** | **1** | **2 and 3** | **4 and 5** |
| **Home** | | | |
| ***Voluntary isolation*** of ill at home (adults and children); combine with use of antiviral treatment as available and indicated | Recommend[†§] | Recommend[†§] | Recommend[†§] |
| ***Voluntary quarantine*** of household members in homes with ill persons (adult and children); consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient[¶] | Generally not recommended | Consider[**] | Recommend[**] |
| **School**<br>***Child social distancing*** | | | |
| Dismissal of students from schools and school-based activities, and closure of child care programs | Generally not recommended | Consider ≤ 4 weeks[††] | Recommend ≤ 12 weeks[§§] |
| Reduce out-of-school social contacts and community mixing | Generally not recommended | Consider ≤ 4 weeks[††] | Recommend ≤ 12 weeks[§§] |
| **Workplace/Community**<br>***Adult social distancing*** | | | |
| Decrease number of social contacts (eg, encourage teleconferences, alternatives to face-to-face meetings) | Generally not recommended | Consider | Recommend |
| Increase distance between persons (eg, reduce density in public transit, workplace) | Generally not recommended | Consider | Recommend |
| Modify, postpone, or cancel selected public gatherings to promote social distancing (eg, stadium events, theater performances) | Generally not recommended | Consider | Recommend |
| Modify workplace schedules and practices (eg, telework, staggered shifts) | Generally not recommended | Consider | Recommend |

Source: US Dept. of Health and Human Services. Community strategy for pandemic influenza mitigation.
Available at: http://www.pandemicflu.gov/plan/community/commitigation.html#XVI. Accessed February 14, 2007.

*Generally Not Recommended* = Unless there is a compelling rationale for specific populations or jurisdictions, these measures are generally not recommended for entire populations as the consequences may outweigh the benefits.

*Consider* = It is important to consider these alternatives as part of a prudent planning strategy, considering characteristics of the pandemic, such as age-specific illness rate, geographic distribution, and the magnitude of adverse consequences. These factors may vary globally, nationally, and locally.

*Recommended* = These interventions are generally recommended as an important component of the planning strategy.

**Table F.2**
**Pandemic Severity Index by Epidemiologic Characteristics**

| | Pandemic Severity Index | | | | |
|---|---|---|---|---|---|
| **Characteristics** | **Category 1** | **Category 2** | **Category 3** | **Category 4** | **Category 5** |
| Case Fatality Ratio (percentage) | <0.1 | 0.1 - <0.5 | 0.5 - <1.0 | 1.0 - <2.0 | ≥ 2.0 |
| Excess Death Rate (per 100,000) | <30 | 30 - <150 | 150 - <300 | 300 - <600 | ≥ 600 |
| Illness Rate (percentage of the population) | 20-40 | 20-40 | 20-40 | 20-40 | 20-40 |
| Potential Number of Deaths (based on 2006 US population) | <90,000 | 90,000 - <450,000 | 450,000 - <900,000 | 900,000 - 1.8 million | ≥ 1.8 million |

*Case fatality ratio:* Proportion of deaths among clinically-ill persons.

*Excess rate:* Rate of an outcome (eg, deaths, hospitalizations) during a pandemic above the rate that occurs normally in the absence of a pandemic. It may be calculated as a ratio over baseline or by subtracting the baseline rate from the total rate.

* All these interventions should be used in combination with other infection-control measures, including hand hygiene, cough etiquette, and personal protective equipment such as face masks. Additional information on infection control measures is available at www.pandemicflu.gov.

† This intervention may be combined with treatment of sick individuals using antiviral medications and with vaccine campaigns, if supplies are available.

§ Many sick individuals who are not critically ill may be managed safely at home.

¶ The contribution made by contact with asymptomatically infected individuals to disease transmission is unclear. Household members in homes with ill persons may be at increased risk of contracting pandemic disease from an ill household member. These household members may have asymptomatic illness and may be able to shed influenza virus that promotes community disease transmission. Therefore, household members of homes with sick individuals would be advised to stay home.

** To facilitate compliance and decrease risk of household transmission, this intervention may be combined with provision of antiviral medications to household contacts, depending on drug availability, feasibility of distribution, and effectiveness.

†† Consider short-term implementation of this measure—that is, less than 4 weeks.

§§ Plan for prolonged implementation of this measure—that is, 1 to 3 months; actual duration may vary depending on transmission in the community as the pandemic wave is expected to last 6-8 weeks.

## References

1. Dept. of Health and Human Services. Community strategy for pandemic influenza mitigation. Available at: http://www.pandemicflu.gov/plan/community/commitigation.html#XVI. Accessed Feb. 14, 2007

# Pandemic Influenza Websites, Planning Tools, and Checklists

# Appendix G

## North Carolina Pandemic Influenza Plan

North Carolina has developed a pandemic influenza plan which is available online.

### NC Pandemic Influenza Plan

http://www.epi.state.nc.us/epi/gcdc/pandemic.html

## US Department of Health and Human Services

The US Department of Health and Human Services (US DHHS) has developed a pandemic influenza website which includes information about the pandemic influenza and links to other national and international websites.

### US DHHS website

www.pandemicflu.gov
www.avianflu.gov

The US DHHS website also has guidelines and check lists for the following individuals, organizations and businesses. The information can be accessed at the following websites:

### Healthcare Planning General:

http://www.pandemicflu.gov/plan/healthcare/index.html

- Home Healthcare:
  http://www.pandemicflu.gov/plan/healthcare/healthcare.html
- Medical Offices and Clinics:
  http://www.pandemicflu.gov/plan/healthcare/medical.html
- Emergency Medical Services and Non-Emergent Medical Transport Organizations:
- http://www.pandemicflu.gov/plan/healthcare/emgncymedical.html
- Hospital Preparedness Checklist:
  http://www.hhs.gov/pandemicflu/plan/sup3.html#app2
- Long-Term Care and Other Residential Facilities:
  http://www.pandemicflu.gov/plan/healthcare/longtermcarechecklist.html

### Business & Industry Planning General:

http://www.pandemicflu.gov/plan/business/index.html

- Employer checklist:
  http://www.pandemicflu.gov/plan/business/businesschecklist.html

### School Planning General:
http://www.pandemicflu.gov/plan/school/index.html

- Child Care and Preschool checklist:
  http://www.pandemicflu.gov/plan/school/preschool.html
- Elementary and Secondary schools (K-12) checklist:
  http://www.pandemicflu.gov/plan/school/schoolchecklist.html
- Colleges and Universities checklist:
  http://www.pandemicflu.gov/plan/school/collegeschecklist.html

### Community Planning General:
http://www.pandemicflu.gov/plan/community/index.html
http://www.ahrq.gov/research/mce/

- Faith-based and community organizations checklist:
  http://www.pandemicflu.gov/plan/community/faithcomchecklist.html

### Individual and Family Planning General:
http://www.pandemicflu.gov/plan/individual/index.html

- Family Guide, Checklist and Information sheets:
  http://www.pandemicflu.gov/plan/individual/index.html#checklist

The US Department of Health and Human Services has also developed an interim guideline for community mitigation.

### Pandemic Mitigation
http://www.pandemicflu.gov/plan/community/mitigation.html

- Community Strategy for Pandemic Influenza Mitigation
  http://www.pandemicflu.gov/plan/community/commitigation.html

## World Health Organization
The World Health Organization has information about the pandemic influenza, including number of cases, and phase of the influenza pandemic.

- General Information on the Avian Influenza
  http://www.who.int/csr/disease/avian_influenza/en/
- Cumulative Number of Confirmed Human Cases of Avian Influenza
  http://www.who.int/csr/disease/avian_influenza/country/cases_table_2007_03_01/en/index.html
- WHO Phase of Pandemic Alert
  http://www.who.int/csr/disease/avian_influenza/phase/en/index.html