Shaping Ethical Guidelines for an Influenza Pandemic

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Abstract This chapter describes the process of shaping ethical guidelines for an influenza pandemic by the North Carolina Institute of Medicine (NC IOM)/North Carolina Department of Public Health (NCDPH) Task Force. The author discusses the threat of a pandemic in the twenty-first century, comparing a potential pandemic with past flu pandemics as well as the Severe Acute Respiratory Syndrome (SARS) outbreak in Canada and parts of Asia. Also discussed are the ways in which influenza would spread, be treated, and hopefully contained. Addressed are the ways in which one becomes ethically prepared for an influenza pandemic, as well as the challenges to incorporating ethical guidelines in preparations. Tong also addresses the role of a duty/obligation/responsibility to work by health care personnel, the role of volunteers, and when health care personnel may refuse to treat someone. Also taken into consideration are such issues as the distribution of food and vaccines, quarantines, work stoppage, both physical and social infrastructure, the role of military and police forces, and the effect of a pandemic, isolation, and quarantine on various industries. Tong shows the complicated nature of working on a task force and the complexity of incorporating ethics into logistical planning.

Keywords Influenza pandemic, Avian flu, flu vaccine, health care personnel, bioethics, obligation, responsibility, ethics of care, quarantine, North Carolina Public Health, international public health

Introduction

When the North Carolina Institute of Medicine (NC IOM) and the North Carolina Department of Public Health (NCDPH) asked me to join a 37-member statewide North Carolina Institute of Medicine/Department of Public Health Task Force to develop ethical guidelines for an influenza pandemic, I thought they had dialed the wrong number mistakenly. I told the NC IOM administrator who contacted me I knew next to nothing about influenza pandemics, including the Avian Flu. She said that my infectious-disease ignorance was of little concern to her; the NC IOM/DPH

Task Force would have among its members many public health and safety experts. In addition, there would be representatives from government agencies, health care organizations, businesses, industries, faith communities, and advocacy groups. What the Task Force lacked were ethicists. Specifically, it needed an ethicist to serve as co-Chair together with the Director of the North Carolina Department of Public Health, and I had been identified as a likely candidate for this role.

Intrigued by the NC IOM administrator's request, I asked her to be honest. Would the NC IOM/DPH Task Force really be serious about ethics? Or would it simply want to use ethics as a sweet frosting to lather over a cake of political deals made between special-interests' lobbies? She responded: "Come to the first meeting. If you do not like the way it goes, you never have to come to another meeting." I went to the first meeting of the Task Force; I was very impressed by the sincerity and genuine ethical concern of its members. After that meeting, I agreed to co-Chair the Task Force. During the months that followed, I learned how alternately heartening and disheartening the process of producing a set of guidelines that merit the descriptor "ethical" can be. It is not easy to get 37 diverse people to develop and endorse a set of ethical guidelines. On the contrary, it is very hard work!

The Threat of an Influenza Pandemic in the Twenty-First Century

Influenza pandemics constitute a public health threat of global proportions. Although people in the United States may think that such disease outbreaks are confined mainly to their television screens and disaster films, history teaches that influenza pandemics typically occur three times in a century. In the twentieth century, the three influenza pandemics were the 1918 Spanish Flu, the 1957 Asian Flu, and the 1968 Hong Kong Flu (NC IOM/DPH Task Force 2007, 21). All were of avian (bird) origin, and the worst of them was the Spanish Flu; worldwide, 50 million people died. In the United States the death toll was 675,000 (Berlinger 2006). A particularly vexing feature of the Spanish Flu was that it did not strike the populations that annual flus generally hit hardest: the very young and the very old. Instead it targeted people in their twenties and thirties (Engel 2007, 32). The other two twentieth-century influenza pandemics (the Asian Flu and the Hong Kong Flu), though not as devastating, were no small matter. The Asian Flu killed 2 million people worldwide, 70,000 of them in the United States; and the Hong Kong Flu killed 700,000 people worldwide, 34,000 of them in the United States (Garloch 2006, A1).

Because the Avian Flu has yet to reach US shores, the US population has moved on to worrying about other problems, the war in Iraq and the economy to name two. But just because the Avian Flu has not visited the United States during the first eight years of the twenty-first century, does not mean it will not. The first human cases were reported in China and Vietnam in 2003. They were four in number, and all were fatal. In 2004, 46 cases were reported in Vietnam and Thailand; of these, 32 were fatal. In 2005, 97 cases were reported in Vietnam, Thailand, China,

Cambodia, and Indonesia; 42 were fatal. In 2006, 116 cases were reported in a large range of countries: Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Thailand, and Turkey. Of these, 80 were fatal (Engel 2007, 34). To be sure, the Avian Flu has not killed many people to date, and no US citizen has succumbed to its horrors. Yet, according to public health authorities, we are closer now to an influenza pandemic than at anytime since the Asian Flu outbreak in 1968–1969 (World Health Organization 2007). When the first influenza pandemic of the 2000s hits it will kill somewhere between 209,000 to 1,903,000 members of the US population (Department of Health and Human Services 2006).

Although both pandemic flu and regular seasonal flu are similar in that they spread easily between people by coughs and sneezes, they are quite different in several other ways. With respect to regular seasonal flu, outbreaks typically occur in the wintertime; the same type of flu virus occurs each year; and vaccine is generally available, with shortages being the exception rather than the rule. The situation is quite different with respect to an influenza pandemic, however. Outbreaks can occur any time; the type of flu virus is novel; and an *effective* vaccine takes months to identify, develop, and get to market in large enough supplies to meet the demand (Adler 2005, 44).

More than likely, an influenza pandemic will begin in a developing nation where animal-to-human contact is close and public health systems are either nonexistent or very fragile. An international traveler probably will bring the disease to US shores, having exposed at least some of his or her traveling companions to the virus. Infected patients will start trickling in to primary care offices, urgent care clinics, and hospital emergency rooms. Regrettably, health care personnel may not have much in their medical arsenal, over and beyond the antiviral Tamiflu, to treat the initial wave of infected patients. Worse, before too long, health care personnel may find themselves drowning in a sea of infected patients, unable to assist but a small fraction of them.

In North Carolina, public health officials know there is no way to be totally prepared for a severe influenza pandemic. As they see it, even a *mild* or *moderate* influenza pandemic would probably last eight weeks and result in 1.6 million physician visits, 35,000 hospital admissions, and 7,900 deaths statewide (McGorty et al. 2007, 39). Nonetheless, despite their realization that their best preparedness efforts may not be enough to meet North Carolinians' needs during an influenza pandemic, NC public health officials are determined to prepare as much as they can.

Laying the Foundation for an Ethical Preparedness Plan for an Influenza Pandemic

To their credit, NC public health officials think North Carolinians need to be *ethically* as well as medically prepared for an Avian Flu attack. As difficult as it is to get medical systems of command and control, surveillance, vaccine and antiviral production, and health care delivery prepared for a deadly pandemic, it is even more difficult to get ethical codes and guidelines prepared for it. Experience teaches that

once an influenza pandemic hits full force, it is too late to formulate ethical codes and guidelines to help citizens meet its distinctive ethical challenges. Accustomed to using ethical guidelines that work well enough in the clinical context, people may discover that the principles of autonomy, beneficence, nonmaleficence, and justice need to be interpreted and/or prioritized differently in the public health context. In addition, they may discover that these principles need to be supplemented by ethical principles they rarely, if ever, invoke in the clinical context. For example, individual freedom may have to give way to the public good.

Interestingly, the prime movers behind the NC IOM/DPH Task Force on which I served were very much influenced by the work of the University of Toronto Joint Center for Bioethics. In the aftermath of the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak in Canada and several Asian nations, members of Toronto's Joint Center for Bioethics drafted a document entitled "Stand on Guard for Thee: Ethical Considerations for Pandemic Preparedness Planning" (University of Toronto Joint Centre for Bioethics Pandemic Influenza Working Group 2005). The phrase "stand on guard for thee" occurs in the Canadian national anthem. It signals to Canadians their obligation to be on the lookout for each other's best interests. Whatever befalls one Canadian potentially affects all Canadians. Although Canadians behaved well enough during the SARS crisis, manifesting their traditional communitarian spirit, the drafters of the Stand-on-Guard-for-Thee document felt Canadians would have acted even better had they been ethically as well as medically prepared for SARS. Among the things that went wrong ethically during Canada's SARS experience were: (1) some health care personnel refused to care for people infected with SARS and were subsequently dismissed for failing to report for duty; (2) other health care personnel were socially ostracized or stigmatized because they willingly cared for infected patients (Rhyne 2007, 51); (3) some physicians and nurses left their respective professions voluntarily because they did not want to continue in what they had come to regard as a truly life-threatening job (Rhyne 2007, 51); (4) some Canadians infected by or exposed to SARS did not comply or fully comply with quarantine restrictions (University of Toronto Joint Centre for Bioethics 2005, 12-13); and (5) some Canadians boycotted all Chinese businesses everywhere in Toronto just because the initial case of SARS was linked to an international traveler from China (Yount 2005, 21).

Wanting to avoid SARS-like mistakes in the event that an influenza pandemic hit the United States, the leaders of the NC IOM/DPH Task Force invited Alison Thompson, PhD, to discuss the reasoning process behind Toronto's Joint Center for Bioethics document. The Task Force wanted to explore with her whether the ethical values guiding the Canadian document were exportable to the United States. Dr. Thompson stressed that two interrelated but nonetheless distinct sets of values, one *procedural* and the other *substantive*, were embedded in the Stand-on-Guard-for-Thee document. She then identified the procedural values as: (1) reasonability, (2) openness, (3) inclusiveness, (4) responsiveness, and (5) accountability; and the substantive values as: (1) individual liberty, (2) protection of the public from harm, (3) proportionality, (4) privacy, (5) equity, (6) duty to provide care, (7) reciprocity, (8) trust, (9) solidarity, and (10) stewardship (University of Toronto Joint Centre for Bioethics 2005, 6–7).

No one on the NC IOM/DPH Task Force had a problem with the Toronto team's procedural values, but several members of the Task Force questioned Dr. Thompson about the Toronto team's definitions for the substantive values of solidarity, stewardship, and reciprocity, respectively. In addition, they interrogated her about the Toronto team's views on the duty to care as it applied to licensed health care professionals in particular, but to others as well. Did licensed health care professionals really have a duty to risk their own lives in order to serve infected patients? Was this duty professional, contractual, legal, or moral? Did nonlicensed health care professionals? Did other professionals have the same or different duties as licensed health care professionals? Did families have either a legal or a moral duty to take care of their infected relatives? Was a duty the same as an obligation? A responsibility? Was there a difference between a *moral* duty/obligation/responsibility and an *ethical* duty/obligation/responsibility?

After Dr. Thompson's visit and nearly two months of sometimes heated, but always careful, discussions the NC IOM/DPH Task Force decided not to embrace the substantive values of solidarity and stewardship. Because some Task Force members associated the substantive value of solidarity with unions and/or socialism/communism, the Task Force as a whole decided to forsake this value as too politically charged. Solidarity does not play as well on North Carolina soil as on Canadian ground. Americans are, on the average, more individualistic and less communal than Canadians; and solidarity with fellow citizens is not as important to Americans as being able to chart the course of their own individual destinies.

NC IOM/DPH Task Force members' reasons for rejecting the substantive value of stewardship ranged from very serious ones to fairly comical ones. One Task Force member objected to the substantive value of stewardship because he feared it connoted heavy fiduciary burdens. Another Task Force member stated the term "stewardship" had too many religious connotations. Yet another Task Force member could not disassociate the term "stewardship" from memories of the stewards who had served him on a recent ocean cruise. Realizing that stewardship was a substantive value without which the Task Force could still accomplish its mission, I suggested that, on balance, it was one we need not embrace.

Thinking that the IOM/DPH Task Force also would dismiss the substantive value of reciprocity as yet another unpalatable Canadian import, I was surprised when the entire Task Force embraced the value of reciprocity as one of its premier substantive values. Apparently, most Task Force members reasoned it was only fair that those who performed their usual duties and/or accepted heavier/riskier new duties during an influenza epidemic should be reciprocated in some way during and/or after the outbreak. Although some Task Force members interpreted reciprocity in a way that suggested they had not progressed beyond Stage Two ("I'll scratch your back, if you scratch mine") on Lawrence Kohlberg's well-known six-stage trajectory for moral development (Kohlberg 1971, 164–165), other Task Force members interpreted the substantive value of reciprocity in quite demanding ways, such as requiring those who receive services in an influenza pandemic to feel duty-bound to give back something of at least equal value to those who rendered the services to them.

Health Care Personnel and the Duty/Obligation/Responsibility to Work During an Influenza Pandemic

As I indicated above, one of the most prolonged and uncomfortable NC IOM/DPH Task Force meetings centered on health care personnel's purported duty to care for infected patients during an influenza pandemic. Several Task Force members asserted the term "duty" was too strong. To them, the term implied that health care personnel had an *ethical* duty to care for infected patients. I responded that, as I saw it, at least *licensed* health care personnel (e.g., physicians and nurses) did indeed have an ethical duty to care for infected patients for three reasons. First, licensed health care professionals have a greater ability than any other segment of the public to provide medical care, a fact that increases their obligation to provide it. Second, licensed health care professionals have a contract with society, resulting from the privilege of self-regulation and self-licensure, that calls on them to be available in times of emergency. Third, licensed health care professionals, by freely choosing a profession devoted to caring for the ill, prima facie accept an ethical obligation to act in the best interests of the ill and to assume a proportional share of the risks to which their profession exposes them (NC IOM/DPH Task Force 2007, 28).

Within nanoseconds of my response, several vociferous objections were made to it. Some Task Force members claimed that individuals' professional ethics were separate from their personal ethics. As they saw it, a professional duty was less ethically binding than a personal duty. When I asked them why, they had no definite answer. However, I did find plausible the suggestion that because professional duties typically are less linked to one's central self-identity than to personal duties, they may be less ethically binding. Yet even though this suggestion made sense to me, it also made me want to run for cover. Suddenly, I realized the extent to which ethical theory has failed to clearly specify whether professional duties are "perfect" or "imperfect" in the Kantian sense of these terms. For Kant, a perfect duty is one "which admits of no exception in the interests of inclination" (Kant 1964, 96). In contrast, an imperfect duty is one that must be performed at least sometimes when the opportunity arises. Did licensed health care professionals always have a duty to treat infected patients during an influenza pandemic or could they, with clear conscience, balance their duty to care for infected patients against their duty not to infect others, including themselves under certain circumstances? In answer to my question, one Task Force member noted that the American Medical Association (AMA) Policy E-9.067 Physician Obligation in Disaster Preparedness and Response states:

The physician workforce ... 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. (Rhyne 2007, 52)

He then claimed that, at most, health care professionals had an imperfect duty to care for infected patients. Other members of the Task Force disagreed. They worried that unless health care professionals were exhorted to think they have a perfect duty to care for infected patients, they would always find a reason not to discharge their "imperfect" duty to care for infected patients.

The perfect/imperfect duty debate was never resolved. Rather it was shelved for future consideration. But not every uncomfortable debate was shelved. Sometimes the Task Force had the fortitude to resolve a moral disagreement relatively quickly. For example, when two Task Force members referred to Avn Rand's *The Virtue of* Selfishness (Rand 1964), claiming that the only moral duty individuals had was the duty to maximize their own self-interest, they were immediately challenged by the majority of Task Force members who claimed either that individuals had moral duties to others or that it was in individuals' self-interest to serve the interests of others. Realizing there was major opposition on the Task Force to Ayn Rand's brand of ethical egoism, her two followers quickly decided it was probably in their own self-interest to soft-pedal their point of view. However, one of them suggested the Task Force reserve the term "duty" or "obligation" for (1) licensed health care personnel's professional obligation to care for infected patients; and (2) unlicensed as well as licensed health care personnel's *contractual* obligation to meet the terms of their respective employment agreements. He further suggested that a weaker term like "responsibility" be used to refer to everyone else's purported duty/obligation to assist each other in times of need. Although I was not certain I agreed with these two suggestions, I ultimately voted with the rest of the Task Force to accept them as verbal distinctions that probably would not make much of a substantive difference in the Task Force's final report.

Relieved to have the duty/obligation/responsibility "wordsmithing" session behind it, the NC IOM/DPH moved on to a matter more easy for it to understand and discuss; namely, what society "owed" to health care personnel willing to put their lives on the line for the sake of the common good. As it considered society's debt to those who serve it in times of crisis, the NC IOM/DPH Task Force repeatedly invoked the value of reciprocity. To its credit, the Task Force was alert to the fact that if health care personnel and other critical workers were asked to fulfill their duties/obligations/responsibilities to society, it was only fair that society express its gratitude to them. Thus, the Task Force insisted that frontline health care personnel and others at increased risk of infection should have priority for protective equipment, antiviral medications, vaccinations, counseling services, and adequate on-the-job training if necessary (NC IOM/DPH 2007, 29–32). In addition, most, if not all, of the Task Force members insisted that families of frontline health care personnel be given priority for preventive measures and/or curative treatments, so as to increase the likelihood of health care personnel reporting for duty. Finally, the Task Force urged government authorities to take measures such as the following three:

- 1. Establish liability immunity for good faith medical treatment and triage judgments.
- Suspend Health Insurance Portability and Accountability ACT (HIPAA) regulations enforcement in cases of necessary and/or inadvertent violations in a crisis situation.
- 3. Provide a compensatory program modeled on workman's compensation for physicians who die or become disabled as a consequence of providing care in a pandemic (Rhyne 2007, 52).

Interestingly, the NC IOM/DPH Task Force considered, but ultimately rejected, the suggestion that health care personnel, nonlicensed as well as licensed, be paid extra for working during an influenza pandemic. Several Task Force members feared that extra pay might entice infected health care personnel to report for work. They had in mind relatively low-paid health care personnel such as nurse aides.

As much as I wanted to believe that most health care personnel would continue to work during an influenza pandemic, reciprocated or not, my inner skeptic chipped away at my inner optimist. My unease increased when several Task Force members recommended that we rely on *volunteers* during an influenza pandemic. The idea of relying on volunteers is, in the Southeast region of the United States, still enormously popular. The region is characterized by a particularly large number of charitable organizations, many of them church based. A remarkably high number of physicians and other health care personnel volunteer to work at free clinics, respond to medical crises whenever and wherever they occur, and serve desperately ill people in developing nations. Yet, in time of an influenza pandemic, there may be something wrong about relying on volunteers. I asked the Task Force if risk of death should not be distributed equally among all health care personnel, particularly the licensed ones. I noted that during the height of the HIV AIDS crisis, when a sizeable number of physicians and nurses refused to treat infected patients, Abigail Zuger, MD, argued that the American Medical Association (AMA) code of 1847 had it right when it stated: "When pestilence prevails, it is their duty to face the danger and to continue their labors for the alleviation of suffering, even at the jeopardy of their own lives" (Zuger 1987). The 1847 code imposed on all licensed health care professionals, and not merely the volunteers among them, the duty to care for infected patients during an influenza pandemic.

To be sure, there are times when a health care professional justifiably may refuse to treat an infected patient on the grounds that his or her attempt to do so would most probably (or nearly certainly) result in more harm than good for the patient. For example, the Task Force imagined the following scenario as one which might constitute a justification for a licensed health care professional, in this case a psychiatrist, not to treat an infected patient:

A psychiatrist has been called in to help hospital personnel cope with the stresses of the influenza 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 personnel are busy with equally ill patients. The psychiatrist knows that she must intubate the patient (e.g., 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? (NC IOM/DPH 2007, 32)

Still, even in this scenario, from a patient's point of view, he or she might reasonably prefer the help of a psychiatrist with rusty intubation skills to no help at all. If not the psychiatrist, then who? The health care ethicist on call? A food service employee?

Although the Task Force seemed particularly worried that not enough health care personnel would be willing to risk their lives for infected patients, the health care personnel on the Task Force all expressed the sentiment that if an influenza pandemic did hit US shores, *they* intended to report for duty. They felt personally,

as well as professionally and contractually, bound to do so. However, one physician in this group, who described himself as a realist, said his and other health care personnel's good intentions might weaken or even disappear if a sizeable number of health care personnel died as a result of serving infected patients. He noted that during the three-century long pandemic of bubonic plague in Europe, each new outbreak provoked physicians to reconsider their duty to treat infected patients. I added that during this plague many physicians ultimately followed the advice they gave patients: namely "leave fast, go far and return slowly" (Jonsen 2000, 45).

Other Critical Workers and Duty/Obligation/Responsibility to Work During an Influenza Pandemic

Although the NC IOM/DPH Task Force spent considerable time addressing the concerns of health care personnel, throughout its deliberations it always was aware that health care personnel were only one among many types of workers *critical* to maintaining society during an influenza pandemic. Although there are significant differences between a medical crisis like an influenza pandemic on the one hand and a natural disaster like a hurricane, earthquake, or tsunami on the other, there are certain similarities. When the situation gets dire—and people find themselves in a survivor scenario, scrambling for water, food, shelter, and other necessities—morality's grip on people's minds and hearts is severely tested. To be sure, such disastrous states of affair often bring out the best in people; but sometimes they also bring out the worst. Therefore, the Task Force reasoned it would be incumbent upon government officials to get not only health care personnel but also other socially essential personnel to do their jobs.

In its deliberations about the degree to which workers in critical, nonhealthrelated industries would have duties, obligations, and/or responsibilities to work during an influenza pandemic, the NC IOM/DPH Task Force struggled to draft a complete list of industries "critical" for social functioning. It found some helpful leads in the US Department of Homeland Security's (DHS) list of 17 critical industries that comprise the national infrastructure and would require protection in the event of a terrorist attack or other hazard: agriculture and food; energy; public health and health care; banking and finance; drinking waters and water treatment systems; information technology and telecommunications; postal and shipping; transportation systems including mass transit, aviation, maritime, ground or surface, and rail and pipelines systems; chemical; commercial facilities; government facilities, emergency services; dams; nuclear reactors, materials and waste; the defense industrial base; and national monuments and icons (NC IOM/DPH 2007, 35). Absent from this list (and rightly so because it is a list of industries) were two sets of critical workers whom the Task Force thought would be essential during an influenza pandemic: the police and the military.

No doubt, it was largely the memory of the aftermath of Hurricane Katrina in New Orleans that prompted the NC IOM/DPH Task Force to realize how much social

order depends on a disciplined, fair, and humane police force and military to stay the course during times of civil unrest or even panic. In a *Newsweek* article written shortly after Katrina hit New Orleans, the reporter noted that within the space of days, the city was "on the verge of anarchy" and "policemen [sic], many of whom had lost their homes, were turning in their badges rather than face ... looters for another day" (Thomas 2005, 47–48). The National Guard had to be called in. Eventually order was restored, in large measure because so many people had left New Orleans voluntarily or involuntarily. There were other places to go—safer places. But in a full-scale influenza pandemic there will be no safe places to which to flee. The Task Force theorized that although most workers in critical industries probably did not have the same degree of duties/obligations/responsibilities to work as, for example, licensed health care personnel had, the police and military probably did.

To the Task Force's relief, the police personnel Task Force members on it stated they viewed themselves (as well as the military) as having a professional as well as contractual duty/obligation/responsibility to do their job during an influenza pandemic. Police personnel had some concerns, however, about how to maintain order at pressure points such as grocery stores and pharmacies. They also were worried about the role they might be required to play in enforcing isolation, quarantine, and social-distancing regulations. Significantly, none of the Task Force members were official representatives of the military sector, a fact that concerned me. Given the role the National Guard had played in trying to restore and keep order in the aftermath of Katrina, for example, I thought it would be important for the Task Force to at least be informed about the NC National Guard's influenza pandemic plans. Do they exist? I felt we were largely avoiding discussions about a worse-case influenza pandemic during which police personnel and military personnel might need to resort to force (even deadly force) to maintain order.

Significantly, the police personnel on the NC IOM/DPH Task Force were not the only group of nonhealth critical workers who voiced more than a contractual obligation to work during times of crisis. The Task Force was most impressed by the influenza pandemic preparedness plans of North Carolina's energy industry. One representative of this industry spoke with particular eloquence about the *ethos* behind his company's preparedness plan. He said, "We know folks will need light and heat and we are determined not to leave them in a lurch during a crisis situation even if we take a major financial hit." The Task Force noted how sensitive the company in question was not only to its customers' needs but also to its employees' needs (Kerin 2007, 62–64). Indeed, the company put many health care institutions' preparedness plans to shame.

In contrast to the NC police force and the NC energy industry, the food industry seemed to be significantly unprepared for an influenza pandemic. No one was quite sure whether the food industry included only farms and groceries, or whether it also included restaurants; and Task Force members from the food industry confessed their companies had no explicit ethos about their duty/obligation/responsibility to feed the public in time of crisis. Most people who work in the grocery stores at which the public shops and the restaurants at which it eats are paid fairly minimal wages. During an influenza pandemic, food-industry employees may respond in

dramatically different ways to "come-to-work" summons. Some may refuse to work for fear of being infected by customers or coworkers; others may insist on working for fear of having no income or being fired.

The more the NC IOM/DPH Task Force focused on the food industry, the more it realized that during an influenza pandemic, food might become a scarcer resource than medical treatment. How would food be delivered to isolated, quarantined, or socially distanced people? Who would deliver it? Who would pay for it? And so forth. I thought to myself: Does any ethicist I know have good answers to such everyday, but crucial, questions? What, if anything, do workers in the food industry owe the public; and what, if anything, does the public owe them? I was relieved when the Task Force decided to move on to another topic, largely because I realized that as much as ethicists like to talk about applied ethics, they rarely address issues such as whose obligation it is to feed the grumpy old man down the street who has a hard time walking and communicating and who seems to have no visitors.

Social Distancing, Isolation, and Quarantine

Unfortunately, the next major topic of discussion also proved to be a difficult one for the Task Force to address. During an influenza pandemic, some individuals' rights would need to be temporarily suspended to protect the public from harm. For example, during a mild influenza pandemic (1 on a scale of 1 to 5), public health officials may require isolation of actually infected persons at home or in a secure environment. They may also require quarantine of individuals exposed to the virus, once again in their own homes or in a secure environment. The rest of the public could go about its usual business. In contrast, in a severe influenza pandemic (4 or 5 on the 1–5 scale), not only would isolation and quarantine measures be implemented, so too would social-distancing measures be implemented. Schools and day care centers might be asked or required to close (NC IOM/DPH Task Force 2007, 41–42). Large social gatherings including church services as well as sports and entertainment events might be discouraged or even prohibited. Moreover, in a worst-case scenario all nonessential businesses might be asked or required to close and/or all nonessential workers might be asked or required to stay at home (Ibid).

Although most of the Task Force wanted to believe that North Carolinians would *voluntarily* isolate, quarantine, and/or socially distance themselves in order to protect the public from harm, some members of the Task Force were more skeptical about North Carolinians' behavior in an influenza pandemic. They noted that at each of the four public meetings the Task Force held, in the cities of Asheville, Charlotte, Greenville, and Raleigh, respectively, those assembled said most people's economic situations would determine whether they stayed home from work voluntarily. If their workplace was open and they needed the money to pay their bills, people would drag themselves to work. Many members of the public suggested that the only sure ways to prevent this state of affairs would be to force workplaces to close or to pay workers to stay home. Of course, the wisdom of the state actually

implementing either of these suggestions is highly questionable. The former suggestion might be financially devastating for many businesses, and the latter only marginally less so. Businesses could ask the government to provide them with funds to mitigate their major financial hits, but whether the government could do this without jeopardizing the economy as a whole is an open question. During the SARS pandemic in Canada—a very mild pandemic—about \$2 billion was lost (Jha 2004). The bulk of these dollars was confined to the Toronto area, sparing the vast majority of Canada. In the case of an influenza pandemic, however, the economic impact would likely not respect any borders nor be limited to a single metropolitan area.

On the whole, the people who came to one of the Task Force's public meetings stated they were willing to forgo church services and other events, including entertainment and sports events, which sometimes seem as sacred to North Carolinians as church events. They also expressed willingness to keep their children home from school and to tend the sick in their own homes, provided their families' basic needs were met and they received adequate instructions and supplies for tending their infected loved ones and themselves. Once again, the NC IOM/DPH Task Force was sobered by the fact that during an influenza pandemic, so much would depend on society having well-developed systems to meet people's basic needs and on having adequate reservoirs of community goodwill and public service at hand. But did North Carolina have such systems and reservoirs? Was it realistic, for example, to expect family members to care for their infected relatives? Maybe. But studies indicate that many people would prefer their families not take care of them if they fall victim to an influenza pandemic. Should such studies prove to be true, who would take care of these people and where? Health care facilities would be without enough beds, and thoughts of housing infected people in Superdome-type quarters are frightening. Should people be housed in schools? In churches? In fitness centers? Who should staff these facilities? What about people for whom no one seems to care? As usual, I asked myself why is it that society creates task forces to meet all people's, but especially vulnerable people's, needs during an influenza pandemic or subsequent to a major natural disaster, when that same society ignores and/or neglects meeting vulnerable people's needs in relatively good times? Why is care reserved for moments of crisis? As much as I wanted to pose these fundamental questions to the Task Force, I knew they would serve only to sidetrack it. I held my tongue and focused on the Band-Aid at hand.

Allocation of Scarce Health Care Resources

The last major issue the NC IOM/DPH Task Force discussed was the allocation of scarce health care resources during an influenza pandemic. In an effort to avoid wasting time, the Task Force read the results of the Center for Disease Control's (CDC) 2005 Public Engagement Pilot Program on Pandemic Influenza (PEPPPI) project. The leaders of this project wanted to ascertain the general public's views on distributing scarce vaccine during an influenza pandemic. They asked citizens

to rank order the following ethical guidelines for distributing scarce vaccine fairly: (1) Save those most at risk; (2) put children and younger people first; (3) limit the larger effects in society; (4) use a lottery system; and (5) use the principle of "first come, first served." After much discussion, the consulted citizens concluded:

[W]ith a very high level of agreement—that assuring the functioning of society should be the first immunization goal followed in importance by reducing the individual deaths and hospitalizations due to influenza (i.e. protecting those who are most at risk). Because of the still high importance of the second goal, the groups added that the first goal should be achieved using the minimum number of vaccine doses required to assure that function. This would allow the remaining doses to be used as soon as possible for those at highest risk of death or hospitalization. There was little support for other suggested goals to vaccinate young people first, to use a lottery system, or a first come first served approach as top priorities. (Public Engagement Pilot Program on Pandemic Influenza 2005, 7)

Although the NC IOM/DPH Task Force learned much from the PEPPI report, it felt it had not learned enough. The Task Force wanted to establish ethical guidelines for a wide range of scarce medical resources. Vaccines would not be the only scarce medical resource in an influenza pandemic. So too would be antiviral medicines, ventilators, hospital and nursing home beds, masks, and health care professionals' time. Complicating the Task Force's allocation deliberations was the empirical fact that during an influenza pandemic priorities inevitably shift depending on whether prevention of disease (early stages) or treatment of disease (later stages) is central. Thus, the Task Force would need at least two sets of allocation guidelines: one for healthy people who needed vaccines and other preventive measures in order not to get sick; and another for sick people who needed treatment.

The NC IOM/DPH Task Force's list of possible allocation criteria included:

- 1. Priority should be given to assure the functioning of society.
- 2. Priority should be given to reduce the incidence or spread of disease.
- 3. Priority should be given to reduce illness, hospitalizations, and death due to the influenza.
- 4. Priority should be given to protect people with the most years of life ahead of them.
- 5. There should be no priority given for the distribution of limited health care resources to ensure that everyone has an equal chance of being protected. (NC IOM/DPH Task Force 2007, 49–50)

Although most of the Task Force wanted to limit its deliberations to the five possible allocation criteria listed above, at least one member of the Task Force wanted to add Ezekiel J. Emanuel's allocation criterion of "quality of life years left or the life cycle principle" (Emanuel and Wertheimer 2006, 854). The idea behind this criterion is that "each person should have an opportunity to live through all the stages of life," with priority given to young adults over young children (around one year old, say). Emanuel's reasoning for favoring young adults over young children is that young adults *supposedly* have more developed interests, hopes, and plans than young children, but like young children have not had an opportunity to realize them (Ibid). In other words, young adults have consciously articulated to themselves their school, career, marriage, and family plans, whereas young children

have not. Thus, dying during an influenza pandemic would entail more suffering for a young adult than a young child.

For all the merits of Emanuel's criterion, the objection can be raised that if a young child survives an influenza pandemic, he/she will probably live to be a young adult with the kind of plans noted above. Moreover, given the fact that people are living ever longer and healthier lives, who is to say that a 40, 50, 60, 70, or even 80-year-old has had a chance to realize their hopes and interests? What if someone wasted the first 40 years of his or her life and wanted to use the next 40 years or so to make up for their wasted years? Why should his or her plans count less than a young adult's plans? If it adopted Emanuel's criterion, would the Task Force be perceived as ageist? To be sure, Task Force members thought that during an influenza pandemic many grandparents would willingly sacrifice their lives for the lives of their grandchildren, but this sentiment was captured in the less controversial principle that priority should be given to protect people with the most years of life ahead of them. Without the Emanuel principle ever coming to a vote, it gradually disappeared from the Task Force's radar screen, resurfacing as a "mention-only" in the Task Force's final report (NC IOM/DPH 2007, 50, footnote c).

In addition to largely ignoring the Emanuel criterion, the Task Force loudly rejected the first-come, first-serve criterion. It made no sense to Task Force members to give vaccines to people who could not benefit from them just because they got first in line for them. Therefore, said the Task Force, many sorts of unfairnesses built into the "first-come, first-served" criterion, beginning with the fact that not everyone has the means to get to a vaccine-delivery location. During the aftermath of Hurricane Katrina, for example, it became clear that many of the people left behind did not have the transportation or help to flee. Should people be penalized an influenza pandemic simply because they have no access to transportation?

In the end, the NC IOM/DPH Task Force recommended a relatively nuanced list of ethical guidelines for a fair allocation of scarce medical resources during an influenza pandemic. The intent behind the Task Force's allocation guidelines was threefold: (1) to preserve lives of workers critical for the functioning of society; (2) to prevent the spread of the disease; and (3) to treat people who could benefit from the treatment. Having previously been advised that its ethical allocation priorities would need to shift, depending on the state and severity of an influenza pandemic, and on whether preventive resources (both nonpharmaceutical and pharmaceutical) or treatment resources (both nonpharmaceutical and pharmaceutical) were under consideration, the Task Force issued the following ethical guidelines for distributing scarce medical resources:

- (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 (e.g., ventilators and hospital beds) should be made with the goal of reducing illness, hospitalization, and deaths (NC IOM/DPH Task Force 2007, 53).

In addition to providing these four basic ethical guidelines, the Task Force stressed that within priority groups, decisions should be based on clinical and epidemiological factors only. They should not be based on socioeconomic status, gender, race, ethnicity, or, more controversially, immigration/legal-documentation status. (North Carolina has a large number of Hispanic immigrants, many with proper documentation, but an increasingly large number without proper documents.)

Conclusion

After a unanimous vote, the Task Force's final ethical guidelines were published with the title "Stockpiling Solutions: North Carolina's Ethical Guidelines for an Influenza Pandemic." I came away from the experience convinced that Stephen Toulmin had it right in his now quarter-century old article, "The Tyranny of Principles" (Toulmin 1981). Neither absolute adherence to principles, nor relativistic acceptance of all "moral" views, is likely to result in a set of ethical guidelines that most people in a highly diverse society can accept as substantially their own. Rather, any such set of ethical guidelines is likely to be built "taxonomically, taking one difficult class of cases at a time and comparing it in detail with other clearer and easier classes of cases" (Toulmin 1981, 31). The NC IOM/DPH Task Force stalled when it tried to agree on abstract definitions of terms like "duty," "obligation," and "responsibility," but it made substantial progress as soon as Task Force members began to share cases in which it was clear to them, for example, that a physician had a duty/obligation/responsibility to work and cases in which it was not clear. By comparing and contrasting clear and unclear cases, the Task Force was able to write ethical guidelines that, in its collective estimation, would help decisionmakers handle, fairly and compassionately, all but the hardest cases—the kind of cases which tragically result in someone or some group being harmed despite everyone's best intensions and efforts to avoid this state of affairs.

I left my role as co-Chair of the NC IOM/DPH Task Force convinced that when an influenza pandemic arrives, the kind of ethics most likely to persuade people to do their duty and more is not a rights-based, duties-based, or utility-based ethics, but a care-based ethics. We human beings are a very vulnerable lot. We are radically dependent on each other for survival and we need to view ourselves as folks in a lifeboat in the middle or 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 who 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. Then start paddling together to get to shore, knowing that although we might not all make it, we did not turn on each other in our panic. What we need most 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.

References

- Adler, J. 2005. "The fight against the flu." Newsweek (October 31, 2005): 44.
- Berlinger, N. 2006. "Influenza pandemic and the fair allocation of scarce life-saving resources: how can we make the hardest of choices?" *The Hasting Center Bioethics Backgrounder*, berlinger@thehastingscenter.org.
- Department of Health and Human Services. 2006. "Pandemic planning assumptions." Available at http://www.pandemicflu.gov/plan/pandplan.html. Accessed December 11, 2006.
- Emanuel, E. J. and Wertheimer, A. 2006. "Who should get influenza vaccine when not all can?" *Science* 312(5775): 854–855.
- Engel, J. P., MD. 2007. "Pandemic influenza: the critical issues and North Carolina's preparedness plan."
 North Carolina Medical Journal: A Journal of Health Policy Analysis and Debate 68(1): 32.
- Garloch, K. 2006. "Avian flu: are we ready?" *The Charlotte Observer* (Sunday, April 9, 2006): A1. Jha, P. 2004. "Doing good on a global scale." *University of Toronto Bulletin*. November 8, 2004. Accessed May 25, 2007 from www.news.utoronto.ca/bin6/thoughts/041108–665.asp.
- Jonsen, A. 2000. A Short History of Medical Ethics. New York: Oxford University Press.
- Kant, I. 1964. *Groundwork of the Metaphysic of Morals*, translated and analyzed by H.J. Paton, New York: Harper & Row, p. 96.
- Kerin, J. 2007. "Business preparation for an influenza pandemic." North Carolina Medical Journal 68(1): 62–64.
- Kohlberg, L. 1971. "From is to ought: how to commit the naturalistic fallacy and get away with it in the study of moral development." In *Cognitive Development and Epistemology*, ed. T. Mischel, 164–165. New York: Academic Press.
- McGorty, E. K., JD, MA; Devlin, L. DDS, MPH; Tong, R. PhD; Harrison, N.; Holmes, M., PhD; and Silberman, P., JD, PhD. 2007. "Ethical guidelines for an influenza pandemic." *North Carolina Medical Journal: A Journal of Health Policy Analysis and Debate* 68(1): 39.
- NC IOM/DPH Task Force (North Carolina Institute of Medicine and Division of Public Health Task Force on Ethics and Pandemic Influenza Planning). 2007. "Ethical guidelines for an influenza pandemic." DRAFT. North Carolina Department of Health and Human Services, 23.
- PEPPPI (Public Engagement Pilot Program on Pandemic Influenza). 2005. "Citizen voices on pandemic flu choices: a report of the public engagement pilot program on pandemic influenza." The Keystone Center: Denver, 7.
- Rand, A. 1964. The Virtue of Selfishness. New York: Signet.
- Rhyne, J. A. MD. 2007. "Likely ethical, legal, and professional challenges physicians will face during an influenza pandemic." North Carolina Medical Journal: A Journal of Health Policy Analysis and Debate 68(1): 51.
- Thomas, E. 2005. "The lost city—special report: after Katrina." *Newsweek* (September 12, 2005): pp. 47–48.
- Toulmin, S. 1981. "The tyranny of principles." The Hastings Center 11(6): 31–39.
- University of Toronto Joint Centre for Bioethics Pandemic Influenza Working Group. 2005. "Stand on guard for thee: ethical considerations in preparedness planning for pandemic influenza." University of Toronto Joint Centre for Bioethics.

World Health Organization. 2007. Current WHO phase of pandemic alert. Available at http://www.who.int/csr/disease/avian_influenza/phase/en/index.html. Accessed February 14, 2007.
Yount, K. 2005. "Man vs. virus: why we're worried about 'bird flu.'" *UAB Magazine* (Fall 2005): 21.
Zuger, M. A., S.H. 1987. "Physicians, AIDS and occupational risk: historic traditions and ethical obligations." *JAMA* 258: 1924–1928.