TOWARDS AN ETHICAL COMMUNITY RESPONSE TO PANDEMIC

INFLUENZA: THE VALUES OF SOLIDARITY, LOYALTY, AND PARTICIPATION

Mitchell Leon Klopfenstein

Submitted to the faculty of the University Graduate School
in partial fulfillment of the requirements
for the degree
Master of Arts
in the Department of Philosophy,
Indiana University

July 2008

Accepted by the Faculty of Indiana University, in partial
fulfillment of the requirements for the degree of Master of Arts.

_____

Jason T. Eberl Ph.D., Chair

_____

Eric M. Meslin Ph.D.

Master's Thesis
Committee

_____

Kathy V. Weaver R.N., M.P.A., J.D.

Acknowledgments

I would like to thank Jason T.Eberl, Eric M. Meslin, and Kathy V. Weaver for their review and comments on drafts of this thesis.

Table of Contents

Introduction

> Yet it is the most common thing in the world for a person to decide that he should (or should not) do so-and-so on grounds of loyalty to his friend, family, organization, community, country, or species. Indeed, it is likely that loyalties ground more of the principled, self-sacrificing, and other kinds of nonselfish behavior in which people engage than do moral principles and ideals. (Oldenquist 1982, 173)

Influenza pandemics are a fact of nature. Our human history is marked by global influenza outbreaks that have stricken large numbers of people with illness, caused many deaths, and disrupted the social and economic life of many communities, states, and nations. A novel influenza virus spreading efficiently human to human and causing severe illness causes an influenza pandemic. In the last three hundred years there have been at least ten influenza pandemics (IOM 2005; Osterholm 2005a). The twentieth century alone experienced three pandemics in 1918, 1957, and 1968 (HHS 2005).

Seasonal influenza results in approximately 36,000 deaths and 226,000 hospitalizations annually in the United States, while a severe influenza pandemic could cause as many as 1.9 million deaths and 9.9 million hospitalizations (HHS 2005). The sudden onset of illness will severely overwhelm the health care system and create a scarcity of essential resources, which will challenge health officials and community leaders to develop pandemic response plans[1] that provide care for the ill. Even while planning efforts are underway, the risks posed by a pandemic are not likely to be eliminated.

---

[1] Throughout this thesis the phrase 'pandemic response plans' denotes an operational plan. Operational plans attempt to identify the resources, responsibilities, and tasks necessary to implement response strategies. As each community is unique, each pandemic response plan must be tailored to the resources and personnel available to respond during a pandemic.

The fundamental difficulty in pandemic planning and response is twofold: 1) there are limited material and human resources upon which a community may draw; and 2) a severe disease outbreak creates social disunity (Schoch-Spana 2000b; Barry 2004). A pandemic raises many ethical issues. In the area of health care, ethical issues are even more pronounced in that medical resources are highly valued and sought after. While there are many important ethical issues involved in a community response to a pandemic outbreak, this thesis will focus on the obligations that health care workers, support staff, and community members have to provide care to the ill during a pandemic. The ethical issues raised by a pandemic can be viewed as the need to resolve the struggle between the individual and the group (Capron 2007). As such the most difficult challenge during a pandemic will be to balance private interests with public interests.

The SARS experience demonstrates that an effective response to an infectious disease outbreak requires health care professionals and institutions to put aside self-interest or territoriality and utilize a collaborative approach (University Joint Centre for Bioethics [JCB] 2005). To develop effective pandemic response plans communities must cooperate in developing response plans that identify stakeholders and resources, defines a common operating picture, and describes roles and responsibilities. Collaboration and cooperation requires the willingness to provide aid to others in need and the willingness to sacrifice personal or institutional interests for public interests. Essentially, the community must develop an attitude of solidarity, which presupposes loyalty to the response effort and community participation in the development of the response plan.

Solidarity is often listed as an important value for pandemic preparedness (Capron 2007; Thompson et al. 2006; Torda 2006; JCB 2005; Gostin 2005; Kotalik 2005);

however, there is little explanation of the term's meaning or use. In Europe the concept of solidarity is defined as: "The preparedness to share resources with others by personal contribution to those in struggle or in need and through taxation and redistribution organised by the state" (Stjerno 2004, 2). In the United States (U.S.) this conception of solidarity is more commonly associated with the notion of "social responsibility" (AHRQ 2006). While there are different ways of defining "solidarity," the concept advanced in this thesis is drawn from the Polish philosopher Karol Wojtyla,[2] who emphasizes the value of personal actions in developing the attitude of solidarity in the community.

For Wojtyla solidarity is an attitude of a community that initiates participation and fosters the realization of the common good (1979). In this sense solidarity is defined as a "firm and persevering determination to commit oneself to the common good" (Pontifical Council on Justice and Peace [PCJP] 2005, 85). Wojtyla's concept of solidarity stems from his understanding of participation, which brings into focus the human capacity to experience suffering and joy (DeMarco 2003). From this understanding solidarity is simply the "virtue of care as extended to all other people in society" (DeMarco 2003). In this sense solidarity is a virtue and a desirable social characteristic.

Unlike notions of solidarity that emphasize "social functions," such as the conception of solidarity advance by the sociologist Emile Durkheim (1960), Wojtyla's notion emphasizes a solidarity of persons (Doran 1996). This conception of solidarity is superior for pandemic planning and response because it emphasizes the value of personal action in the community. This is important as government entities have a limited ability to assist local communities in preparing for and responding to a pandemic. This

---

[2] Karol Wojtyla was elected Pope John Paul II in 1978.

3

conception of solidarity presupposes the values of loyalty and participation; thus, it is necessary to examine these notions in order to develop a more thorough understanding of solidarity.

Solidarity requires a commitment to the common good and commitments are based upon loyalty. The American philosopher Josiah Royce defines loyalty as "the willing and practical and thoroughgoing devotion of a person to a cause" (2005, 861). A cause to which people can be loyal must be tangible and grounded in reality, otherwise it will not be compelling (Trotter 1999). In the context of pandemic influenza loyalty means to devote oneself to the common good by serving the cause of the pandemic response plan. A well-defined pandemic response plan should clearly articulate the cause and the actions necessary to serve the cause. In order to develop a cause that inspires loyalty, individuals, community groups, health care institutions, and governments must participate in the development of the pandemic response plan.

In the broad sense participation is the activity of individuals or groups to contribute to the political and social life of the community (PCJP 2005). Creating opportunities for public participation in pandemic planning expresses the equal value of all community members (Childress 2003). Public participation is a matter of justice because the public has a right to participate in governmental decisions that impact life chances or infringes on individual rights (Eckenwiler 2003; Childress 2003). The participation of the public in the development of pandemic response strategies will build trust between the general public and those responsible for implementing response plan. It will also help to inspire loyalty to the response effort and foster solidarity in the community.

Pandemic influenza affects a society's heath, as well as its ethics. Therefore, developing a proper response to pandemic outbreak requires attention to both science and ethics. In the field of public health ethical values such as necessity, effective means, proportionality, least infringement, public justification, fairness, distributive justice, and procedural justice are often utilized to examine ethical issues (Kass 2001; Roberts and Reich 2002; Gostin 2003; Kass, 2004). In the context of pandemic influenza the ethical values of individual liberty, public protection, proportionality, reciprocity, transparency, privacy, protections against stigmatization, duty to provide care, equity, solidarity (JCB 2005), protection of vulnerable populations, fair treatment and social justice, and least restrictive alternative (IOM 2005) are advanced as relevant considerations for addressing the various ethical issue that arise.

There is no single ethical framework robust enough to adequately address the various issues that arise in pandemic planning and response. Pandemic influenza is a social problem that requires a social effort in planning, preparedness, and response. The values of participation, loyalty, and solidarity are fundamental social values that are critical to sustain the life of communities. The study of these values will assist local officials with an ethical approach for developing pandemic response plans that ensures community participation, incorporates fundamental values, and minimizes conflicting obligations in the planning stages, which in turn inspires loyalty to the response effort and fosters an attitude of solidarity in the community during the pandemic. While these values do not dictate specific response strategies, they inform the development of strategies that can be tailored to specific communities.

Chapter 1: The Pandemic Threat

> An influenza pandemic is likely to occur almost simultaneously across
> countries and communities. It will demand that every aspect of our
> communities be self-sufficient, able to deal with the outbreak of illness
> should it hit. Political leaders, employers, school leaders, healthcare
> leaders, faith-based and community organizations, families and the media
> must all be informed, engaged, and actively involved. (Leavitt 2006, 8)

Infectious Diseases

Infectious disease-related deaths in the U.S. have nearly doubled in the last 25

years to 170,000 annually since reaching a historic low in 1980 (National Intelligence

Estimate 2000). An infectious disease is an illness caused by a specific infectious agent

that is spread from an infected person, animal, or inanimate reservoir to a susceptible

host, either directly or indirectly, through an intermediate plant or animal host, vector, or

inanimate environment. Examples of infectious diseases include: HIV/AIDS,

Tuberculosis (TB), malaria, hepatitis B and C, measles, and influenza. Twenty well-

known diseases, such as TB, malaria, and cholera, have reemerged or spread

geographically since 1973, often in a more virulent and drug resistant form. Also, since

1973, thirty previously unknown disease agents have been identified, such as HIV/AIDS,

Ebola, hepatitis C, and Nipah virus, for which there are no available cures (National

Intelligence Estimate 2000).

Historically, infectious diseases cause more death than wars or natural disasters.

For example, the "Black Death" killed approximately one third of the European

population during the 14th century, the 1918 Influenza Pandemic killed up to 100 million

people in a period of twenty-four months, and smallpox killed more people in the 20th

century than all of the wars of that century combined (Selgelid 2005). Furthermore, infectious diseases traditionally account for more military hospitalizations than battlefield wounds (National Intelligence Estimate 2000). Among the most contagious infectious diseases is influenza, which will remain essentially an uncontrolled disease because influenza viruses replicate and spread easily among humans (National Intelligence Estimate 2000).

Influenza

Occasionally a novel influenza virus emerges to which the human population has little or no immunity and a pandemic (worldwide epidemic) causing widespread illness is possible. A virus that attacks primarily the upper respiratory tract—the nose, throat, and bronchi, and rarely the lungs—causes influenza. The infection is characterized by a sudden onset of fever, myalgia, headache, nonproductive cough, and sore throat approximately one to four days after exposure to droplets expelled by an infected person's sneeze or cough. Influenza viruses are categorized as type A, B, or C. Influenza A viruses naturally reside in wild birds, predominantly in waterfowl, where they coexist in harmony with their host and remain in evolutionary stasis, showing minimal change at the amino acid level over long periods of time (Webster et al. 2006). In humans, however, influenza A viruses are the most virulent and are responsible for lethal pandemics. Influenza A viruses can be further divided into subtypes according to differences between two viral surface proteins, hemagglutinin (HA) and neuraminidase (NA). There are sixteen H antigens (H1-H16) and nine N antigens (N1-N9).

The hallmark feature of the influenza virus is the ability to mutate. All influenza

viruses have a segmented genome, which can rearrange to produce new viral proteins.

The new proteins result in new strains of virus. There are two ways an influenza virus can

mutate. A regular, small, and permanent change in the genetic material of the virus is

known as antigenic drift. This creates seasonal epidemics and is the reason why an

influenza vaccine developed for last influenza season will not completely protect against

the mutated strain of the current season. Because the body lacks specific antibodies to the

new strain there is incomplete immunity, and thus seasonal vaccinations are necessary.

The term antigenic shift refers to a substantial genetic change in the virus, which occurs

through a process known as genetic reassortment. This occurs when two or more

influenza subtypes from different species, such as bird and pig or bird and human, trade

and merge genes creating brand new hemagglutinin and neuraminidase surface proteins.

Genetic reassortment is believed to have caused the 1957 and 1968 pandemics (HHS

2005). When a change in the virus produces surface proteins to which the human

population has little or no immunity, a pandemic is possible.

Pandemic Influenza

Many lethal pandemics have been recorded in history. The Institute of Medicine's

report *The Threat of Pandemic Influenza: Are We Ready? Workshop Summary (2004)*

notes lethal pandemics likely to have been influenza in 1510, 1518, 1688, 1693, 1699,

1847, 1848, 1889, 1890, and 1918 (IOM 2005). Although many infectious diseases, such

as SARS, Ebola, HIV or West Nile, can cause severe disease outbreaks, these infections

are generally limited to localized areas or to at-risk populations; however, pandemic

influenza is an explosive global event where nearly all of the world's population is at risk (HHS 2005). Of the twentieth-century pandemics, the 1918 virus caused high morbidity and mortality with an estimated 675,000 deaths in the United States (Tumpey et al. 2005; Barry 2004, 2005a), while the 1957 virus caused 70,000 deaths, and the 1968 virus caused 34,000 deaths (HHS 2005).

To cause a pandemic a viral strain must have three characteristics: 1) be novel to the human population, 2) have increased virulence resulting in high morbidity, and 3) be easily transmitted human to human. Influenza is among the most contagious diseases known to humanity, and experts agree the most considerable threat to human health today is pandemic influenza (WHO 2005b; HHS 2005; National Intelligence Estimate 2003). The Center for Infectious Disease Research and Policy (CIDRAP) indicates that the pandemics of the 20th century—in 1918, 1957, and 1968—arose from an avian or bird lineage of viruses (CIDRAP 2007). At some point these influenza viruses carried initially by birds jumped the species barrier to infect humans. Once these viruses adapted to human hosts they gained the ability to replicate efficiently and spread human to human, causing widespread illness and death. Recent outbreaks of highly pathogenic avian influenza in poultry in East Asia (H5N1), the Netherlands (H7N7), and Canada (H7N3), with subsequent transmission to humans (Gani et al. 2005), represent the emergence of a novel influenza virus with pandemic potential.

1918 Pandemic

The 1918 influenza pandemic killed more people than any single infectious disease outbreak in human history. Recent studies estimate the global death toll reached

9

at least 50 million people and possibly 100 million, although it is impossible to know the exact death toll, as records were simply not kept in many areas (Barry 2004, 2005a). In 1918 the world's population was approximately one-third of what it is today, and if we apply the 1918 mortality percentages to the world's current population it could mean 180-360 million deaths worldwide, which is five times the number of documented AIDS deaths (Osterholm 2005a).

The deadly 1918 influenza pandemic erupted in force in late August where epidemics of unprecedented lethality broke out in Boston (U.S.), Brest (France), and Freetown (Sierra Leone), after which the virus quickly blanketed the globe. The rapid onset of illness overwhelmed hospitals, and as a result gymnasiums, state armories, and church halls were used as emergency hospitals. The 1918 influenza infected health care workers, caregivers, pharmacists, laboratory workers, and other personnel. Critical personnel shortages in industry, government, and infrastructure, including law enforcement, sanitation, fire protection, postal delivery, transportation, health care, and food services, hampered response efforts (Barry 2004). Hospitals were forced to turn patients away, extend staff hours, tasks student doctors and nurses, and prepare makeshift accommodations in halls, offices, porches, and tents (Schoch-Spana 2000b).

In many areas hospitals were closed due to overcrowding or inadequate staffing and alternative care sites were not available. As a result many people suffered at home, lacking the strength or opportunity to go to the hospital even if one were open. Social workers, visiting nurses, and Red Cross volunteers provided home health services in addition to food, childcare, and burial assistance (Schoch-Spana 2000b). In Philadelphia, more than 11,000 people died during the month of October, and over the course of 31

days 195,000 Americans died (Kenner 1998). The speed at which people died made it

impossible to dispose of the bodies in a timely manner:

> In Philadelphia, bodies remained uncollected in homes for days, until
> eventually open trucks and even horse-drawn carts were sent down city
> streets and people were told to bring out the dead. The bodies were
> stacked without coffins and buried in cemeteries in mass graves dug by
> steam shovels (Barry 2005a, 65).

The demand for coffins was so severe that "Washington D.C seized railroad cars with

coffins that were en route to Pittsburgh, where the demand was equally desperate"

(Schoch-Spana 2000b, 1412). With the demand for burial services high "some funeral

homes and cemeteries were accused of price gouging, and local leaders were accused of

not doing enough to help the bereaved" (Schoch-Spana 2000b, 1412).

In rural Kentucky, the Red Cross reported that "people were starving to death not

from lack of food but because the well were panic-stricken and would not go near the

sick" (Barry 2005a, 66). In some places desperate calls for volunteer assistance fell upon

deaf ears. For example, the head of one city's volunteer effort wrote in frustration:

> Hundreds of women who are content to sit back had delightful dreams of
> themselves in the roles of angels of mercy, had the unfathomable vanity to
> imagine that they were capable of great sacrifice. Nothing seems to rouse
> them now. They have been told that there are families in which every
> member is ill, in which the children are actually starving because there is
> no one to give them food. The death rate is so high and they still hold
> back. (Barry 2005a, 66)

Ultimately, the Red Cross concluded, "A fear and panic of the influenza, akin to the

terror of the Middle Ages regarding the Black Plague, [has] been prevalent in many parts

of the country" (Barry 2005a, 66).

In 1918 state and local health officials suspended public gatherings, meetings

were postponed, funerals were banned, retail hours were curtailed, and schools and

churches were closed (Schoch-Spana 2000b; Barry 2004). The fear, panic, and disruption that ensued after the outbreak began were aided by false assurances from governments and newspapers. Americans quickly realized that officials were trying to downplay the impact of the outbreak, and this destroyed all trust in authority. As a result society began to break apart and in some instances doctors and nurses were kidnapped (Barry 2005b). Health officials and citizens alike succumbed to the stress. A health officer in San Francisco shot a citizen for not putting on a protective mask, and in Chicago a man slit the throats of his wife and children (Kenner 1998). This influenza outbreak was so severe that the Chief of Staff of the German Imperial Army, General Erich Ludendorff, concluded that it was influenza and not the fresh troops that ended World War I (IOM 2005).

During the early stages of the outbreak, the scientist Victor Vaughan stated, "If the epidemic continues its mathematical rate of acceleration, civilization could easily … disappear … from the face of the earth within a matter of a few more weeks" (Barry 2005b, 66). The 1918 pandemic fostered both social cohesion and distance. Partly due to the mobilization for WWI, Americans had a well-developed sense of solidarity when the epidemic erupted. On the one hand, neighbors took care of one another, fed the sick, and joined volunteer organizations; on the other hand, groups were pitted against one another to assign blame and compete for limited resources (Schoch-Spana 2000b). Hospitals in Baltimore were closed to African Americans, and public health officials defended the city's poor public health record by attributing the high mortality rate to the African American population (Schoch-Spana 2000b).

It is estimated that one third of the world's population was clinically infected by the virus, and fatality rates were >2.5 percent compared to <0.1 percent in other influenza pandemics (Taubenberger and Morens 2006). The most striking feature of this virus is that it caused an unusually high death rate in the young and healthy, ages 15-34; subsequently, the average life expectancy in the United States was lowered by more than 10 years after the 1918 pandemic (Glezen 1996; Tumpey et al. 2005). While the overall fatality rate is estimated at 2.5 percent, some populations were affected at much higher rates. In the Fiji islands the virus killed 14 percent of the population in 16 days, and in Labrador and Alaska the virus killed "at least one-third of the entire native population" (Barry 2005a, 61).

Two unusual features of the 1918 virus were that the symptoms it caused did not appear to be influenza, and the highest fatality rates occurred in the otherwise young and healthy, a trend not associated with influenza. Early on the cause of the disease was typically misdiagnosed as dengue, cholera, or typhoid, and one striking complication caused by the disease was "hemorrhage from mucous membranes, especially from the nose, stomach, and intestine" (Barry 2005a, 61). In 1918 influenza and pneumonia deaths were >20 times higher than previous years for those between the ages of 15-34. Normal epidemiological charting of death rates caused by influenza exhibit a U-shaped pattern. For at least 150 years of charting, mortality peaks in the very young and the very old with a low frequency of deaths for all ages in between In contrast, the age-specific deaths rates in the 1918 pandemic exhibited a W-shaped curve, indicating a high death rate among young adults age 20-40, which has not been documented before or since the 1918 pandemic (Taubenberger and Morens, 2006).

A primary cause of death in 1918 is believed to have been a virus-induced

reaction of the immune system known as a cytokine storm, which then lead to acute

respiratory distress syndrome (ARDS) (Barry 2005a; Osterholm 2005a). In many

instances rapid death occurred in which no secondary bacterial infection could be

demonstrated (Kilbourne 2006). Why the 1918 virus caused severe illness in the young

remains a mystery; however, viral sequencing data from the 1918 virus suggest that this

virus was not a reassortant virus created from existing strains, as in the 1957 and 1968

pandemics, but from a novel "avian-like" influenza virus derived from an unknown

source (Taubenberger and Morens 2006). While the exact mechanisms giving the 1918

virus its extreme virulence are unclear at this time, the fact that the 1918 virus appears to

be derived from an avian source and is extremely virulent legitimizes worries scientists

have concerning avian influenza H5N1, which has a demonstrated ability to infect

humans. While the 1918 pandemic was an extraordinary event and the prospect of a

similar pandemic occurring is frightening, it is important to realize that most influenza

cases in 1918 (>95 percent) were mild and essentially indistinguishable from influenza

cases today (Taubenberger et al. 2005).

H5N1 Threat

In 1997 an outbreak of avian influenza H5N1 in poultry in Hong Kong

subsequently caused the first known instances of human infections with this virus. During

this initial outbreak there were 18 human cases and six fatalities. The H5N1 outbreak that

began in Hong Kong in 1997 is the most severe and widespread outbreak in birds on

record (Stimola 2006). The H5N1 virus has spread from Southeast Asia through

migratory flyways and infected several mammalian species, thereby expanding its geographic and host range (Fauci 2005). Currently, this virus continues to infect humans and has a fatality rate of over 50 percent. Virologist Robert Webster notes the H5N1 is most lethal influenza virus on which he has ever worked (Madlin et al. 2005). With a mortality rate in humans over 50 percent, public health officials are justifiably concerned, because this is over one hundred times higher than the mortality rate of seasonal influenza and over twenty times higher than that of the 1918 virus (Stimola 2006).

Studies of H5N1 infections in humans show complications similar to the 1918 pandemic such as pneumonia, ARDS, cardiac compromise, pulmonary hemorrhage, Reye's syndrome, and sepsis (Writing Committee of the World Health Organization 2005). Health officials are concerned that the H5N1 virus will mutate to a form that transmits efficiently human to human. If this virus retains even half of its virulence (25 percent fatality rate) the results will be absolutely catastrophic.

To date the H5N1 virus has yet to gain the ability to spread efficiently human to human, although, limited human to human transmission is likely to have occurred in some cases. While evidence is mounting that supports the hypothesis that a pandemic strain is emerging, it is important to note that "the basis for viral adaptation to efficient human to human spread is not known for any influenza virus and there is no way to know if the H5N1 is in a parallel process of acquiring this trait" (Taubenberger and Morens 2006, 21).

The Next Pandemic

The next pandemic could cause clinical illness in 25-35 percent of the population and cause death in a substantial number of those infected (HHS 2005). It is estimated the next pandemic could cause 865,000 hospitalizations and 209,000 U.S. deaths if the viral strain were similar to 1957 and 1968; however, if the next pandemic strain is similar to the 1918 virus, it could cause as many as 9.9 million hospitalizations and 1.9 million deaths in the U.S. (HHS 2005). While two of the three pandemics of the last century were relatively mild, this is no reason to expect that the next pandemic will necessarily be mild.

John Barry, the author of *The Great Influenza*, *The Epic Story of the Deadliest Plague in History*, writes:

> Virtually every expert on influenza believes another pandemic is nearly inevitable, that it will kill millions of people, and that it could kill tens of millions… and that it could cause economic and social disruption on a massive scale. This disruption itself could kill as well. (2005a, 68)

It is possible that human suffering caused by the illness could be mild compared to the suffering caused by the breakdown in civil infrastructure and order (Fabian 2006). Summarizing the implications of a pandemic on the modern world, Michael Osterholm stated before the House Committee on International Relations: "healthcare systems will be overwhelmed and panic will reign" (2005b, 70).

While not a true pandemic, the 2003 SARS outbreak serves as a sobering warning of the consequences of an epidemic to public health. SARS affected 30 countries and resulted in 8,439 cases with 812 deaths. In this outbreak the fatality rate for people under 60 years of age was 13 percent and 43 percent for those over 60 (DiGiovanni et al. 2004).

16

In Toronto, the health care system was not prepared to handle a contagious disease outbreak like SARS. For example, a SARS victim who sought care in a Toronto hospital was required to spend the night in the emergency room waiting for an inpatient bed, subsequently 78 people were infected, five of whom died (American College of Emergency Physicians [ACEP] 2005). Unlike influenza, SARS was a coronavirus[3] that was ultimately contained, a prospect highly unlikely with influenza. The National Intelligence Estimate reports that had SARS been even moderately more contagious it probably could not have been contained in this highly connected fast-paced world (2003).

The Institute of Medicine notes the disturbing reality is that the public health infrastructure is inadequate and hospitals lack the capacity to handle a surge of patients (2005). A pandemic would disrupt health care more than at any time in the past, because hospitals have improved efficiency to minimize slack (Barry 2005b). The American Hospital Association (AHA) states that emergency departments are generally "at" or "over" capacity (2007). During the past decade, due to cuts in reimbursement and a shortage of trained staff, the nation's hospitals have lost 103,000 staffed hospital beds and 7,800 intensive care unit beds (ACEP 2005). The "National Report Card on the State of Emergency Medicine," an evaluation of the emergency medical care system in the U.S. concludes that the system needs urgent attention (ACEP 2006). This loss of hospital capacity increases ambulance diversions and patient waiting times, which causes overcrowding and increases the risk of disease spread.

---

[3] As a coronavirus, SARS is larger than an influenza virus and spreads less efficiently. Furthermore, the SARS virus has a longer incubation period and spreads after the onset of symptoms, unlike influenza, which has a short incubation period and can spread while a person is asymptomatic.

The 1999-2000 influenza season frustrated U.S. hospitals in ways that parallel 1918. Hospitals faced shortages of staff, beds, and equipment, and patients were forced to endure long delays in care—these disruptions were a result of a nominal surge of patients (Schoch-Spana 2000a). A severe pandemic could cause as many as 9.9 million additional hospitalizations (HHS 2005), while the number of staffed hospital beds in the U.S. is less than one million (AHA 2005). The fragmentation, inefficiencies, and problems with access to care in American medicine will pose special challenges during a pandemic when the "demand for medical services is crushing" (Center for Biosecurity 2005, 293).

The University of Toronto's Joint Centre for Bioethics (JCB) notes one consequence of the SARS outbreak was that important medical care was often postponed and hospital resources were redirected to the public health emergency (JCB 2005). During the next pandemic it is anticipated that some people will have to forego medical treatments for ailments such as cancer or heart disease (JCB 2005). During a pandemic access to emergency care and intensive care beds will be limited; although non-influenza related emergencies and medical conditions will continue to present at hospitals for care. There will continue to be trauma injuries, pregnancy complications, and other illnesses that require critical care. The mere threat of pandemic influenza affords us the opportunity to negotiate our response plans before a pandemic emerges.

The emergency created by a pandemic will create a situation where the need for health care volunteers will increase (ACP 2006). The *National Strategy for Pandemic Influenza: Implementation Plan* notes that if the medical capacity of a community is overwhelmed, it will be impossible to provide the expected level of care; as such, it will be necessary to seek assistance from clinical and non-clinical personnel from within the

community to provide care (HSC 2006). For example, family members of the ill could be asked to assist with administrative and environmental tasks, while qualified clinicians may be asked to staff medical care facilities, visit patients in their homes, or provide medical advice (HSC 2006). The ACP states that all physicians must be prepared to participate in the health care response during a pandemic (2006). For instance, a physician who ordinarily works in dermatology may be asked to assist in the emergency room. Or a nurse may render services typically rendered by a physician, such as diagnosing illness or prescribing treatment.

Health care workers and volunteers providing direct patient care and support will be continually exposed to the risk of infection. Because of this exposure health care workers and support staff will likely become ill at rates higher than those in other work settings. If health care workers, support staff, and volunteers lack access to supplies of personal protective equipment (PPE), it is probable that illness will be very high in a health care setting, and if the disease is severe, it is unclear how many would continue to place themselves at risk. Under emergency conditions, what obligations do health care workers, support staff, and volunteers have to serve in a dangerous work environment and provide care to the ill during an infectious disease outbreak?

Influenza pandemics are unique disasters that pose a grave threat to human health and social stability. The Secretary of Health and Human Service writes:

> A pandemic is not like a hurricane or an earthquake, where resources and help can be shifted form one area to another. Should it occur, every community will need to rely on its own planning and its own resources as it fights the outbreak. (Leavitt 2006, 2)

By definition pandemic influenza is a worldwide public health event. If the next pandemic causes severe illness and death, it will be a worldwide public health emergency. Overwhelming illness and a shortage of critical supplies will overwhelm the health care systems' ability to continue to care for those in need. Health care workers, support staff, and volunteers will place themselves and their families at risk of infection, and this will often create a conflict between loyalties. The potential of a pandemic to severely disrupt social life demands community planning, which requires a broad discussion of shared values to organize a collective response. The failure to act aggressively and plan accordingly could have severe consequences; however, aggressive actions now may prove unnecessary and be viewed as draconian or based on hysteria. One safeguard from such negative assessments is a public discussion of pandemic response strategies and the incorporation of relevant ethical values to assist local officials pandemic planning and response.

Chapter 2: Community Values: Participation, Loyalty, and Solidarity

> Solidarity means standing up for one another, the healthy for the sick, the rich for the poor, the countries of the North for those of the South, in the knowledge that we have a mutual responsibility and with the awareness that it is in giving that we receive, that we can only give that which has been given to us, which therefore never simply belongs to us. (Pope Benedict XVI 2006)

Ethics

While pandemic response strategies aimed at ameliorating disease in a community may be guided by epidemiological factors, recipients of these interventions judge outcomes on moral terms and not on statistical and biological terms. Any discourse on health or public health policy presupposes ethical values, principles, norms, interests, and preferences (Kotalik 2005). Ethical discussion is part of the normative framework needed to assess the cultural acceptability of pandemic response measures (National Governors Association 2006; WHO 2005a). Consequently, ethical deliberations ought to be part of any policy formation for a pandemic. Ethics can contribute to pandemic planning by clarifying underlying values, guiding the development of policy, and informing the decision-making process during the emergency. If the ethical issues are not broached with the public in the planning stages, it will be difficult, if not impossible, to account for community values, garner support, or ensure public compliance during the pandemic.

As pandemic influenza is a public health emergency, it is appropriate to look to the field of public health for relevant values and principles to develop an ethical approach for pandemic planning and response (Eckenwiler 2003; Lo and Katz 2005). The field of public health is concerned with the prevention of disease and the promotion of health throughout society; as such, public health is primarily interested in devising strategies to

21

prevent or mitigate injury and disease, and less interested in clinical interaction between health care professionals and patients (Gostin 2003; Olick 2004a). The Institute of Medicine (IOM) defines public health as, "what we, as a society, do collectively to assure the conditions in which people can be healthy" (1988, 1). This definition of public health emphasizes the importance of community and underscores the notions of cooperation and mutual obligation with the words "we," "society," and "collectively." It also reinforces the fact that everyone in a community has some responsibility for the health of the community.

The community-based focus of public health emphasizes ethical values such as participation (Glass and Schoch-Spana 2002; Childress 2003; Eckenwhiler 2003; Kipinis 2003; Morone and Kilbreth, 2003; Schoch-Spana et al. 2006), loyalty (Beauchamp 1999; Totter 1999; Beauchamp and Childress 2001; Trotter 2004), and solidarity (Childress et al. 2002; Garland and Stull 2003; Gostin 2005). In the context of an infectious disease outbreak like SARS or pandemic influenza, solidarity is a particularly important value for the health of the public (Singer et al. 2003; Gostin 2005; Kotalik 2005; JCB 2005). By utilizing these ethical values officials can tap into fundamental social values that are important for sustaining communities. These values will ensure community participation and incorporate fundamental social values in the development of pandemic plans. This will help to minimize conflicting obligations, inspire loyalty to response effort, and foster an attitude of solidarity in the community during the pandemic.

Participation

During a pandemic the delivery of medical services will be paramount to reducing mortality as well as minimizing social unrest. In some emergencies particular social functions may be essential to prevent major disruptions in the delivery of critical services such as health care; however, to determine which social functions are essential "requires broad societal participation in order to reflect the values and priorities of affected populations" (Childress 2003, 89). The participation of community members in pandemic planning is essential in the development of the pandemic response plan that inspires loyalty and fosters solidarity during the response to a pandemic.

It is often noted that effective disaster response planning requires community involvement (Schoch-Spana 2006; Childress 2003; Eckenwiler 2003; Kipnis 2003; Glass and Schoch-Spana 2002). Public participation is a matter of justice because the public has a right to participate in governmental decisions that impact life chances (Eckenwiler 2003; Childress 2003). Creating opportunities for public participation expresses the equal value of all community members and is essential for building and maintaining public trust (Childress 2003). Furthermore, community involvement in decision-making is regarded as crucial for many organizations; as such, "officials operating in secrecy violate international consensus and tarnish ethical ideals" (Eckenwiler 2003, 126). The HHS plan notes, "studies have shown that the public will respond and cooperate more readily if they are involved directly in discussions and planning for future events" (2005, S10-15). Failure to involve the public as a key partner in the medical and public health response to an emergency could increase the likelihood of social disruption and hamper the management of the response (Glass and Schoch-Spana, 2002).

In order to develop community strategies for the delivery of health care during a pandemic it is vital to have representation from the medical community and the public. The American College of Physicians (ACP) recommends that all professional organizations of physicians, nurses, hospitals, and other health care workers participate in community taskforce for pandemic planning (ACP 2006). The American Public Health Association's *Principles of the Ethical Practice of Public Health* states, "Public health policies, programs, and priorities should be developed and evaluated through processes that ensure an opportunity for input from community members" (Public Health Leadership Society 2002, 4).

In public policy development a process known as "citizen engagement" is often used to involve citizens in the development and improvement of policy. Citizen engagement can be distinguished from the concept of participation in that participation is a broader concept intended to include engagement in the life of the community as well as in the lives of friends and neighbors. Citizen engagement is a more formal process and is akin to the concept of participatory development covered in more depth below. The term "participation" can be taken in a number of ways. The standard dictionary defines participation as first the act of participating, and second as a state of being related to the larger whole. A more encompassing definition reads as follows:

> Participation, which is expressed essentially in a series of activities by means of which the citizen, either as an individual or in association with others, whether directly or through representation, contributes to the cultural, economic, political and social life of the civil community to which he belongs. (PCJP 2005, 83)

Participation requires an act on the part of an individual, group, or representative to engage in the activities that contribute to the life of the community in some civic,

cultural, political, or social way. Participation in the community is not only the

opportunity for citizens to exercise freely their civic responsibilities with and for the

community, but is also the pillar of democratic societies, which guarantees their

permanence (PCJP 2005).

Citizen engagement is an interactive and iterative process between citizens and

governments with the purpose of improving public policy decisions and their

implementation (Schoch-Spana et al. 2006). Citizen engagement is essential to

democratic societies because:

(1) it provides evidence of citizen preferences to decision makers,
(2) it creates legitimacy for public policies,
(3) citizens' skills and knowledge are developed through direct
    participation, and
(4) civically engaged citizens can provide services that neither the state
    nor the market can. (Schoch-Spana et al. 2006, 314)

Two citizen engagement projects for pandemic influenza planning include *Citizen Voices*

on Pandemic Flu Choices: A Report of the Public Engagement Pilot Project on

Pandemic Influenza (Keystone Center 2005), and *The Public Engagement Project on*

Community Control Measures for Pandemic Influenza (Keystone Center 2007). These

projects aim to engage citizens and stakeholders on the allocation of limited vaccine

during a pandemic and the use of community containment measures, which includes

closing schools and large day care facilities, canceling large public gatherings,

encouraging sick persons to stay home, social distancing in the work environment, and

self-quarantine. In regard to vaccine allocation the citizen group recommends

establishing vaccination priorities that first assures the function of society, and second

minimizes deaths and hospitalizations caused by influenza (Keystone Center 2005). In

regards to community containment measures, 95 percent or more of the citizens and stakeholders in the group support encouraging the ill to stay home, altering work patterns to maximize social distance, and canceling large public gathers; while 84 percent of the same group supports school closure and home quarantine of those exposed by sick household members (Keystone Center 2007).

One means through which democratic societies engage the community in project development is through a process of participatory development, which is conceived and applied in at least two distinguishable ways:

(a) Participation is considered a voluntary contribution by the people in one or another of the public programmes supposed to contribute to national development, but the people are not expected to take part in shaping the programme or criticizing its contents. (Parfitt 2004, 538)

(b) Community participation [is] an active process by which beneficiary or client groups influence the direction and execution of a development project with a view to enhancing their well-being in terms of income, personal growth, self-reliance or other values they cherish. (Parfitt 2004, 538)

In the first definition participation is viewed as a means through which to mobilize people to realize predetermined objectives; while the second conception is viewed as an end inasmuch as it empowers people to define and pursue their own development activities (Parfitt 2004). When participation is viewed as a means, community involvement is viewed as a tool to assist in reaching particular goals. In this framework actual community members have little or no role in defining the objectives to which they are working towards. In this situation the government or development agency that frames the objectives or goals of the project are in a position of power. In the case of a pandemic, the government or health care institution that defines response strategies, without the

assistance of the target audience, runs a risk of alienating the community it aims to benefit. When participation is viewed as an end, it has as one of its goals the empowerment of the target community. In a pandemic, when the implementation of response strategies depends upon the assistance of the community, the public will be more supportive if their input was part of the policy development process.

One way to encourage community participation is to engage the community in defining roles, responsibilities, and expectations in the development of emergency health policy. A second way is by identifying and creating opportunities for individuals and groups to volunteer services and participate with the implementation of response strategies. A strategy that involves the public will build trust, confidence, and cooperation. Five guidelines that are useful for integrating the public into disaster response planning includes:

(1) treat the public as a capable ally in the response to an epidemic,
(2) enlist civic organizations in practical public health activities,
(3) anticipate the need for home-based patient care and infection control,
(4) invest in public outreach and communication strategies, and
(5) ensure planning that reflects the values and priorities of affected populations. (Glass and Schoch-Spana 2002, 218)

These guidelines can be useful to encourage participation in the community in three ways. First, these recommendations encourage participation in the planning process by engaging the public with outreach and communication strategies to incorporate values and priorities of the population. Second, they encourage participation on the individual level by including the public as an ally and resource for infection control. Third, they offer the opportunity to participate in the lives of neighbors and other community members by providing home-based patient care.

These strategies are useful in that they will inspire loyalty to a cause and foster

solidarity in the community. The value of participation emphasizes the involvement of all

groups and classes of people. Pandemic planners must ensure that the planning process is

inclusive of all groups and that special steps are taken to address the needs of

traditionally underserved and vulnerable populations such as the poor, minorities, and the

elderly. A pandemic is a serious threat to the medical and public health infrastructure.

Should these systems fail, the entire social infrastructure will be stressed. Pandemic

planning must anticipate the possibility of these breakdowns and develop strategies,

through a process of participatory development and citizen engagement, to inspire

commitment among community members and develop the attitude that the community is

unified in its response, for better or worse.

Loyalty

Individual loyalties ground personal commitments and actions more than abstract

moral principles or laws. In times of a disaster it is often one's loyalty to his community

that determines his willingness to serve his community. While the cause of justice or

peace may arouse devotion, the loyalty one has to fellow community members provides

the moral force that inspires action. The American philosopher Josiah Royce regards

loyalty as the fulfillment of the moral law; as such, loyalty is the central moral principle

under which other moral concerns could be systematized (Kaurin 1999).

Royce writes, "You can truthfully centre your entire moral world around a

rational conception of loyalty. Justice, charity, industry, wisdom, spirituality are all

definable in terms of enlightened loyalty" (Royce 2005, 860). Royce defines loyalty as

"the willing and practical and thoroughgoing devotion of a person to a cause" (Royce 2005, 861). There are several important points to recognize in this definition: Loyalty is voluntary, an individual chooses or accepts the cause to which he is loyal; it is a practical affair, it pertains to everyday life and is not constituted by an intellectual assent to abstract moral principles; and loyalty is thoroughgoing in that it permeates our lives in such a way that it defines one's personal identity. Put in another way, "Loyalists are not content merely to pursue a cause; they breathe it" (Trotter 1999, 87).

In general terms to be loyal means to stand by the object of loyalty and to regard obligations to that object as having primacy over obligations to objects that do not engender loyalty. The first things that come to mind when we speak of loyalty are obligation, commitment, and the willingness to lend aid and assistance to those belonging to us (Kinneging 2004). When a person has loyalty towards someone or some group, that person somehow comes to view the object of their loyalty as belonging to him. In general people care about the objects of their loyalties and will acknowledge obligations that they would not otherwise acknowledge (Oldenquist 1982). Loyalty implies a willingness to give up things one values, and perhaps the willingness to sacrifice one's life if necessary (Kinneging 2004). However, as loyalty is directed towards those within distinct groups with special relationships, loyalty comes in degrees. People are generally more loyal to family members than strangers. James Rachels writes:

> We do not treat our family and friends as we would treat strangers. We are bound to them by love and affection, and we do things for them that we would not do for just anybody. But this is not merely a matter of being nicer to people we like. The nature of our relationships with family and friends is different from our relationships with other people, and part of the difference is that our duties and responsibilities are different. (2007, 180)

29

As we are willing to do things for family and friends that we would not do for everyone, it appears that being loyal may involve the willingness not to follow good judgment, at least some of the time (Erwin 1992), which could lead people to take illegal actions, such as stealing or resorting to violence, in order to acquire resources for their family or friends during a pandemic. Furthermore, unlike objects of pure self-interests, loyalties can be shared or owned by many people; hence, people often speak of *our* family or *our* community (Oldenquist 1982).

Loyalty appears to be related to the desire to be and remain with the group, which entails taking the interest of others as one's own and being willing to bear some costs in the interest of the group (Erwin 1992). In a pandemic the interest of others within my family or group who need urgent medical treatment for influenza may outweigh my interest in receiving treatment for a mild case of illness. As such, I may forego seeking treatment for myself in order to secure treatment for others in my family or group. This immediately raises questions about the moral force of loyalty in regards to other groups. Is loyalty to one's country as strong as one's loyalty to one's state or city? Does my community count more for me than a group to whom I have a weaker loyalty? Does loyalty require partiality towards my family to the neglect of the community, or my community to the neglect of the global community? One of the major challenges in planning for a pandemic is to balance private interest with public interest.

In order to be loyal an individual (or community) must have some cause to which he is inspired. The cause of the loyalist is an "ideal that animates, nurtures, and helps define a human community" (Trotter 1999, 88). It is necessary to make a distinction

between the "object of loyalty" and the "cause of loyalty." These terms are often used interchangeably and this is a source of confusion that will hinder our understanding of loyalty and its relation to a pandemic planning. The term "object of loyalty" refers to a particular group of people upon whom one's loyalty is directed and focused. The term "cause of loyalty" is regarded as that which defines the object of loyalty, provides direction, and identifies values and actions. For example, a cause of loyalty will be a community's response to a pandemic, which is articulated in the pandemic response plan. The cause of the pandemic response plan may be to mitigate the health consequences of a pandemic by maintaining health care services and providing care of the ill, while preserving conditions essential for human flourishing during the emergency. The object of this loyalty will consist of the community members, values, and actions particular to this community's pandemic response plan.

There are four qualities of a cause according to Royce: the personal, impersonal, superpersonal, and superindividual. The first quality of a cause is that it appeals to individuals on a personal level and results in action. Royce writes: "If one is loyal, he has a cause which he indeed personally values. Otherwise, how could he be devoted to it? He therefore takes interest in the cause, loves it, is well pleased with it" (Royce 2005, 862). When a person adopts a cause he personally values, he must then develop the manner in which he will integrate his behaviors to serve that cause (Trotter 1999). If a person finds no value or interest in a potential cause then it is difficult to serve that cause. No cause can orient a loyal commitment among a group if it is rooted only in personal desires (Tollefsen 2000).

31

A cause of loyalty is something an individual must personally value and take interest in, but loyalty is never mere emotion (Royce 2005). Emotional states may accompany loyalty, but they do not constitute it because it is the cause, and not personal impulses, that direct and focus one's loyalty (Kaurin 1999). This indicates that loyalty requires self-control and implies that the cause of loyalty must also be impersonal. Royce writes:

> On the other hand, loyalty never means the mere emotion of love for your cause, and never means merely following your own pleasure, viewed as private pleasure and interest, it is still much larger than your private self. It has its own value, (so you believe) even if your private interest were left out of account. Your cause you take, then, to be something objective, something that is not your private self. (Royce 2005, 862)

Because a cause is "larger than your private self" it must also be impersonal. The individual cannot be guided only by personal interests or emotion, but must keep the ideals of the cause in view. Like the common good, the cause of the community pandemic response plan is focused on the good of the community. Furthermore, because the cause of the pandemic response transcends individual interests and is shared by a group, it is also impersonal. It is this impersonal aspect of loyalty that suggests individuals keep the common good in view, and this may entail sacrificing personal interest for the sake of the cause.

As a consequence of the pandemic, medical resources and other important goods may be in short supply, and community members may need to sacrifice personal interests for the cause by rationing and reallocating essential goods for the benefit of the community. Because the cause of a pandemic response concerns the community, individual interests and desires may become secondary to the cause. This does not mean

that personal interests are not valuable, but that the cause is larger than any one individual and will persist even if some die. This does not entail that a person neglects obligations to family or other natural loyalties, but that individuals balance their service to the cause of the pandemic response with personal obligations. Simply because one's strongest obligations are associated with natural loyalties does not mean that personal sacrifices are always unnecessary for the good of the community, especially if the harm to be avoided or the good achieved is great (Oldenquist 1982).

Because a cause must also be superpersonal, it must extend beyond the individual to include values and interests of others united for the same cause. It is in the superpersonal quality of a cause that Royce rejects the view that the individual is sovereign over the good (Tollefsen 2000). Royce writes:

> Moreover, the cause to which a loyal man is devoted is never something wholly impersonal. It concerns other men. Loyalty is social. If one is a loyal servant of a cause, one has at least possible fellow-servants. On the other hand, since a cause, in general, tends to unite the many fellow-servants in one service, it consequently seems to the loyal man to have a sort of impersonal or superpersonal quality about it. (Royce 2005, 862)

It is the superpersonal aspects of loyalty that allows Royce to speak of "servants" and "fellow–servants" united in service to a cause (Tollefsen 2000). The superpersonal aspect of loyalty binds many lives in one service and regards the interests of fellow servants as essential, because to live for the unity of the group requires that one must necessarily consider the values and interests of others. There is value in a cause that transcends private interests because many individuals will be brought together in service. Subsequently, a key element of solidarity is the unity of the group for the sake of the group.

33

The final aspect of a cause of loyalty according to Royce is the superindividual. As Royce points out, one can love an individual but only be loyal through a tie that binds one with others in some sort of unity:

> The cause to which loyalty devotes itself has always this union of the personal and the seemingly superindividual about it. It binds many individuals into one service. Loyal lovers, for instance, are loyal not merely to one another as separate individuals, but to their love, to their union, which is something more than either of them, or even than both of them viewed as distinct individuals. (Royce 2005, 862)

The analogy of lovers illustrates the superindividual aspect of loyalty well. The lovers are not simply devoted to one another, but also to their union, their relationship; two individual lives committed to the service of one cause. A marriage displays all four qualities of a cause; it is personal, impersonal, superpersonal and superindividual.

It is the combination of these four qualities of a cause that constitute the objectivity of loyalty in Royce's account. A good cause is personally appealing, transcends private interest, regards the interest of others, and unites many in the service of one cause. These are qualities that can be used to test the value of any particular cause. A good cause to which people are loyal is one that helps them progress towards an ideal of a great community, and in order to function in this way a cause must be tangible and grounded in reality; otherwise it will not be compelling (Trotter 1999). The cause of the pandemic response plan must be one that provides a unified response. A well-defined pandemic response plan will clearly articulate the cause and the actions necessary to serve the cause. While the cause of the pandemic response is critical for a unified response, the loyalty a person has to his loved ones remains the force that grounds a moral commitment to the cause.

Loyalty can thus be a source of conflict during an emergency. In pandemic planning there exists the danger of creating response policies that unnecessarily infringe upon loyalties, creating conflicts between loyalties. A policy that pits employee against employer, citizen against government, or neighbor against neighbor will create a conflict between loyalties that could potentially alienate those who are necessary to carry out the response effort. If those who are capable of responding to the emergency are unwilling to serve, then countless others who depend upon their assistance will suffer. For example, a policy that forces a person to choose between her family and employment is an unsatisfactory policy that should be reconsidered. When the health and safety of family members are at stake, people are naturally more concerned with their own family than with other obligations. Partiality is a consequence of loyalty and cannot be readily dismissed:

> To suggest that taking care of "our own" or showing partiality towards those closest to us, is wrong, according to many, is not only counterintuitive; it would also seem to make our lives as social beings colder and less colorful, devoid of ground projects and caring relationships that, in a profound sense, constitute who we are as persons. (Eckenwiler 2003, 117)

However, if all people practice partiality, then the distribution of resources would lead to the fulfillment of some people and not all. One way to confront the issue of partiality is to "consider ways in which one's partiality creates or perpetuates harm, and what might be done to mitigate this" (Eckenwiler 2003, 117).

The conception of community loyalty does not imply "my community, right or wrong" because loyalty determines obligations only *prima facie* (Kinneging 2004). As such, loyalty cannot be a *categorical imperative*, an absolute requirement applied

universally, because there are limits to one's duty to be loyal. A person cannot be loyal to all groups or good causes. For instance, sometimes national or community goods may compete with the good of one's family. The former demands impartiality between family and non-family for the sake of the greatest good for the greatest number of people; however, this is simply a call to embrace a wider loyalty from a *utilitarian* perspective (Oldenquist 1982). Utilitarianism espouses the greatest amount of happiness for the greatest number of people with strict impartiality to individual happiness or biases. John Stuart Mill writes:

> That the happiness which forms the utilitarian standard of what is right in conduct, is not the agent's own happiness, but that of all concerned. As between his own happiness and that of others, utilitarianism requires him to be as strictly impartial as a disinterested and benevolent spectator. (2003, 70)

As such the utilitarian perspective does not regard family loyalties as privileged. If many people in a community are in need, the utilitarian perspective requires a distribution of goods that are calculated to produce the greatest amount of good for the community. However, if family loyalties are biases, so too are utilitarian claims advocating the greatest good for greatest number of people (Oldenquist 1982).

It is not obvious that wider loyalties have moral force over natural loyalties. If we are compelled to look beyond our families to the greatest good for the greatest number by embracing impartiality, it is not clear that this forced shift to the wider society, a weaker loyalty, will result in strong moral commitments. Furthermore, it is not clear that this shift would result in the realization of the greatest good for the greatest number. Moral concern for all of humanity is diluted and much too weak to compete with natural

loyalties such as those to one's family (Oldenquist 1982). Perhaps, adhering to one's

strongest loyalties first would result in a greatest good for the whole.

Both good and harm come in degrees, and thus individuals, groups, and

communities must balance loyalties when conflicts arise. To balance loyalties one must

consider benefits, burdens, harms, and risks, as well as duties towards family and

community. The principle that Royce suggests to address conflicts between loyalties is

the ideal of *loyalty to loyalty*. The principle of loyalty to loyalty is an ideal of harmony

between all possible loyalties (Tollefsen 2000). Royce writes:

> In so far as it lies in your power, so choose your cause and so serve it, that
> by reason of your choice and of your service, there shall be more loyalty
> in the world rather than less. And, in fact, so choose and so serve your
> individual cause as to secure thereby the greatest possible increase of
> loyalty amongst men. (2005, 902)

For Royce the ultimate ideal that animates a community should be one that inspires

loyalty in others. Griffin Trotter notes that loyalty to loyalty can be alternatively

expressed as loyalty to the great community (1997). However, this principle is an attempt

to reconcile the partiality of loyalty with the impartiality of a universalizable ethics.

Loyalty to loyalty is a formal notion that requires content in particular cases, so the

questions arise: What causes are consistent with loyalty to loyalty, and what social

institutions embody legitimate causes, and what type of pandemic response strategies are

conducive to solidarity?

Solidarity

The term "solidarity" is often associated with the Polish workers' movement that

led to the foundation of the Polish Trade Union Federation in 1980. This movement

advocated for workers' rights and nonviolence. Steiner Stjerno defines solidarity in Europe as: "The preparedness to share resources with others by personal contribution to those in struggle or in need" (2004, 2). Solidarity is based on shared norms, a commitment to collective goals, and the maintenance of a system of differentiated roles (DeMarco 2003). Solidarity is rooted in the social nature of human beings and stems from the fact that humans live and act together to form communities and fulfill their social nature. Aristotle observes, "every community is established with a view to some good; for mankind always acts in order to obtain that which they think good" (Aristotle 2001, 1252a-b). Without a minimal level of solidarity families, communities, and social institutions would not form and humans would simply not flourish. In a basic sense the value of life and community and the pursuit of happiness are fundamental to flourishing in all people in all cultures.

Solidarity is concerned with all members of a group and may require an unwillingness to receive benefits unless others in the group do as well, or an unwillingness to receive a benefit when this benefit harms others in the group (Mason 1998). Many regard solidarity as an important political ideal that emphasizes community and promotes social cohesion and stability (Mason 1998). However, the term has a deeper meaning that extends beyond the typical political usage:

> Solidarity is … not a feeling of vague compassion or shallow distress at the misfortunes of so many people, both near and far. On the contrary, it is a firm and preserving determination to commit oneself to the common good. (PCJP 2005, 85)

In this definition solidarity is not grounded in emotions, nor is it simply a feeling of sympathy for others suffering hardship. It is a conscious decision to commit oneself to

the common good. As solidarity is directed towards the common good and is found in the commitment to the good of one's neighbor, it rises to the rank of a social virtue (PCJP 2005, 85). As a virtue it is more than a moral principle, it is a condition that must be nurtured and developed in the activities of one's life and in the life of the community. A virtue is "an aptitude productive of the best actions," and, according to Aristotle, "the virtue of a human being would be the active condition from which one becomes a good human being and from which one will yield up one's own work well" (2002, 1106a-b).

As a social virtue, solidarity is concerned with the active condition that allows the community to achieve its fulfillment. Wojtyla writes:

> The attitude of solidarity is, so to speak, the natural consequence of the fact that human beings live and act together; it is the attitude of a community, in which the common good properly conditions and initiates participation, and participation in turn properly serves the common good, fosters it, and furthers its realization. (1979, 285)

There are three important aspects of this characterization: first, the social character of solidarity arises from the fact that humans live and act together; second, solidarity is an attitude of a community; and third, the common good conditions participation, which in turn serves the common good. Solidarity relates to the social nature of human beings with an "affirmation of the bonds" shared between them (Sirico, 2001). These "bonds" stem from the recognition that human beings share a common humanity that develops in concert with others who live and act together for the common good. In other words, solidarity stems from the meaning of membership in a community (Walzer 1999), which arises from a "sense of belonging" and "expresses itself in loyalty and self sacrifice for those we acknowledge to be one of us" (Garland and Stull 2003, 244).

In order to appreciate the social nature of solidarity and how it relates to pandemic planning, it is necessary to an understanding of the common good. The CDC's document "Ethical Guidelines in Pandemic Influenza" notes:

> the common good refers to interest of a group or collective that is defined by having in common certain attributes (e.g. location in a geographically-defined community, risk of a specific disease) that create a commonality of interest. (CDC 2007, 4)

The use of the term common good in the context of pandemic influenza reflects an understanding that all human beings are part of a single collective that has a common good (CDC 2007), which suggests there is a fundamental set of conditions to which all people and groups have an interest in preserving. Fundamental conditions that make up the common good include the conditions necessary for bodily health such as provisions for nutrition. The development and sustainability of the conditions necessary for the provisions of nutrition requires the collective effort of the community. In this way, the common good is viewed as the contribution of society, which is necessary for the good of the individual (Finnis 1980; Trotter 2004).

The concept of the common good is complex and contains many elements; furthermore, its concrete form changes as social conditions change, as in war or natural disasters (Gallagher 1995). In a public health emergency or disaster, a community will become focused on particular goals that result from a substantial threat to its survival (Childress 2003). A focused community transforms the common good from something indeterminate and vague (Atkins 2005) to something more narrowly defined. In the context of a pandemic emergency the common good may be objectively defined to consist of the general conditions necessary for the survival of the community. These

conditions for human flourishing can be categorized according to their importance for

human survival. Conditions for physiological survival, such as food, water, and basic

health care needs can be prioritized over education and recreation during an emergency.

The conception of solidarity developed by Wojtyla [4] stems from his understanding

of participation, which brings into focus the humanity of others (DeMarco 2003). From

this understanding solidarity is simply the "virtue of care as extended to all other people

in society" (DeMarco 2003.). Wojtyla understands participation to express the personal

value of our actions as we exist and act together with others in different systems of social

life (Wojtyla 1993). In one sense participation is "the ability of human beings to endow

their existence and activity with a personal (personalistic) dimension when they exist and

act together with others" (Wojtyla 1993, 237). In this sense there is a notion of an

elevated person, an individual who is not obscured by the community, but along with

other unique community members comprises it (Fernandes 2001). In the second sense

participation is viewed as *relational* and emphasizes a positive relation to the humanity of

others by indicating that self-interest is complemented by an interest in a neighbor's good

(Fernandes 2001). Because actions performed by a person are performed with others or

for others, Wojtyla's notion of participation is value laden (Schmitz 1993).

According to Wojtyla, to embrace the attitude of solidarity means that the

individual is ready to accept and realize one's role in support of the good of the

community precisely because that individual is part of a the community and has the

---

[4] Karol Wojtyla's thought is influenced by a discipline in philosophy known as *phenomenology*, which was principally initiated by Edmund Husserl around the beginning of the twentieth century. Wojtyla is particularity indebted to a form of phenomenology developed by Max Scheler. For more on the philosophical influences on Wojtyla, see Kenneth L. Schmitz. 1993. *At the Center of the Human Drama: The Philosophical Anthropology of Karol Wojtyla/Pope John Paul II*. Washington D.C., Catholic University of America Press.

common good in view (Wojtyla 1979). It is in the awareness of the common good that allows the individual to look beyond her own share to the benefit of the whole. However, there exist situations in social life where individuals may be demoralized to the point of withdrawal and they focus strictly on their own needs and duties. This withdrawal from community life is essentially contrary to the attitude of solidarity. The possibility of such a retreat indicates that within the attitude of solidarity there must remain the reference to the common good; "it must dominate to the extent that it allows one to know when it is necessary to take over more than one's usual share in acting and responsibility" (Wojtyla 1979, 285).

During a pandemic there will likely be moments when it is necessary for community members to take on additional labors in support the response effort. It is in reference to the common good that every individual "member of the community has to be ready to 'complement' by his action what is done by other members of the community" (Wojtyla 1979). "Mutual complementariness" is an essential element in the nature of participation and is why in the attitude of solidarity we see "an intrinsic manifestation of participation as a feature of the person" (Wojtyla 1979). The commitment of solidarity to the well-being of others can be conceived in "terms of the recognition of special obligations between the members of a group which exist in virtue of their being members" (Mason 1998). During the pandemic an attitude of solidarity in the community will assist in providing a coordinated and cohesive response effort. This will assist in alleviating some of the burdens on health care workers and the health care system providing care for the ill.

Chapter 3: Towards and Ethical Approach to Pandemic Influenza Preparedness

> Does any of us, knowing our own human vulnerability to disease and
> death, prefer to live in a society that provides healthcare to people with
> infectious diseases, or in a society that leaves epidemics to run their course
> and devastate the population, or in a society that practices a form of
> quarantining of the ill without treatment, leaving them to die in isolation?
> (Reid, 2005)

Duty to Care

During a pandemic one of the greatest challenges to society will be providing care

for the ill. Not only will there be large numbers of people ill with influenza, there will

continue to be people who need emergency medical care and long-term care for life

threatening injuries, acute diseases, and chronic conditions such as cancer, kidney

disease, and HIV/AIDS. Participation, loyalty, and solidarity are important values for

pandemic planning that are conducive to developing response strategies for providing

care to the ill. A related and equally important value in the context of pandemic planning

is the "duty to care" during an infectious disease outbreak. The values of participation,

loyalty, and solidarity underscore the social character of pandemic planning and response

and indicate there is a fundamental duty upon society to provide care to the ill during a

pandemic.

The duty to provide care during an infectious disease outbreak has recently

emerged as a matter of concern among health care professionals, public policy makers,

and bioethicists (Ruderman et al. 2006; Sokol 2006; JCB 2005; Clark 2005; Reid 2005;

Singer et al. 2003). It is estimated that 30 percent of reported SARS cases were among

health care workers, some of whom died as a result (Ruderman et al. 2006). The SARS-

related fatalities of workers occupationally exposed to infection highlight the basis of fear

that employees have regarding potentially fatal infectious diseases (Qureshi et al. 2005). For example, paramedics and janitorial staff served and died along with physicians and nurses during the SARS outbreak (Reid 2005). The term duty to care is problematic because it is vague at best, and ethically dangerous at worst (Sokol 2006). The phrase was often used in Toronto during the SARS outbreak as a self-standing argument for the involvement of health care workers in the response effort, but without a critical examination, thus "giving the illusion of legitimate moral justification" (Sokol 2006, 1238).

During a pandemic primary care and emergency service workers will be the first responders to face the outbreak and will therefore face a disproportionate risk compared to other health care workers; however, there will likely be pressure on other health care providers to assist in the response (JCB 2005). In addition to health care workers there will be a need for administrative, janitorial, and other support staff to maintain the functioning of the health care system. In this way the question expands from the obligations of health care professionals, to the obligations of general health care workers and support staff to report for duty and to support the delivery of care. This is more complicated as many health care workers and support staffs do not enjoy privileged social status, do not take oaths, or have particular codes of ethics. So what obligation do these workers have to report to duty in a health care setting during an infectious disease outbreak?

Willingness and Ability to Provide Care

While it might be assumed that health care workers have an obligation to respond during a disaster or public health emergency, this assumption may be challenged in an actual event. For example, 25 nurses were fired or suspended for not reporting to work or for leaving early during Hurricane Francis in 2004 (Qureshi et al. 2005). Likewise, some health care workers either quit their jobs or were fired during the SARS outbreak (Ruderman et al. 2006; Sokol 2006). The risk involved in responding to an infectious disease outbreak like pandemic influenza is more pronounced than a trauma disaster, because health care workers are vulnerable to an infection that they may pass on to their family, friends, and community.

A recent study of school nurses found that the willingness to provide care for patients during an outbreak of smallpox, SARS, or other deadly illness was generally low (Qureshi, Merrill, and Calero-Breckheimer 2002). A similar study reported that 80 percent of physicians indicated they would continue to treat patients in the event of an outbreak of an unknown but potentially deadly illness, but only 33 percent reported a willingness to treat if left unvaccinated against a highly contagious and lethal disease like smallpox (Alexander and Wynia 2003). In this same study only a narrow majority of physicians reported believing in a professional duty to treat patients in epidemics; the authors of the study conclude that there should be more emphasis on the medical profession's ethical duty to treat in the event of a public health emergency (Alexander and Wynia 2003).

A recent study of local health department workers indicates that nearly half of them are not likely to report to duty during a pandemic (Balicer, Huerta, and Grotto

45

2006). In this study, the greatest factor influencing willingness to report for duty was the perception of the importance of their role in the overall response (Balicer, Huerta, and Grotto 2006). This appears to suggest that local health department workers may be willing to face some risks if they perceive their role as important. Additional research indicates that health care workers' willingness to report for duty increases if personal protective measures are provided (Qureshi et al. 2005). What these studies indicate is that the perception of risk, the importance of their role in the response, and the degree to which protective measures can be offered influences the health care workers' willingness to respond to an infectious disease outbreak.

During a disaster or public health emergency some health care workers may wish to serve but cannot due to competing obligations and other external factors. A study of health care workers' response to disaster events notes that while some were *willing* to report to duty, many were *unable* due to outside constraints (Qureshi et al., 2005). When respondents were asked why they were *not able* to report for duty the most frequently reported reasons were transportation, child care, and personal health concerns; while the most frequently cited reasons for *not being willing* to report were fear and concern for their family (Qureshi, Merrill, and Calero-Breckheimer 2002; Qureshi et al. 2005). Infectious diseases have long been a clinical reality in underdeveloped countries and are becoming a clinical reality in developed countries. The relative silence of codes of ethics on the duty to provide care during an infectious disease emergency is problematic normatively and clinically (Ruderman et al. 2006).

Duty and the Physicians' Code of Ethics

Historical accounts in times of epidemics such as Philadelphia Yellow Fever (1793), cholera (19th century), and influenza (1918), reveal a spectrum of physician conduct from heroism and altruism to fear and retreat (Olick 2004b). In the broad sweep of medical history, from early Greece to the present day, there is no consistent medical tradition regarding physicians and the personal risk they are obliged to face (Clarke 2005). One place health care workers can look for guidance on their professional obligations is in their respective codes of ethics. Codes of ethics should be interpreted as guides for ethical reasoning and frameworks for treatment, rather than absolute mandates or substitutes for reasoning (Ruderman et al., 2006).

The 1847 American Medical Association's (AMA) *Code of Medical Ethics* pronounced that physicians should face the dangers of pestilence even at the risk of death; however, contemporary iterations of the Code retreat from these high ideals and emphasize physicians' autonomy to choose patients, except in emergencies (Olick 2004b). Currently, the AMA's *Principles of Medical Ethics* states, "A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical care" (2001, VI).

The current AMA opinion on professional rights and responsibilities includes the

declaration on "Physician Obligation in Disaster Preparedness and Response," which

states:

> 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 risk 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
> the ability to care for patients in the future. (2004, E-9.067)

This declaration, which is less authoritative than the *Code of Ethics*, calls on physicians

to affirm a social contract to accept an undefined degree of risk in service to humanity

(Olick 2004b). Once it is allowed that broader societal emergencies sometimes trump

physicians' autonomy rights, the question shifts from "whether or not" a physician is

obligated to provide care during an emergency to a question of "when and to what

extent" (Clarke 2005, 68). While a duty to provide care and respond to suffering is

inherent to all codes of ethics for health care professionals, these workers still have to

weigh the demands of competing obligations (JCB 2005). However, "by making explicit

the values that health care professions represent, professional codes of ethics can reassure

the public that the trust invested in the professions is justified and legitimate" (Ruderman

2006).

Duty and Risks

During a pandemic many health care professionals will be called upon to serve.

The American Public Health Association's Code of Ethics expresses a moral

commitment to patient and community welfare, but offers little guidance on the issue of professional duties to assume risk beyond the scope of normal occupational risk (Olick 2004b). Emergency physicians, however, profess a commitment to "an ethical duty to respond" to disasters as a special resource in the community, which is not qualified by the degree of personal risk (Olick 2004b). Formal statements on professional obligations reveal that personal health risks are an important countervailing consideration. In the framework of the HIV/AIDS debate, obligation sinks with higher levels of risk and there is a level of risk at which the duty to care no longer holds (Reid 2005; Olick 2004b). For example the AMA's early response to physicians' fears of HIV/AIDS was to require physicians to treat HIV/AIDS patients only if the physician was "emotionally able to do so" (Clarke 2005, 71). However, after immediate ridicule the AMA issued a new statement asserting that, "A physician may not ethically refuse to treat a patient whose condition is within the physician's current realm of competence solely because the patient is seropositive" (Clarke 2005, 71). Similarly, in the early years of the HIV/AIDS epidemic, the American Nurses' Association emphasized a "special" duty not to "walk away from those in need" with the provision that care should not "present more than minimal risk to the health care provider" (Olick 2004b, 366).

It can be argued that health care professionals should pursue their duties even at the potential cost to their own lives, because other professionals such as firefighters or police officers do not have the freedom to choose not to face a bad fire or a dangerous criminal (JCB 2005). The argument that health care professionals have a duty to provide care under significant risk is based on several factors: (1) as their ability to render aid is great so is their obligation to assist; (2) by freely joining a profession that combats

49

disease, medical professionals consent to accepting some standard of risk; and (3) the profession has flourished under a socially negotiated promise to be available in times of duress (Clarke 2005). For example, if I am trained in water safety and rescue, my duty to assist a drowning victim is greater than the average swimmer on the beach, because my training in water rescue techniques reduces my personal risk (Clarke 2005).

However, there still may exist situations in which lifeguards, firefighters, police officers, and health professionals may face an unreasonable risk that does not require service. For example, a lifeguard is not expected to attempt to rescue a distressed swimmer who is a mile off shore and surrounded by tiger sharks. In this situation the risk is unreasonable as the rescue attempt would likely result in the death of both the rescuer and the distressed swimmer. The analogy of the lifeguard helps to illustrate that physicians' *prima facie* duty to care can be trumped under extraordinary circumstances.

By freely choosing to pursue an occupation to combat disease, health care professionals willingly accept some level of risks as an occupational hazard. For example, a physician who accepts a post in Kinshasa, Democratic Republic of Congo (DRC) will incur more risk than a physician in London, England because the diseases in the DRC are many and the medical facilities are few (Sokol 2006). Typically, health care workers who accept such dangerous posts are aware of the risk and thus accept this risk as a professional liability. However, the limits on the duty to provide care are often a function of normal risk. The question of newly emerging virulent diseases forces health care workers to examine the limit of acceptable risk and their professional obligation to provide care.

During a pandemic the duty to provide care may hinge on what levels of risk we as a society are prepared to ask individuals to suffer and what levels of risk we are willing to accept. During the emergence of HIV/AIDS in the 1980's and the 2003 SARS outbreak in Canada, some physicians and nurses refused to care for infected patients on the grounds that the danger was too great (Sokol 2006). However, even if one understands the relationship between risk and obligation as proportionate, as in the HIV/AIDS debate, the most remarkable feature of the SARS outbreak was that health care professionals, by and large, did not abandon their posts even though there was strong evidence of significant risks of illness and death (Reid 2005).

Duty and Society

The social contract between health care professionals and society calls on health care professionals to be available in times of emergency (JCB 2005). However, to regard the duty to care as a matter of individual moral commitments ignores the responsibility we all share to maintain the infrastructure that supports health care workers in fulfilling their duties (Reid 2005). The advantage of approaching the duty to care in terms of a broad social contract is that it involves all people, organizations, and institutions who are necessary to support and maintain the delivery of health services (Reid 2005). Calls for extending benefits, such as hazard pay and enhanced disability insurance, could be justified if health care professionals expressed a strong commitment to an ethical duty to care during public health emergencies; however, without such a commitment, additional measures to protect and safeguard health care workers would appear misplaced and self-serving (Ruderman et al. 2006).

While physicians are part of the medical community they are also part of the broader community and have multiple roles and duties, such as doctor, spouse, and parent; thus, defining the limits of the duty to care must account for the strength of competing rights and duties (Sokol 2006). Health care professionals, pandemic planners, and the general public should participate in discussions to determine whether and when it is legitimate to shun the duty to care in the face of personal risk (Ruderman et al. 2006; Sokol 2006). The duty to care is not based on particular virtues of the health profession, but from social reflection on our shared vulnerability to disease and death, and what types of response to epidemics would be consistent with our needs and values (Reid 2005). In the SARS epidemic the approximate ideal was to provide medical care for all who fell ill (Reid 2005). If our ideal is to provide care for everyone who is ill, then a critical examination of the role of health care workers is necessary to provide guidelines on professional responsibilities and public expectations (Ruderman et al. 2006).

The SARS epidemic raised the question: If not me, then who? (Reid 2005). If the duty to provide care is cast strictly as *altruism*, then the association of a duty to care with altruism masks moral conflicts between various parties to whom a person may owe care; and it also interferes with the health care workers' need to accept that they must take protective measures that are consistent with the social need to maintain the functioning of the system during a pandemic (Reid 2005). Providing care to the ill during a pandemic raises many social questions: 1) What is our ideal of care during an outbreak? 2) What levels of risks are we willing to accept for health care workers and support staff? 3) How will we protect our health care workers and support staff providing care for the ill? 4) How will we assist health care workers, support staff, and their families when competing

obligations arise? Self sacrifice and moral heroism by a few individuals is not sufficient

to create and sustain a health care system that will provide care for the ill during a

pandemic: the "obligation is on all of us" (Reid 2005, 359).

Participation and Pandemic Planning

A perennial question in ethics is: what human capacity grounds our ability to

think and act as moral agents? Why do people respond to suffering in others? Is the moral

response to suffering grounded in rationality or emotion? Lisa Eckenwiler asks:

> What motivated emergency health workers who were officially off duty
> after the attacks on the World Trade Center and the Pentagon, and
> countless health professionals from around the country to come forward
> voluntarily to help? Did they reason that this was the right course of action
> or were they acting also from emotion? (2003, 15)

Perhaps the spirit of loyalty and solidarity motivated emergency responders and

volunteers to come forward in the aftermath of the September 11th attacks. Certainly

many responders understood that this was a worthy cause that united many Americans

into one service. Moreover, as these attacks were conducted in the United States, many

people found a personal interest (personal) in the cause. The response to September 11th

was a social endeavor (impersonal) that was larger than the individual response

(superpersonal), and it bound many responders into a unity of service (superindividual).

First responders and volunteers put aside self-interest and made personal sacrifices to

assist those in need after the attacks. During the response to 9/11, Americans came

together in solidarity to work for the common good.

In order to develop loyalty and solidarity within the community for a pandemic

response, it is crucial that pandemic planners use participatory processes in the

development of the plan, and citizen engagement projects for the validation of pandemic policies. The public should be engaged in discussions about the various roles, responsibilities, and expectations for government officials, first responders, health care workers and volunteers, critical infrastructure workers, faith-based organizations, community volunteer groups, and individuals. This includes discussions to define societal expectations regarding altered standards of care, the obligations of health care workers to provide care for the ill, the limits of acceptable risk during an infectious disease outbreak, community containment strategies, and reciprocal obligations on the part of the government, health care institutions, and the community.

The community can participate in participatory development processes to assist in defining responsibilities, community containment measures, and response strategies. Community members can assist in devising strategies that cannot be feasibly implemented by government organizations, such as support for home isolation and quarantine, home-based care for the non-critically ill, palliative care for the dying, child care services, delivery of medical resources, and law enforcement activities. Community strategies may include developing neighborhood networks to provide food, medical resources, security, and supportive care. All pandemic policies and response strategies that include public participation in the development stages will help to create a sense of ownership or loyalty to the plan and will assist in developing an attitude of solidarity during the implementation of the plan.

Loyalty

The concept of loyalty is important for pandemic preparedness and response. First, loyalty offers hope in that a well-defined and inclusive pandemic response plan offers the community a cause to which they can serve. If the pandemic response plan is not personal, impersonal, superpersonal, and superindividual, then it lacks the qualities that make it relevant and compelling. If the plan is not personally interesting, if it tends to disregard the interest of others and divides people, then the cause of loyalty will be effectively damaged. Second, loyalties account for a major source of conflict that may inhibit ones willingness to participate in the response effort. Pandemic response strategies should be examined for potential conflicts between loyalties that will inhibit the implementation of the plan. By examining loyalty as a source of conflict, community planners can devise response strategies that minimize conflicts and offers realistic alternatives to serve the cause.

In addition to conflicts with family and social obligations, health care workers will face conflicts of loyalty in the fulfillment of their professional obligations to their patients. During a pandemic it may be necessary for physicians, nurses, and other health care workers leave the besides of their individual patients to attend to the needs of many patients. Ordinarily, professional loyalty for the health care workers is conceived as giving the patient's interest priority in two respects:

    (1) the professional effaces self-interest in any situation that may conflict with the patient's interest, and

    (2) the professional favors the patient's interest over others. (Beauchamp and Childress 2001, 313)

55

However, during times of disaster or war, the care of patients may conflict with institutional or state objectives and patients' needs may not take precedence (Beauchamp and Childress 2001). During a public health emergency physicians' responsibilities to the common good supersedes responsibilities to individual patients (Trotter 1999, 2004; Lo and Katz 2005). When physicians are faced with a conflict between a patients' preferences and community interests, "physicians should act in the spirit of loyalty" (Trotter 1999, 96).

While physicians "should acknowledge their primary role as beneficiaries and advocates for individual patients," (Trotter 1999, 96) loyalty may demand that they "act against the immediate preferences of established patients" (Trotter 1999, 95). If a narrow view of beneficence conceived as serving individual patients' preferences leads to a conflict with loyalty to the community, then the broader, higher loyalty takes priority. In these situations "the art of loyalty requires more than applying a formula" (Trotter 1999, 96). During a pandemic health professionals should look to the higher cause of the pandemic response plan to guide clinical decision regarding the care of patients. If clinical guidance on triage, patient care, and resource allocation exists, they should consult this guidance; however, when ambiguous situations arise during the disaster health care workers will have to rely on their professional and moral competencies to determine the right course of action under the circumstances.

When conflicts are recognized in pandemic response strategies, the principle of loyalty to loyalty should be considered. The principle of loyalty to loyalty indicates that one should attempt to increase loyalty in the world. According to this principle, pandemic response strategies must aim to increase loyalty and minimize damaging loyalty in others.

A public health policy or pandemic response strategy that forbids the expression of loyalty within and among natural communities[5] is an intervention that may alienate individuals and groups and polarize a community, which will be detrimental to the response effort during a pandemic.

One critical aspect of the principle of loyalty to loyalty relevant to a pandemic is that it requires decisiveness and firm resolve to act. Royce describes the principle of loyalty to loyalty:

> It commands simply but imperatively, that since I must serve, and since, at this critical moment, my only service must take the form of a choice between loyalties … a decision … to do nothing, my loyalty to loyalty forbids; and therefore my principle clearly says to me after a fair considerations of the case: *Decide, knowingly if you can, ignorantly if you must, but in any case decide, and have no fear*. (2005, 930)

The application of loyalty to loyalty may be beneficial during a pandemic and conducive to solidarity as it may minimize ethical dilemmas by addressing conflicts between loyalties and focus the community on action through a firm resolve to act. If a community finds it unacceptable to abandon the ill to care for themselves, then the community may resolve to undertake actions necessary to obtain the resources necessary to provide acceptable care. A good pandemic response plan will clearly identify a cause to which people can be loyal, identify challenging situations, clarify responsibilities, and provide guidance on potential courses of action. Furthermore, a good cause of loyalty will foster a sense of togetherness and assist in developing an attitude of solidarity in the community.

---

[5] Natural communities may include multiple social units such as the family unit. Also, natural communities are formed by religious affiliations. The values and priorities of religious groups is another important consideration pandemic planners must take in account as religious loyalties are strong, and thus a potential source of conflict.

Solidarity

The notion of solidarity can function as a moral guide that leads to choices that protect and promote the common good. Solidarity requires that individuals put aside self-interests and be willing to sacrifice some benefits for the good of the community. This suggests that members of a community be willing to complement one another by fulfilling roles and responsibilities not normally their own in service to the common good. During an emergency a community may become focused on a common purpose, such as survival and other related goals (Childress 2003). This allows the community to define a vision of the common good that is applicable during a pandemic, devise response strategies to deliver care, and identify social functions necessary to provide critical services. The common good viewpoint does not suggest that one person is morally better than another, but that certain social functions may have more social value during an emergency because the health of the community depends upon the functioning of particular roles.

During a pandemic physicians, nurses, respiratory therapist, and other pandemic first responders are particularly valuable in that they serve specific social functions that provide for the common good and benefit the community. On one view those with the greatest responsibility for the common good during the emergency may receive priority access to treatment or prophylaxis so that they may continue to serve the common good and benefit the community (Haas 2002). As such solidarity may require community members to forego certain benefits, such as access to protective equipment and medical countermeasures to encourage health care workers to serve.

If maintaining medical services and providing care for the ill is the cause of the pandemic response plan, then the community must determine how to support the health care system and those providing care for the ill. Other important provisions for health care workers that are essential to maintaining the functioning of the health care delivery system include mental health counseling, flexible leave policies, as well as adequate rest and recuperation. An example of solidarity during a disaster comes from Hurricane Alison in 2001. The Texas Medical Center provided its staff with multiple services, including emergency funds, home supplies, crisis counseling, and social support programs (Qureshi et al. 2005).

Solidarity also requires complementariness. Community members may express solidarity by volunteering during the pandemic to accept roles and duties not ordinarily their own. Primary care physicians may complement emergency room physicians, licensed registered nurses (LPN) may fulfill the role of a registered nurse (RN), security guards may complement police officers, and neighbor may complement neighbor. Furthermore, community member may express solidarity by volunteering with organizations like the Medical Reserve Corps (MRC) or Community Emergency Response Teams (CERT), which may supplement health care facilities or law enforcement agencies by fulfilling necessary functions.

In developing pandemic response plans, it is crucial for a community's health care institutions, public leaders, faith-based organizations, and individual members to work collaboratively to determine the ways in which the community will support the delivery of care during the pandemic. It is also necessary to devise strategies to support health care workers and staff providing care. Pandemic response plans must show respect for persons

and ensure that societal conditions are consistent with the community's conception of the common good. In this respect community leaders must cooperate with one another to minimize competing interests, and ensure the availability of basic goods such as food, shelter, health care, and security. Solidarity is a natural consequence of social life and life in a community imparts a reciprocal obligation on individuals to give back to the community that nurtures them. In this sense there is an obligation on the part of all community members to support conditions for the provision of care during a pandemic.

Towards an Ethical Community Response

A persistent question in ethics is: Why be moral? A correlative question in the context of pandemic planning is: Why participate in pandemic planning and response efforts? One response to the first question is that we are *moral* because human action draws upon the whole person as an agent, affects that person, and cannot leave that person indifferent to his action, for "it transforms that person for better or worse" (Schmitz 1993, 89). Likewise, in regards to pandemic planning and response, we are all members of some community and our action or inaction will have consequences that not only effect how we define our self, but also impact the well-being of other human beings and the community. Therefore, our membership in the community, our relationships with others, and our existence as acting moral agents requires our participation in pandemic preparedness and obligates us to provide care to those in need during a pandemic.

Participation, loyalty, and solidarity are fundamental social values upon which communities are built and sustained. They can also serve as ethical norms that guide and influence the attitudes and behaviors of the community. As such, an ethical approach to

pandemic response planning cannot preclude the consideration of these important values. An ethical approach based on these values requires a broad community dialogue to define the common good, identify the ideal of care, articulate the cause of a pandemic response plan, and prioritize conditions necessary for human flourishing during the pandemic. The question becomes how to incorporate these values into pandemic planning in a manner that augments the decision-making process. In order to do this it is necessary to articulate these values in a form that functions as guidelines.

The criterion for these values is to ask the following three-part question: Does this policy, action, or omission eliminate conditions necessary for participation, damage people's loyalties, or decrease solidarity in the community? If pandemic response planning eliminates the opportunity for community members to participate in the planning and decision-making, then this plan should be revised to incorporate public input. If a policy damages individual and group loyalties, then it is an ethically unsatisfactory policy. If a pandemic response policy is designed in a manner that decreases solidarity in the community, then this policy warrants reconsideration. It is crucial that the public is engaged, well-informed, and prepared to act in ways that afford them the best opportunity to minimize harm during a pandemic.

References

ACEP (American College of Emergency Physicians). 2005. Emergency Physicians Say Federal Pandemic Flu Plan Doesn't Address Nation's Lack of Surge Capacity and Isolation Beds American College of Emergency Physicians, Released November 9, 2005. Available at www.acep.org

ACEP (American College of Emergency Physicians). 2006. The National Report Card on the State of Emergency Medicine. American College of Emergency Physicians, Released January 2006. Available at www.acep.org.

ACP (American College of Physicians). 2006. The Health Care Response to Pandemic Influenza. *Annals of Internal Medicine*. 145(2): 135-137.

AHA (American Hospital Association). 2005. Taking the Pulse: The State of America's Hospitals. American Hospital Association. [Retrieved April 1, 2007]. Available at www.aha.org.

AHRQ (Agency for Healthcare Research and Quality). 2005. *Altered Standards of Care in Mass Casualty Events: Bioterrorism and Other Public Health Emergencies*. AHRQ Publication No. 05-0043, April 2005. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/research/altstand.

AMA (American Medical Association). 2001. *Principles of Medical Ethics.* Adopted by the AMA House Delegate June 17, 2001. [Retrieved May 25, 2007]: Available at http://www.ama-assn.org/ama/pub/category/4256.html.

AMA (American Medical Association). 2004. Opinion on Professional Rights and Responsibilities: Physician Obligation in Disaster Preparedness and Response. Adopted by the AMA Council on Ethical and Judicial Affairs June 2004. [Retrieved May 25, 2007]: Available at http://www.ama-assn.org/ama/pub/category/2498.html.

Alexander, G.C., and M.K. Wynia. 2003. Ready and Willing?: Physician Preparedness and Willingness to Treat Potential Victims of Bioterrorism. *Health Affairs.* 22(5): 189-197.

Aristotle. 2001. *Politica*. In *The Basic Works of Aristotle.* Richard McKeon, ed. New York: Random House.

Aristotle. 2002. *Nicomachean Ethics.* Joe Sachs, trans. Newburyport, MA: Focus Publishing.

Atkins, Margaret. 2005. Clarifying 'The Common Good'. Conference: The Call to Justice.Vatican City, March 16-18. Available at: http://www.stthomas.edu/gaudium/papers.htm

Balicer, Ran D., Michael Huerta, and Itamar Grotto. 2005. Cost-Benefit of Stockpiling Drugs for Influenza Pandemic. *Emerging Infectious Diseases*. [serial on the internet] 2005 Aug. [cited 6/29/05]. Available from http://www.cdc.gov/ncidod/EID/vol11no08/04-1156.htm

Barry, John M. 2004. *The Great Influenza: The Epic Story of the Deadliest Plague in History*. New York: Penguin.

Barry, John M. 2005a. 1918 Revisited: Lessons and Suggestions for Further Inquiry. In *The Treat of Pandemic Influenza: Are We Ready? Workshop Summary (2004)*. The National Academy of Sciences. Available at www.nap.edu.

Barry, John M. 2005b. Lessons from the 1918 Flu: Panic broke out. Doctors were kidnapped. Patients starved. Could it happen now? *Time*. 116.16 (Oct. 17, 2005): 96.

Beauchamp, Dan E. 1999. Community: The Neglected Tradition of Public Health. In *New Ethics for the Public's Health*. Edited by Dan E. Beauchamp and Bonnie Steinbock. Oxford Univ. Press: New York.

Beauchamp, Tom L., and James F. Childress. 2001. *Principles of Biomedical Ethics Fifth Edition*. Oxford Univ. Press: New York.

Capron, Alexander Morgan. 2007. Ethical Considerations in International Preparedness Planning Efforts. In *Ethical and Legal Considerations in Mitigating Pandemic Disease: Workshop Summary*. Washington D.C.: The National Academy of Sciences. Available at www.nap.edu.

CDC (Centers for Disease Control and Prevention). 2007. Ethical Guidelines in Pandemic Influenza. *Ethics Subcommittee of the Advisory Committee to the Director,* Centers for Disease Control and Prevention.(Released 15 February 2007). [Retrieved May 28, 2007]. Available at http://www.cdc.gov/od/science/phec/guidelinesPanFlu.htm.

Center for Biosecurity (University of Pittsburg Medical College, Center for Biosecurity). 2005. National Strategy for Pandemic Influenza and the HHS Pandemic Influenza Plan: Thoughts and Comments. *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*. 3(4): 292-294.).

Childress, James F. et al. 2002. Public Health Ethics: Mapping the Terrain. *The Journal of Law Medicine & Ethics*. 30(2): 170-178.

Childress, James F. 2003. Triage in Response to a Bioterrorist Attack. In *In the Wake of Terror: Medicine and Morality in a Time of Crisis*. Edited by Jonathan D Moreno. Cambridge: MIT Press.

CIDRAP (Center for Infectious Disease Research and Policy). 2007. Avian Influenza (Bird Flu): Implications for Human Disease. [Accessed April 20, 2007]. Available at:http://www.cidrap.umn.edu/cidrap/content/influenza/avianflu/biofacts/avflu_human.html#_Influenza_Pandemic_Considerations_2.

Clarke, Chalmers C. 2005. In Harm's Way: AMA Physicians and the Duty to Treat. *Journal of Medicine and Philosophy.* 30: 65-87.

DeMarco, Donald. 1998. The Virtue of Solidarity. *Lay Witness Magazine.* (June): [Retrieved May 26, 2007]. Available at http://www.cuf.org/LayWitness/online_view.asp?lwID=426.

DiGiovani, Clete, et al. 2004. Factor Influencing Compliance with Quarantine in Toronto During the 2003 SARS Outbreak. *Biosecurity and Bioterrorism.* 2(4): 265-272.

Doran, Kevin P. 1996. *Solidarity: A synthesis of Personalism and Communalism in the Thought of Karol Wojtyla/Pope John Paul II.* New York: Peter Lang Publishing.

Durkheim, Emile. 1960. *De La Division du Travail Social*. Paris: Presses Universitaires De France.

Eckenwiler, Lisa A. 2003. Emergency Health Professionals and the Ethics of Crisis. In *In the Wake of Terror: Medicine and Morality in a Time of Crisis*. Edited by Jonathan D. Moreno. Cambridge: MIT Press.

Erwin, R.E. 1992. Loyalty and Virtues. *The Philosophical Quarterly.* 42(169) (October): 403-419.

Fabian, Nelson. 2006. H5N1: A Special Report. *Journal of Environmental Health.* 68(6): 47-63.

Fauci, Anthony S. 2005. Pandemic Influenza Threat and Preparedness. *Emerging Infectious Diseases.* 12(1): 73-77.

Fernandes, Ashley K. 2001. Euthanasia, Assisted Suicide, and Philosophical Anthropology of Karol Wojtyla. *Christian Bioethics*. 7(3): 379-402.

Finnis, John. 1980. *Natural Law and Natural Rights.* Oxford: Clarendon Press.

Gallagher, David M. 1995. The Common Good. *Ethics & Medics.* 20(5) (May): 1-3.

Gani, Raymond, et al. 2005. Potential Impact of Antiviral Use on Hospitalizations During Influenza Pandemic. *Emerging Infectious Diseases.* 11(9): 1355-1362.

Garland, Michael, and John Stull. 2003. Public Health and Health System Reform: Access, Priority Setting, and Allocation of Resources. *Ethics and Public Health Model Curriculum*. This project was supported under a cooperative agreement from the Health Resources and Services Administration (HRSA) through the Association of Schools of Public Health (ASPH). Grant Number 1D-38AH10001-05. (Retrieved May 5, 2007) Available at http://www.asph.org/document.cfm?page=782

Glass, Thomas A., and Monica Schoch-Spana. 2002. Bioterrorism and the People: How to Vaccinate a City against Panic. *Clinical Infectious Diseases*. 34 (15 January): 217-223.

Glezen, WP. 1996. Emerging Infections: Pandemic Influenza. *Epidemiological Review*. 18: 64-76.

Gostin, Lawrence O. 2003. Tradition, Profession, and Values in Public Health. *Ethics and Public Health Model Curriculum*. This project was supported under a cooperative agreement from the Health Resources and Services Administration (HRSA) through the Association of Schools of Public Health (ASPH). Grant Number 1D-38AH10001-05. (Retrieved October 7, 2005) Available at http://www.asph.org/document.cfm?page=782

Gostin, Lawrence O. 2005. Public Health Preparedness and Ethical Values in Pandemic Influenza. In *The Treat of Pandemic Influenza: Are We Ready? Workshop Summary(2004)*. The National Academy of Sciences. Available at www.nap.edu.

Haas, John M. 2002. Ethical Challenges of Bioterrorism. *Ethics and Medics*. 27(3).

HSC (Homeland Security Council). 2006. *The National Strategy for Pandemic Influenza: Implementation Plan.* Homeland Security Council. (Release May 2006). [Retrieved May 28, 2007]. Available at http://www.whitehouse.gov/homeland/pandemic-influenza-implementation.html.

HHS (Department of Health and Human Services). 2005. *HHS Pandemic Influenza Plan*. (Released November 2005). [Retrieved May 28, 2007]. Available at http://www.hhs.gov/nvpo/pandemicplan/index.html.

IOM (Institute of Medicine). 1988. *The Future of Public Health.* Committee for the Study of the uture of Public Health, Division of Health Care Services, Institute of Medicine. Washington D.C.: National Academies Press.

IOM (Institute of Medicine). 2005. The Treat of Pandemic Influenza: Are We Ready? Workshop Summary (2004). Washington D.C.: The National Academy of Sciences. Available at www.nap.edu.

JCB (University of Toronto Joint Centre for Bioethics). 2005. Stand on guard for Thee: Ethical Considerations in Preparedness Planning for Pandemic Influenza. *University of Toronto Joint Centre for Bioethics Pandemic Influenza Working Group.* (November 2005). [Retrieved May 28, 2007]. Available at http://www.utoronto.ca/jcb/home/news_pandemic.htm.

Kass, Nancy E. 2001. An Ethics Framework for Public Health. *American Journal of PublicHealth*. 91(11): 1776-1782.

Kass, Nancy E. 2004. Public Health Ethics: From Foundations and Frameworks to Justice and Global Public Health. *Journal of Law, Medicine & Ethics*. 32(2004): 232-242.

Kaurin, Pauline. 1999. A Question of Loyalty: Two Rival Versions of Moral Education in the Military. Paper presented at Joint Services Conference on Professional Ethics, January 28-29, at Springfield Virginia. Available at http://www.usafa.af.mil/jscope/jscope99.html.

Kenner, Robert. 1998. *The American Experience: Influenza 1918*. PBS Documentary. USA: Robert Kenner Films.

Keystone Center. 2005. Citizen Voices on Pandemic Flu Choices. [Accessed Nov. 1, 2007]. Available at: http://www.keystone.org/spp/health-pandemic.html

Keystone Center. 2007. The Public Engagement Project on Community Control Measures for Pandemic Influenza [Accessed Nov. 1, 2007]. Available at: http://www.keystone.org/spp/health-pandemic.html

Kilbourne, Edwin D. 2006. Influenza Pandemics of the 20th Century. *Emerging Infectious Diseases.* 12(1): 9-13.

Kinneging, A.A.M. 2004. Loyalty in the Modern World. *Modern Age*. (Winter/Spring): 66-73.

Kipnis, Kenneth. 2003. Overwhelming Casualties: Medical Ethics in a Time of Terror. In *In the Wake of Terror: Medicine and Morality in a Time of Crisis*. Edited by Jonathan D. Moreno. Cambridge: MIT Press.

Kotalik, Jaro. 2005. Preparing for an Influenza Pandemic: Ethical Issues. *Bioethics*. 19(4): 422-431.

Leavitt, Michael O. 2006. Pandemic Planning Update: A Report from Secretary Michael O. Leavitt. Department of Health and Human Services. March 13, 2006. [Retrieved April 20, 2007]. Available at http://pandemicflu.gov/plan/pdf/panflu20060313.pdf.

Lo, Bernard and Mitchell H. Katz. 2005. Clinical Decision Making during Public Health Emergencies: Ethical Considerations. *Annals of Internal Medicine.* 143(7): 493-498.

Madlin, Beth et al. 2005. Bulls, Bears, and Birds: Preparing the financial Industry for an Avian Influenza Pandemic. *Biosecurity and Bioterrorism: Biodefense Strategy, Practice and Science.* 3(4): 363-366.

Mason, Andrew. 1998. Solidarity. In *Routledge Encyclopedia of Philosophy*. E. Craig, ed. London: Routledge. Retrieved May 08, 2007, from http://www.rep.routledge.com/article/L097.

Mill, John S. 2003. Utilitarianism. In *The Right Thing To Do: Basic Readings in Moral Philosophy.* James Rachels, ed. New York: McGraw-Hill.

Morone, Jame A., and Kilbreth, Elizabeth H. 2003. Power to the People? Restoring Citizen Participation. *Journal of Health Politics, Policy and Law*. 28(2-3): 271-288.

National Governors Association. 2006. Preparing for a Pandemic Influenza. *National Governors Association Center for Best Practices.* [Retrieved May 28, 2007]. Available at: http://www.nga.org.

National Intelligence Estimate 2000. The Global Infectious Disease Threat and Its Implications for the United States. Central Intelligence Agency. NIE 99-17D. Available at: http://www.odci.gov/cia/publications/nie/report/nie99-17d.html

National Intelligence Estimate. 2003. SARS: Lessons From the First Epidemic of the 21st Century. Central Intelligence Agency. Available at: OTI IA 2003-069 http://www.pdhealth.mil/downloads/cia_sars.pdf

Oldenquist, Andrew. 1982. Loyalties. *Journal of Philosophy.* 79(4) (April): 173-193.

Olick, Robert S. 2004a. Codes, Principles, Laws, and Other Sources of Authority in Public Health. *Journal of Public Health Management Practice*. 10(1): 88-89.

Olick, Robert S. 2004b. Ethics, Epidemics, and the Duty to Treat. *Journal of Public Health Management Practice*. 10(4): 366-367.

Osterholm, Michael T. 2005a. Preparing for the Next Pandemic. *Foreign Affairs*. 84(4):

Osterholm, Michael T. 2005b. Avian Flu: Addressing the Global Threat. Testimony Before the House Committee on International Relations December 7, 2005. [Retrieved May 5, 2007]: Available at http://www.foreignaffairs.house.gov/archives/109/24906.pdf.

Parfitt, Trevor. 2004. The Ambiguity of Participation: A Qualified Defense of Participatory Development. *Third World Quarterly*. 25(3): 537-556.

PCJP (Pontifical Council of Justice and Peace). 2005. *Compendium of the Social Doctrine of the Church*. United States Conference of Catholic Bishops. Washington D.C.: USCCB Publishing.

Pope Benedict XVI. Quoted in Editorial, *The Criterion*, 13 January 2006.

Public Health Leadership Society. 2002. Principles of the Ethical Practice of Public Health. [Retrieved May 20, 2007]: Available at http://www.apha.org/NR/rdonlyres/1CED3CEA-287E-4185-9CBD-BD405FC60856/0/ethicsbrochure.pdf

Qureshi, K., Merril, J. and A. Calero-Brakheimer. 2002. Emergency Preparedness Training for Public Health Nurses: A Pilot Study. *Journal of Urban Health.* 79: 413-416.

Qureshi, K. et al. 2005. Health Care Workers' Ability and Willingness to Report to Duty During Catastrophic Disasters. *Journal of Urban Health.* 82(3): 378-388.

Rachels, James. 2007. *The Elements of Moral Philosophy.* 5th ed. New York: McGraw-Hill.

Reid, Lynette. 2005. Diminishing Returns? Risk and the Duty to Care in the SARS Epidemic. *Bioethics*. 19(4): 348-361.

Roberts, Marc, J., and Michael R. Reich. 2002. Ethical Analysis in Public Health. *Lancet*. 359(March 23, 2002): 1055-1059.

Royce, Josiah. 2005. *The Philosophy of Loyalty.* In *The Basic Writings of Josiah Royce, vol. 2Logic, Loyalty, and Community.* John J. Mcdermott, ed. New York: Fordham Univ. Press.

Ruderman, Carly, et al. 2006. On Pandemics and the duty to care: Whose Duty? Who Cares? *BMC Medical Ethics.* (20 April 2006). [Retrieved May 28, 2007]. Available at http://www.biomedcentral.com/1472-6939/7/5

Schmitz, Kenneth L. 1993. *At the Center of the Human Drama: The Philosophical Anthropologyof Karol Wojtyla/Pope John Paul II.* Washington D.C.: Catholic Univ. Press.

Schoch-Spana, Monica. 2000a. Hospitals Buckle During Normal Flu Season: Implications for Bioterrorism Response. *Biodefense Quarterly*. 1(1).

Schoch-Spana, Monica. 2000b. Implications of Pandemic Influenza for Bioterrorism Response. *Clinical Infectious Diseases*. 31: 1409-13.

Schoch-Spana, Monica et al., 2006. Disease, Disaster, and Democracy: The Public's Stake in Health Emergency Planning. *Biosecurity and Biosecurity.* 4(3): 313-319.

Sirico, Robert A. 2001. Solidarity: The Fundamental Social Virtue. *Religion & Liberty.* 11(5)(September-October): Available at http://www.acton.org/publicat/randl.

Singer, Peter, Solomon R. Benatar, Mark Bernstein, et al. 2003. Ethics and SARS: Lessons from Toronto. *British Journal of Medicine*. 327(6 December 2003): 1342-1344.

Selgelid, Michael J. 2005. Ethics and Infectious Disease. *Bioethics*. 19(3): 272-289.

Sokol, Daniel K. 2006. Virulent Epidemics and Scope of Healthcare Workers' Duty of Care. *Emerging Infectious Diseases.* 12(8): 1238-1241.

Stimola, Aubrey Noelle. 2006. Avian Influenza, or "Bird Flu": What you Need To Know. *American Council on Science and Health.* (April 2006). [Retrieved May 28, 2007]. Available at http://www.acsh.org/publications/view.,recNo.11/pub_listing.asp.

Stjerno, Steinar. 2005. *Solidarity in Europe: The History of and Idea.* Cambridge, United Kingdom: Cambridge Univ. Press.

Taubenberger, Jeffery K. et al. 2005. Characterization of the 1918 influenza virus Polymerase genes. *Nature.* 437 (05 Oct 2005): 889-894.

Taubenberger, Jeffery K. and David M. Morens. 2006. 1918 Influenza: the Mother of All Pandemics. *Emerging Infectious Diseases.* 12(1): 15-22.

Thompson, Alison K. et al. 2006. Pandemic Influenza Prdepareness: An Ethical Framework to Guide Decision-Making. *BMC Medical Ethics*. 7(12). Available at http://biomedcentral.com/1472-6939-7-12.

Tollefsen, C. 2000. What Would John Dewey Do? The Promises and Perils of Pragmatic Bioethics. *The Journal of Medicine and Philosophy.* 25(1): 77-106.

Torda, Adrienne. 2006 Ethical Issues in Pandemic Planning. *Medical Journal of Australia.* 185 (20 Novcmber 2006): S73-S76.

Trotter, Griffin. 1997. *The Loyal Physician*. Nashville: Vanderbilt Univ. Press.

Trotter, Griffin. 1999. The Medical Covenant: A Roycean Perspective. In *Pragmatic Bioethics.* Glenn McGee, ed. Nashville: Vanderbilt Univ. Press.

Trotter, Griffin. 2004. Loyalty in the Trenches: Practical Teleology for Office Clinicians Responding to Terrorism. *Journal of Medicine and Philosophy*. 29(4): 389-416.

Tumpey. Terrance M., et al. 2005. Characterization of the Reconstructed 1918 Spanish Influenza Pandemic Virus. *Science*. 310(7 October 2005): 77-80.

Walzer, Michael. 1999. Security and Welfare. In *New Ethics for the Public's Health*. Edited by Dan E. Beauchamp and Bonnie Steinbock. Oxford Univ. Press: New York.

Webster, Robert G. et al. 2006. H5N1 Outbreaks and Enzootic Influenza. *Emerging Infectious Diseases.* 12(1): 3-7.

WHO (World Health Organization). 2005a. Checklist for Influenza Pandemic Preparedness Planning. Department of Communicable Disease Surveillance and Response, Global Influenza Programme. [Retrieved May 27, 2007] Available at http://www.who.int/csr/disease/influenza/pandemic/en/index.html

WHO (World Health Organization). 2005b. Global Influenza Preparedness Plan. Department of Communicable Disease Surveillance and Response, Global Influenza Programme. [Retrieved May 27, 2007] Available at http://www.who.int/csr/disease/influenza/pandemic/en/index.html

Wojtyla, Karol. 1979. Chapter 7: 3-5. *The Acting Person*. Analecta Husserliana: The Yearbook of Phenomenological Research vol. X. Anna-Teresa Tymieniecka, ed. Andrzej Potocky, trans. Dordrecht, Holland: D. Reidel Publishing.

Wojtyla, Karol. 1993. Person and Community: Selected Essays. Catholic Thought from Lublin. Andrew N. Woznicki. ed. Theresa Sandok trans. New York: Peter Lang Publishing.

Writing Committee of the World Health Organization (WHO) Consultation on Human Influenza A/H5. 2005. Avian Influenza A (H5N1) Infections in Humans. *New England Journal of Medicine*. 353(13): 1374-1384.

Curriculum Vitae

Mitchell Leon Klopfenstein

Education:

2008 Master of Arts in Philosophy with a Concentration in Bioethics (IUPUI)
2003 Bachelor of Arts in Philosophy and English (IUPUI)

Publications:

Pandemic Influenza and the Duty to Treat: The Importance of Solidarity and Loyalty.
American Journal of Bioethics. (In press).

Presentations:

Pandemic Influenza: An Exercise for the Rural Community. Indiana Rural Health
Conference. Evansville, Indiana. June 6, 2007.

Ethics in Public Health. Indiana Mid-America Public Health Training Center.
Indianapolis, Indiana. December 13, 2007.

Pandemic Influenza and Ethical Issues. National Public Health Preparedness Summit.
Atlanta, Georgia. February 21, 2008.

Ethics and Pandemic Influenza Planning. National Public Health Preparedness Summit.
Atlanta, Georgia. February 22, 2008.

Professional Experience:

1994-1998 United States Marine Corps
      Noncommissioned Officer
      0341 Squad Leader
      8563 Marine Combat Instructor of Water Survival

1999-2004 Audrey's Place (Business)
      Operations Manager

2004-2008 Indiana State Department of Health (ISDH)
      Program Coordinator, Resource Library and Learning Management System
      Public Health Administrator, Public Health Education Manager
      Public Health Administrator, Public Health Exercise Program Manager
      Program Director, Strategic National Stockpile Program
      Bioethics Liaison for ISDH Pandemic Influenza Committee
      Chair of the Bioethics Subcommittee of the ISDH Pandemic Influenza Committee
      Program Manager, Public Health Workforce Development