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THE ROLE AND OBLIGATIONS OF HEALTH-CARE WORKERS
DURING AN OUTBREAK OF PANDEMIC INFLUENZA

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Neither were the physicians at first of any service, ignorant as they were of the proper way to treat it, but they died themselves the most thickly, as they visited the sick most often; nor did any human art succeed any better. Supplications in the temples, divinations, and so forth were found equally futile, till the overwhelming nature of the disaster at last put a stop to them altogether.

−Thucydides, HISTORY OF THE PELOPONNESIAN WAR

So the plague defied all medicines; the very physicians were seized with it...men went about prescribing to others and telling them what to do...and they dropped down dead, destroyed by that very enemy they directed others to oppose. This was the case of several of the most skilful surgeons.

−Dafoe, PLAGUE DIARIES

Introduction

Since ancient times, communicable diseases have posed risks to those providing care for the afflicted. In modern times, in both developed world and developing world contexts, such as recent SARS and Ebola outbreaks, front line health care workers (HCW’s) have faced disproportionate risks of serious morbidity and mortality from infection. This risk holds for both professional and non-professional health care workers.

An influenza pandemic, even a “mild” one like the 1968 pandemic, will place increased demands on communities and health systems globally. As the precise nature of a future pandemic cannot be predicted, it is prudent for pandemic planners to prepare a response that may entail mobilization of the entire health care system with significant involvement from community sectors. The voluntary participation of these groups is essential to any rational response to a pandemic.

Thus it is important that pandemic planners identify and engage with these groups as part of the planning process so that roles and expectations are made explicit and decisions about how to employ human resources made transparently. In addition, response to a pandemic will call upon a wide range of care givers. These will come from both the formal and informal health care system, and involve clinical and non-clinical health care workers, professional and non-professional staff. Thus a challenge facing all pandemic planners is to identify and engage those sectors of the community that will be first responders to a pandemic and ensure their participation in a pandemic plan. The ethical basis and values sustaining this engagement has been outlined in a report. (JCB Report 2005)

Governments have an obligation to ensure the safety and health of populations living within their territory, regardless of ethnicity, nationality, religion, registration to a social service system or income. This means that governments are obliged to provide a response to a pandemic threat. They also have an obligation to ensure the ability of health care workers to provide care in a manner that protects the health care worker as much as possible. The recognition of mutual vulnerability and of reciprocal obligations is integral to understanding the ethical challenges posed by pandemic influenza.

Human resources are the foundation to an effective pandemic response. Yet, pandemic planning is evolving in the midst of a global crisis in human resources in health care. As a recent editorial in the Lancet noted:

Years of underinvestment in health, coupled with enforced economic reforms that restricted investment in public health services and education, have left many countries with critical shortages of health workers. The attractions of international migration, and concentration of the remaining professionals in urban areas, means, according to the World Health Report, that many national health systems are weak, inequitable, unresponsive, and unsafe. This situation is made
worse by changing epidemiological threats and the fact that the skills of available professionals are often not well matched to the local population’s health needs. (Lancet 2006)

In the modern context, health care is delivered by a set of diversely constituted and funded, heterogeneous systems with huge disparities in terms of resources both human and technological. Given the immense diversity and complexity of health services in the many member states of the WHO, it is difficult to give specific guidance on issues of human resource planning for a pandemic situation that will be relevant in all necessary details and in all contexts.

The purpose of this paper is to review the ethical aspects of health care workers obligation to provide care during an influenza pandemic. As stated by the World Medical Association in their Resolution on Avian Influenza adopted by the WMA General Assembly, Santiago 2005.

The World Medical Association recognizes the potential global morbidity and mortality as a result of the H5N1 strain of avian flu. This possibility increases with every passing day as more countries find infected birds in their territories. The WMA will work with member National Medical Associations (NMAs), the WHO and other stakeholders to track the progress of the disease and propose the necessary measures to minimize its impact on the global human population. The WMA also urges governments to engage with NMAs to prepare for the possibility of a pandemic. (WMA)

The call for engagement is necessary and commendable. However, it is essential that engagement be framed around issues of importance. It is the intention of this report to outline the salient ethical issues regarding the role and obligations of healthcare workers during a pandemic influenza outbreak. This report consists of six sections. The first section outlines the ethical issues related to health care workers obligation to provide care in a pandemic. The second section examines professional codes of ethics and summarizes key recent papers in the ethics literature relevant to pandemic planning. The third section examines the obligations of society to health care workers. The fourth section briefly highlights some recent empirical studies relevant to pandemic planning. This is followed by a conclusion and a set of draft recommendations. Accompanying this report will be a summary of codes of ethics and an annotated bibliography of sources of the ethics literature.

In the document hereafter the abbreviation "HCP" will distinguish health care professionals from health care workers or "HCW" which may include professional and non-professional care deliverers involved in a pandemic response.

I. What are the ethical issues involved in HCW obligation to provide care in a pandemic?

HCWs will be integral part of any pandemic response. Whereas SARS was primarily an outbreak in health care institutions and actually quite limited in scope, an influenza pandemic will likely be marked by high transmission and illness rates on a global scale and, depending on illness characteristics, by subsequent high demands for healthcare and possibly by high mortality rates.. Therefore, the risk of HCW exposures will not only be occupational. HCW will likely face additional risks to their own health in responding to an influenza pandemic. The level of acceptable risk that a HCW should countenance in the conduct of their duties, especially in care delivery to infectious patients or in disaster situation is perceived differently depending on the society and circumstances.
The historical record of HCPs in response to communicable diseases has been uneven. Ezekiel Emmanuel, writing in the aftermath of SARS had the following observations:

The history of physicians’ responses to ... contagions is mixed. Galen is reported to have fled from Rome during a plague in 166. Although in the 14th century some physicians stayed and cared for the sick, most responded to the Black Death by fleeing. Defoe indicates in A Journal of the Plague Years—a novelistic chronicle about London’s great plague of 1665—that most physicians were called “deserters”. In the mid-19th century, nascent professional organizations began to articulate the physician’s ethical obligation to care for the sick during epidemics. The SARS epidemic tested the dedication of a medical profession that might have been weakened by increasing commercialization, poor morale, an emerging preference for easier professional lifestyles, and the pervasive self-centered individualism of the larger society. Emmanuel 2003

HCPs have responded with admirable courage and self-sacrifice in response to communicable diseases such as SARS and Ebola. One might ask, therefore, whether an ethical problem truly exists. There is little doubt that the vast majority of HCPs performed their jobs effectively admirably under considerable stress and sometimes at significant personal risk. Many HCPs provided exemplary care, and still others behaved in truly heroic fashion. Scores of nurses, doctors, respiratory technicians, other professional and non-professional health workers laboured extremely long hours at personal risk. This demonstration of going above and beyond the call of duty, which proved necessary to control the disease, was morally commendable. It can be expected, though not guaranteed that a similar response would be evident globally in the case of an influenza pandemic.

At the same time, however, serious concerns did surface during SARS about the extent to which HCWs would tolerate risks of infection to themselves. (Bevan and Upshur 2003) Some baulked at providing care to those infected with the unknown virus. In some circumstances, staffing became an issue in SARS wards and assessment centres; indeed, failure to report for duty during the outbreak resulted in the permanent dismissal of some hospital staff. As a consequence, the risk that was faced during SARS was not distributed equitably, and those HCWs who volunteered to provide care faced the greatest exposure. (Ruderman et al, 2006) Similarly, in Ebola outbreaks, there are reports of doctors and nurses fleeing their posts for fear of contracting the disease or because of pressure from family members. (Hewlett and Hewlett, 2005)

Following such outbreaks, many HCWs who care for patients with serious communicable diseases raised concerns about the protections that were provided to safeguard their own health and that of their family members. Conflicting obligations were another significant concern. HCWs are bound by an ethic of care. Therefore, obligations to the patient’s well-being should be primary. At the same time, however, HCWs have competing obligations to their families and friends, whom they feared infecting, in addition to obligations to themselves and to their own health (particularly those with special vulnerabilities, such as a co-morbid condition). HCWs have faced stigmatization and serious threats to their families as a consequence of providing care. (Singer et al, 2003; Hewett and Hewett, 2005) During outbreaks, some HCWs questioned their choice of career; subsequently, some decided to leave their profession and pursue new ventures, indicating an unwillingness or inability to care for patients in the face of risk. Recent survey data from the U.S. indicate that there exist mixed views concerning the duty to care for patients during infectious disease outbreaks. (Alexander and Wynia, 2003)
Concerns about the duty to care for persons with infectious diseases were salient in the early response to HIV/AIDS. At that time professional opinion in both nursing and medicine were firm in reiterating the obligation of health care professionals to provide care to those with HIV/AIDS. (WMA 1988, International Council of Nurses 2000) This may be the standard that should be set for a pandemic influenza virus.

What is clear is this: the issue of duty to care has emerged as a matter of paramount concern among health care professionals, hospital administrators, public policy makers, and bioethicists. (Bevan and Upshur 2003, Clark 2005, Reid 2005) Hence it is essential for planners to have clear recommendations to the HCW’s responding to a pandemic.

II. What guidance do professional codes of ethics and ethical theory provide regarding obligations to care?

Traditional sources of guidance to health care professionals come from codes of professional ethics. Additional guidance comes from the literature in ethics.

Codes of Ethics

In the past, some codes of ethics, such as the American Medical Association had quite explicit guidance for physicians in particular regarding their duties and obligations during an infectious disease outbreak. For example, for over 100 years the following provision was found in the AMA code of ethics:

"...when pestilence prevails, it is their (physicians’) duty to face the danger, and to continue their labours for the alleviation of suffering, even at the jeopardy of their own lives". (Huber and Wynia 2004)

This provision was deleted from the AMA code of ethics in the 1950’s. It is questionable whether such stringent requirements would be endorsed as an expectation by current professional associations. Of interest, a revision of the Canadian Medical Association Code of Ethics, in 2004 subsequent to the SARS outbreak was silent on the issue. Most codes of ethics provide general proscriptions forbidding discrimination, but do not speak to the level of risk health care professionals should take in the delivery of care.

A review of published codes of ethics found that professional codes employed variable wording regarding duty to care. Few contained direct language addressing infectious disease emergency. As of this writing 61 professional codes have been reviewed (see appendix 1 for search strategy, summary tables available on request). 29 codes had no mention, 23 had broad statements (such as the Declaration of Geneva: A physician shall give emergency care as a humanitarian duty unless he is assured that others are willing and able to give such care.), 8 had what could be construed as specific direction to members. A good example of this would be the AMA policy document “Physician Obligation in Disaster Preparedness and Response” adopted in June 2004:

1 Limitations of this analysis are that it was restricted to the English language and those codes found via the search strategy described. The search is ongoing with the assistance of the Bioethics Library Services at the Kennedy Centre for Bioethics.
National, regional, and local responses to epidemics, terrorist attacks, and other disasters require extensive involvement of physicians. Because of their commitment to care for the sick and injured, individual physicians have an obligation to provide urgent medical care during disasters. This ethical obligation holds even in the face of greater than usual risks to their own safety, health or life. The physician workforce, however, is not an unlimited resource; therefore, when participating in disaster responses, physicians should balance immediate benefits to individual patients with ability to care for patients in the future. (AMA 2004)

It is important to note that these provisions leave the discretion to the HCP to assess the level of risk to be taken.

**Recent Ethics Literature**

Clark (2005) has recently argued that the duty to care for those with infectious diseases is a primary ethical obligation for health care workers for a number of reasons, including:

1. the ability of physicians and health care workers to provide care is greater than that of the public, thus increasing their obligation to provide care

2. by freely choosing a profession devoted to care for the ill, they assume risks

3. the profession has a social contract that calls on members to be available in times of emergency

The first criterion is likely universal. In most contexts health care workers do have special training that puts them in a better position to provide care and aid the sick and suffering. Most ethicists agree this increases their obligation to provide care. This, however, does not hold true for non-professional health care workers, informal care providers, volunteers and other members of the community. This does not mean that they are under no obligation, it means that they are not under increased obligation.

The second criterion may be true in principle, but in fact most health care workers, particularly in the developed world, have little awareness of their increased risk of contracting a communicable disease. Reviews of the literature indicate that in non-pandemic times health care workers are at significant risk of occupationally acquired infectious disease. Sepkowitz (1996), in a two part review of occupationally acquired infections in health care workers concluded that the risk for occupationally acquired infection is an unavoidable part of daily patient care associated with substantial illness and occasional death.

A review from the perspective of the developing world found that rates of communicable disease transmission were high in health care contexts; appropriate infection control measures, particularly personal protective devices were generally unavailable, and education low. The authors concluded:

> Along with international agencies, national budgets should provide resources to ensure the safety of medical personnel. The expenditures should not be viewed as an increase in the cost of health care in developing nations, but rather as insurance to protect each
nation’s investment in its health care work force. The inevitable consequence of continued inattention will be a mounting toll of disease and death among productive health care workers in places where their loss can least be afforded. (Sagoe-Moses et al., 2001)

As above, this criterion imposes no additional obligations on non-professional and voluntary responders to a pandemic.

The third criterion is of value in those settings where a social contract between professions and governments can be argued to exist, which is not the case globally.

Reid, in the aftermath of SARS argues that:

Duty to care is not based upon particular virtues of the health professions, but arises from social reflection on what response to an epidemic would be consistent with our values and our needs, recognizing our shared vulnerability to disease and death. Such reflection underwrites a strong duty of care, but one not to be borne solely by the altruism and heroism of individual healthcare workers. (Reid 2005)

Reid’s reflections capture the fact that a pandemic response will entail both professional and non-professional HCWs. While non-professional HCWs do not have obligations rooted, however opaquely, in codes of ethics and historical practices, they do have contractual obligations. The important role that they play in a response to a pandemic must be emphasized (see Balicer paper). Furthermore, it is essential that HCWs acknowledge and accept the possible risks of contracting disease occupationally. The emphasis on the social reflection on what response would be consistent with the values and needs of communities served is an important reminder of the communicative nature of pandemic planning.

Scope of Work Obligations

A pandemic will likely result in a surge in demand for HCW services. It can be expected that there will be absence due to illness among HCWs. Concerns have been raised that HCWs will be assigned to tasks for which they lack adequate training. In general, in times of emergency, governments and health care organizations may invoke the need for such reassignments. It is recommended that such possibilities be raised and discussed during pandemic planning so that all participants are aware of the possible range of duties that may be expected of HCWs and that all liability issues be discussed.²

² See for example the human resource strategy in the Toronto Academic Health Sciences Network http://portal.sw.ca/tahsn/default.aspx
III. Societal Responsibility and Reciprocity

The moral duty to behave responsibly and not knowingly put other people at risk is not a duty that is confined to HIV infection or to other life threatening diseases…It is a duty which all people with communicable diseases have. It is, however, also a duty which we can expect people to discharge only if they live in a community that does not leave them with all the burdens involved in discharging this duty. Harris and Holm (1995)

While much of the discussion post SARS has been about the duties of health care workers, there are other important ethical issues that need to be addressed, including reciprocity and solidarity. If workers are to take high risks, there is a duty upon society, in particular on their institutions, to support them. This is an important aspect of the principle of reciprocity. Pandemic planners must help workers cope with the high stress of a pandemic, to acknowledge that their work is dangerous. For example, they need to provide for the health and safety of workers, and for the care of those who fall ill on duty. Also, there is a need for fair and workable human resource plans for emergency situations. This will entail clear work plans and specific detailed instructions on roles and obligations. Limitations imposed during SARS resulted in a loss of work for some health care workers. The imposition of employment restrictions should not result in financial hardship or job loss and should not unduly affect part-time staff.

In addition to moral obligations, in many contexts health care systems have a legal obligation to ensure a safe workplace. While absolute safety of health care institutions cannot be assured in a pandemic (particularly given that viral shedding commences before signs and symptoms of disease occurs), the rights of workers must be respected.

Health systems globally vary in the amount of support that can be provided to HCWs charged with the responsibility of providing care in a pandemic. It is an unfortunate fact that immense disparities exist in health care systems globally. Many health care systems are unable to provide protective equipment required in the management of infected patients; sometimes they do not provide soap and essential disinfectant. It is highly unlikely that sufficient vaccines (if available and effective) or antiviral medication will be available in all health care systems.

As the Sepkowitz and Sagoe-Moses reports note, many infections can be prevented by appropriate use of hygienic techniques. Pandemic planners have an obligation to ensure that all pandemic responders are provided with education and training on appropriate hygiene. To the greatest extent possible, personal protective equipment and other infection control modalities should be provided to health care workers. Although high technology responses such as vaccines and antivirals may not be globally available, hand hygiene agents and education likely can be provided globally. Although there is no direct evidence of their value in an influenza pandemic, the evidence does suggest a likely protective effect if used correctly in other viral respiratory outbreaks. The risk to care providers is not only physical, but also psychological. Psychosocial support is an important consideration in pandemic planning.

The role of community and voluntary organizations

A wide range of community based organizations (such as non-governmental organizations, faith based organizations etc.) will likely be involved in pandemic planning. In many contexts, faith based organizations are integral components in the provision of health care. Although not necessarily
designated as HCWs, such organizations can play important roles in a pandemic response, which may increase the risk of individuals providing care. Pandemic planners are advised to ensure the participation of community based organizations in planning efforts as this will enhance the legitimacy of such efforts in communities.

The role of sanctions

Governments and public health agencies are charged with the obligation to protect populations from infectious disease threats. As such, through a variety of means, they are also empowered to consider the use of sanctions in order to ensure a response from HCWs. This is considered highly undesirable. In keeping with principles of medical and public health ethics it is recommended that voluntary measures be employed to ensure HCWs participation in pandemic response.

IV. What is known about HCWs and the public’s attitude towards care in a pandemic? Summary of Recent Literature

Empirical research is of value to planners to understand some of the issues of concern that may be expressed in their jurisdiction. There is a limited, but informative literature, on attitudes towards care in a pandemic. These may aid in the development of strategies to increase voluntary participation.

A qualitative study of general practitioners in Tasmania found that GPs in this study expressed a willingness to provide professional services in a pandemic. Their motivation for this was largely altruistic and recognized the high personal risk of becoming infected. Participants did not have stockpiles of antivirals or personal protective equipment within their practices and felt that government had a duty of care to stockpile on behalf of the general practice workforce. Failure to provide personal protective equipment was seen to mitigate the duty to care. Participants were interested about receiving further information and training in pandemic preparedness.

A survey of workers in public health agencies in Maryland, USA indicated that nearly half of the local health department workers indicated that they would not report for duty during a pandemic. Clinical staff were more likely to state they would report for duty than technical and support staff. The perception of the importance of one's role in the agency's overall response was the single most influential factor associated with willingness to report to work. (Balicer 2006)

The College of Family Physicians of Canada survey of the public indicated that an overwhelming majority of respondents (86%) said it’s important at a time of serious medical emergency—such as a widespread influenza outbreak or natural disaster— that they are able to turn to their family doctor for information and advice. Almost every Canadian polled (96%) indicated the importance of family doctors accessing the information, equipment, supplies, and other supports needed in the event of a public health emergency. Respondents also (93%) also strongly agreed that primary care professionals must be involved in the development of emergency plans for Canada because they are sure to be on the frontlines in the event of a public health emergency. (Canadian College of Family Practice 2005)

3 For example, two provinces in Canada have tabled legislation that has been interpreted as supporting conscription for HCWs in the event of an infectious disease emergency.
Experience with Ebola outbreaks has indicated that knowledge of local healing practices and cultural patterns of care in the community are important for disease control. Summarizing the experience of three Ebola outbreaks, Hewlett and Hewlett write:

…knowledge of local and biomedical models contributed to the eventual control of the outbreak. Local nurses and other health care workers were aware of these models and were in a position to negotiate the cultural models more readily than international teams sent to control the outbreaks.

These studies, though limited in generality, contain important messages for pandemic planners. They illustrate the stated willingness of health care providers to serve during infectious disease emergencies. They also contain cautionary evidence that unwillingness to serve is a reality and that the perceived importance of the role that will be played by HCWs is an important predictive factor. They also highlight the importance of culture in the control of communicable diseases. Pandemic planners, then, have an important task in ensuring that all relevant responders are aware of the essential role they must play. A crucial goal of pandemic planning, therefore, is to communicate that need and engage in a transparent and inclusive planning process and include education on best infection control practices to HCWs as part of the planning process.

V. Conclusions

An influenza pandemic will test the resolve of health systems and communities globally. The goal of pandemic planning is to mitigate the harm such a pandemic can cause to societies. HCW’s will play an essential role in this response, and one task of pandemic planning will be to ensure a well prepared cadre of pandemic responders.

A response to a pandemic will be truly global in scope. It will highlight the universal vulnerability of the human species to infectious disease. A response based on solidarity is one that global planning should strive for.

VI. Preliminary Recommendations

The role and duty of pandemic planners

Pandemic Planners should:

- Ensure the right of health care workers to safe working conditions is maximized to ensure the discharge of duties and that health care workers receive sufficient support throughout a period of extraordinary demands.
- Plan for education and training of all HCW on hygienic measures (such as hand hygiene) that reduce risk to health care workers and recipients of care;
- Take steps to enhance and enable the voluntary participation of health care workers in a pandemic response.
- Assess local circumstances and ensure the participation in planning of formal and informal care networks, engage clinical and non-clinical, professional and non-professional health care workers.
• Recognize the role of gender and culture (including religion) in the provision of health care and its relevance to an effective pandemic response.

• Develop human resource strategies that cover the diverse occupational roles, that are transparent in how individuals are assigned to roles in the management of the pandemic, and that are equitable with respect to the distribution of risk among individuals and occupational categories.

• Ensure that processes be in place to accommodate legitimate exceptions to the provision of clinical care (e.g. pregnancy, immunodeficiency, family member affected)

The role and duty of professional and non-professional Health Care Workers during a pandemic

• The participation of health care providers is essential to an effective response to pandemic influenza.

• Health care workers have unique skills that confer an obligation to respond.

• The level of acceptable risk a health care worker is willing to countenance is a matter of personal choice.

Professional associations should

• Provide, by way of their codes of ethics, clear guidance to members in advance of an influenza pandemic.

• Identify mechanisms, or develop means to inform members as to expectations and obligations regarding the duty to provide care during a communicable disease outbreak and during an influenza pandemic

Governments should:

• Provide with infection control measures (such means for patient isolation, personal protective equipment, soap and disinfectant, etc…) all HCW at risk (professional or non-professionals), including those working in hospital setting or at community level, in keeping with technical advice and emerging epidemiological evidence as provided;

• Provide all HCW at occupational risk for exposure to pandemic influenza virus with anti-viral for early treatment of illness and for post-prophylaxis if sufficient stocks are available

• Offer to HCW at occupational risk for exposure to pandemic influenza virus the possibility to get vaccinated with the pandemic vaccine as soon as will be available in the country

• Avoid resorting to sanctions intended to increase compliance of HCW in delivering care during a pandemic. Governments wishing to take steps to ensure a response from the health care sector are urged to employ voluntary measures. If a government chooses to apply sanctions against health care workers who fail to respond, sanctions should applied within the context of the existing rules of professional associations and contract law (e.g., reprimand or loss of license, dismissal from employment) and sanctions should not contravene human rights of the HCW or the HCW's family in anyway.
## Annex One—Members of Working Group Three

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Annex Two—References and appendices


University of Toronto Joint Centre for Bioethics. Stand on guard for thee: Ethical considerations in preparedness planning for pandemic influenza. a report of the University of Toronto Joint Centre for Bioethics Pandemic Influenza Working Group; http://www.utoronto.ca/jcb/home/news_pandemic.htm
Annex Three—Search Methods

Google was searched using the search strings (“medical association”) and (“medical association” +”code of ethics”) and (“code of ethics” +”infection/infectious”). Any resulting medical association websites were searched manually for any statements on duty to care and links to other medical association websites. All relevant search results were manually sorted into one of five categories based on the inclusion of a code of ethics: 1) codes of ethics that make no statement on duty to care, 2) codes of ethics that make a broad statement on duty to care, 3) codes of ethics that make a specific statement on duty to care, 4) foreign language website (unable to locate code of ethics), and 5) unable to locate / no code of ethics. Broad and specific statements on duty to care are differentiated by a general statement regarding physician non-discrimination of potential patients, or an explicit statement on the requirement to care for a patient with an infectious disease, respectively. All non-English medical association websites were classified as foreign language websites, and no attempt was made to locate a code of ethics.

This methodology was also applied to locate both scientific and popular literature on duty to care and infectious diseases using Google, PubMed and The Kennedy Institute of Ethics search engines.