

ETHICAL CHALLENGES IN PLANNING FOR AN INFLUENZA PANDEMIC

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ABSTRACT

Pandemics have devastated humankind throughout history and the threat they pose is just as great now, at the beginning of the 21st century. Managing a public health emergency of the scale and complexity of a pandemic, and with the potential societal ramifications, poses enormous challenges. Public health planners must grapple with the intersection of competing values and priorities. This article provides a preliminary discussion of some of these ethical issues, specifically the necessary limitations on individual liberty posed by quarantine, the unavoidable need to prioritise health care resources, and the complexities associated with the obligations of health care professionals.

Planning how Australia will respond to an influenza pandemic touches on multiple core ethical issues for public health. Australia is currently renewing its plans for dealing with a potential influenza pandemic, as outlined by Horvath.¹ While this is a complex challenge, many of the associated ethical issues are grappled with on a daily basis. Nonetheless, the scale and context of this kind of public health emergency may justify solutions than are different to those used in non-pandemic conditions. This article briefly discusses some general principles for achieving fairness and public cooperation in managing pandemic influenza, and specifically examines the relevant ethical issues associated with quarantine, limited health care resources, and the obligations of health professionals.

PRINCIPLES FOR MANAGING PUBLIC HEALTH EMERGENCIES

Various authors have articulated criteria for managing public health emergencies.^{2,3,4,5} They propose considered approaches to managing such emergencies, but they recognise that successful containment and eradication of an infectious disease threat usually requires the imposition of constraints on the freedoms of citizens by voluntary, or sometimes compulsory, means.

A public health emergency like the recent SARS outbreak understandably generates anxiety. However, if introduced with care and sensitivity, public health measures can harness energy and generate a community spirit of cooperation that may be important for the successful containment and eradication of an influenza pandemic. The following principles are important in achieving fairness and public cooperation.³ First, a public health intervention, whether it involves testing, treatment, vaccination, quarantine or isolation, must be *necessary and effective*; that is, the public health threat must be serious and likely, and there must be

a sound scientific basis for the intervention. Where there is a range of possible restrictions, the *least restrictive* one should be used first, providing it will effectively respond to the threat. There should be *transparency* of official decision-making during a pandemic; that is, decisions should be made in an open and accountable manner. This extends to honesty with the public where there may be lack of conclusive evidence for the value of various forms of community hygiene, such as wearing masks in public settings.

Public health officials also need to be *flexible and responsive* to an evolving pandemic, given that scientific knowledge about the disease and its transmission will be incomplete, at least at the outset of the pandemic. Finally, *consistent* implementation of public health guidelines is also essential, unless need dictates otherwise. Inconsistency in statements to the public about such measures may foster perceptions of unfairness, undermine support for compulsory measures, and suggest that the threat is not as serious as officials claim.

ISOLATION AND QUARANTINE

Isolation, quarantine and voluntary social distancing measures (such as home quarantine or 'sheltering in place'⁶) raise questions about restraining freedom for the common good. This is more problematic in societies such as our own, which value individual liberty. However, balanced against individual liberty are arguably greater concerns about the costs of failing to apply these restrictive measures, or failing to do so in a timely manner, and the potentially preventable increase in collective morbidity and mortality.

A practical concern with quarantine or similar measures is the potential to drive influenza cases 'underground' should the public perceive that restrictive measures have been applied too early, inequitably, or without adequate clinical justification. Lack of compliance with restrictive measures has also occurred where individuals believe they have compelling reasons to ignore such directives, such as loss of income and/or the need to support dependants.⁷ Extreme heavy-handed tactics, such as use of the military to enforce quarantine, are likely to destabilise a community by creating panic, causing people to flee and spread disease. This occurred in China where a rumour that all of Beijing would be quarantined during the SARS epidemic led to 250,000 people fleeing the city overnight.⁶ Clearly, a significant issue is how quarantine or social distancing measures can be applied to optimise compliance. This means leveraging more than just people's instinct for self-preservation. Rather it requires catalysing a community's sense that there is more to be gained through co-operation. In Toronto during the SARS outbreak 'home quarantine' measures received overwhelming co-operation.⁹ The critical elements appear to be that decision-makers provide adequate

and transparent justification for measures; that adequate social and economic supports are provided to enable people to remain in their homes; and that there is an appeal process for individuals retained in compulsory quarantine.

The current Australian Health Management Plan for Pandemic Influenza is optimistic about the likelihood of containing a pandemic in this country.⁹ It proposes the judicious use of quarantine and social distancing measures as part of a combined approach to maximise the containment phase of the pandemic and 'buy time' until a vaccine is developed. If containment is successful, this would result in the least net harms for the population.

PRIORITISATION OF HEALTH CARE RESOURCES

Prioritisation of anti-viral drugs

In the event of a pandemic, Australia is now relatively well placed internationally in terms of the available stockpile of anti-viral drugs to be used for treatment and prophylaxis until a pandemic influenza vaccine is developed. Nonetheless, there will never be sufficient anti-viral drugs to provide blanket prophylaxis of the entire population and thus some targeted use will always be required. The question is, on what basis should this limited resource be allocated? Should it be according to level of risk (be that through potential exposure or pre-exposure morbidity) or potential for individual benefit, or according to age, social utility or some other criteria?

Most pandemic plans recognise health care professionals as a priority group to receive antiviral prophylaxis, both because they will be the first line of defence in a pandemic, and because they will have to maintain a health service response for the entire community. This prioritisation must be weighed against the value of providing prophylaxis to other emergency personnel such as police, fire fighters, armed forces, and key emergency response officials, in addition to essential service providers such as transport workers and funeral providers. The aim of having these priorities is to achieve the greatest military good, enabling individuals to 'return to the fight' in maintaining threatened health systems and essential community services, hence supporting the 'fabric of society'.¹⁰

However, this approach to prioritisation also requires appropriate assessment of the risk of exposure to the influenza virus among and within these groups. It could be argued that society has a reciprocal moral obligation to provide for those who voluntarily expose themselves to high-risk circumstances through providing health care to the community, especially where the risk involves a life threatening illness. If we accept this argument, these 'front line' workers should be accorded priority for anti-viral prophylaxis and treatment, as should ancillary workers other than health professionals with equivalent risk in front-line settings. There would thus be health professionals in non-clinical settings who did not warrant top priority for

anti-viral prophylaxis, and similarly some essential services workers would become a second tier priority. This more nuanced approach, taking account of essential groups that must function during a pandemic and the relative levels of exposure within them, is largely the approach taken in the current Australian Health Management Plan for Pandemic Influenza⁹.

An alternative approach, and one that is not strongly reflected in the Australian Health Management Plan for Pandemic Influenza, is to allocate on the basis of greatest medical utility, or the related obligation to protect the vulnerable in society. This would include priority prophylaxis for those at high risk of severe or fatal outcomes following influenza infection, such as the elderly or those with high-risk medical conditions.

A third approach is based on recognising that a large-scale pandemic would pose great risk to the economic viability of society and that maintaining a functioning society will require an operational workforce. Using this approach, the (less defensible) strategy might be that anti-viral drugs should be prioritised to healthy adults who are in the workforce.

Whatever drug prioritisation approach is used, an unintended consequence may be personal stockpiling of anti-viral drugs purchased from unregulated sources. Persuading people not to stockpile is extremely difficult, in part because of difficulties managing individuals' perceptions of risk compared to actual risk. Unregulated personal use of anti-viral drugs may result in unnecessary or premature drug administration. This jeopardises the ability, critical during a pandemic, to minimise harms associated with either drug wastage or drug resistance. Individual prescribers may receive requests for anti-viral drugs outside public health guidelines. However, during a pandemic, a clinician's obligation to the common good supersedes that towards an individual patient.³ In a public health emergency, a preferential decision for one patient may have a significant impact on the epidemic as well as on public trust and perceptions of fairness.³ Such requests must be refused.

Access to intensive care unit beds

Under non-pandemic conditions, patients are admitted to an intensive care unit (ICU) largely on a first come, first served basis. During a pandemic there will almost certainly be a significant increase in demand for these beds as large sections of the population develop rapid onset pneumonia that requires mechanical ventilation. At some point, demand for ICU support may outstrip resources.¹¹

A first come first served system is unlikely to provide an equitable or effective use of resources in conditions of extreme scarcity. It is feasible that a worst-case pandemic scenario may be more akin to a wartime mass casualty situation. At some point, alternative strategies, be they military triage strategies or other approaches that sort and

prioritise patients for treatment, may need to be adopted.¹³ Such prioritisation criteria would need to include not only consideration of patients' acuity, but also, and arguably more importantly, the prospects of surviving. The implication is that it would not be possible to treat all patients with the level of care that is normally possible, and indeed that the very sickest patients might be accorded a lesser priority for medical treatment than those less severely ill patients with better prospects of survival. A fair prioritisation process would require that all patients, whether they have influenza or not, be subject to the same criteria for ICU admission and treatment, and that the same criteria be applied in all hospitals.

A further ethical consideration might be: how should the interests of patients already in ICU who may be deteriorating in spite of treatment, or failing to improve, be considered against those of new presenting patients also likely to die without ICU support? Ultimately, difficult decisions to refuse ICU admission, or withdraw treatment in order to allow admission of patients who are more likely to survive, may be needed. The obligation to continue providing alternative care in such circumstances remains. However, this raises questions about permissible harms, even under emergency conditions, as well as concerns about the fraught process of quantifying and comparing the potential therapeutic benefits of treatment to individuals. It also raises questions about what should be done if disputes about such triage decisions arise with patients' families, and the extent of legal vulnerabilities of health professionals making such decisions. At the least, it would extract a great personal toll on those making, and acting, on those decisions.

Should a pandemic escalate and demand on ICU beds become extremely critical, it is imaginable that implicit or explicit 'social worth' considerations might influence perceptions of appropriate use of ICU resources. The potential ramifications of giving preferential treatment to individuals on any social grounds are disturbing. While some factors, such as having dependants, are arguably a more legitimate reason for seeking preferential treatment, it is less defensible but feasible that those of high office, socio-economic standing, celebrity status or professional position might also attempt to seek special treatment. Conversely, the most socially disadvantaged in the community might be subject to exclusion and injustice.

'OBLIGATIONS TO TREAT', ALTERED STANDARDS OF CARE AND WORKFORCE ISSUES

Health professionals may be required, despite the availability of personal protective precautions, to treat patients in circumstances that pose significantly heightened personal risks, including risk of death. In addition, their professional role may jeopardise the safety of those close to them, such as partners and dependants, who may contract

disease. At what point, if any, may a health professional refuse to provide care on the basis of personal risk?

There is a commonly understood notion that health professionals' responsibilities have always entailed, and always will entail, acceptance of some degree of personal risk (from infectious disease, or violent patients), notwithstanding the obligations of employers to provide adequate occupational risk protection. This is arguably analogous to other professions, such as fire fighting, where some degree of risk is inherent to the work. However, both international and Australian professional medical and nursing codes of practice remain silent on obligations where a health professional faces significant personal risk in discharging his or her duties.^{13,14,15,16} This situation is different to that in which a health professional refuses to provide treatment on 'conscientious' grounds: where he or she has a moral objection to the proposed treatment.

Professional bodies might be encouraged in future to formulate their codes to take a middle ground approach: one that neither coerces health professionals into providing care through problematic notions of enforceable duties nor allows strongly self-interested health professionals to withdraw care unchecked. Taking on some degree of professional risk where unavoidable should arguably be encouraged as an expectation of professional practice. However, in some circumstances, health professionals should not be coerced into providing care when, in good faith, they have moral difficulty doing so under high risk conditions, in particular where they perceive that taking this risk would conflict with their other obligations (for example, to dependants).

If some health professionals refuse to work in a pandemic because of the perceived risk to themselves or their dependents, this will significantly reduce the system's ability to cope with a pandemic, especially as staff numbers will already be reduced because of staff sickness or absenteeism. Staff to patient ratios are likely to be modified as part of a response. In addition, should a pandemic become widespread, large numbers of temporary staff may be recruited, including retired or trainee staff (such as medical and nursing students) or untrained volunteers. While different models of care will provide the best possible level of supervision and care under the circumstances, using such staff will inevitably challenge supervising health professionals' sense of professional responsibility should adverse patient events occur. Thus, the challenge for the community will be the need to accept that 'best practice' is context specific, and that at some point it will no longer be reasonable to expect the standards of care that exist under non-pandemic conditions.

CONCLUSION

Preparing to ensure the successful containment of pandemic influenza requires the ongoing efforts of public health officials, government, health professionals, and the

community. This involves planning appropriate responses and contingency plans before the public health crisis occurs, and considering the ethical underpinnings of these choices. Few pandemic plans, either in Australia or overseas, articulate an ethical framework that would guide difficult decision-making during such a public health emergency. Developing an ethical framework is likely to require significant deliberative processes, but may yield clarity and aid widespread understanding and cooperation in the event of a pandemic.

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