INFLUENZA VACCINATION FOR HEALTH CARE WORKERS: TOWARDS A WORKABLE AND EFFECTIVE STANDARD

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Introduction
In an average health care facility, more than half of employed health care workers, such as nurses, do not receive an annual influenza vaccination.¹ If one of these nurses were to contract the influenza virus, she could be contagious for one to four days before symptoms began to appear, during which time she would likely continue to carry out her duties as a health care worker.² During the course of a day, this nurse might have direct physical contact with 13 patients.³ Over two days, then, more than 25 patients could be exposed to the influenza virus as a result of being treated by the nurse. Out of these exposed patients, many could be chronically ill or elderly, and therefore particularly susceptible to complications caused by the influenza virus. It is possible that some vulnerable patients could die as a result of this

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This paper was supported by a grant from the Canadian Institutes for Health Research.

³ Helen Bernard et al., “Nurses’ Contacts and Potential for Infectious Disease Transmission” (2009) 15 Emerging Infectious Diseases 1438.
exposure. And the effects of exposure could greatly increase in spread and severity in a situation of influenza pandemic.\(^4\)

In an attempt to avoid such a scenario and to protect patients, many current health care facility policies require that unvaccinated health care workers be sent home without pay upon identification of an influenza outbreak. However, such an approach is problematic, due to the epidemiology of the spread of the influenza virus. During the incubation period, a person can pass on the virus while not yet exhibiting characteristic symptoms. This makes it very likely that a health care worker could pass on an infection before realizing he is sick and removing himself from patient contact, even with immediate exclusion upon appearance of symptoms. This fact, combined with diagnostic delays in identifying influenza infections, means that by the time an outbreak is recognized, the virus would already have spread to several patients.\(^5\) Sporadic infections may also occur, not triggering an outbreak scenario, but spreading influenza from a single health care worker to a patient, or between health care workers and then to a patient.

Another approach to protecting patients from the influenza virus could be more effective. Pre-exposure immunization is the most efficient method of preventing annual outbreaks of influenza, and thus is the best method of reducing related morbidity and mortality.\(^6\) However, vaccine coverage amongst health care workers, including both those providing direct patient care as well as those providing more indirect health services, is currently alarmingly poor. Studies of health care workers in long-term care facilities and hospitals show influenza vaccination coverage rates of 26-61%,\(^7\) an


\(^5\) In fact, the definition of an outbreak requires a certain number of infected patients (for example 3), so the infection will already have spread to a number of people before protective measures are taken.


\(^7\) Coverage rates are somewhat higher among those in direct contact with patients. A recent survey of four teaching hospitals in Ontario showed an overall vaccination rate amongst emergency department health care workers of 37%. Only 26.8% of those surveyed believed that patients were at increased risk
unsatisfactorily and, many say, unacceptably low range. Reasons given for refusing the influenza vaccine include the belief that it is either ineffective or unnecessary, a perceived lack of susceptibility, concern about adverse reactions, and personal beliefs against vaccination. The unfounded attribution of influenza symptoms to the vaccine also continues to persist.

These concerns suggest that there is insufficient knowledge about the vaccine’s effectiveness and side effects, and about the potential risk of transmission to patients, indicating a failure of educational campaigns to adequately target and alleviate the concerns of employees. What policy course would do best to address this perception of inadequacy in current hospital safety regulations? The failure of education programs to improve voluntary hospital worker immunization rates has led to calls for mandatory influenza immunization policies. These policies would have the effect of increasing patient health and safety, and at the same time saving costs and reducing worker illness and absenteeism. However, health care workers have been resistant, and the legality of such an option remains uncertain.

We will discuss two broad legal issues surrounding this question. First, would such a policy be acceptable under the Canadian Charter of Rights of Freedoms, specifically under s.7? Second, could a health care facility make vaccination a requirement of its employees? We conclude with some recommendations which may make such policies more acceptable to those who object to their implementation. This paper seeks to identify through scien-

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of contracting influenza from the staff, while 58.3% believed that they were at increased risk of contracting influenza through exposure to patients. This perception is unsupported by the evidence, which shows that patients are much more likely to contract the infection from health care workers than the other way around. Inderpal Saluja, Karl. D. Theakston & Janusz Kaczorowski, “Influenza vaccination rate among emergency department personnel: a survey of four teaching hospitals” (2005) 7 Canadian Journal of Emergency Medicine 17.


9 Richard T. Lester et al., “Use Of, Effectiveness Of, and Attitudes Regarding Influenza Vaccine Among House Staff” (2003) 24 Infection Control and Hospital Epidemiology 839.

tific principles the least restrictive measures which would still accomplish the goal of preventing the spread of influenza in a health care setting. As a preliminary least restrictive measure, professional bodies should establish clearer norms of behaviour, and voluntary programs should be promoted and strengthened. We will argue, however, that mandatory policies will be warranted if voluntary policies continue to fail to achieve the desired results. Health care facilities should consider stricter measures to protect the life, health, and safety of patients, while remaining sensitive to the needs, rights, and concerns of employees.

**Background**

Influenza vaccines are designed to present influenza antigens, components of the virus, to human immune systems in a safe manner. This exposure allows the immune system to develop a memory to the antigen and be able to respond more rapidly upon subsequent exposure. The influenza virus is composed of 2 major types of surface protein antigens, hemagglutinin and neuraminidase (the H and the N of the virus – for example H1N1). These proteins, which reside on the surface of the virus, undergo minor genetic changes through the process of antigenic drift, which allows the virus to adapt over time by changing its composition. For this reason, influenza vaccines must be reformulated each year in order to produce a good match with the most prevalent strains. The recipe in any given year is determined based on surveillance of circulating subtypes, which is carried out by the World Health Organization. Although the network responsible identifies the three most virulent strains in circulation, and therefore the ones most likely to spread, there is not always a good match between the predicted strains and the ones which actually arise during the annual influenza season. This is an inevitable risk of educated guessing as to which particular strains will pose the biggest threat in any given year. And occasionally, an entirely new virus may present itself to human systems, a situation which poses particular challenges.

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11 *Supra* note 2.
13 In this scenario it is not simply a minor shift in the surface proteins but rather
The effectiveness of any influenza vaccine depends on the immune response of the vaccinated individual, his or her age, and the effectiveness of the vaccine in that year. Comprehensive levels of vaccine coverage are required, due to both the infectious nature of influenza and the fact that the vaccine will not have complete efficacy. Although elderly people can be vaccinated, the vaccine is less effective in the elderly in preventing influenza, compared to the general population. As a result of the natural mutation of the virus, previous immunity gathered by immunization or infection may not be effective against future strains, maintaining the need for the continued production and administration of annual vaccines. It is precisely because the influenza vaccine is not highly effective in every individual that there must be a high level of uptake. Its less than perfect protective capacity necessitates more substantial coverage to capitalize on the benefits of herd immunity. The goals of reducing the spread of this illness are currently not being met by voluntary vaccination programs, which may be “least restrictive,” but are suboptimal in combating the spread of influenza. This is particularly relevant in health care institutions, as influenza is an important cause of nosocomial illness and death.

Intensive programs to increase immunization compliance amongst health care workers have been somewhat successful in a narrow sense. But the rates these voluntary programs have achieved are still inadequate, with numbers like 30-50% of health care workers remaining unvaccinated, even with highly organized and aggressive campaigns. While multiple intervention approaches have been suggested to optimize rates of voluntary vaccina-

the emergence of an influenza virus with an entirely new H or N protein. This often happens when the virus recombines in another animal, for example pigs or birds, and then jumps into a human system in a form that is efficiently transmissible from person to person. When this scenario occurs, human immune systems are particularly susceptible because of the absence of previous exposure to any form of the virus. This immune system naivety allows the virus to spread more easily and cause more serious illness, creating the possibility of a new influenza pandemic.

14 Supra note 2.
15 Herd immunity is established when a large proportion of individuals within a population are immunized, making the chain of disease transmission difficult to maintain.
16 Supra note 8.
17 Supra note 6.
tion, the failure of various attempts to make these programs work has led some experts to argue for mandatory vaccination for workers in frequent contact with high-risk groups.\textsuperscript{18} This preventative measure may be the only effective way to ensure the safety and health of patients.

The failure thus far of voluntary programs to significantly increase immunization levels in health care workers is in conflict with their professional duty and ethical responsibility to do the utmost for their patients, as well as their moral imperative to protect vulnerable patients from preventable harms.\textsuperscript{19} Ethical obligations include stemming obvious modes of disease transmission, and extend to the realm of infection control and personal preventative measures.\textsuperscript{20} Whether this ethical obligation extends past efforts to increase voluntary vaccination rates to mandating vaccination against transmissible diseases is contentious, as it involves a tension between the ethics of intruding upon the autonomy of health care workers and the ethics of maintaining and protecting patient health. As we will see, this quagmire comprises the central struggle in resolving Charter disputes in this context.

Importantly, health care workers could also be considered to have a legal duty not to place patients at an undue risk of harm. Patients and families who have been negatively affected by a health care worker’s choice not to be immunized may perceive this omission as negligent.\textsuperscript{21} There could be potential liability in the hospital’s knowledge about the benefits of the vaccine and the minor risks involved, and the lack of a requirement that health care workers be vaccinated.\textsuperscript{22} The National Advisory Committee on Immu-

\textsuperscript{18} A multiple intervention approach is described \textit{supra} note 1. However, this may not go far enough in reducing patient illness due to the preventable spread of influenza virus.

\textsuperscript{19} \textit{Supra} note 6.


\textsuperscript{22} Howard Backer, “Counterpoint: In Favour of Mandatory Influenza Vaccine For All Health Care Workers” (2006) 42 Clinical Infectious Diseases 1144. Backer was responding to an article by Finch in opposition to mandatory influenza vaccinations for health care workers. While Finch supports voluntary methods, Backer points out the lack of success of these programs. Other objections by Finch are the possibility of legal challenges and liability issues in the implemen-
nization (NACI) goes so far as to say that the refusal of health care workers with direct patient contact to be immunized against influenza leads them to have failed in their duty of care to patients. This is a strong normative statement which could hold weight as evidence of professional standards in a court. Thus hospitals and similar institutions may already have a duty, as well as economic incentives, to implement policies which prevent the internal spread of influenza.

While this issue of private legal duty is enormously complex and beyond the scope of this paper, it should be raised as further support for increasing the standards for patient protection in health care facilities, including through the replacement of influenza vaccination policies which have been shown to be ineffective and insufficient. While mandatory vaccination would be the most comprehensive approach to solving this problem, it would also raise a number of complex legal issues. An alternative approach which might be implemented as a first strategy is cooperation of professional regulatory bodies, such as colleges of physicians, in designing accreditation and compliance standards. This might sidestep the issue of Charter challenges and generate higher acceptance levels of the policies within the profession. It would be wise for professional bodies to set forth a goal of near complete levels of immunization coverage for health care workers as “soft law,” through ethics policies, codes, and guidelines. These standards may not have a definite legal status, but they may still affect the behaviour of health care professionals, and have the possibility of later becoming legal norms or evidence of customary practice. However, if politics prevent such strategies from moving forward, or if they fail to increase vaccination rates, it would be necessary to move forward with facility or statute based vaccination requirements for employment in health care environments.


Legal Issues

Scope of the Charter

Despite the potential benefits to patients (and workers) of mandatory health care worker immunization policies, there could be legal barriers to the introduction of these programs. Any such program would likely be challenged by health care workers or their representatives as a violation of rights under the Canadian Charter of Rights and Freedoms, which guarantees specific rights and freedoms of citizens against state interference. If a court determines that mandatory immunization violates these rights, the state actor that imposes the requirement must provide sufficient justification for the infringement. Section 32(1) states that the Charter applies only to government action,\(^\text{25}\) though a body exercising statutory authority is bound by the Charter even if independent of the government.\(^\text{26}\) For this reason, a Charter challenge cannot normally be brought against an ordinary private employer unless it is exercising statutory authority or implementing government policy. Because of this limitation, within the health context, the Charter can only be used to challenge health-related laws or actions of governmental bodies, such as local health authorities, or actions of private institutions carrying out the will of these bodies.\(^\text{27}\)

Publicly funded hospitals are not subject to the Charter in their general daily operations. In Stoffman v. Vancouver General Hospital, it was determined that a hospital’s mandatory retirement policy was not subject to Charter review because provincial hospital legislation does not govern routine aspects of hospital management, such as employment issues.\(^\text{28}\) However,
hospitals are subject to Charter scrutiny in their application of government laws or policies, as determined in Eldridge v. British Columbia. In this case, the plaintiffs launched a Charter challenge to hospitals that refused to provide sign language interpretation services to deaf patients. The Supreme Court, ruling in favour of the plaintiffs, determined that hospitals are required to comply with the Charter when they implement government objectives such as providing medically necessary services under public health insurance legislation. After this decision, it is less likely that a hospital could escape Charter scrutiny by labeling itself as a “private entity” if it is carrying out government policies.

Thus, the Charter will come into play in two circumstances. The first is if the mandatory vaccination policy is enforced at a level higher than the private workplace, such as by a provincial statute which mandates influenza vaccination for all health care workers. This may occur, for example, by order of a Medical Officer of Health pursuant to powers in a provincial public health statute. This scenario is not so far fetched; in August 2009, the New York State Health Department adopted an emergency order requiring health care workers to be immunized against both seasonal flu and H1N1. The second is if the facility’s vaccination policy is categorized not as a routine aspect of

30 See e.g. Ontario’s Health Protection and Promotion Act, R.S.O. 1990, c. H.7, s. 22 (1), which provides that “A medical officer of health, in the circumstances mentioned in subsection (2), by a written order may require a person to take or to refrain from taking any action that is specified in the order in respect of a communicable disease.”
31 The New York State Department of Health cites as its reason for the mandatory immunization policy the lack of success of its quite extensive voluntary programs: “Voluntary programs to increase HCP (health care professional) influenza vaccination rates have not resulted in adequate vaccination levels. For the past decade, the New York State Department of Health has dedicated multiple resources to promote voluntary HCP vaccination programs in public health and private arenas, including hospitals, clinics, and local health organizations. Initiatives have included educational materials, toolkits, a department-wide workgroup, outreach to healthcare partners, and public service announcements. However, these programs have failed to substantially increase HCP vaccination rates.” See Health Care Personnel Influenza Vaccination Requirements, online: <http://biotech.law/lsu.edu/blaw/H1N1-2009/2009-08-13_health_care_personnel_influenza_vaccination_requirements.pdf> at 19.
hospital management, as in Stoffman, but rather as the implementation of a broader government policy, as in Eldridge. Once a hospital is involved in carrying out a governmental objective, such as providing medically necessary services, it must do so in a Charter-compliant fashion.

The Eldridge decision indicates that conformity with the Charter is necessary when the planning and delivery of government funded health care services are involved. Such services must be provided in a non-discriminatory manner. It is not certain, however, whether this constitutional obligation extends to hiring and other employment policies which have as their goal protecting the quality of health care services. The question of whether mandatory vaccination as a condition of employment with a private health care facility will be susceptible to Charter challenge will depend on contextual circumstances and the degree to which the particular policy is related to governmental objectives and policy.\(^{32}\) The Eldridge decision is significant, as it expanded the inquiry of whether s. 32(1) could apply to hospitals to include the nature of the activity or decision giving rise to a Charter claim, regardless of whether other activities are private in nature, thereby requiring attention be paid to the activity itself and its nature.\(^{33}\) While in Eldridge the finding of Charter application was in the context of patients claiming discrimination in access to services, such an inquiry might also be carried out where health care workers are claiming individual rights. On its face, however, the latter appears to be less “governmental” in nature and less compelling in terms of the goals of increasing health equity.

**Section 7: Right to Life, Liberty, and Security of the Person**

If mandatory influenza vaccination of health care workers were required by law, or if hospital policies were found to be implementing government policy objectives, health care workers could bring a Charter challenge. The right to refuse unwanted medical treatment, and therefore invasion of bodily integrity or personal security, is protected by section 7 of the Charter, which provides that: “Everyone has the right to life, liberty, and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice.”\(^{34}\) There is an internal limit on this

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32 Supra note 29 at para. 44.
right; even if the impugned policy is shown to impinge on a person’s security interest, this deprivation must be contrary to the principles of fundamental justice to be unconstitutional.

Thus there are two stages to a s. 7 analysis: the first inquires as to the values at stake with respect to an individual, while the second considers the possible limitations of these values when one considers how they relate to fundamental justice. While in the past s.7 was considered as a guarantee of procedural requirements in the criminal context, courts have since expanded the scope of s. 7. For example, in the recent and controversial Chaoulli decision, which dealt with wait times in the public health care system, six out of the seven judges at the Supreme Court in the case agreed that s.7 applied, although the judgment was delivered on the basis of the Quebec Charter and not the Canadian Charter. So while s. 7 applies outside the criminal justice system, there is debate over the extent to which it applies in non-criminal cases in a health context. The issue of exactly how s. 7 will be interpreted in adjudicative or administrative (but non-criminal) proceedings remains unresolved, but the weight of the case law supports a broader application of s.7, and so we will assume for the purposes of this paper that the Charter would indeed apply in this context.

**Intrusion on Security of the Person**

In the case of a Charter challenge against mandatory vaccination policies, health care workers or their representatives would likely claim that the unwanted medical treatment violates their right to security of the person. Courts have determined that legislation that impedes access or constrains personal decisions about health care may infringe s. 7 rights to personal security. For example, in *R. v. Morgentaler*, the majority of the Supreme Court of Canada struck down Criminal Code provisions that restricted access to abortion. The legislative scheme violated women’s personal security by imposing physical and emotional harm, and was not in accordance with the principles of fundamental justice. Similarly, in *Rodriguez v. British Columbia*, criminal prohibitions against assisted suicide were found to infringe personal security,

37 Supra note 27 at 544.
39 Supra note 35.
although the majority of the Court found that the limitation accorded with principles of fundamental justice. Sopinka J. observed: “There is no question then, that personal autonomy, at least with respect to the right to make choices concerning one’s own body, control over one’s physical and psychological integrity, and basic human dignity are encompassed within security of the person, at least to the extent of freedom from criminal prohibitions which interfere with these.”

Most recently, the Supreme Court of Canada ruled that child protection legislation that overrides a minor’s health care choices impinges on liberty interests and personal security.

The right to make choices about medical treatment is also fundamental to the common law doctrine of informed consent. As the Ontario Court of Appeal stated in Fleming v. Reid, a s. 7 challenge to involuntary mental health treatment:

The right to determine what shall, or shall not, be done with one’s own body, and to be free from non-consensual medical treatment, is a right deeply rooted in our common law. This right underlies the doctrine of informed consent. With very limited exceptions, every person’s body is considered inviolate, and, accordingly, every competent adult has the right to be free from unwanted medical treatment.

The Court went on to link this common law right with s. 7:

The common law right to bodily integrity and personal autonomy is so entrenched in the traditions of our law as to be ranked as fundamental and deserving of the highest order of protection. This right forms an essential part of an individual’s security of the person and must be included in the liberty interests protected by s. 7. Indeed, in my view, the common law right to determine what shall be done with one’s own body and the constitutional right to security of the person, both of which are founded on the belief in the dignity and autonomy of each individual, can be treated as co-extensive.

40 Ibid. at para 21.
These cases highlight the importance of autonomy, choice over medical treatment, and avoidance of state intrusion onto bodily or psychological security. While immunization can be conceptualized as a public endeavor, it can also be thought of as a medical intervention performed upon healthy individuals who must personally bear its consequences, thus creating an expectation that it will not be administered without informed consent. Health care workers who oppose vaccination could be expected to rely on this jurisprudence to support their claim that mandatory medical treatment violates their personal security rights under s. 7.

**Principles of Fundamental Justice**

Even if there has been an intrusion on the life, liberty, or security of the person, such an intrusion will not violate s.7 of the *Charter* if it accords with the principles of fundamental justice. The scope and content of these principles are to be found in the basic tenets of the legal system, rather than in the realm of more general public policy. Instead of acting as broad generalizations about ethical or moral beliefs, these principles are meant to be applied and articulated with some precision, being vital or fundamental to our societal notion of justice. The particular context of the case must be identified to determine which principles of fundamental justice are implicated.

In this case, an applicable, identified principle of fundamental justice is that a law that affects the life, liberty, or security of the person cannot be arbitrary. Arbitrariness arises where a law “bears no relation to, or is inconsistent with, the objective that lies behind it.” Thus, one must look not only at the practice of mandatory vaccination by itself, but also at the rationale behind the practice and the principles which underlie its enforcement. Vaccination of health care workers is related to the state interest of

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45 Supra note 35 at para. 26.
46 Many principles of fundamental justice deal with procedural aspects of the administration of justice, such as the principle against self-incrimination and the right to a fair hearing, principles which are not easily relatable to the issue at hand.
47 Supra note 36 at para. 128.
48 Supra note 35 at para. 94 (McLachlin J., as she then was, in dissent).
protecting the vulnerable, and represents a commitment to the societal concern for the importance of caring for the sick and elderly. The goal of a law or policy of mandatory vaccination for health care workers is clearly related to the objective of providing sufficient and effective health care. It is not a mere theoretical connection, but is supported by evidence and scientific knowledge. The health care worker claimant would have the onus of proving that the measure of vaccinating health care workers bears no real relation to the goal or is manifestly unfair. This might prove difficult, considering the large body of evidence suggesting that the current policies result in low vaccine coverage and resulting high morbidity and mortality due to influenza infection.

In Rodriguez, the Court determined that the prohibition on assisted suicide deprived Rodriguez of her autonomy and impinged on the security of her person, as a result of both bodily and psychological interference by the state. Even though the security interest was engaged, however, the deprivation of this interest was determined to be in accordance with the principles of fundamental justice, in part because the Code provision protects the security of other vulnerable individuals who may be induced in moments of weakness to commit suicide. Thus the Rodriguez case, while not declaring “protection of the vulnerable” a principle of fundamental justice, highlights the fundamental importance of this concept. Due to the “great difficulty in creating appropriate safeguards” to prevent against possible abuses, the law at hand was upheld as not arbitrary or unfair, and not in opposition to fundamental values at play in society.

A similar analysis applies to health care worker vaccination policies, though in the opposite direction; it is the imposition of a policy, rather than the refusal to remove a criminal prohibition, that will protect the vulnerable. The Court in Rodriguez declared that “before one can determine that a statutory provision is contrary to fundamental justice, the relationship between the provision and the state interest must be considered.” That is, the arbitrariness of a limit arising from a piece of legislation must be assessed in light of the state interest and the societal concerns it reflects. The main societal

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49 See discussion of evidence supporting the connection between mandatory vaccination policies and promoting patient health in s.1 analysis below.
50 Supra note 35 at para. 34.
51 Ibid. at para. 60.
52 Ibid. at para. 32.
concern lying behind the assisted suicide provision and a mandatory influenza vaccination policy for health care workers is the sanctity of human life and, in the case of the latter, actually promoting health and easing burdens on the medical and long-term care systems. The state interest behind vaccination policies is both valid and well-founded, and this relationship would carry much weight in a s.7 analysis.

Further, when dealing with s.7 rights, liberty and security are not unconstrained. The state may impose reasonable restraints on individual behaviour for the common good, without implicating Charter scrutiny. The rights of an individual can only extend so far as they do not restrict or hinder the security, liberty, or life of others. In Canadian AIDS Society v. Ontario, the Court ruled that mandatory reporting of HIV cases under the provincial public health statute implicated privacy rights protected under ss. 7 and 8 of the Charter, but found the intrusion accorded with principles of fundamental justice: “In the balancing of the rights of the state and the individual greater weight will be placed upon the rights of the individual in the context of a criminal proceeding. In this civil suit, although due consideration will be given to the privacy rights of individuals, the state objective of promoting public health for the safety of all will be given great weight.”

The overriding benefits of high levels of vaccination among health care workers militate against a finding that mandatory vaccination policies would violate Charter rights. While a health care worker’s rights may be infringed, the life, liberty, and security rights of patients to remain healthy and in a safe environment must also be weighed when determining whether the infringement was in accordance with the principles of fundamental justice.

There are also ethical arguments which may play into a consideration of whether policies are in accordance with the principles of fundamental justice. Anikeeva et al. identify strong ethical principles of non-maleficence (first do no harm) and beneficence (acting in the interest of the patients) in

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53 Section 8 guarantees the right to be free from unreasonable search and seizure.
favour of requiring mandatory vaccination. However, they also note strong arguments that health care workers have rights to make choices regarding their own health care and to personal autonomy. The authors concluded that a non-compulsory program would be ethically preferable to a mandatory program, basing this conclusion on the coercive nature of the programs and the possibility of liability suits arising as a result of side effects of the vaccine. While the coercive nature of the program may make the program less appealing from the lens of personal autonomy, the picture looks different when considered from the patient and public health perspective, and so the issue is not clear cut. And while side effects pose problems, as will be discussed later, there are methods which could help alleviate these negative effects, such as improved adverse reporting systems and post-marketing surveillance programs.

Most importantly, the authors, despite their conclusion on the ethics of the matter, recognize that it is unlikely that voluntary programs will ever manage to achieve vaccination rates amongst health care workers sufficient to meet the countervailing ethical obligations of beneficence and non-maleficence. This difficulty creates a tension between the evident value of increasing vaccination rates and the importance in our society of personal freedom and respect for autonomy. While the authors conclude that the autonomy of the health care workers should trump, the Supreme Court may be more likely to find that in a confrontation of s.7 rights of health care workers versus patients, the rights of patients should trump, as they are vulnerable and have no choice in the matter. This ethical conflict is not easily resolved, but may come into play on consideration of the principles of fundamental justice, and certainly in any state justification of a mandatory vaccination policy under s.1.

Section 7 and Mandatory Vaccination Policies

A challenge against a mandatory vaccination policy under s. 7 succeeded at the trial level in the military context, in the case of Sgt. Michael Kipling who refused anthrax vaccination for personal reasons, but the decision was short-lived. The Chief Military Judge found that a forced vaccina-

tion program with threat of disciplinary proceedings for noncompliance violated s. 7 of the Charter, infringing Kipling’s right to life, liberty, and security of the person. On appeal, however, it was determined that s.7 had not been correctly applied in law and regardless was not a proper matter for a plea in bar of trial, resulting in the trial decision being overturned. The Kipling challenge, being ultimately unsuccessful, was at any rate fundamentally different from the case of mandatory influenza vaccination for health care workers. Anthrax is not a communicable disease which spreads easily from an infected person to an uninfected person. Anthrax vaccination is mandated in the army for personal protection, to ensure the safety of the soldiers receiving the vaccinations themselves and to secure the viability of their mission. Health care workers, in contrast, are employed with the intention of maintaining the health and safety of patients under their care. Influenza, being an infectious disease which spreads easily and can infect weak and ill individuals, affects not simply the safety of the individual receiving the vaccine, but the safety of those in the health care system who rely on a high standard of care to ensure that health care workers are fit for their employment roles.

While the issue has not yet reached the higher courts, there have been some arbitration board cases discussing the application of s.7 in the context of mandatory vaccination in health care facilities. In St. Peter’s Health System v. C.U.P.E. (2002), the employees of a chronic care geriatric facility public hospital succeeded in their grievance against their employers’ mandatory influenza vaccination policy. The deciding factors were that suspending employees for refusing to undergo medical treatment was a violation of their s.7 rights, and also that there was a lack of statutory authority for the employer’s actions, because the Medical Officer of Health was not contacted nor was contractual authority bargained for in the collective agreement.


The more recent arbitration board case of *Health Employers Assn. of British Columbia v. British Columbia Nurses’ Union* (2006)\(^{59}\) has considered *St. Peter’s* as being incorrect. The Board declared that a similar policy did not violate s.7 *Charter* rights, and decided for the hospital based on authority in the collective agreement and the finding that the policy itself was reasonable. Long submissions on the application of s. 7 of the *Charter* were presented. The Board found that s. 7 of the *Charter* had not been violated, due to the nature of the choice to pursue other employment or to suffer minor economic loss, and criticized the *St. Peter’s* decision for omitting to discuss this issue. *St. Peter’s* focused solely on the idea of “forced medical treatment” as assault or battery, rather than considering whether a choice exists due to the non-criminal nature of the sanctions. Section 7 of the *Charter* does not protect economic rights, and does not extend to the right to exercise a chosen profession or employment, and so the decision took a narrower view of the matter than was warranted.\(^{60}\)

The result in this case reveals the crossover between the *Charter* issues and the separate employment issue of whether a health care facility can require its workers to undergo vaccinations. The opinion of the Board in *B.C. Nurses Union* appears to support the position that *Charter* issues will not be implicated in purely facility based employment policies on influenza vaccination, especially where they have been discussed and bargained for in a collective agreement. Thus, facility based policies may be a viable alternative to statutorily mandated immunization policies, though their susceptibility to *Charter* challenge has not yet been decided.

**Conclusion on s.7**

It is unclear whether bodily integrity or security of the person would be considered to be infringed by mandatory vaccination policies, as this question has not been sufficiently dealt with outside of the criminal justice

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60 A seminal case considering whether section 7 protects economic rights is *Reference re ss. 193 & 195.1 (1)(c) of the Criminal Code (Man.),* also known as the Prostitution Reference, [1990] 1 S.C.R. 1123, [1990] S.C.J. No. 52. Lamer J. (as he then was) concludes that section 7 is not concerned with economic rights, and also that the rights encompassed in s.7 do not extend to the right to exercise a chosen profession.
context. Assuming for the sake of argument, though, that integrity or security of the person would be considered infringed by mandatory vaccination policies, in the health care context these infringements are likely to be considered in accordance with the principles of fundamental justice. This is because of the importance of the sanctity of life and security of other persons in s.7 values, the state’s legitimate interest in protecting the vulnerable, and the fact that the law would further these goals and values. Principles of fundamental justice, such as avoiding arbitrariness in lawmaking, do not seem to be offended by a mandatory vaccination program which is targeted and supported by evidence. While state interference with personal choices concerning one’s own body and control over physical integrity may engage a person’s bodily security interest, burdens which are imposed on health care workers may be in accordance with the principles of fundamental justice when the value of patient life and safety is considered.\footnote{Supra note 20.}

**Section 1: Justified Limits**

Section 1 of the *Charter* declares that the rights guaranteed in the *Charter* are not absolute, but are subject to reasonable limits which are prescribed by law and can be demonstrably justified in a free and democratic society.\footnote{Supra note 34, s.1.} Section 1 ensures that where the state has compelling and legitimate reasons to infringe rights, it has the authority to act, though these infringements must be proportional and justified. If s. 7 is found to be infringed by a mandatory vaccination policy, the court would go on to consider whether this breach is nevertheless justified under s. 1. There is a caveat, however, in that it is unclear whether a law that does not conform to the principles of fundamental justice could ever be upheld under s.1.\footnote{Peter W. Hogg, *Constitutional Law of Canada*, 5\textsuperscript{th} ed. (Scarborough: Thomson Carswell, 2007).} While it has been suggested that the answer to this question is no, or at least only yes in rare and unique cases, before finding that s.7 has been breached the Court does routinely go through the steps of s.1 justification. The Supreme Court has repeatedly noted that a breach of s.7 could only be justified in extraordinary situations,\footnote{Federated Anti-Poverty Groups of B.C. v. Vancouver (City), 2002 BCSC 105, [2002] B.C.J. No. 493.} but perhaps a case delicately balancing public health and individual choice could be a contender. Indeed, in *Toronto v. Deakin*, an Ontario Court

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\footnote{Supra note 20.}

\footnote{Supra note 34, s.1.}

\footnote{Peter W. Hogg, *Constitutional Law of Canada*, 5\textsuperscript{th} ed. (Scarborough: Thomson Carswell, 2007).}

ruled that compulsory quarantine of a person with tuberculosis violated s. 7, but was justified under s. 1: “What was done to [the patient] was carried out for the protection of public health and the prevention of the spread of tuberculosis, a disease that [a medical specialist] described as extremely contagious.” The answer may also be different to this question if we are dealing with a regulatory or administrative, rather than a criminal, situation.

Regardless of whether a s.7 violation could be upheld under s.1, it is worthwhile to proceed through the s.1 steps in analyzing whether mandatory influenza vaccination for health care workers is acceptable. The s.1 analysis provides a useful framework for distinguishing between different aspects of the argument and shows how, on many levels, the balance of favour leans towards patients and elderly care home residents who are not adequately protected by current policies.

The first question is whether the limit is prescribed by law at all, a requirement of the s.1 analysis. The rule must be expressly provided for, or necessarily implied, by a statute or regulation. Whether this limitation on rights, through the invasion of bodily security of health care worker employees, is even capable of being justified depends on the authority the health care facility has in this regard. If a mandatory vaccination policy is introduced by legislation, or directly related to a government requirement, the policy will be prescribed by law.

The framework for analyzing which limits are justified was laid out in the Oakes test. The objective pursued by the state must be pressing and substantial, and the means chosen must show a rational connection to that objective, be minimally impairing of rights, and be proportional to the degree of infringement of rights. It must also be demonstrably justified, and in this scenario it will be important to present scientific evidence and theories which support the proposition that these measures are warranted and necessary in the circumstances.

**Pressing and Substantial Objective**

The first issue to be addressed is whether the objective of the law is to deal with concerns of a pressing and substantial nature. This is clearly

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the case, as influenza virus causes respiratory illnesses affecting millions of Canadians every year.\(^{68}\) It is a serious infectious seasonal disease resulting in significant morbidity and mortality, and is the eighth leading cause of death among adults in the United States.\(^{69}\) Most people recover fully in a short period of time, but in high-risk groups, influenza infection can lead to severe complications of underlying diseases, pneumonia, and death. It is particularly dangerous to those who are very young, elderly, or suffering from medical conditions such as diabetes, heart disease, and cancer.\(^{70}\) These groups make up a large proportion of the residents of hospitals and long-term care facilities, which without preventative measures could act as breeding grounds for the influenza virus. In past cases where laws have been upheld under s.1, they have been laws responding to a need to protect rights of others, and to ameliorate negative effects on disadvantaged groups.\(^{71}\) For these reasons, the protection of elderly and chronically ill patients from nosocomial influenza infection is an important health-related goal and passes this first stage of the test.

**Rational Connection**

The second phase of the *Oakes* test asks whether there is a rational connection between the limit on *Charter* rights and the proposed objective. The government bears the burden of proof in a s.1 justification that such a rational connection exists. This raises problems of an evidentiary gap between the means of imposing mandatory influenza vaccination on health care workers, and the end of decreasing patient morbidity and mortality due to influenza infection caused by the health care workers themselves.\(^{72}\)

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70 Supra note 2.
71 For example *Irwin Toy Ltd. v. Quebec (Attorney General)*, [1989] 1 S.C.R. 927, [1989] S.C.J. No. 36. In this case, provisions banning children’s advertising were found to infringe s. 2 (b) of the *Charter*, freedom of expression, but were found to be justified under s.1.
72 This is similar to the problem raised in *RJR-MacDonald Inc. v. Canada (Attorney General)*, [1995] 3 S.C.R. 199, [1995] S.C.J. No. 68 [*RJR-MacDonald* cited to S.C.R.]. In that case, there had to be some evidence to show that tobacco adver-
Evidentiary standards for establishing associations vary across medicine, law and public health. Medicine has perhaps the most conservative approach to establishing causation, one likely rooted in the philosophy of “first do no harm.” The evidence-based medicine approach relies upon a rigid hierarchy of evidence, ranking the quality of studies from those most susceptible to systematic error (bias) to those least susceptible to these forms of error. Establishing an association requires 95% certainty that any observed association did not occur by chance.

Based on this conservative approach there is conflicting scientific evidence on whether influenza immunization of health care workers provides benefits to patients. A review published in 2006 stated that there is “no credible evidence” that vaccination of health care workers caring for the elderly affected influenza complications in their patients. However, this review only considered two randomized controlled trials (RCTs) and one cohort study, all of which had methodological problems which make the conclusions less robust. The first RCT study (Potter et al., 1997) looked at chronic care hospital staff and discovered that influenza vaccination of the staff resulted in significantly reduced mortality and infections in patients. The second RCT (Carman et al., 2000) showed a somewhat different result, with substantial decrease in overall mortality among patients after influenza

75 The cohort study considered was Hitoshi Oshitani et al., “Influenza Vaccination Levels and Influenza-like Illness in Long-term-care facilities for Elderly People in Niigata, Japan, During an Influenza A (H3N2) Epidemic” (2000) 21 Infection Control and Hospital Epidemiology 728.
vaccination of health care workers, but no associated decrease in non-fatal influenza infection as shown by virological surveillance.\(^{77}\)

However, it is important to note that the Carman study only achieved a vaccine uptake of 50% in the health care workers. The Potter study had achieved a slightly higher level of vaccine uptake, at 60%. These remain low percentages. More recent randomized controlled trials which were not included in the analysis have found that vaccinating care home staff can prevent deaths, use of health services, and influenza-like illness in residents.\(^{78}\) Higher effects were seen in the year of higher influenza activity, consistent with the hypothesis that influenza was the cause of these illnesses and deaths. Again, the vaccine coverage was still quite low, just under 50%. This evidence on the whole provides at least a reasonable basis for concluding that there is a rational connection between imposing mandatory influenza vaccination for health care workers and protecting patient health and safety. It also highlights the challenges of getting workers to receive vaccinations voluntarily.

An examination of additional available evidence further strengthens the support for a rational connection between vaccination of health care workers and reducing patient disease. An observational study found significantly reduced influenza-like illness and outbreaks in nursing homes with higher rates of vaccine uptake by staff, after controlling for vaccine uptake by the residents themselves.\(^{79}\) And an ecological study in Japan provides evidence for the potential of surrogate benefit, where immunizing one population can provide benefit for another population. In this study the initiation of an influenza vaccination program for school children was associated with a significant reduction in mortality rates from influenza among older persons.\(^{80}\)


\(^{78}\) See Andrew C. Hayward \textit{et al.}, “Effectiveness of an influenza vaccine programme for care home staff to prevent death, morbidity, and health service use among residents: cluster randomised controlled trial” (2006) 333 BMJ 1241.

\(^{79}\) Reiko Saito \textit{et al.}, “The Effectiveness of Influenza Vaccine Against Influenza A (H3N2) Virus Infections in Nursing Homes in Niigata, Japan, During the 1998-1999 and 1999-2000 Seasons” (2002) 23 Infection Control and Hospital Epidemiology 82.

When the immunization of school children program was discontinued, the mortality rates increased. This salubrious community effect between healthy immunized individuals and a more vulnerable group serves as an analogy for the potential surrogate benefits of immunizing health care workers.

Therefore, even with a conservative, evidence-based approach, there is support for a rational connection between influenza vaccination of health care workers and reduction in patient illness. This could be disputed by experts arguing the contrary viewpoint who may state that this connection is not definitive. However, we would argue that the evidence-based approach is perhaps the wrong standard for establishing a rational connection. The burden on the government for s.1 justification is flexible, and need not be rigorously based on even a civil standard of proof, which already is much lower than the conservative medical standard. Rather, the evidentiary requirements for the balancing test “vary substantially depending upon both the nature of the legislation and the nature of the right infringed.” In other circumstances in which rights have been limited for a legitimate objective, such as in the hate speech and pornography cases, the government has been unable to show definitive evidence of harm, due to the nature of the social harms and resulting impossibility of providing conclusive evidence. The Court accepted that if there is some evidence in favour they will proceed and enforce the “reasonable basis test.”

In epidemiology, absence of evidence is not the same thing as evidence of absence. That is, even if there is not clear proof, this does not mean a cause and effect relationship does not exist between two factors. We argue that a preponderance of evidence standard, which would favour influenza vaccination of health care workers, or a standard based on the precautionary principle would be more appropriate. At the population level, waiting for conclusive evidence could result in a potentially catastrophic health disaster. Thus, public health is increasingly relying upon the precautionary principle as a guide. This principle essentially states there need not be complete evidence of risk to implement policies and strategies that will protect individuals and society from the risk. An example of this is the “tainted blood tragedy,” during which about 1000 people who received blood transfusions

81 Supra note 72 at para. 64.
contracted HIV, and 30,000 others contracted hepatitis C. The report on this public health disaster by the Krever Commission highlighted the role evidence should play in formulating health policy. Reliance on high-level evidence before action can be taken may be effective in guiding clinical decision making, but is simply inappropriate for protecting public health safety.

The precautionary principle was discussed in relation to public health more recently, as a result of the 2003 outbreak of SARS. Justice Archie Campbell’s report stressed the finding from the Krever Commission that reasonable efforts to reduce risk need not wait for scientific certainty. The spread of SARS revealed the practical importance of implementing the precautionary principle in crisis decision making. A Vancouver hospital was much more successful at containing SARS through use of high level precautions than in Ontario, where a devastating outbreak resulted from less than adequate containment measures. As a result of these findings, the Commission strongly recommended that the precautionary principle be expressly adopted as the guiding principle for any future infectious disease crisis. In Ontario, the precautionary principle is now included in the *Health Protection and Promotion Act*; it is to be considered where the Chief Medical Officer of Health believes there exists or may exist an outbreak of an infectious or

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85 In the blood case, measures which should have been implemented were delayed because of the lack of definitive evidence of risk from randomized trials. This caused the potentially avoidable infection of thousands of people with dangerous blood-borne infectious diseases. The precautionary approach has since been incorporated into the reformed blood system with success. Although there was no clear evidence that variant Creutzfeldt-Jakob disease could be passed through blood transfusions, measures were still undertaken to prevent individuals who could have been infected from donating blood. This precautionary measure turned out to be well-advised, as blood transfusion was eventually found to be capable of transmitting the infection.

communicable disease.\textsuperscript{87} Although this is Ontario legislation, it is a strong case for the legally adopted use of the precautionary principle in public health.

The precautionary principle as described here is a broad conception of the principle. While there are differing views on how narrowly the principle should be defined and applied, the central concept is the same: acting on incomplete but compelling evidence, before irreversible damage is done. This approach appears to have been successful in combating the West Nile virus in Ontario in 2003.\textsuperscript{88} Using the precautionary principle or preponderance of evidence test, the existing scientific evidence would support the existence of a rational connection between influenza immunization of healthcare workers and reduced morbidity and mortality in patients.

\textit{Minimal Impairment}

The third stage of the \textit{Oakes} test states that to be reasonable, a limitation should constitute a minimal impairment of \textit{Charter} rights. The narrower law which is now in place, which establishes that unvaccinated employees be sent home upon identification of an influenza outbreak, is not sufficient to protect vulnerable patients from nosocomial influenza. Although this policy of sending unvaccinated employees home in case of an outbreak is a less intrusive measure, it is simply not adequate. The government, or a private institution acting on governmental authority, is permitted to employ the least intrusive means which will allow accomplishment of its goals. Thus more restrictive means may be legitimately used to achieve the objective, if the laxer policies that are currently in place are not sufficient.

Spreading of influenza occurs easily from person to person through coughing and sneezing, which eject droplets containing the virus into the

\textsuperscript{87} \textit{Health Protection and Promotion Act}, R.S.O. 1990, c H.7, s. 77.7 (2).

\textsuperscript{88} See Dayna Nadine Scott, “When Precaution Points Two Ways: Confronting ‘West Nile Fever’” (2005) 20 C.J.L.S. 27. This paper discusses the use of the precautionary principle in solving a dilemma facing public health officials in Toronto in 2003: whether or not to spray pesticides in an attempt to kill mosquitoes carrying the West Nile virus. The precautionary approach taken to the West Nile problem appears to have struck the correct balance. While the paper concludes that the principle may not always be so effective at dictating the “right” course of action to take, it shows promise as a “flexible philosophy of action, a set of elements in a framework for the consideration of uncertainty, alternatives, benefits, deliberation, and evaluation.”
air. However, the disease can be infectious earlier than symptoms appear, and thus a person can spread the virus without even being aware that he is infected. The ease of transmission, and the fact that the disease may be passed on before symptoms appear, indicate that prevention is a superior strategy to reduce the danger to particular groups. In actuality, by the time an outbreak has been identified, it is already too late to prevent its spread. Sending health care workers home once an outbreak has already been identified, in conjunction with prescribing antiviral medication, may be useful as a precaution, but simply is not a practical means of preventing large-scale transmission.

The NACI states unequivocally that influenza vaccination of health care workers with direct patient contact is an essential component of the standard of care for protecting the health and safety of their patients. As we will discuss in the conclusion, many concerns regarding vaccine safety and accountability can and should be dealt with through innovations and renovations to the existing vaccine system in Canada. Measures should be taken to identify adverse effects, reduce the chances of their occurrence and make the vaccine program as safe as possible. But in order to effectively reach the objective of preventing the spread of influenza in nosocomial environments, a stronger means such as mandatory vaccination policies must be introduced.

To achieve a policy which is minimally impairing, it is also important to introduce appropriate exemptions. Whether after analysis the policies are determined to be governmentally produced or private, allowing medical exemptions would be necessary for those with contraindications, such as a severe egg allergy predisposing a negative reaction to vaccine components. In addition, it would likely be wise to acknowledge religious exemptions, as evidenced by an affidavit of conscience or belief, in order to avoid any freedom of religion (s. 2(a)), or religious discrimination (s. 15) Charter challenges (if governmental) or human rights complaints (if private). It is more contentious to allow “philosophical” exemptions, due to the murky nature of the category, although it may be the case that philosophical exemptions masquerade as religious exemptions when philosophical exemptions are not explicitly available. It may, however, open the floodgates to “conscientious objections” on the basis of ill-founded or misapprehended information, which is a result that public health authorities should seek to avoid. While a

89 Supra note 2.
90 Supra note 23.
91 It is more contentious to allow “philosophical” exemptions, due to the murky nature of the category, although it may be the case that philosophical exemptions masquerade as religious exemptions when philosophical exemptions are not explicitly available. It may, however, open the floodgates to “conscientious objections” on the basis of ill-founded or misapprehended information, which is a result that public health authorities should seek to avoid. While a
Proportionality

Proportionality is the final part of the Oakes test and is a necessary part of a s. 1 justification. To be a legitimate intrusion into the rights of citizens, there must be proportionality between the benefits of a limitation and its harmful impact. In terms of public health, which deals with the health of whole populations rather than individuals, the benefits outweigh the risks. But the influenza shot may not appear particularly beneficial to young, healthy individuals, where the personal risks seem to outweigh the personal benefits.\(^9\) One reason why health care workers under voluntary programs may choose not to receive influenza vaccination is that cost-benefit analysis appears to lean in favour of no vaccination from the perspective of the individual. However, the accuracy of this perception depends largely on whether the majority of people within the community are immunized.\(^9\) The “free rider” problem suggests that individuals are less likely to assume personal risks related to vaccination when they expect to be protected by herd immunity.\(^9\) But if enough individuals make this choice, it could lead to the breakdown of herd immunity, due to declining numbers of immunized people in the population, and a resulting increased likelihood of disease contraction. This is especially exaggerated in a context where immune compromised patients comprise the “population.”

Regardless of the personal benefits, for health care workers it is a duty and a condition of employment that they do not jeopardize patient safety. They cannot be free riders, because it is the elderly and vulnerable patients who are relying on widespread vaccination within the health care worker community. This situation parallels the case of dentists who try to refuse to treat patients with HIV; they cannot refuse, because it is their professional
duty to treat.\textsuperscript{95} Avoidance of this problem is one justification for compulsory vaccination programs in this context. In terms of influenza vaccination, there is a strong case that the relative risks involved favour protecting patient safety over a minor intrusion into the medical treatment choices of health care workers. If one out of ten times the implementation of a mandatory vaccination policy stops an epidemic by virtue of herd immunity, the benefits would be powerful. Thus, while imposing a policy on health care workers who won’t benefit greatly personally may seem disproportional, when looking at the big picture in terms of public health, the value of a comprehensive vaccination scheme emerges.

The vaccine does carry some personal risk, though, which must always be taken into account when determining whether a policy can be justified. The influenza vaccine is relatively safe, with the only common side effect being local arm soreness for 1-2 days. Placebo injection results in the same rate of systemic symptoms as influenza vaccination, indicating minor effects in most cases.\textsuperscript{96} The chance of a non-trivial adverse reaction to the influenza shot is very rare; influenza vaccination is associated with a small (1 in 1,000,000 vaccine recipients), but significantly increased (50\% relative risk), risk of hospitalization for Guillain-Barré syndrome (GBS), an autoimmune disease affecting the peripheral nervous system.\textsuperscript{97} This still, however, remains a very small risk in the population. There are also idiosyncratic risks which are difficult to predict and which change over time. Oculo-respiratory syndrome has been identified in Canada as an adverse event following influenza immunization due to a problem with particular batches of flu vaccines.\textsuperscript{98} Bell’s palsy, a neurological disorder affecting the cranial nerves, has also been posited to have been triggered in rare cases by a nasal influenza vaccine.\textsuperscript{99}

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\textsuperscript{96} Kristin L. Nichol et al., “Side Effects Associated With Influenza Vaccination in Healthy Working Adults. A Randomized, Placebo-controlled Trial” (1996) 156 Archives of Internal Medicine 1546.  
\textsuperscript{97} David N. Juurlink et al., “Guillain-Barre Syndrome After Influenza Vaccination in Adults: A Population-based Study” (2006) 166 Archives of Internal Medicine 2217.  
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Because of the unique nature of the flu shot and the fact that it must be administered annually, the risks increase as health care workers remain at their place of employment for many years. Thus an issue health care workers may have with the mandatory program is that there is no effective method for evaluating the safety of the program or the quality of the vaccines. This, however, may not pose an actual legal barrier to enforcing the policy, since Health Canada has explicitly approved these vaccines as safe for use. This approval is well founded. Although the risk of developing GBS exists, it is extremely low. Further, approximately 80 to 90% of those who contract GBS will recover fully. Idiosyncratic reactions are recognized quite rarely, and are often contained to a problem with a particular batch of vaccine. Thus the risk of serious adverse reactions is quite low, while the risk posed to an ill or weak patient of complications from influenza are much higher.

After examining the evidence, the benefits of influenza vaccination to public health are manifold, while the personal risks posed by vaccination are not inordinate. The benefits of influenza vaccination are not only important but may also be required, as it is the prerogative of health care facilities to do what is necessary to ensure patient safety. Influenza vaccination for health care workers is strongly recommended by public health bodies, and is deemed to be an essential component of the standard of care for protection of patients. But voluntary vaccination programs have simply not achieved the desired result of high and sustained levels of vaccine coverage. This is despite the fact that it has been shown that the prevalence of nosocomial influenza declines as the percentage of vaccinated health care workers increases. While epidemiological limitations make it difficult to ensure the safety of vaccines, the fact that patient safety is involved strengthens the need for precaution and care.

**Conclusion on Charter Issues**

Overall, it seems that the s. 7 issues raised by nurses and other health care workers will come into direct conflict with those who may be harmed by a choice not to vaccinate. While health care workers may have a s.7 right to liberty and security of the person in the form of choice as to medical treat-

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100 Supra note 23.
101 Cassandra D. Salgado et al., “Preventing Nosocomial Influenza by Improving the Vaccine Acceptance Rate of Clinicians” (2004) 25 Infection Control and Hospital Epidemiology 923.
ments, patients also have a right to safe health care environments where they are not exposed to controllable risks of harm. Calls for effective vaccination policies are founded in evidence, and are proportional to the limit on rights. This is particularly the case since they arise in the public health context, where the state and community interest is highly compelling.\(^{102}\) If mandatory vaccination policy were found to offend s. 7 rights to security of the person, it would likely still be upheld as either being in accordance with the principles of fundamental justice, or as a justified limit under s. 1 of the Charter.

**Employment**

If a mandatory vaccination requirement is implemented as part of employment criteria, and is not enforced in compliance with a government law or policy, the issue resides within the realm of employment law. Employers of health care workers have already in the past mandated requirements as a term of employment, including demonstration of immunity to rubella, measles, or hepatitis B.\(^{103}\) Current policies on influenza vaccination highlight the importance of patient safety,\(^{104}\) and such vaccination policies have been upheld as reasonable. In fact, several court and arbitration board decisions have upheld mandatory immunization requirements for employees under

\(^{102}\) In the 1905 case of Jacobson v. Commonwealth of Massachusetts, the United States Supreme Court determined that public health interventions like mandatory vaccination policies were constitutional, and within the police powers of the state. This power is not unlimited, but holds when the intervention is a public health necessity, is reasonable and proportional, and avoids harm. These factors bear a resemblance to the Oakes factors, giving support to the conclusion that a Canadian court might find similarly. Jacobson v. Commonwealth of Massachusetts, 197 U.S. 11(1905).

\(^{103}\) Backer, *supra* note 22.

\(^{104}\) For example, in British Columbia all health facilities must have a written policy advocating staff influenza immunization. Workers who choose not to be immunized may be excluded from work in case of an outbreak. The B.C. policy stresses the position that refusal of vaccination by health care workers implies a failure in their duty of care to patients, as it assists in the spread of influenza and poses an unacceptable risk to both patients and coworkers during an outbreak. See *Facility Influenza Immunization Policy*, online: <http://www.bccdc.ca/NR/rdonlyres/C03A114D-C939-479F-A4C7-0D405D0BB32A/0/Epid_Guidelines_FacilityFluImmzn_20090602.pdf>.
statute, and those put into place by employers outside of any statutory obligation.\(^{105}\)

In the 2003 case of *North Bay General Hospital v. C.U.P.E (Kotsopoulos)*, a paramedic who refused to obtain a flu shot was suspended from work at the hospital without pay.\(^{106}\) The Hospital had a collective agreement with the Union, stating that although the Hospital had the exclusive right to discharge or suspend employees, it had to exercise these rights in a fair and reasonable manner. Since the *Ambulance Act* set out immunization against influenza among the qualifications for employment as a paramedic, the Hospital was actually statutorily precluded from employing a paramedic who refused the shot.\(^{107}\) Since that time (in 2002), the *Act* has been amended to allow paramedics to undertake an educational review about influenza instead of getting the shot. This compromise policy was established as a result of political pressure from the Union, which had applied to the court to challenge the constitutionality of the mandatory immunization requirement. When these amendments were made, the challenge was dropped.\(^{108}\) This innovation was a somewhat unsatisfactory end to the story, as an educational opt-out from the vaccination program does not fit within the usual parameters for exemption from vaccination requirements.\(^{109}\) It certainly does little to protect against influenza infection.

At any rate, the matter in question in the *Kotsopoulos* case occurred prior to the amendment to the legislation. Employees who had failed to meet the legally required minimum qualifications for their jobs, as they stood at the time, were not protected from being suspended or fired. Even if the “fairness” was unclear, collective agreements are subordinate to the terms of a statute and its regulations. An important point which arises out of this case, though, is the government’s reluctance to press the issue in the face of pressure from the Union. This reticence is one of the reasons why a constitutional challenge to mandatory vaccination policies has not yet reached

\(^{105}\) Peppin, *supra* note 57 at 152.


\(^{107}\) *General*, O. Reg. 257/00, s. 6.


\(^{109}\) Peppin, *supra* note 57 at 153.
the courts. This case is somewhat disheartening then with regards to public health objectives, as a challenge may have led to some development in the law and a finding that the Ambulance Act requirement was in accordance with the Charter. However, due to the negative optics and publicity surrounding the case, C.U.P.E. won the day, and the issue was never litigated. There is little doubt that if a similar policy to that in the Ambulance Act were created, another opportunity for challenge would arise, and perhaps the issue would make it to court.

In Carewest v. A.U.P.E (2001),\textsuperscript{110} a policy which provided that unimmunized staff would not be permitted to work during an influenza outbreak, and would not be paid during that time, was upheld. This policy included medical and religious exemptions, allowing people with these exemptions to still be paid, though they were excluded from work during an outbreak. The vaccination rate for health care workers at the facility was as low as 45%, which was determined to pose a significant danger to the elderly residents. The Board discussed the KVP criteria for reasonableness.\textsuperscript{111} To meet this test, the policy must not be inconsistent with the collective agreement, which demands that there be no specific language which would exclude adoption of the policy. The policy must also be reasonable, necessary, and effective. It must strike a reasonable balance between employee rights and employer objectives. Finally, it must be clear, communicated, and enforced consistently. The Board found that the Carewest policy was in agreement with the KVP criteria, and was legitimate, as it balanced the privacy interests of employees with respect for patient safety. A “relatively modest” intrusion into bodily integrity was found to be justified in the circumstances.\textsuperscript{112}


\textsuperscript{112} A similar issue in terms of employment standard challenges was discussed in British Columbia Teachers’ Federation v. Vancouver School District No. 39., in which a teacher exhibiting symptoms of unusual behaviour was asked to undergo a psychiatric evaluation. When she refused to attend this examination, the school board was forced to dismiss her. The B.C. Court of Appeal ruled that this dismissal was acceptable, and did not rise to any level of interests concerning life, liberty, or security of the person. This is relevant to the question of mandatory influenza vaccination of health care workers, an issue characterized as arising within an employment relationship and related to fitness for work. The difference is
Other cases have found similarly.\textsuperscript{113} There was one exception to this trend, the \textit{St. Peter’s Health System} case discussed previously, although it has not been followed subsequently, including in the \textit{B.C. Nurses Union} case.\textsuperscript{114} It was not necessary to decide whether the \textit{Charter} applied to the Interior Health Authority in \textit{B.C. Nurses Union}, as the case was solved on employment law grounds, in the same vein as the other cases. The conclusion after looking at the strong body of case law supporting such vaccination policies is that the \textit{St. Peter’s} case is an outlier. The \textit{Charter} issue seems to have been wrongly decided, possibly as a result of the suspicion as to why, on a serious matter, the MOH was not contacted and contractual authority was not bargained for in the collective agreement. Compliance with such procedural aspects was the deciding factor in \textit{B.C. Nurses Union} and is therefore something for health care facility employers to take into account in formulating their vaccination policies, in order to achieve a more amicable agreement between the unions and employers and to avoid any potential breach of employment law. These arbitration board cases, which uphold reasonable hospital policies implementing vaccination requirements, on the whole support the foundation for continued acceptance of such requirements, as long as they are made in accordance with the rules. Whether the \textit{Charter} applies to such decisions, and whether a \textit{Charter} challenge could succeed, has not yet been determined.

The difference between the preceding cases and a mandatory immunization requirement is that the suggested policy would make influenza immunization a \textit{requirement for employment at all} rather than simply a policy to

that as it is a physical interference, it could rise to the level of engaging s.7, if the \textit{Charter} were applicable. \textit{British Columbia Teachers’ Federation v. Vancouver School District No. 39,} 2003 BCCA 100, 224 D.L.R. (4\textsuperscript{th}) 63.


send workers home temporarily during an outbreak. Such clauses would be more acceptable if negotiated in the collective agreement, as was done in the B.C.N.U case. To unilaterally impose this more intrusive measure requires additional evidence before it can be justified. The support for a more onerous policy is founded on the knowledge that after-the-fact policies of sending workers home only after an outbreak has been identified are not as effective. Further, such policies require health care workers to be sent home during an outbreak, at a time when hospitals and similar facilities cannot usually afford to be short-staffed. A more effective policy would require all health care workers to have preventative influenza immunization as part of a condition of employment, in line with the precautionary principle and elimination of avoidable harm.

Whether or not this imposition could be upheld in an employment law context depends on the evidence available to meet the standard of reasonableness. The question of whether a policy of requiring influenza vaccination as a condition of employment is reasonable can be resolved by examining the evidence in a cost-benefit and risk analysis. Factors weighing in favour of mandatory immunization involve the highly infectious nature of the influenza virus, the particularly vulnerable high-risk populations who reside in health care facilities, the variability in vaccine efficacy which requires a high level of coverage to achieve herd immunity, and the duty of health care workers to protect the health and safety of their patients. Factors in opposition to imposing mandatory vaccination include the risk of adverse reactions to the vaccine, though the risk of serious reaction is minute, and the existence of personal beliefs against or fears of vaccination. The main barrier, though, is the invasion of bodily integrity, autonomy, and privacy by forced injection. Health care professionals may tend to view mandatory immunization requirements in this way.

From another perspective, however, it is not really forced. Individuals do not have a right to hold a particular job, and there are often requirements which must be met in order for employees to be considered fit for a certain desired employment. In the health care context, there is a strong argument that in order to be fit to care for patients, workers must first ensure that they are reducing the risk of passing on infectious diseases. While the literature canvassed above is not conclusive, there is a reasonable body of evidence that suggests that vaccination of health care workers is likely to protect chronically ill and elderly individuals in health care facilities. When this evidence is considered in conjunction with the precautionary principle, this should be sufficient to illustrate the public health importance of influenza vaccination.
in this context, and to ascertain that an employment policy requiring such measures is a reasonable one.

Health care facilities have the prerogative to implement measures necessary to carry out their function. A hospital has the option of negotiating the vaccination requirements in the collective agreement with a union, or in an individual contract of employment with non-union employees. If this is not possible, the facility can apply to a Medical Officer of Health for a written order requiring immunization according to the *Health Protection and Promotion Act*.\(^{115}\) In any event, the hospital should be able to enact policies related to hiring suitable employees, though possibly engaging *Charter* scrutiny. Any private discrimination issues would need to be raised as a *Human Rights Code* violation. A claim of religious or disability discrimination could succeed against a blanket policy, but if the policy allows for medical contraindication exemptions and serious religious refusal with a signed affidavit, these issues should be avoidable. More general complaints based on dislike of vaccinations would likely not succeed. The *Code* prohibits discrimination on enumerated grounds, none of which seem to encapsulate refusal to be immunized.\(^{116}\) At any rate, the *Code* may not provide any recourse for a person who has been fired or has not been hired due to refusal to accept the vaccine, as it requires that employment decisions be made based on an applicant’s ability to do the job, and not factors unrelated to the job.\(^{117}\) Since there is a strong argument that refusal to be vaccinated against influenza makes a health care worker in direct contact with patients unfit for the job, it will likely be considered related to the job and therefore an acceptable form of discrimination.

**Conclusion**

Medical professionals and health care workers have a duty to their patients to “first do no harm.” The voluntary policies currently in place are not adequate in protecting patients from the threat of nosocomial influenza, which consti-

115 *Supra* note 87, s. 22 (1).
116 *Human Rights Code*, R.S.O. 1990, c. H.19. There is no “and analogous grounds” clause, as there is in section 15 of the *Charter*, to capture similar but unenumerated categories.
tutes a breach of that duty. It may be time to start considering mandatory policies, in light of the failure of current policies and the emergence of new pandemic strains of influenza. The least legally contentious mechanism by which to introduce mandatory influenza immunization policies would be as a matter of employee requirement at the level of the health care institution. This could help avoid Charter challenges and could give health care workers more of a voice in designing governing policies. However, such an approach allows for variability in application and creates the possibility of a patchwork approach with gaps in some healthcare institutions. This may not be viewed as acceptable from the perspective of public health officials. In this scenario a legislative or regulatory approach may be considered, though this would create greater legal challenges based on Charter issues. We believe, however, that implemented legislation could withstand such challenges, as the need to protect the vulnerable and maintain the integrity of our health care system is essential to those values which the Canadian Charter upholds.

As a policy matter, mandatory vaccination could have a detrimental effect on the employer/employee relationship in a health care setting. The feeling of coercion and the threat of loss of employment for not complying may lead to a loss of mutual respect and alienation of the workers who are integral to the functioning of the health care system. These sentiments can be countered by a strategy of education and programs which alleviate some of the negative perceptions of vaccination. The existence of trust in vaccines and in public health strategies will be an important component in compliance with mandatory vaccination. Vaccination programs should be convenient and easily accessible. Transparency of communication about both the personal risks involved in vaccination, as well as the patient safety aspect of the need for vaccination, would be well advised. Problems such as inadequate understanding among health care workers of the nature of influenza and its vaccine, especially with regard to the altruistic and duty aspects of vaccination, should be alleviated. Measures can also be taken to reduce the risks that are inherent in vaccine products. Through increased investment in adverse event reporting systems, consideration of a no-fault compensation program for those injured by vaccines, and improved post-

118 Finch, supra note 22.
marketing surveillance of these products, along with more straightforward and balanced communication about vaccination, support for the program will be more likely.\textsuperscript{120}

Mandatory vaccination programs should be supported by programs which provide compensation to those injured by vaccines.\textsuperscript{121} Such no-fault compensation programs have been touted as a “national priority” by leading public health policy experts and already exist in the United States and Quebec.\textsuperscript{122} Adverse reporting systems must also be improved to provide reassurance to health care workers that public health officials are making efforts to meet their reciprocal obligations to protect the safety of these workers.\textsuperscript{123} Currently, only Ontario, Saskatchewan, and Quebec require such

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\item\textsuperscript{120} Kumanan Wilson \textit{et al.}, “Addressing the Emergence of Pediatric Vaccination Concerns: Recommendations From a Canadian Policy Analysis” (2006) 97 Canadian Journal of Public Health 139. Although this article dealt with pediatric vaccination, many of the same issues arise with respect to mandating vaccines in general.
\item\textsuperscript{121} See Nicole J. Kutlesa, “Creating a Sustainable Immunization System in Canada – The Case for a Vaccine-related Injury Compensation Scheme” (2004) 12 Health L.J. 201. Individuals receive immunization not only for their own benefit, but for the benefit of the whole community. Should an individual be harmed when altruistically contributing to the public good, there is a strong moral and ethical argument that they should be compensated. This is especially the case where a small percentage of harms are predictable and unavoidable, as is the case with the influenza vaccination. In the United States, there is a no-fault compensation system in place, which was created to deal with both the waning public confidence in the vaccination program and the proliferation of lawsuits against vaccine manufacturers which were crippling the industry.
\item\textsuperscript{122} Kumanan Wilson, “Protecting vaccine programs and the public” (2007) 176 Canadian Medical Association Journal 1681. In fact, Justice Krever’s report on the tainted blood tragedy called for a no-fault compensation system for those who became infected as a result of the contaminated blood products. He argued that as these people had already been harmed once by a failure of the system, they should not have to endure the legal process in order to seek redress for these harms.
\item\textsuperscript{123} Reporting of post-vaccination adverse events is essential for monitoring and responding to problems associated with vaccines, and to understanding the full picture of efficacy and safety of a drug. Voluntary reporting is an unreliable means of obtaining the kind of information we need about adverse effects of vaccines. In contrast, surveillance systems can provide enough information to
Public confidence and cooperation of the health care workers with these policies would also be aided by introduction of a comprehensive bar coding system and distribution program for vaccines. In addition, registries are an important component of tracking systems, and should be implemented to create a store of comprehensive data about the levels of vaccination in the population, as well as identification of individual recipients and their dates of vaccination, information which is not currently available. In combination, these suggestions will help shift health care workers’ views of influenza vaccination away from weighing of personal benefits and risks, and towards consideration of the vital patient safety aspect.

Mandatory vaccination programs should be presented as a necessary means both to reduce mortality amongst vulnerable patient populations and reduce worker absenteeism. Focusing on worker benefits or strict employment matters emphasizes the individual or “clinical” aspect while it ignores the public health aspect, which as the number of elderly people grows in our society is becoming increasingly salient. Recent calls for implementing mandatory immunization have asserted that by refusing the vaccine, health care providers are acting in violation of their professional obligation to gather the incidence of reactions, severity of infections, and the need for new immunization programs, which is a significant improvement over relying on voluntary reporting (see, for example, the Canadian Immunization Monitoring Program, Active, run by the Canadian Paediatric Society. Canadian Paediatric Society, “Impact,” online: Canadian Paediatric Society <http://www.cps.ca/english/surveillance/IMPACT/IMPACT.htm>). The evidence suggests that in addition to voluntary reporting, a passive reporting system should also be implemented.

124 Peppin, supra note 57 at 158.
125 Introduction of bar coding for vaccines would take a step towards increasing vaccine safety by ensuring post-market surveillance of the product, allowing early detection of batch problems. Due to the invasive nature of vaccination and the sacrosanct position of bodily integrity in the law, checks on lot numbers and product identification is warranted to increase product safety and compliance of health care workers with immunization policies. This technology is in wide use in the private and retail sectors, but has not yet been incorporated by vaccine manufacturers. See Monika Naus, “Bar coding vaccines – more than a ‘check out’ issue” (2000) 11 Canadian Journal of Infectious Diseases 173.
126 The absence of such registries causes difficulties in follow up and safety data and compromises any effective understanding of adverse effects incidence. See Peppin, supra note 57 at 160.
protect vulnerable patients from preventable dangers.\textsuperscript{127} The strongest case to be made for the implementation of tougher anti-influenza campaigns is that the current standards are simply not effective in reducing morbidity and mortality in these situations. It is part of the integral role of health care workers to take all reasonable measures to protect their patients, and it is part of the hospital’s mandate to ensure that policies are in place that direct the most favourable results for the patients. A conceptual shift towards the perspective that a health care worker’s professional and ethical responsibility lies in doing all that is reasonable to protect the patient, including annual and pandemic-related influenza vaccination, will be important in impressing the need for accountability and precautionary measures on our health care facilities.

In general, the problem with current influenza policies that send unvaccinated workers home in times of outbreak is that they may result in over 50% of workers being absent when the facility needs them most, when the virus has already spread to a number of individuals. If health care facilities could possibly be held negligent for failing to prevent the spread of disease in this way, and are likely failing in their duty to protect patients, it is time for them to install more stringent standards for their staff. While it would be most convenient for hospitals and other facilities to encourage vaccination policies on a voluntary basis, relying on voluntary compliance may create gaps in patient protection. Facilities should take the initiative to implement employment standards which reflect the importance of vaccination to the health of patients. If such initiatives prove insufficient, governmental authority may be needed to create appropriate legislation, as was attempted with the \textit{Ambulance Act}. While such legislation would be likely to elicit \textit{Charter} challenges, we believe that such a measure, if considered an intrusion on bodily security, would be found to be justified within s.7 of the \textit{Charter} as being in accordance with the principles of fundamental justice, or otherwise upheld under s.1 as a reasonable and justifiable measure to promote health, safety and confidence in the Canadian health care system.

An important caveat is that our analysis is dependent on the ultimate outcome of the emergence of the novel H1N1 pandemic strain on future influenza seasons. At present the overwhelmingly dominant influenza strain is H1N1, with little to no traditional seasonal influenza virus activity. This could imply that the H1N1 has displaced the previously circulating

\textsuperscript{127} \textit{Supra} note 21.
influenza strains, in particular H3N2. In the past the emergence of novel pandemic influenza strains has in some instances resulted in complete strain displacement and in other instances resulted in the co-circulation of strains. At present the evidence from the H1N1 pandemic seems to suggest that complete strain displacement may occur, although this cannot be ascertained definitively until subsequent influenza seasons have been completed with little to no evidence of disease caused by other strains.

If H1N1 turns out to be the new seasonal influenza, there will be important limits to the evidence of surrogate benefit to patients from the influenza vaccine. The previous studies were obviously not conducted to assess the benefit of H1N1 vaccination, but rather vaccination against the circulating influenza strains at the time. Of those, H3N2 was the strain that had high morbidity and mortality in the elderly. Existing evidence suggests that the H1N1 virus is affecting younger and healthier individuals than did past seasonal influenza strains, and it appears that the elderly may have some measure of immunity. As a consequence, the overall mortality rate from H1N1 was far less than was expected, even in the best-case scenarios. Given these circumstances it would be difficult to argue that the evidence of surrogate benefit to the elderly and to patients from previous studies would necessarily be applicable to seasonal influenza that consisted wholly of the H1N1 virus. In contrast, a more convincing argument could be made that health care workers should receive the vaccine for their own benefit, although this scenario alone would not justify mandatory vaccination programs. If the H3N2 strain co-circulates with H1N1, then our analysis still holds true. Ultimately, the outcome of subsequent flu seasons, in particular evidence as to what strains circulate, and the results of further epidemiological studies on the harm caused by H1N1 and the benefits of an H1N1 specific vaccine at the individual and population level, will be needed to guide legal decisions on this matter.