

FROM SARS TO AVIAN FLU — WHY OTTAWA MUST LEAD CANADA'S RESPONSE

Kumanan Wilson and Harvey Lazar

From SARS to avian flu, from West Nile Virus to mad cow disease, public health emergencies and the prospect of them in Canada made a strong case for Ottawa leading Canada's response. The 2003 SARS outbreak in Toronto was a reminder of the need for federal leadership in health emergencies with national implications, affecting the health of Canadians and the good name of Canada around the world. An emerging human avian flu pandemic in Canada, write Kumanan Wilson and Harvey Lazar, would require strong national leadership for "early detection of the outbreak and the mobilization of adequate public health resources."

Du SRAS à la grippe aviaire, du virus du Nil occidental à la maladie de la vache folle, les crises de santé publique et les risques qu'elles font courir à notre pays mettent en lumière l'importance cruciale du rôle d'Ottawa. La flambée de SRAS survenue en 2003 à Toronto a ainsi rappelé la nécessité d'un solide leadership fédéral en cas d'urgences sanitaires menaçant aussi bien la santé des Canadiens que la réputation internationale du Canada. Tout signe annonciateur d'une épidémie de grippe aviaire au pays exigerait donc d'Ottawa qu'il dirige d'une main ferme le « dépistage précoce et la mobilisation des ressources appropriées en santé publique », observent Kumanan Wilson et Harvey Lazar.



Public health renewal has emerged as an important policy issue in Canada, largely in response to the outbreak of severe acute respiratory syndrome (SARS) in Toronto in 2003 and in preparation for a possible avian flu pandemic. Of particular concern has been the capacity of this country to respond to public health emergencies in a rapid, coordinated and effective manner. In attempting to address this issue, the federal government has chosen to take a largely collaborative approach with the provinces, on the assumption that effective relations between orders of government can be maintained in the event of an emergency. In doing so, Ottawa is choosing not to adopt new legislation that could provide the federal government with the additional authority that might be needed in the event that intergovernmental relations turn out to be unsatisfactory during a crisis.

An integral part of the public health renewal process will be to better define federal jurisdiction and responsibilities in the event of a health emergency. Currently, there is uncertainty in this regard and it could have considerable consequences in the event of a major new infectious threat. A redefinition of the federal capacity to respond to public health emergencies must be a priority of the legislative

renewal process. Amendments to the current *Emergencies Act* — or the creation of separate emergency public health legislation — that take into consideration unique aspects of public health emergencies should be a top priority in this country's efforts to ready itself to respond to the next pandemic threat.

There are several components of public health, including health promotion and protection, disease prevention and emergency preparedness. A variety of recent threats have focused Canadian policy-makers' attention on the health protection and disease prevention components of public health, as they relate to infectious disease in particular. These include the discovery of bovine spongiform encephalopathy (BSE or "mad cow disease"), the emergence of West Nile virus, the threat of bio-terrorism and the impact of SARS. While we focus on the governance responses to these threats, and to SARS in particular, it is essential to recognize that, while governance is critical to effectively managing an emerging infectious disease outbreak, of equal if not greater importance is the development of the appropriate public health capacity. It became apparent from Canada's response to SARS that the public health infrastructure in this country considerably limited our ability to

respond effectively to the threat. Public health requires an infusion of funds to train more personnel; to enable research, investigation and knowledge translation; to better equip public health centres; and to improve surveillance infrastructure.

The efforts of public health personnel at the ground level could be wasted if governance structures are not in place to ensure responses are co-

The *Emergencies Act*, which replaced the federal *War Measures Act* in 1985, provides the federal government with authority to take action to address a "national emergency." The *Emergency Preparedness Act* primarily serves as companion legislation to the *Emergencies Act*, and provides authority for the provinces and federal government to act collaboratively to prepare for an emergency.

ordinated and comprehensive. Canada's response to the outbreak of SARS clearly demonstrated the crucial need for effective governance in an outbreak, while exposing some of the limitations of the governance structures that existed at the time. SARS was originally identified as a case of atypical pneumonia in Guangdong province in China in November 2002. By February 2003, the first Canadian case arrived in Toronto, sparking an outbreak that eventually affected 438 individuals and resulted in 44 deaths in Canada. The outbreak also had a substantial negative impact on the economy of Toronto, partly due to an advisory issued by the World Health Organization recommending against travel to the city.

In Toronto, the initial management of the outbreak occurred at the hospital and local public health levels in the areas where the disease first appeared. The provincial government soon became involved and declared the situation an emergency, allowing the government to employ aggressive protective measures such as quarantine. Among the federal government's responsibilities in the management of SARS was providing epidemiologic and laboratory support to provincial and

local officials; managing issues related to the spread of the disease at international borders; and communicating information on the status of the outbreak to other provinces, international organizations and other nations.

While there were many successes in the management of SARS at the local, provincial, national and international levels, much attention has been focused on how management of the outbreak could have been improved.

When considering mechanisms by which the federal government could have involved itself to a greater extent in Ontario, it soon becomes apparent that there are real limitations on Ottawa's power to act unless it has the consent of the affected province.

The federal government's ability to act in a public health emergency is largely governed by two pieces of legislation: the *Emergencies Act* and the *Emergency Preparedness Act*. The *Emergencies Act*, which replaced the federal *War Measures Act* in 1985, provides the federal government with authority to take action to address a national emergency. The *Emergency Preparedness Act* primarily serves as companion legislation to the *Emergencies Act*, and provides authority for the provinces and federal government to act collaboratively to prepare for an emergency. Under the *Emergencies Act*, an infectious outbreak (disease in human beings, animals or plants) is one of several categories of emergency considered as a "public welfare emergency." However, the Act also provides an important limit on federal power, by specifically stating that the province must request federal help by declaring that "the emergency exceeds the capacity or authority of the province to deal with it."

It is much less obvious that the federal government should be similarly constrained in the case of an infectious disease outbreak. According to the existing legislation, the federal government must ask permission before being allowed to take action to control a disease outbreak that has occurred in only one province. The implications of this limitation to federal powers were evident in the management of SARS, which in Canada was primarily confined to Ontario, although it was present in 26 other countries. By not having the necessary authority, the federal government was dependent on provincial cooperation for information on the nature and extent of the outbreak. It soon became evident that cooper-

ation between the provincial and federal governments was less than optimal. This was well documented by the Campbell Commission, which examined the management of the outbreak in Ontario. In particular, the report identified the dysfunctional relationship between the provincial chief medical officer and federal officials. That poor relationship had several consequences, including inadequate data transfer to the federal level and the recall of federal field epidemiologists from Ontario due to lack of clarity as to their role. The problems with intergovernmental cooperation were noted not only in Canada but also by international agencies.

Continued vulnerability to the sort of defective intergovernmental cooperation that occurred during the management of SARS clearly is not acceptable. Many of the current reform initiatives have attempted to address these dysfunctional relationships, primarily by developing better communication strategies and intergovernmental interfaces. Ottawa has moved on two broad fronts to improve its capacity on public health emergency preparedness and response. The first is the so-called federal strategy on public health, which

is composed of three key elements: the creation of the Public Health Agency of Canada (PHAC), the appointment of a chief public health officer for Canada and the development of the Pan-Canadian Public Health Network.

In terms of emergency response, the PHAC and the new chief public health officer are intended to “coordinate federal efforts in identifying and reducing public health risks and threats and support national readiness to respond to health crises.” They are meant to show public leadership in the event of a crisis and to work continually to improve inter-governmental collaboration in public health emergency preparedness. At

the same time, the PHAC and the chief public health officer will coordinate Canada's interaction with various international public health agencies, and bodies such as the World Health Organization, the US Centers for Disease Control and Prevention and other agencies in Asia and Europe. The third element, the Pan-Canadian Public Health Network, is still very much a work-in-progress. It is a federal-provincial initiative, approved by the ministers of health, that subsumes and will coordinate the various mechanisms and arrangements that currently exist for inter-governmental collaboration on public health matters.

The second front of the federal response is contained in the government's national security framework and action plan, *Securing an Open Society: Canada's National Security Policy*. This framework seeks to build a fully integrated security system that brings together and provides tools to better coordinate the federal government's security capacity. In terms of emergency response, the framework calls for the creation of an integrated threat assessment centre to gather threat-related information; a government operations centre to coordinate federal efforts during emergencies; a review of the *Emergency Preparedness Act*; and the creation of a



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Nurse Denise Neault looks over a patient's chart at the Hôtel-Dieu in Montreal in 2004, when the hospital took special precautions against an outbreak of *C. difficile* in Quebec.

permanent federal-provincial-territorial "high-level" forum on emergency management. An integral part of this framework is the identification of the international migration of infectious diseases and the possibility of bioterrorist attacks as key security threats to Canadians.

Despite the reform initiatives, there remain shortcomings with the current set of intergovernmental arrangements, which depend upon the voluntary cooperation of provinces at the time of a public health crisis. A disease developing in one province not only affects that one province; it has the potential to affect other provinces across the country, either directly through spread of the disease or indirectly through stigmatization of the affected region. Thus the management of a disease outbreak is of national concern. A province should communicate information on the outbreak openly to other governments. Yet, there are real disincentives for any provincial government to provide detailed reporting of the status of an outbreak, particularly at the early stage when there is uncertainty about the outbreak's magnitude and when such reporting could, perhaps unnecessarily, adversely affect the province's industries and tourism. Apart from the health impacts of the spread of the disease across the country, there would also be concerns about the potential for stigmatization, which would likely not be confined to the province initially affected, particularly if international attention were drawn to the outbreak.

A vivid illustration of the importance of a national approach to combatting a developing outbreak is provided by two simulations of a human-to-human avian flu outbreak developing in Thailand. While varying in their estimation of the poten-

tial severity of the outbreak, the simulations do suggest that the outbreak could be stopped with aggressive early interventions. These interventions would include pre-pandemic flu vaccination, social distancing measures such as quarantine, and the targeted distribution of antiviral treatments. While an emerging human avian flu pandemic in Canada would have different characteristics, the fundamental principles of the response to the outbreak would likely apply in this country as well. Early detection of the outbreak and the mobilization of adequate public health resources to intro-

While an emerging human avian flu pandemic in Canada would have different characteristics, the fundamental principles of the response to the outbreak would likely apply in this country as well. Early detection of the outbreak and the mobilization of adequate public health resources to introduce preventive measures would be necessary to halt the epidemic. Such an operation would likely require a national effort, with public health resources from the entire country being diverted to the affected province.

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The emergence of an international strategy to combat pandemic infections adds to the urgency of addressing Canadian governance strategies for the management of infectious outbreaks at the national level. A new model of global health governance has recently emerged, principally in response to SARS. A key

component of this more aggressive approach to the management of pandemics concerns the responsibility of individual nations to the global community with regard to adequate national surveillance and communication of the status of outbreaks to the World Health Organization (WHO). Canada's roles and responsibilities as part of the larger international community provide compelling reasons for a re-evaluation of the current federal approach to public health emergencies.

In many ways the international health community could be viewed historically as a confederation, with the WHO acting on behalf of member states of the World Health Assembly. In this model, the WHO was necessarily subordinate to the member nations, in accordance with the principle of the primacy of national sovereignty. But now, in times of disease outbreaks, the WHO can act in many ways as the central authority with considerable coercive power over its member states.

As David Fidler sets out in his articles of 2003 and 2004, global germ governance has been transformed from a horizontal governance regime to one that is more characterized by vertical governance. In the horizontal governance regime the objective of the International Health Regulations, the primary piece of legislation governing the international management of disease outbreaks, was to prevent the spread of disease from nation to nation with minimal interruption of international traffic or trade. In this governance regime the sovereignty of individual nations was paramount, and the WHO did not have the authority to act within a member nation without its permission. In the transition to a vertical governance regime, however, the WHO has begun to act directly within member nations to control the spread of disease.

And while there was some disagreement with the decision to issue travel advisories based on scientific grounds, the right of the WHO to issue such advisories appears not to have been questioned. The ability to conduct independent surveillance and to make unilateral declarations of travel advisories provides the WHO with considerable power to govern the international management of an outbreak. Specifically, attempts by countries to withhold information will likely fail — due to the acquisition of information from nongovernmental sources — and result in penalties in the form of travel advisories.

This changing state of international governance has important implications for Canada. Our federal government must have the ability to acquire complete knowledge of an outbreak in order to adequately meet the reporting requirements of the WHO. While this transfer of information from the provincial to the federal level could occur voluntarily, the SARS outbreak demonstrated the dangers of relying upon voluntary communication. The following comments by a federal official quoted in the Campbell report illustrate this challenge:

Consider the possibility of a new infectious agent emerging in a Canadian province. Initial outbreak management would again be local, with supervision by the province. The revised International Health Regulations require adequate surveillance of the outbreak and communication of the status of the outbreak to WHO officials.

There is a possibility that the federal government may not be able to meet its reporting requirements because of a lack of intergovernmental cooperation within Canada. While the WHO would have mechanisms to

obtain this data from nongovernmental sources, if the WHO had to resort to such measures to monitor the outbreak, its confidence in Canada's ability to manage the outbreak would most certainly be undermined. In this eventuality, the WHO would have the authority to issue recommendations to prevent the international spread of the disease, which could include recom-

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mending restricting travel to affected parts of Canada. Of much greater concern, of course, would be a scenario where lack of intergovernmental cooperation led to suboptimal management of an outbreak, which, in turn, contributed to the international spread of the outbreak. There are compelling reasons for stronger federal authority to manage disease outbreaks. At a minimum, detailed knowledge of the outbreak is necessary at the federal level for several reasons, including the need to prepare for federal intervention in the event that the outbreak exceeds the management capacity of the province; communication with adjacent provinces so as to allow them to adequately prepare for any spread to their regions; and communication with the international community.

Additional federal powers for direct action within the confines of a province may also be required to address an outbreak that is not being managed adequately and poses a threat to the country as a whole. Moreover, the experience with SARS has demonstrated that we cannot nec-

essarily rely upon cordial relations among the various orders of government at times of crisis. The structure of relations between federal and provincial orders of government is thus central to Canada's capacity to manage future infectious outbreaks. In general, four options are available to federal officials in considering how to address this issue: a distangled approach, a

collaborative approach, an hierarchical approach and a confederal approach.

In the disentangled approach to an emergency public health response, federal and provincial officials would work within their own constitutionally defined areas, with limited interaction. There are problems with this. First, such an approach implies there are cleanly divided constitutional responsibilities. As has been clear from analyses of public health law in Canada, there is considerable overlap of jurisdictional responsibilities. While management of an outbreak is within the jurisdiction of a province, the potential for the outbreak to involve other provinces and the country as a whole creates a constitutional basis for federal involvement.

Second, a fundamental problem that has been consistently identified in analyses of public health in Canada has been the lack of coordination of activities among all orders of government and public health partners.

The post-SARS approach to public health is arguably collaborative, and there are clear reasons why governments at all levels — local, regional, provincial

and federal — have chosen this path. Public health requires sharing information and coordination of activities. Furthermore, there are real limitations on the federal government's ability to act in the absence of provincial and local cooperation, even in those areas in which the federal government has legislative authority. An example can be found in health protection, where the federal government is able to pass regulations requiring certain levels of safety standards. However, the capacity of the feder-

There are also risks in assuming intergovernmental relationships will work effectively in times of crisis. This was particularly evident in the US after September 11 and the anthrax attacks. Nevertheless, despite the extensive efforts to prepare for an emergency post-9/11, Hurricane Katrina and the flood in New Orleans revealed the susceptibility of the United States to intergovernmental jurisdictional confusion during a crisis. Lack of coordination of the intergovernmental response has

One criterion for invoking the legislation could simply be that the existence of the crisis in more than one country demonstrates a substantial risk of cross-border transmissibility. Alternatively, Parliament could be asked to enact new and separate emergency public health legislation that would provide the requisite authority.

Several options exist for the federal government to argue the constitutionality of such legislation. Historically, federal health protection legislation has been supported on the basis of the federal criminal law power permitting Ottawa to take measures to protect against an "evil" that is a danger to the public. The federal government could also rely upon its rarely used powers under the "peace, order and good government" (POGG) clause. In doing so it might well be able to rely upon either the national concern branch or emergency powers branch of POGG.

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al government to police these standards nationwide is clearly limited and must be enhanced with provincial cooperation.

been blamed for contributing to preventable morbidity and mortality.

It makes sense to rely on a collaborative approach among governments in dealing with public health emergencies. The federal government cannot afford to alienate provincial and local public health officials with a heavy-handed, top-down approach when the greatest understanding of the nature of the threat is often at the local level. Furthermore, it is the local public health officials who will be the backbone of the response and have an intimate understanding of the environment in which the problem has emerged. The recent public health reform initiatives described earlier have recognized these realities and have implemented several mechanisms to enhance intergovernmental cooperation. The model for the new Public Health Agency of Canada is largely collaborative, with its primary strategy to facilitate coordination by providing seed funding to develop desired programs. An important further step would be to ensure that provincial and federal emergency legislation are complementary.

For Canada, the lesson of Katrina and New Orleans is straightforward. The federal government must have a contingency plan in the event of shortcomings in intergovernmental relationships. It must be able to act with great speed, as infectious diseases can spread rapidly. Effective intergovernmental collaboration is the best strategy for managing an infectious outbreak, and it would be optimal if these relationships were formalized through pre-existing memoranda of understanding. But Ottawa should not put all its eggs in one basket. This brings us to the third governance option.

As part of a contingency plan the federal government could proceed with a more hierarchical approach through a set of policy initiatives. First, Ottawa could proceed with a legislative option. It could amend the current emergency legislation, specifically stating that, for a public health emergency in which the properties of the crisis suggest rapid transmissibility, the federal government would have the authority to intervene without provincial permis-

The second issue would be to define what specific powers the legislation would provide the federal government. Options range from simple oversight authority, to access to all data, to the ability to assume control of institutions. The CMA model of tiered emergency public health legislation, which confers different levels of powers on the federal government depending on the nature and extent of the crisis, may be a mechanism with which to reassure provinces that the federal government would be limited in its recourse to these additional powers.

There are important limitations to the use of a federal legislative option that would need to be considered. Whatever powers the legislation provided the federal government, Ottawa would need to have the capacity to carry out the powers. There is a question of whether the federal government has sufficient capacity, particularly with respect to the number of trained personnel, to assume

command-and-control responsibilities in the event of an outbreak.

There are also non-legislative options that the federal government could consider if it chose to proceed with a hierarchical approach. These would include employing conditional funding along the lines the federal government has chosen in relation to health care insurance under the Canada Health Transfer. In adopting this approach, the federal government could choose to provide large block grants to provinces in exchange for their agreeing to implement certain provisions related to emergencies. These would include, most importantly, creation of surveillance infrastructure and reporting requirements for outbreaks.

An intriguing alternative to federal involvement in public health emergency response is the confederal approach. This would entail provinces working together in the absence of the federal government or with the federal government as a partner, but with provincial governments having primacy, as advocated by Tom Courchene in 1997. Such an approach may be reasonable on a regional basis for some public health issues in which the spillovers are in adjacent regions (e.g., water, air) as opposed to those issues in which the spillovers are national (e.g., disease and food safety). In many respects the confederal approach already exists in several national public health networks. An example of a successful confederal organization is Canadian Blood Services (CBS), a national (excluding Quebec), not-for-profit organization.

How should the federal government proceed in defining its relations with the provinces regarding the management of public health emergencies? Inevitably relationships must be collaborative, given the importance of coordination, the recognition that

local public health officials are the first line of defence against the emergency, and the general recognition of the need to share capacity. Therefore any redefinition of the federal role should build upon and nurture existing collaborative efforts. Furthermore, the collaborative approach should be the first option considered when a public health emergency presents itself.

Nevertheless even these two approaches together are not necessarily enough, and we believe that the federal "hierarchical" approach needs to be incorporated into the current emergency-response strategy. While considerable effort has been undertaken to develop strong collaborative relationships, the experience with the SARS outbreak showed that the federal government cannot necessarily rely upon provincial goodwill in times of crisis. The current system needs to be insulated against the prospect of the missteps that occurred during the SARS outbreak being repeated. An additional advantage of the federal hierarchical approach is that it could further encourage collaborative approaches to be taken from the outset.

There are also risks in assuming intergovernmental relationships will work effectively in times of crisis. This was particularly evident in the US after September 11 and the anthrax attacks. Nevertheless, despite the extensive efforts to prepare for an emergency post-9/11, Hurricane Katrina and the flood in New Orleans revealed the susceptibility of the United States to intergovernmental jurisdictional confusion during a crisis. Lack of coordination of the intergovernmental response has been blamed for contributing to preventable morbidity and mortality.

If the provinces recognize that the federal government has a hierarchical alternative in the event that intergovernmental cooperation fails, they may have a greater incentive to cooperate at the early stages of an outbreak, which would clearly be preferable. Several issues need to be clearly outlined, however, if the federal government chooses to pursue a legislative option.

Should the federal government amend the existing *Emergencies Act* or create a new public health emergency statute?

Assuming that a legislative strategy is to be pursued, two options are available to the federal government. A minimal measure would be to amend the existing emergency legislation to make special provisions for public health emergencies that have the potential to cross provincial borders or that have already crossed international borders. The second option would be to remove public health emergencies from the existing legislation and deal with them in separate, new public health emergency legislation. This would allow the legislation to expressly include provisions to address the nuances of specific public health emergencies.

While the current *Emergencies Act* already distinguishes between different categories of emergency, those distinctions would be strengthened by separate legislation. Moreover, a separate statute would allow greater flexibility for tailoring federal powers and

responsibilities to the nature and extent of the public health emergency, as is described in the CMA health-alert system. Separate legislation would also allow distinctions to be made among the various types of public health emergencies beyond infectious diseases. All of this could be incorporated within existing legislation, but the extensive amendments required would be quite cumbersome.

Ottawa's powers are not sufficient for the kind of public health emergency that might occur in the future. They need to be buttressed in three ways. First, as we have described, the federal government is explicitly constrained from declaring a public health emergency where the direct effects of the emergency are confined to one province, unless the provincial government indicates to Ottawa that the scope of the emergency exceeds the province's capacity to deal with it. This limitation on the federal government should be removed, for the simple reason that contagious diseases do not respect borders, whether internal or external. Thus, at the outset of an outbreak that could spread rapidly, the federal government should be empowered to mobilize the country's resources to aggressively intervene to break the spread of the disease. The federal government should also be empowered to take action even if a disease is not present in any province, but is present in another country and poses a real and imminent threat of spreading to Canada.

The federal government must possess the authority to receive timely information from other orders of government. The current *Emergencies Act* does not explicitly grant this to Ottawa. If the federal authorities can track the pattern of disease migration, they will know whether additional powers must be proclaimed and in which areas of the country they will be needed. This kind of information flow between the Ontario and federal authorities was lacking during the SARS crisis in 2003. Moreover, the powers of the federal government in a public health emergency are only useful to the extent that they are matched by capacity "on the ground." This means two things: it means having the necessary public health personnel, equipment, and financial and other resources to respond, and it means having the appropriate governance arrangements to activate these resources in an efficient and effective manner.

The existing *Emergencies Act* allows the federal government to invoke its emergency powers when it sees fit, subject only to very modest limitations. But we would strongly recommend removing the more-than-one-province requirement for unilateral federal action. A better approach would be for the decision to permit federal involvement to be guided by the fundamental properties of an infectious threat. Federal action could be justified if the following criteria were met: (1) there is clear potential for cross-border transmission; (2) the health consequences of the epidemic are potentially severe; and (3) a national approach to controlling the outbreak could be reasonably considered to be more effective than a purely local approach.

Further guidance could be drawn from the WHO's "Decision Instrument for the Assessment and Notification of Events that May Constitute a Public Health Emergency of International Concern." Member nations are expected to apply this instrument to developing outbreaks within their borders. Events that constitute a public health emergency of international concern must meet at least two of the following criteria: (1) the public health impact of the event is serious; (2) the event is unusual or unexpected; (3) there is a significant risk of international spread; and (4) there is a significant risk of international travel or trade restrictions. Modifying this instrument for events of national concern and incorporating it within Canadian legislation would have two advantages. First, it would reassure provincial governments that the federal government would not use any new powers arbitrarily. Second, it would assist Canada in meeting the requirements of the revised International Health Regulations, thereby meeting our international commitments as well as potentially protecting us from WHO travel recommendations.

Ensuring that this country is prepared for the next pandemic is a high

priority for public health officials. Establishing the necessary public health infrastructure and capacity is of central importance in preparing for this threat. However, a critical component of any such preparation will be to guarantee that effective relationships exist among the various orders of government that will need to work together to manage the emergency. We have argued that an essential component of developing effective relationships is to establish a strong federal role in the emergency-response process. Strong federal leadership is essential to ensure that communication exists among provinces and with the international community.

Global infectious health threats are increasingly being brought to our attention, and at present there are international efforts to develop a coordinated approach to prepare for the next flu pandemic. In May 2005, the World Health Assembly approved newly revised International Health Regulations, which include reporting and response requirements that countries will be expected to meet within two years of the formal adoption of the regulations. The steps we have described for enhancing federal powers in the event of a public health emergency will be an important component of this country's ability to comply with these new regulations and meet our international responsibilities — a key requirement for Canada as a member of the global public health community.

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