

# SECURING THE PUBLIC HEALTH REALM: RE-ENVISIONING CANADA'S ROLE IN THE NEW CENTURY



Kumanan Wilson

The emergence of a new pandemic influenza strain has once again reminded the world of its collective vulnerability to pathogens that can rapidly cross borders. In this article, Kumanan Wilson examines the strategies that the international community has formulated to help reduce the risk of global health emergencies, and argues that Canada has a unique opportunity and a responsibility to take the lead in improving international health security. To that end he puts forward a blueprint outlining priorities for Canada. Acting upon this blueprint would, he writes, "protect Canadians, improve human security, be consistent with Canadian values, provide economic opportunities for this country and help the world's most vulnerable."

L'émergence d'une nouvelle grippe pandémique est venue rappeler la vulnérabilité d'un monde où les agents pathogènes peuvent rapidement se propager au-delà des frontières nationales. Kumanan Wilson examine ici les stratégies élaborées par la communauté internationale pour réduire les risques d'urgences sanitaires mondiales, puis soutient que le Canada a l'occasion unique et la responsabilité de prendre l'initiative du renforcement de la sécurité sanitaire à l'échelle internationale. Il propose à cette fin une série de priorités dont l'application permettrait au Canada de « protéger les Canadiens, d'améliorer la sécurité humaine, de respecter les valeurs canadiennes, de créer des possibilités économiques pour le pays et d'aider les populations les plus vulnérables du monde ».

**W**hat should Canada's role be in protecting global security? When Canada's mission in Afghanistan changed from peacekeeping to active combat many in this country were forced to re-examine this question. The transition of the mission was motivated by several factors including a commitment to improve the lives of Afghanis and to protect the security of Canadians by tackling terror threats at their source. The mission, however, proved controversial. The human cost, combined with a lack of sense of progress and concern about whether this is the appropriate role for Canada, contributed to this unease.

Canada, as a wealthy nation, does have a responsibility to contribute to efforts to improve international security, particularly when doing so will also provide protection to Canadians at home. However, this country can choose a different policy course, one less controversial and more consistent with Canada's traditional role as a middle power, that will achieve these same objectives.

It is increasingly evident that serious threats to collective security come not only from individuals but also from communicable disease. New infectious threats are constantly arising and challenging human systems. In some instances these threats are completely novel pathogens, for example diseases that cross species barriers from animals to humans. In other instances, existing conditions are emerging as increasing threats, such as through the development of dangerous levels of resistance to current treatments. Whatever their origin, these threats not only affect the health of those in the countries in which they arise but are increasingly likely to spread across borders. As the severe acute respiratory syndrome (SARS) outbreak made evident to Canada, failures to control these emergencies as they arise abroad can have catastrophic consequences for Canadians. The ongoing H1N1 swine flu outbreak has served to further remind us of our collective vulnerabilities to these threats.

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the countries affected as well as provide protection for the health of Canadians. Such a policy will also offer other benefits such as improving our relations with less developed countries and creating opportunities for enhanced trade relations.

The world is currently plagued by multiple threats to the health of its inhabitants. At present over 30 million people are living with HIV. Malaria, a treatable condition, kills thousands of children every day. Approximately 2 billion people are infected with tuberculosis worldwide. While these plagues have been primarily the concern of poorer nations it is increasingly evident that public health risks will not remain confined to selected parts of the world. SARS travelled from China to Canada, killing hundreds and costing the economy of Toronto \$1 billion. An outbreak of a new swine influenza strain has recently been declared to be a pandemic by the WHO. Global preparations for such an influenza pandemic have anticipated high human and economic consequences.

The tuberculosis mycobacterium is rapidly developing resistance and has given rise to multiple-drug-resistant and extensively drug-resistant versions, the latter of which is treatable by only two drugs. The travel of an American with drug resistant tubercu-

losis a few years ago created international concern about the cross-border transmission of the condition. The 2001 anthrax attacks in the United States raised awareness of another mechanism by which disease could spread internationally, through deliberate actions in the form of bioterror-

ism. It is these events that have resulted in the emergence of health security, particularly as it relates to rapidly spreading communicable diseases, as a global priority.

In response, the international community has begun to take action. Strategies have been formulated to reduce the risk of global spread of health emergencies. These strategies have their foundation in three elements. First, governance within countries and across countries needs to be coordinated. Otherwise failures on the part of one government to take the appropriate actions can increase the world's collective risk. Second, well-developed surveillance systems are necessary to detect emerging threats at a point in time at which effective action could limit or perhaps prevent their spread. Finally, once a threat is detected, adequate resources must be available to respond to the threat effectively. This may require the provision of assistance from international authorities or other countries.

Combined, these approaches have the potential to considerably limit the harm caused by an emerging health threat. However, there are serious impediments to the success of each of these components. Coordinated governance can be challenging within countries with decentralized systems of government. It will be even more of a challenge to coordinate such

approaches between governments of different countries. Without coordination, a scenario of "every one for themselves" can arise, increasing the world's collective vulnerability. Capacity to prepare and respond is also seriously lacking in many countries, particularly those where the emergence of international health threats is most likely to occur. These countries urgently require assistance to tackle both domestic health threats and health threats that pose a risk for international spread.

As the world struggles with efforts to preserve public health security, Canada is in a position to provide real and needed leadership. SARS was to Canada, in many ways, what the September 11 attacks were to the United States — a revelation of our and the world's vulnerability to foreign-born threats. The United States responded to the September 11 attacks by taking dramatic measures to protect Americans at home and abroad. SARS in a parallel manner demonstrated Canada's security risk, not from foreign born terror but rather from foreign-born pathogens.

To protect Canadians, federal and provincial governments have invested in domestic public health security and introduced reforms such as the creation of the federal public health agency. However, this alone will likely not be enough in an era in which organisms can rapidly travel across the planet courtesy of modern transportation. To truly protect Canadians, Canada needs to take the public health battle abroad, and help fight diseases at their points of origin. Canada should, therefore, help poorer countries establish public health security and champion international agreements designed to protect international health security.

Canada's prosperity, its comparatively enviable financial situa-

tion, its standing in the world and its past leadership on health position this country well to play a prominent role in the efforts to improve health security. As trillion-dollar budget deficits and competing priorities may force the United States to reconsider existing commitments, there will be an urgent need for other countries, such as Canada, to fill this gap. To do so Canada needs to have clear priori-

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ties, including first taking care of issues domestically and then using this as a basis to extend these efforts internationally.

Canada's first priority should be to dramatically increase public health funding in this country. Assisting other nations means ensuring we have sufficient capacity to do so. Public health has historically been underfunded and continues to be so despite the reform efforts following SARS. Even a portion of the estimated billions that Canada spent on the war in Afghanistan, if spent on public health, could allow Canada to have the necessary capacity to meet domestic needs as well as offer considerable international assistance. A "public health stimulus" package would go to develop highly trained public health professionals, develop public health labs, invest in surveillance technologies and support pharmaceutical innovation.

Apart from financial investments, lingering governance issues need to be resolved. Intergovernmental relations in public health continue to be a stumbling block in establishing national public health programs. Although they were highlighted in

numerous reports, little progress has been made in overcoming some of the key obstacles. A component of the problem has been identifying the roles and responsibilities of the new Public Health Agency of Canada. This agency was created with the intention of being the Canadian equivalent of the United States Centres for Disease Control and Prevention (CDC) and to provide clear national leadership.

However, to do this effectively, the agency needs both more funding and a clearer arm's length status, to allow its action to be separated from political considerations.

The second priority for Canada is to be a champion of the newly revised International Health Regulations (IHR). The IHR are the most important international documents governing the response to public health emergencies. In many ways they are the Kyoto Protocol equivalent of public health.

The IHR call for all countries to take steps to help ensure that the international community is protected from the cross-border spread of "public health emergencies of international concern." It calls on member states to make investments in public health capacity, particularly surveillance systems, to report on events within their borders within specified time periods and to permit the World Health Organization (WHO) to take measures, such as the issuance of travel recommendations, to control the spread of emergencies.

Canada played an important role in the development of the IHR and should continue to forcefully advo-

cate for these regulations. This will first require that we guarantee that we can institute the regulations domestically — which will involve further efforts to develop comprehensive integrated health surveillance systems as well as solving long-standing intergovernmental disputes about the sharing of health information. If we are successful on the domestic front, Canada can then provide assistance to other countries.

We are best situated to do so in the case of surveillance capacity enhancement. Canada developed the WHO public health early warning system, the Global Public Health Intelligence Network (GPHIN). We have also been leaders in outlining a vision for domestic surveillance, although these efforts have been undermined by intergovernmental disputes and lack of funding. The development of home-based surveillance systems that work would allow us to share these technologies with poorer countries. Some countries may also choose to purchase technology developed in Canada. According to the IHR every country will be required to have systems in place by the year 2012. If Canada can lead the way in developing systems that will be IHR-compliant, there will be many other countries eager to acquire similar systems.

The third priority for Canada is also related to the International Health Regulations, although specifically focusing on assisting capacity development so that other countries can respond to public health emergencies. This means providing additional personnel to the WHO's Global Outbreak Alert & Response Network (GOARN). This network is the WHO's early response system, rapidly deploying to areas where public health emergencies are identified. While the United States CDC has been a major contributor to GOARN, the network will require addi-



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**"The ongoing H1N1 swine flu outbreak has served to further remind us of our collective vulnerabilities to infectious threats," writes Kumanan Wilson. Here, tourists are pictured wearing protection masks in London last May.**

tional support to tackle expected challenges. By further augmenting its contribution to GOARN, Canadian public health officials could be the face of international responses to protect countries from disease.

Similarly, for global efforts to prepare and respond to public health emergencies to be effective, poor countries need to be reassured that assistance will be available to them if the emergency emerges within their borders. Insecurity about this has prompted Indonesia to reconsider sharing viral isolates with the WHO unless vaccine provision is guaranteed. Canada should contribute to providing

resources, for example vaccines and other pharmaceutical agents, that could assist these countries if a suspected public health emergency emerges within their borders. Doing so will not only protect the populations of these countries, it will also encourage their compliance with the international arrangements that are central to responding to a pandemic.

Ultimately, the response to any public health emergency will be a local one and be led by local doctors, nurses and public health personnel. Unfortunately there is a lack of capacity in this regard and wealthy countries, such as Canada, are partly to

blame. Canada's failure to adequately manage its own health workforce has resulted in a practice of recruiting health professionals from other countries, including developing nations. Such practices need to come to an end, which means ensuring that we invest adequately in our health workforce.

Beyond this we should assist poorer countries in training their health professionals. Public health threats cannot be tackled without adequately trained personnel. As this and other countries have been luring these trained individuals away, to solve their own health staffing crises, the irony is they are making those regions suscep-

tible to the emergence of a threat that could ultimately come to their shores.

This “blueprint” offers many benefits for Canada. First, it protects the health and security of Canadians. This will occur both through the enhancement of national public health capacity as well as by improving the likelihood that health emer-

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gencies occurring abroad are controlled at source.

Second, and as important, Canada will be doing its part to provide for the health security of those in less developed countries. Assisting those countries in developing necessary capacity to protect against public health threats of international concern will provide them with capacity to better manage their public health emergencies of domestic concern. Surveillance systems can help these countries identify domestic health threats at early stages. Training of public health personnel can help alleviate the impact of the brain drain to the West and provide much-needed human resources on the ground.

A tangible example of the benefits of such a blueprint can be found through a re-examination of the response to the SARS outbreak. The Canadian developed GPHIN, which regularly searches the Internet for information on potential public health threats, identified the existence of the unusual respiratory outbreak in November 2002. At the time GPHIN lacked the capacity to translate the reports. If such capacity had existed, as it now does, the world would have had early warning of SARS. If the

International Health Regulations had been in place prior to the outbreak, the WHO would have had the authority to act on this information, China would have been required to have had in place surveillance systems to detect the outbreak, and China would have been required to communicate information on the nature of the outbreak to the WHO. The WHO could then

have provided assistance in the form of a global outbreak alert, to help limit the impact of the outbreak at its earliest stages, and recommendations to prevent the spread of the virus across borders.

In other words, the elements in which Canada should invest, if they had been in place before SARS, could have theoretically prevented the international spread of the virus, saving thousands of lives, including hundreds in Canada, and billions of dollars in economic damage. The current H1N1 swine influenza outbreak further illustrates the importance of investing in global health security. If wealthier countries had assisted in the development of advanced health surveillance systems in Mexico, as required by the IHR, these systems could have provided early warning of the H1N1 influenza outbreak, perhaps allowing for ground-level containment strategies to stop the spread of the virus before it emerged as a full-blown-epidemic.

The blueprint described here, however, provides advantages beyond contributing to domestic and international health security. Through implementation of its elements Canada can

embark upon a form of health diplomacy, whereby it can further relations with other countries through the provision of health services.

The concept of health diplomacy has its roots in the idea of soft power, defined by Harvard professor Joseph Nye as “the ability to get what you want through attraction rather than coercion or payments.” Canada’s historical role as a middle power has a strong basis in soft power. International public health engagement, in the form of health diplomacy, would be a logical extension of this role.

Providing assistance and care for the vulnerable of another country is an excellent mechanism by which to enhance diplomatic relations. Many of the countries that require public health assistance are the very same countries identified as emerging markets with whom enhanced trade ties would be advantageous. For example, China’s prominent role in Africa has been assisted by its provision of health services to the continent. China has sent thousands of medical teams to Africa since the 1960s and in the process assisted Africa in training health professionals and providing for the care of millions of Africans. Canada’s investment in international health security may offer similar dividends.

As the world becomes increasingly aware of its shared risk from public health threats that can rapidly cross borders, Canada has a unique opportunity and one might even say responsibility to lead the effort to establish international health security. Doing so would protect Canadians, improve human security, be consistent with Canadian values, provide economic opportunities for this country and help the world’s most vulnerable.

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