

CHINA PAPERS  
No. 12

CIC

CANADIAN INTERNATIONAL COUNCIL  
CONSEIL INTERNATIONAL DU CANADA

CIIR  
CENTRE OF  
INTERNATIONAL  
RELATIONS

The University of British Columbia

CHINA'S CAPACITY TO RESPOND  
TO THE H1N1 PANDEMIC ALERT  
AND FUTURE GLOBAL  
PUBLIC HEALTH CRISES:  
A POLICY WINDOW FOR CANADA

**Lesley Jacobs**

June 2010

Canadian International Council  
[www.onlinecic.org](http://www.onlinecic.org)

Conseil international du Canada  
[www.cicenligne.org](http://www.cicenligne.org)

## ABSTRACT

China's response to the World Health Organization's 2009 H1N1 pandemic alert provides an opportunity to make visible its current national capacities for epidemic preparedness and response. This paper is divided into four sections. The first section provides an overview of the international health regulations that govern domestic health policy responses to global infectious diseases. The second recounts briefly how China handled the SARS crisis in 2003 and notes some of the capacity building in public health it has undertaken to remedy for its deficiencies during that crisis. The third section describes how China has responded to the WHO's H1N1 pandemic alert with a view to identifying some weaknesses in its current national capacities for epidemic preparedness and response. The final section identifies how Canada may be able to support China in its strengthening of its vaccine development and production dimension of its national public health capacity.

## RÉSUMÉ

La réponse de la Chine à l'alerte de pandémie de grippe A (H1N1) lancée en 2009 par l'Organisation mondiale de la santé a mis en évidence ses capacités nationales de préparation et de réaction en cas d'épidémie. Cette étude est divisée en quatre sections. La première recense les règlements sanitaires internationaux qui régissent les politiques de santé nationales face aux maladies infectieuses mondiales. La deuxième revient brièvement sur la réaction de la Chine à la crise du SRAS de 2003 et rend compte de certaines des initiatives de renforcement des capacités de santé publique qu'elle a prises pour remédier aux lacunes apparues durant cette crise. La troisième décrit comment la Chine a répondu à l'alerte de pandémie de grippe A (H1N1) de l'OMS pour faire ressortir les faiblesses actuelles de ses capacités nationales de préparation et de réaction en cas d'épidémie. Et la dernière examine comment le Canada pourrait aider la Chine à développer ses propres vaccins et à renforcer la productivité de ses capacités de santé publique.

## ABOUT THE AUTHOR

Dr. Lesley Jacobs (BA, MA, Political Science, UWO; PhD, Politics, Oxford) is Professor of Law and Society and Political Science and Director of the York Centre for Public Policy & Law at York University in Toronto, Canada. He has held a range of distinguished visiting appointments at other universities including the Harvard Law School (Liberal Arts Fellow, 1997-1998), Oxford Centre for Socio-Legal Studies (Wolfson Fellow, 1994), Law Commission of Canada (Virtual Scholar in Residence, 2006-2007), the University of California, Berkeley (1994), the University of Toronto (Centre of Criminology, 2004-2005) and the University of British Columbia (Political Science, 2001). He is also a member of the Research Advisory Board of the Law Commission of Ontario. His books include *Rights and Deprivation* (Oxford University Press, 1993); *Workfare: Does It Work? Is It fair?* (IRPP, 1995); *The Democratic Vision of Politics* (Simon & Schuster, 1997) and *Pursuing Equal Opportunities* (Cambridge University Press, 2004). His newest forthcoming books include *The Globalization of Public Health Policy on the Asia Pacific Rim: Domestic Policy Dialogue with International Institutions* and (with Sarah Biddulph) an edited volume, *International Human Rights Issues in the Asia Pacific: New Perspectives on Social Rights*. His research interests include global public health and human rights; comparative public policy (especially income policy, health law and policy and human rights); empirical social-legal research; courts and social policy; intersections between international human rights and trade law; and theoretical work on social justice. Although his work has a wide transnational comparative reach, it focuses mainly on public policy and law in Canada, the United States, China and other countries on the Asia Pacific Rim.

The opinions expressed in this paper are those of the author and do not necessarily reflect the views of the Canadian International Council, its Senate or its Board of Directors.

If you would like to download a copy of this report please visit [www.onlinecic.org](http://www.onlinecic.org)

If you would like to be added to our mailing list or have questions about our publications please contact: [info@onlinecic.org](mailto:info@onlinecic.org)

ISSN 1921-9865 (Online) ISSN 1921-9881 (Print)

© 2010 Canadian International Council

## INTRODUCTION

Over the past decade, public health issues have come to be increasingly recognized as among the most pressing and difficult challenges to global security and international relations. They have the potential to destabilize governments, create havoc for national economies and disrupt international trade. The global AIDS epidemic in the late 20th century accentuated in particular the significance of emerging infectious diseases. Although the eruption of newly discovered infectious diseases has a long history, what is new is the greater vulnerability to the worldwide spread of these diseases caused by the rapid movement of people, goods and resources.<sup>1</sup> As the World Health Organization (WHO) recently observed, "Achieving international public health security is one of the main challenges arising from the new and complex landscape of public health."<sup>2</sup> Although Africa has been the focal point for the global movement to respond to AIDS, Asia Pacific Rim countries have been a major site for dealing with other new infectious diseases. China's role in global health crises is particularly important because of its immense population – 1.3 billion – and the fact that it is on track to become the second biggest domestic economy in the world by 2010. It was at the epicentre of one of the most significant recent global health crises, the Severe Acute Respiratory Syndrome (SARS) crisis in 2003, and near the epicentre of the Avian Flu crisis in 2004-2008. During the course of 2009, the H1N1 flu, or Swine Flu, spread so rapidly around the globe that on June 11, 2009, the WHO declared the disease a Phase 6 pandemic and alerted member states to implement their pandemic preparedness and response plans.<sup>3</sup> China's response to the WHO's H1N1 pandemic alert provides an opportunity to make visible its current national capacities for epidemic preparedness and response.

This paper is divided into four sections. The first section provides an overview of the international health regulations that govern domestic health policy responses to global infectious diseases. The second section recounts briefly how China handled the SARS crisis in 2003 and notes some of the capacity building in public health it has undertaken to remedy its deficiencies during that crisis. The third section describes how China has responded to the WHO's H1N1 pandemic alert with a view to identifying some weaknesses in its current national capacities for epidemic preparedness and response. The final section identifies how Canada may be able to support China in its strengthening of its vaccine development and production dimension of its national public health capacity.

## INTERNATIONAL HEALTH REGULATIONS AND GLOBAL INFECTIOUS DISEASES

During crises involving infectious diseases, international obligations for states arise from the variety of international sanitary conventions that date originally to the late 19th century and were consolidated into the International Sanitation Regulations by the WHO in 1951.<sup>4</sup> These regulations, designed to prevent the international spread of infectious diseases, required states to notify the international community of outbreaks of certain diseases and maintain public health facilities that could regulate international points of entry and exit. In 1969, the WHO replaced these regulations with the International Health Regulations (IHR), which covered six "quarantinable" diseases.<sup>5</sup> IHR for infectious diseases were revised in 1973 and again in 1983 so that they applied to only three diseases – cholera, plague and yellow fever. This meant that the regulations did not address evolving contagions such as AIDS, SARS and Avian Flu. In May 2005, the WHO formally adopted new IHR designed to apply to all public health risks, not just those stemming from cholera, plague and yellow fever. The underlying logic of this new set of IHR is that they are better able to deal with new and emerging infectious diseases for the sake of international public health security.<sup>6</sup>

1 Garrett, *The Coming Plague*; Lee, Buse, and Fustukian, *Health Policy in a Globalising World*.

2 World Health Organization, "International Health Regulations (2005)," 5.

3 World Health Organization, "What Is Phase 6?"

4 Fidler, *International Law and Infectious Diseases*.

5 World Health Organization, "International Health Regulations (2005), Second Edition."

6 Fidler and Gostin, "The New International Health Regulations."

The new IHR came into force on June 15, 2007 and are legally binding on 194 countries including all member states of the World Health Assembly. The aim of the IHR "is to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide."<sup>7</sup> They are designed to provide a public health response to the global spread of diseases and other public health risks whilst avoiding unnecessary interference with human rights, international travel and international trade.<sup>8</sup> As noted above, unlike previous versions of the IHR, the new regulations are not limited to specific diseases and in this way will maintain their relevance and applicability when new infectious diseases emerge. What has been commonly overlooked is that the new IHR now reach beyond diseases to other global health risks, in particular, dangers posed by food-borne diseases and disasters that can spill across borders such as nuclear accidents and chemical leaks.

In addition to broadening the reach of international health regulations, the 2005 IHR have a number of innovative features, including

- Establishing obligations for states to develop certain basic public health capacities and to notify the WHO of public health emergencies that constitute international threats;
- Allowing the WHO to utilize information sources other than official reports from member states;
- Creating procedures and levels of risk for the determination of a global public health crisis and
- Embedding the protection of human rights in the regulations.<sup>9</sup>

From the perspective of member states, the WHO is especially interested in supporting and strengthening national public health capacities along two dimensions.<sup>10</sup> The first dimension is concerned with national disease prevention, surveillance, control and response systems. The other dimension involves public health security in travel and transport. The strengthening of these national capacities reflects a major shift in approach by the WHO to international public health security. As noted above, this is reflected partially in the broadening of the scope of the IHR from specific diseases to all health threats, but it is also significantly a shift from controlling contagions at borders to containment at their source and a movement away from preset containment measures to "adapted response."<sup>11</sup> The WHO envisions that the challenges of supporting and strengthening national public health capacities will be met not only through its own initiatives and those of other international institutions involved in public health capacity building such as the World Bank and the Asian Development Bank, but also by fostering global partnerships between member states. The emphasis in the new IHR on fostering global partnerships provide some space for policy development in Canada with an eye to seeing how it can support China's efforts to strengthen its national capacity to contribute to international public health security.

## CHINA'S HANDLING OF THE SARS CRISIS

SARS presented itself as the first genuinely global infectious disease of the new millennium, spreading quickly to numerous cities and countries around the world by international travelers. It initially emerged in November 2002 in Guangdong Province, China, but was only identified internationally as a newly emerging infectious disease in March 2003. The WHO issued a global health alert about SARS on March 12, 2003, the first global alert it has ever issued. By the time the crisis ended in summer 2003, approximately 8,098 persons worldwide were diagnosed with probable SARS, and there were 774 deaths.<sup>12</sup> The majority of these cases had occurred in mainland China. There have been no reported new cases outside laboratories since June 2003.<sup>13</sup> SARS created an international public health security crisis because initially very little was known about its origins, symptoms,

7 World Health Organization, "International Health Regulations."

8 World Health Organization, "International Health Regulations (2005), Second Edition."

9 Ibid.

10 World Health Organization, "International Health Regulations (2005)."

11 Ibid., 11.

12 Centers for Disease Control and Prevention, "Revised U.S. Surveillance."

13 Yardley, "After Its Epidemic Arrival."

transmission, incubation and long-term effects. Moreover, there was no test in place to confirm the disease and there is still no vaccine.

China's initial response to international enquiries about SARS was one of secrecy and denial. This response followed a familiar pattern. As Wang describes it, "Before April 24, 2003, China's response to the SARS epidemic followed its traditional approach to handling epidemics. Health authorities silently tried to control the epidemic without upsetting social stability."<sup>14</sup> This response certainly did not reflect compliance with the spirit of international regulations for dealing with such epidemics, even though it was not technically a violation in that, as noted above, the WHO's IHR in place at the time did not apply to new infectious diseases.

In early April 2003, in response to international pressure, WHO teams were granted access to Beijing, Guangdong Province and other possible centres of SARS in China. On April 3, 2003, Minister of Health Zhang Wenkang insisted publicly that the disease was under control. A military physician almost immediately sent e-mails to Chinese and Hong Kong television stations indicating that the actual number of SARS cases and deaths in Beijing was significantly higher than the figures admitted by the Minister of Health.<sup>15</sup> Two weeks later, on April 17, 2003, the Politburo Standing Committee ordered "accurate, timely, and honest reporting" of SARS cases.<sup>16</sup> A week later, both the Minister of Health and the Mayor of Beijing were removed from their posts, along with more than 100 health officials, for covering up and under-reporting SARS infection rates.

Although there were remaining concerns about mainland China's openness in late April 2003, after thorough investigation the WHO praised China for the accuracy of its new numbers of SARS cases. In Shanghai, for example, a WHO team confirmed that the incidence of SARS was indeed very low, as city officials had insisted, despite some skepticism in the foreign media.<sup>17</sup> The measures that China undertook to contain SARS reflected the WHO guidelines, which did not recommend the use of large-scale stringent quarantine.<sup>18</sup> In April 2003, Premier Wen Jiabao promised not to implement extreme quarantine measures in China. In keeping with this statement, the Chinese government relied to a great extent not only on isolation and quarantine measures to stanch the spread of SARS, but also on education and health promotion, travel restrictions, temperature screening at airports, health declarations and other less intrusive means, such as the wearing of masks in public.<sup>19</sup>

In Hong Kong, which has its own infectious disease and public health legislation, Special Regional Authority officials made decisions about how to handle the SARS crisis largely independent of Beijing. It reported its first SARS case in late February 2003. Over the course of the crisis, there were 1,755 confirmed cases leading to 300 deaths.<sup>20</sup> Like in Toronto, much of the SARS epidemic in Hong Kong was concentrated in hospitals. Although the Hong Kong Hospital Authority initially gave individual hospital administrations latitude in their policies, decision making during the SARS crisis was soon centralized in a senior management team which met daily to review policies. Significantly, that team included past heads of the physician union as well as the current head of the hospital support staff. Communications to staff were likewise centralized and directed by the team. What tended to characterize the decision making in Hong Kong was extensive consultation with international organizations, in particular the WHO, and conformity to international norms and standards.<sup>21</sup>

SARS ended in China at virtually the same time it did in other countries. Indeed, the US Centers for Disease Control and Prevention (CDC) lifted its travel alert on Hong Kong, Beijing and other major Chinese cities before it lifted the alert on Toronto.<sup>22</sup> Human Rights Watch judged that the handling of SARS established a new

14 Wang, "China's Response to SARS," 149.

15 Pomfret, "Outbreak Gave China's Hu an Opening."

16 de Lisle, "Atypical Pneumonia," 201.

17 Beech, "Shanghai Has Promised."

18 Sapsin, et al., "SARS and International Legal Preparedness."

19 Jacobs, "Rights and Quarantine"; Jacobs and Potter, "Selective Adaptation."

20 SARS Expert Committee, "SARS in Hong Kong."

21 Jacobs, "Rights and Quarantine."

22 "SARS: Timeline of an Outbreak."

standard of public accountability in China.<sup>23</sup> Summing up, de Lisle writes, "The 2002–2003 SARS episode and its aftermath also reflected and extended the Chinese regime's increased (if sometimes reluctant or unintentional) transparency and amenability to pressures to adhere to international norms, including legal ones."<sup>24</sup>

The SARS crisis had a significant long-term impact on public health in China. Domestically, since 2003, China has been building its public health infrastructure (which for our purposes here is distinct from its system of health care insurance, delivery and provision) in order to fill the gaps that became transparent during the SARS crisis. This has meant establishing a national network of Centers for Disease Control, nurturing an immunization manufacturing industry and improving the avenues for communication between the Ministry of Health, on the one hand, and local governments and their public health units, on the other hand. Moreover, China's standing in the WHO was significantly enhanced. This is evident from the appointment of Margaret Chan Fung Fu-chun, who was the Director of Health in Hong Kong during the SARS crisis, as the WHO Director-General in 2006. (Chan is the first Chinese national to head a major United Nations agency.)

## CHINA'S RESPONSE TO THE H1N1 PANDEMIC

There has been an increasing concern that one of the biggest threats to international public health security is the advent of an influenza pandemic on the scale of the flu pandemic that caused more than 20 million deaths after the First World War. Much of the focus initially was on the potential of the Avian Flu to develop into a full-blown pandemic. Although Avian Flu, which was concentrated in southeast Asia, was originally identified in 1997 as a new strain of influenza (H5N1), its spread only received serious global attention after SARS. Among Asian countries, China's death toll from Avian Flu was the third largest in the period from 2004-2008. It had 25 deaths compared to 115 in Indonesia and 56 in Vietnam.<sup>25</sup>

Unlike with SARS, China responded promptly to concerns about Avian Flu. In the second half of 2003, it quickly culled 22,500,000 poultry in rural areas where the disease was detected. In March 2004, it convened in Beijing a special China-ASEAN conference on coordinating responses to Avian Flu, where a series of measures were agreed upon by the states present. This was followed in August 2005 with a series of policy developments designed to formulate China's measures for addressing Avian Flu as part of a broader pandemic plan. The policies included

- Preparedness and contingency planning for an influenza pandemic;
- Emergency planning for human infections from a pandemic outbreak of Avian Flu;
- Guidance for diagnosis, treatment, prevention and control of human infections of Avian Flu;
- National emergency planning for highly pathogenic Avian Flu;
- National planning for the outbreak of animal epidemics and
- Plans against public health accidents.

Parallel to this Avian Flu policy development was the national government's investment in public health programs. In the period 2004-2007, Beijing put in place 2,425 epidemic protection programs at a cost of 11,600,000,000 RMB (more than \$1.5 billion) and spent 6,085,000,000 RMB (almost \$1 billion) on constructing centres for disease control at the province, city and county levels as well as building 2,360 emergency epidemic centres, infectious disease hospitals and other related facilities. Like with SARS, China's leading pharmaceutical companies, in particular SINOVAC, worked on developing a vaccine. In the case of H5N1, SINOVAC did successfully develop and licence a vaccine. As a global health threat, however, Avian Flu receded by 2008 and ultimately has not proven to have the devastating impact on international public health security that many feared.

<sup>23</sup> "Locked Doors."

<sup>24</sup> de Lisle, "Atypical Pneumonia," 201.

<sup>25</sup> World Health Organization, "Cumulative Number of Confirmed Human Cases."

2009 has been witness to a new strain of influenza, H1N1 or Swine Flu, which has spread rapidly across the world. The origins of H1N1 have been traced to Mexico in late February 2009, although it was not identified as a novel strain of influenza until April 2009. The CDC in Atlanta traced the first case of H1N1 in the United States to March 28, 2009. The first H1N1 death worldwide occurred in Mexico on April 13, 2009, at which point the WHO declared a flu pandemic alert. Over the next two months, H1N1 spread rapidly, with confirmed cases around the world. Canada confirmed its first cases of H1N1 on April 26, 2009. On June 11, 2009, the WHO declared the disease a Phase 6 pandemic – its highest level of threat – and alerted member states to implement their pandemic preparedness and response plans.<sup>26</sup> It was quickly acknowledged, however, that H1N1 cases were in most instances quite mild and that the threat came from its rapid spread coupled with the possibility that the virus might mutate into a more dangerous strain of influenza. As of June 2010, there has been no sign that the virus was mutating in this way.

The WHO reported on October 16, 2009 that there were 400,000 laboratory-confirmed cases worldwide including 4,735 deaths attributed to H1N1. The confirmed cases are far below the actual cases because most countries have stopped utilizing laboratory resources to confirm actual cases. In Hong Kong, the actual cases were estimated by the Centre for Health Protection on September 25, 2009 at 500,000 even though it has only confirmed 25,305 cases.<sup>27</sup> The death toll in Hong Kong from H1N1 at the time was 20. (Contrast this to Hong Kong's experience during the SARS crisis when there were only 1,755 cases but 300 deaths.) In China, only two deaths have been attributed to H1N1, one in September and one in October 2009. As of October 6, 2009, it has reported 21,431 confirmed cases of H1N1. Three quarters of the deaths attributed to H1N1 worldwide have occurred in North and South America. Only 10 percent have occurred in South East Asia. The death toll in Canada as of October 15, 2009 was 80.<sup>28</sup> From August 30 to October 10, 2009, the CDC reported 292 confirmed H1N1 deaths.<sup>29</sup> By mid-October, H1N1 accounted for 97 percent of the total flu cases in Canada.<sup>30</sup> The CDC had similar findings.

China responded to the WHO's H1N1 pandemic alert promptly by rolling out and adapting the pandemic planning and preparedness it had developed during the Avian Flu crisis. On August 11, 2009, China's Health Minister Chen Zhu identified the six main strands of China's response to H1N1<sup>31</sup>

1. The establishment of a coordinated system of prevention and control. After receiving the WHO alert, China set up a united response team composed of the Ministry of Health and 33 other departments. Every important strategy and project decision is made by professionals based on a dynamic analysis of the epidemic situation.
2. The use of strict port entry and exit quarantine measures. From the beginning of the epidemic, Chinese authorities have begun embarking on airplanes to check temperatures, develop health situation reports, undertake strict quarantine, carry out medical observations of those that have been in close contact with infected persons, and so on. Changes in the pandemic mean that there is no longer airplane quarantine. Other related strategies have also changed according to the new situation.
3. Enforcement of the management of those that have been in close contact with infected persons. Besides the quarantine of H1N1 cases, the Ministry of Health supports the medical observation of their close contacts.
4. Enforcement of the monitoring and reporting system.
5. Adjustment and improvement of diagnosis and treatment.
6. Supporting research on an H1N1 vaccine.

<sup>26</sup> World Health Organization, "What Is Phase 6?"

<sup>27</sup> Ng, "HK to Scale Back Surveillance."

<sup>28</sup> Public Health Agency of Canada, "Summary of FluWatch Findings."

<sup>29</sup> Centers for Disease Control and Prevention, "2009-2010 Influenza Season."

<sup>30</sup> Public Health Agency of Canada, "Summary of FluWatch Findings."

<sup>31</sup> "Statement to Health Affairs."

These six strands have made China's response to the H1N1 global pandemic very visible to both its citizens and visitors.

At China's borders, with the onset of H1N1, travelers are required to complete health declaration forms and have their body temperatures measured by a thermometer gun administered by a border control officer. Much of the actual pandemic flu surveillance, however, is being carried out at the province, city and village level by local officials. The Ministry of Health has rolled out elaborate protocols for local officials as well as for hospitals, schools and universities.<sup>32</sup> The preambles for some of these protocols emphasize that the requirements they set out are consistent with directives from the WHO.<sup>33</sup> However, while the national government has contributed substantial money to building disease control facilities, it has not matched these funds for operating costs. The three-fold mandate (points 3, 4 and 5 above) that the Minister of Health has issued for local governments is largely unfunded. This has made some of the less costly local initiatives more widespread than others. For example, schools have been an important site for education about the spread of H1N1 and an inexpensive avenue for local officials to fulfill their various mandates. Teachers were required on the first day of school in autumn 2009 to devote their first lesson to H1N1 prevention.<sup>34</sup>

The actual number of H1N1 cases in China is unknown. However, if the actual numbers estimated for Hong Kong noted above are accurate, it is reasonable to expect about 100 million cases. Ultimately, however, because H1N1 has proven to be a very mild flu strain, the pressures it is likely to put on China's public health infrastructure are not going to overwhelm it. Moreover, unlike in the case of SARS or Avian Flu, there is no evidence of panic among the general public.

There are two aspects of China's response to H1N1 that seem especially noteworthy. The first is how H1N1 is perceived by public officials and how this affects the response. The relevant perceptions revolve around whether the infectious disease is believed to have domestic origins or to have been introduced in China by foreigners. This distinction is reflected in China's response to AIDS, which is perceived as a disease carried by foreigners into China and stemming from a lack of vigilance at the borders of the "Middle Kingdom." Internationally, of course, China's response to AIDS has been widely criticized for its inadequacy and human rights abuses.<sup>35</sup> SARS and Avian Flu, on the other hand, were accepted in China as being of domestic origin and in effect a genuine Chinese public health problem. H1N1, like AIDS, is perceived predominantly as a disease introduced into China by foreigners. This explains in particular the provocative use of quarantine for foreign travelers in the early months of the pandemic, especially those from Canada, Mexico and the United States. This fits with the fact that North America was and remains the epicentre of the H1N1 pandemic. During the SARS crisis, in contrast, China quarantined virtually no foreign travelers from North America.<sup>36</sup> The quarantining of Canadian students in May 2009 provoked a great deal of criticism here.<sup>37</sup> Likewise, in the United States, the State Department issued a travel warning for China on June 9, 2009, in response to the quarantining of American travelers. This alert was renewed on September 25, 2009. At that time, the State Department stated

In May 2009, China implemented a policy that allows it to quarantine arriving passengers who exhibit fever or flu-like symptoms. Although the overall percentage of U.S. citizens being quarantined remains low, the nature of the selection process makes it almost impossible to predict when a traveler may be placed into quarantine. From May to August 2009, the Department of State received thousands of reports of quarantined US citizens. Since September, however, reports of US citizens in quarantine have been infrequent.<sup>38</sup>

32 Ministry of Health of the People's Republic of China, "Guide for the Medical Observation"; "Order No. 150"; "Scheme of Diagnosis and Treatment"; "The Technical Guide for Hospitals"; "Trial Project for Preventing A(H1N1)."

33 Ministry of Health of the People's Republic of China, "Scheme of Diagnosis and Treatment"; "The Technical Guide for Hospitals."

34 Ministry of Health of the People's Republic of China, "Trial Project for Preventing A(H1N1)"; "China's Schools Prepare."

35 "Locked Doors"; Jacobs and Potter, "Selective Adaptation"; Hyde, *Eating Spring Rice*.

36 Jacobs, "Rights and Quarantine."

37 "China Overreacts"; Schiller, "Canadians Press China."

38 "Travel Alert: China 2009."

The other noteworthy aspect of China's response to H1N1 has been the vigour with which Chinese pharmaceutical companies have sought to develop a vaccine. As noted above, Minister of Health Zhu Chen identified it in his August statement as among the six highest priorities for China's response to H1N1. China's State Food and Drug Administration issued the first license in the world for an H1N1 vaccine on September 3, 2009. The license was issued to the Chinese pharmaceutical company SINOVAC for a vaccine for persons aged 3 to 60. The next day, it issued another license to Hualan Pharmaceutical for a vaccine that had no age restrictions. This licensing was six weeks ahead of Canada. China has insisted that the vaccines have been subject to careful testing and are safe. China initially ordered 7.3 million vaccines.<sup>39</sup> China was also the first country in the world to begin vaccinations, in Beijing on September 21, 2009. Beijing's Disease Control and Prevention Department insisted that vaccinations are free and voluntary.<sup>40</sup> Only 14 of the 39,000 people vaccinated in Beijing had adverse reactions.<sup>41</sup> "The efficacy and safety of the vaccine were well proven," said the Minister of Health Zhu Chen, "as no adverse effects had been reported."<sup>42</sup> The government realized its objective to produce 100 million vaccines and administer at least 65 million of them by the end of 2009.

## CANADA'S POLICY WINDOW

It was emphasized earlier that the new IHR create some space for fostering global partnerships in the area of international public health security. It is in this space that a window of opportunity for policy development in Canada exists to support China's efforts to strengthen its national capacity to contribute to international public health security. One possible model is the partnership the United States has developed with China in the field of food-borne diseases. Recall that the scope of the new 2005 IHR include not only emerging infectious diseases but also diseases and illnesses caused by tainted food. In December 2007, the United States and China signed an agreement on food safety, which lead, on November 18, 2008, to the US Food and Drug Administration (FDA) opening its first overseas office in Beijing, designed to monitor the safety of food being exported to the United States from China. Mike Leavitt, then US Health and Human Services Secretary, said in Beijing at the time, "The opening of offices around the world is part of a desire we have to both build regulatory capacity with host governments, in other words, to improve our relationships and to work jointly, in collaboration."<sup>43</sup> Obviously, this partnership strengthens public health security in the United States and benefits American importers of Chinese food products.

There is an important opportunity for Canada to partner with China to support the building of its vaccine development and manufacturing capacity. Vaccines are a fundamentally important part of China's innovation in health biotechnology. Vaccines account for 11 of the estimated 75 major biotech products China is currently developing in this sector of its economy.<sup>44</sup> The Minister of Health Zhu Chen has stated explicitly that expanding manufacturing capacity is a priority: "The manufacturing of vaccine in China is still limited...but we are ready to support any region in China, including Hong Kong."<sup>45</sup> However, in the case of vaccines, China's leading companies are right now restricted to the Chinese domestic market. At present, the WHO recognizes internationally less than 20 vaccine producers, none of them based in China or indeed anywhere else in the developing world. (The WHO has, however, previously approved malaria drugs made in China and some generic pharmaceuticals produced in India.) This meant that although SINOVAC and Hualan Pharmaceutical rapidly developed an H1N1 vaccine, China had no prospect of selling that vaccine to external markets or even to license manufacturers elsewhere to produce the vaccine. From a Canadian perspective, what China really needs is a global partner like Canada that can help it to reach export markets.

39 "Chinese Gov't Orders."

40 "No Abnormal Reactions."

41 "Stockpile of Vaccine."

42 Lee, "Ministry of Health Keeps."

43 Ho, "US Food Safety Officials."

44 Frew, S.E., et al. "Chinese Health Biotech."

45 Lee, "Ministry of Health Keeps."

There are at least two significant indicators that China is interested in developing its vaccine export capacity, which have relevance to the role Canada could play in a global partnership with China. One indicator is that SINOVAC has indicated its interest in joining the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) and, in particular, becoming involved in its Influenza Vaccine Supply International Task Force. (Actually, SINOVAC states on its website that it is a member company; however, IFPMA does not list them as a member company.) IFPMA is potentially an important place for Chinese vaccine manufacturers like SINOVAC to gain status as a respectable international firm. It puts a priority on respecting intellectual property rights and meeting high ethical standards for research and testing. Canada has close ties with IFPMA and Canada's Research-Based Pharmaceutical Companies is represented by the association. SINOVAC, which is traded on the New York Stock Exchange, has posted on its website this month a call for overseas partners and distributors.

The other indicator revolves around the WHO's recognition of international vaccine producers. The Minister of Health has indicated that China will apply to the WHO for approval of its H1N1 vaccine.<sup>46</sup> The alleged reasoning is that this approval will make it easier for China to donate vaccines to other countries, presumably some of the countries in Africa with which it has close ties. The background is that the WHO functions as the clearinghouse distributor of donated vaccines from around the world. In the case of H1N1 vaccines, the United States and a number of European countries have donated vaccines; the WHO will distribute them, but it will only accept donations from internationally recognized vaccine producers. Hence, in order for the WHO to accept H1N1 vaccine donations from China, it must include SINOVAC and/or Hualan Pharmaceutical as among the internationally recognized producers. However, in order to reach most markets, the Chinese companies will have to register their vaccines with one or both of the two leading international drug authorities, the FDA in the United States and the European Medicines Agency. Health Canada as well as the Canadian pharmaceutical industry has extensive experience with both of these agencies as well as IMFPA, which could be invaluable for China. For Canada's pharmaceutical industry, establishing partnerships with Chinese firms such as SINOVAC may be an avenue into the Chinese market.

---

<sup>46</sup> Ibid.

## BIBLIOGRAPHY

- Beech, Hannah. "Shanghai Has Promised the WHO It Will Revise Its Diagnostic Criteria for SARS. At Issue: The Real Caseload." *Time Asia*, 26 May, 2003. <http://www.time.com/time/magazine/article/0,9171,501030526-452857,00.html>. (Accessed June 3, 2010.)
- Centers for Disease Control and Prevention. "2009-2010 Influenza Season Week 40 Ending October 10, 2009." *FluView*, October 16, 2009. <http://www.cdc.gov/flu/weekly/weeklyarchives2009-2010/weekly40.htm>. (Accessed May 27, 2010.)
- \_\_\_\_\_. "Revised U.S. Surveillance Case Definition for Severe Acute Respiratory Syndrome (SARS) and Update on SARS Cases – United States and Worldwide, December 2003." *Morbidity & Mortality Weekly Report* 52, no. 49 (December 12, 2003). <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5249a2.htm>. (Accessed May 27, 2010.)
- "China's Schools Prepare for New Semester – and A/H1N1." *Xinhua*, September 1, 2009. [http://news.xinhuanet.com/english/200909/01/content\\_11974232.htm](http://news.xinhuanet.com/english/200909/01/content_11974232.htm). (Accessed May 27, 2010.)
- "Chinese Gov't Orders 7.3 mln Doses of A/H1N1 Vaccine for Domestic Use." *Xinhua*, September 4, 2009. [http://news.xinhuanet.com/english/2009-09/04/content\\_11997321.htm](http://news.xinhuanet.com/english/2009-09/04/content_11997321.htm). (Accessed May 27, 2010.)
- "No Abnormal Reactions Reported in Beijing's First A/H1N1 Flu Vaccinations." *Xinhua*, September 22, 2009. [http://news.xinhuanet.com/english/2009-09/22/content\\_12098285.htm](http://news.xinhuanet.com/english/2009-09/22/content_12098285.htm). (Accessed May 27, 2010.)
- de Lisle, Jacques. "Atypical Pneumonia and Ambivalent Law and Politics." *Temple Law Review* 77, no. 2 (Summer 2004): 193-245.
- Fidler, David. *International Law and Infectious Diseases*. Oxford: Oxford University Press, 1999.
- Fidler, D., and L. Gostin. "The New International Health Regulations: An Historic Development for International Law and Public Health." *Journal of Law, Medicine & Ethics* 34, no. 1 (Spring 2006): 85-94.
- Frew, S.E. et al. "Chinese Health Biotech and the Billion-Patient Market." *Nature Biotechnology* 26, no. 1 (January 2008): 37-53.
- Garrett, Laurie. *The Coming Plague: Newly Emerging Diseases in a World Out of Balance*. New York: Penguin Books, 1995.
- "China Overreacts." *Globe and Mail*, May 6, 2009. <http://v1.theglobeandmail.com/servlet/story/LAC.20090506.ECHINA06ART2001/TPStory/?query=editorial>. (Accessed June 3, 2010.)
- Ho, Stephanie. "US Food Safety Officials Open Office in China." *VOANews*, November 19, 2008. <http://www1.voanews.com/english/news/a-13-2008-11-19-voa13-66736177.html>. (Accessed May 27, 2010.)
- Hyde, Sandra. *Eating Spring Rice: The Cultural Politics of AIDS in Southwest China*. Berkeley: University of California Press, 2007.
- "Locked Doors: The Human Rights of People Living with HIV in China." *Human Rights Watch* 15, No. 7 (C) (September 2003) <http://www.hrw.org/sites/default/files/reports/china0903full.pdf>. (Accessed on May 27, 2010.)
- Jacobs, Lesley. "Rights and Quarantine During the SARS Global Health Crisis: Differentiated Legal Consciousness in Hong Kong, Shanghai, and Toronto." *Law & Society Review* 41, no. 3 (September 2007): 511-552.
- Jacobs, Lesley, and Pitman Potter. "Selective Adaptation and Health and Human Rights in China." *Health and Human Rights* 9, no. 2 (2006): 112-134.

- Ng, Kang-chung. "HK to Scale Back Surveillance for Swine Flu Cases." *South China Morning Post*, September 26, 2009, A3.
- Lee, Ella. "Ministry of Health Keeps Two-Pronged Strategy on Virus." *South China Morning Post*, September 25, 2009, A6.
- Lee, Kelley, Kent Buse, and Suzanne Fustukian, eds. *Health Policy in a Globalising World*. Cambridge UK: Cambridge University Press, 2002.
- Ministry of Health of the People's Republic of China. "Guide for the Medical Observation of Quarantined Close Contacts of A(H1N1) Cases." (In Chinese) May 17, 2009.
- \_\_\_\_\_. "Order No. 150: The Project of Preventing A(H1N1) Flu at Village and Town Level." (In Chinese) August 11, 2009.
- \_\_\_\_\_. "Scheme of Diagnosis and Treatment of H1N1." (In Chinese) May 30, 2009.
- \_\_\_\_\_. "The Technical Guide for Hospitals to Control Infected H1N1 Cases." (In Chinese) May 30, 2009.
- \_\_\_\_\_. "Trial Project for Preventing A(H1N1) in Schools." (In Chinese) June 22, 2009.
- Pomfret, J. "Outbreak Gave China's Hu an Opening." *The Washington Post*, May 13, 2003.
- Public Health Agency of Canada. "Summary of FluWatch Findings for the Week Ending October 10, 2009." *FluWatch*, October 16, 2009. [http://www.phac-aspc.gc.ca/fluwatch/09-10/w40\\_09/index-eng.php](http://www.phac-aspc.gc.ca/fluwatch/09-10/w40_09/index-eng.php). (Accessed May 27, 2010.)
- \_\_\_\_\_. "Deaths Associated with H1N1 Flu Virus in Canada." August 11, 2009. <http://www.phac-aspc.gc.ca/alert-alerte/h1n1/surveillance-archive/20090811-eng.php>. (Accessed May 27, 2010.)
- Sapsin, Jason W., et al. "SARS and International Legal Preparedness." *Temple Law Review* 77 (2004): 155-174.
- SARS Expert Committee. "SARS in Hong Kong: From Experience to Action." October 2, 2003. [http://www.sarsexpertcom.gov.hk/english/reports/files/e\\_letter.pdf](http://www.sarsexpertcom.gov.hk/english/reports/files/e_letter.pdf). (Accessed May 27, 2010.)
- Schiller, Bill. "Canadians Press China on Quarantined Students, Pork Ban." *Toronto Star*, May 5, 2009. <http://www.thestar.com/article/629167>. (Accessed May 27, 2010.)
- "Statement to Health Affairs by Chinese Minister of Health Chen Zhu." (In Chinese) August 11, 2009.
- "Stockpile of Vaccine Will Amount to 26m Jabs by End of Next Month." *South China Morning Post*, September 25, 2009, A6.
- "Travel Alert: China 2009 – H1N1 Influenza Quarantine Measures Update." Embassy of the United States – Beijing, China. September 28, 2009. <http://beijing.usembassy-china.org.cn/092809u.html>. (Accessed May 31, 2010.)
- Wang, Ruotao. "China's Response to SARS." *Temple Law Review* 77 (2004): 149-153.
- "SARS: Timeline of an Outbreak." *WebMD*, 2003. <http://www.webmd.com/lung/news/20030411/sars-timeline-of-outbreak>. (Accessed May 31, 2010.)
- World Health Organization. "Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported." September 24, 2009. [http://www.who.int/csr/disease/avian\\_influenza/country/cases\\_table\\_2009\\_09\\_24/en/index.html](http://www.who.int/csr/disease/avian_influenza/country/cases_table_2009_09_24/en/index.html). (Accessed May 31, 2010.)
- \_\_\_\_\_. "International Health Regulations." 2007. [http://www.who.int/topics/international\\_health\\_regulations/en/](http://www.who.int/topics/international_health_regulations/en/). (Accessed May 31, 2010.)

\_\_\_\_\_. "International Health Regulations (2005): Areas of Work for Implementation." June 2007. <http://www.who.int/ihr/finalversion9Nov07.pdf>. (Accessed May 31, 2010.)

\_\_\_\_\_. "International Health Regulations (2005), Second Edition." 2008. [http://whqlibdoc.who.int/publications/2008/9789241580410\\_eng.pdf](http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf). (Accessed May 31, 2010.)

\_\_\_\_\_. "What Is Phase 6?" June 11, 2009. [http://www.who.int/csr/disease/swineflu/frequently\\_asked\\_questions/levels\\_pandemic\\_alert/en/index.html](http://www.who.int/csr/disease/swineflu/frequently_asked_questions/levels_pandemic_alert/en/index.html). (Accessed May 31, 2010.)

Yardley, Jim. "After Its Epidemic Arrival, SARS Vanishes." *New York Times*, May 15, 2005. <http://www.nytimes.com/2005/05/15/health/15sars.html>. (Accessed May 31, 2010.)

## THE CIC CANADA-CHINA RELATIONS PROJECT

Bilateral relations between the governments of Canada and the People's Republic of China are a matter of strategic interest to Canada. Recent changes in the frequency of high-level visits, the effective style and content of bilateral communications and perspectives held about each country by various sectors of each other's society all suggest that the Canada-China relationship has changed significantly in recent years. Yet China remains vitally important to Canada for a variety of reasons and in a variety of sectors. Political and diplomatic cooperation on issues of direct bilateral concern and also on issues of global import remains critically important. Commercial and trade ties linking Canada with the world's third largest and fastest growing economy are of obvious importance. Cultural and civil society ties, including immigration patterns and the ancillary effects they generate, are also important. In these and other matters, the Canada-China relationship will likely grow in importance in the years to come. While the diversity of links between Canada and China militates in favour of giving due attention to a multiplicity of commercial, academic and civil society links, bilateral cooperation at the federal/central government level remains important.

In keeping with CIC objectives to advance research and dialogue on international affairs issues of importance and interest to Canadians, the CIC Canada-China Relations Project has focused on supporting research and analysis toward building a policy framework for Canada's relationship with China. The project's activities have been developed along three thematic areas that reflect issues of common concern: a) Chinese domestic institutional and normative contexts for engagement; b) Economic relations; c) Collaboration on global issues such as environment, health and security.

- a) Domestic Context for Engagement: The Canada-China relationship can be most effective when it is grounded on complementarity of interests, which in turn requires mutual understanding of domestic normative and institutional conditions in both countries. Canadian initiatives with China, ranging from WTO compliance and business regulation to human rights, can be effective only if they are designed and implemented in light of China's domestic conditions, ranging from popular norms to governmental structures and policy priorities. Similarly, China's success in nurturing productive relationships with Canada will require appreciation of Canadian domestic conditions. The papers for this thematic area were commissioned and directed by Professor Jeremy Paltiel of Carleton University.
- b) Economic Relations: Economic relations between Canada and China are critically important. Economic relations include bilateral trade and investment relations, and also extend to local effects of economic conditions and behaviour. In the trade area, Canada's strengths match up extremely well with China's needs. In trade and investment relations, efforts to promote normative and institutional accommodation in China for Canadian business objectives are consistent with Chinese development policies and also serve important Canadian interests in the areas of good governance. As well, national economic behavior by the two countries in response to changing economic conditions at the global, regional and local level have important effects on the Canada-China relationship. The papers for this thematic area were commissioned and directed by Yuen Pau Woo, President of the Asia Pacific Foundation of Canada.
- c) Collaboration on Global Issues: The importance of China's responsible participation in systems for addressing global policy concerns in areas such as environment, health and security cannot be overstated. Yet China's participation in the global community can be distorted by its responses to apprehension and competition from other global actors, particularly the United States, the European Union and Japan. Canada has a significant role to play in supporting China's responsible participation, not only through direct bilateral programming but also through our capacity to deploy good offices, legitimation and other soft power resources both bilaterally and globally. The papers for this thematic area were commissioned and directed by Professor Brian Job of the University of British Columbia.

The papers here presented in connection with the CIC Canada-China Relations Project offer informed, nonpartisan recommendations for a variety of stakeholders in Canada, including the government and private and public sector institutions and individuals, with a view toward furthering the development of healthy long-term relations between Canada and China. While historical and current conditions may result in disagreement as to how best to manage the Canada-China relationship, China's importance to the world requires our attention. We hope that the papers presented here can further the process of understanding and effective engagement that will strengthen the foundation for productive relations for the long-term interests of both countries.

**Dr. Pitman B. Potter**

*Chair*

*CIC China Working Group*

The Canadian International Council (CIC) is a non-partisan, nationwide council established to strengthen Canada's role in international affairs. With local branches nationwide, the CIC seeks to advance research, discussion and debate on international issues by supporting a Canadian foreign policy network that crosses academic disciplines, policy areas and economic sectors.

The CIC features a privately funded fellowship program and a network of issue-specific Working Groups. The goal of the CIC Working Groups is to identify major issues and challenges in their respective areas of study and to suggest and outline the best possible solutions to Canada's strategic foreign policy position on those issues. The CIC aims to generate rigorous foreign policy research and advice.

## CIC BOARD OF DIRECTORS

### Chair

Jim Balsillie, Co-CEO, Research In Motion

### Co-vice Chairs

Bill Graham, Chancellor of Trinity College and Chair, Atlantic Council of Canada

Perrin Beatty, President and CEO, Canadian Chamber of Commerce

### Directors

David Bercuson, Director, Centre for Military and Strategic Studies, University of Calgary

Scott Burk, President, Wealhouse Capital Management

Raymond Chrétien, Strategic Advisor, Fasken Martineau

André Desmarais, President and Co-CEO, Power Corporation of Canada

Edward Goldenberg, Partner, Bennett Jones LLP

Nicholas Hirst, President, CIC-Winnipeg Branch

Jennifer Jeffs, President, CIC

Tom Jenkins, Executive Chairman and CSO, Open Text Corporation

Keith Martin, Past-President, CIC-Toronto Branch

Indira Samarasekera, President, University of Alberta

Janice Stein, Director, Munk Centre for International Studies

Jodi White, Distinguished Senior Fellow, Norman Paterson School of International Affairs and Arthur Kroeger College of Public Affairs, Carleton University

45 Willcocks Street, Box 210  
Toronto Ontario M5S 1C7  
TEL: 416-977-9000, 1-800-668-2442  
FAX: 416-946-7319