

# CHAPTER TWO: The Pandemic Threat

---

## Introduction

It is impossible to deal with SARS without some reference to the looming threat of pandemic influenza. The world has long been familiar with influenza<sup>20</sup> and its ability to set off devastating pandemics.<sup>21</sup> As the Commission's second interim report said:

The quintessential public health emergency is an outbreak of infectious disease that overwhelms the capacity of the public health system. The most serious predictable public health emergency is pandemic influenza, which would overwhelm not only the public health and hospital and medical systems but also the other systems that keep the province going.<sup>22</sup>

Three times in the last century new influenza strains have caused pandemics. The worst was in 1918-19, when an estimated 20 to 40 million people died worldwide, including an estimated 30,000 to 50,000 in Canada.<sup>23</sup>

- 
20. "Influenza is caused by a virus that attacks mainly the upper respiratory tract – the nose, throat and bronchi and rarely also the lungs. The infection usually lasts for about a week. It is characterized by sudden onset of high fever, myalgia, headache and severe malaise, non-productive cough, sore throat, and rhinitis. Most people recover within one to two weeks without requiring any medical treatment. In the very young, the elderly and people suffering from medical conditions such as lung diseases, diabetes, cancer, kidney or heart problems, influenza poses a serious risk. In these people, the infection may lead to severe complications of underlying diseases, pneumonia and death". World Health Organization, "Influenza – fact sheet no. 211," [Geneva: March 2003].
  21. *Pandemic* is defined as "An epidemic occurring worldwide, or over a wide area, crossing international boundaries, and usually affecting a large number of people" (John M. Last, ed., *A Dictionary of Epidemiology* [Oxford, U.K.: 2001], p. 131).
  22. SARS Commission, second interim report, *SARS and Public Health*, April 5, 2005, p. 345 (SARS Commission, second interim report).
  23. Health Canada, *Canadian Pandemic Influenza Plan* (Ottawa: Health Canada February 2004), p. 17.

Many believe one of the types of the H5N1 avian flu virus<sup>24</sup> now circulating in Asia, Africa and Europe could give rise to a pandemic strain.<sup>25</sup> As SARS demonstrated, the next big outbreak might be caused by something completely different, totally new and entirely unexpected. When word spread of a mysterious respiratory illness in Guangdong, China, in early 2003, many feared a recurrence of H5N1. As the World Health Organization said:

Alarm mounted ... in February 2003, when an outbreak of H5N1 avian influenza in Hong Kong caused 2 cases and 1 death in members of a family who had recently travelled to southern China. Another child in the family died during that visit, but the cause of death is not known.<sup>26</sup>

As we now know, this was not to be the start of a flu pandemic.<sup>27</sup> The disease that

---

24. World Health Organization (WHO), "Avian influenza – Fact Sheet" (January 15, 2004):

The first documented infection of humans with an avian influenza virus occurred in Hong Kong in 1997, when the H5N1 strain caused severe respiratory disease in 18 humans, of whom 6 died. The infection of humans coincided with an epidemic of highly pathogenic avian influenza, caused by the same strain, in Hong Kong's poultry population.

Extensive investigation of that outbreak determined that close contact with live infected poultry was the source of human infection. Studies at the genetic level further determined that the virus had jumped directly from birds to humans. Limited transmission to health care workers occurred, but did not cause severe disease.

Rapid destruction – within three days – of Hong Kong's entire poultry population, estimated at around 1.5 million birds, reduced opportunities for further direct transmission to humans, and may have averted a pandemic.

That event alarmed public health authorities, as it marked the first time that an avian influenza virus was transmitted directly to humans and caused severe illness with high mortality.

25. "Concerns about the likely occurrence of an influenza pandemic in the near future are increasing. The highly pathogenic strains of influenza A (H5N1) virus circulating in Asia, Europe, and Africa have become the most feared candidates for giving rise to a pandemic strain" (R. Tellier, "Review of aerosol transmission of influenza A virus," *Emerging Infectious Disease* (2006).

26. WHO, "Avian influenza – Fact Sheet" (January 15, 2004).

27. The WHO has identified three prerequisites for the start of a pandemic:

1. A novel virus subtype must emerge to which the general population will have no or little immunity.
2. The new virus must be able to replicate in humans and cause serious illness.
3. The new virus must be efficiently transmitted from one human to another; efficient human-to-human transmission is expressed as sustained chains of transmission causing community-wide outbreaks. (WHO, "Avian influenza: assessing the pandemic threat" [Geneva: January 2005], p. 11).

caused the mysterious outbreak in China and then spread to Ontario, Singapore and elsewhere via Hong Kong was not H5N1, but SARS. This new disease was caused by a novel variety of the crown-shaped coronavirus,<sup>28</sup> which until then was not known to be a big danger to humans.<sup>29</sup>

A major study by the U.S. Institute of Medicine of the National Academies on future microbial threats warns that humankind remains ignorant of the full scope of diseases caused by microbial threats:

Microbial threats continue to emerge, re-emerge, and persist. Some microbes cause newly recognized diseases in humans; others are previously known pathogens that are infecting new or larger population groups or spreading into new geographic areas.<sup>30</sup>

One major lesson from SARS is that we must prepare not only for potential looming threats like the H5N1, but also for the unexpected. That does not take away from the urgency of pandemic flu planning.

As the second interim report said:

It would of course be unwise to accept at face value, without critical analysis, every portent of disaster. History has not been kind to Cassandra or Chicken Little. Those who warn of disasters have been accused throughout history of simply trying to scare people. Whether the next pandemic will be caused by H5N1 or another novel disease, or whether fears about H5N1 may, in hindsight, turn out to be exaggerated, it would be reckless not to prepare for the next pandemic. As the U.K. Ministry of Defence's Chief Scientist has said:

---

28. "The appearance of coronaviruses was likened to that of some ornate crowns, the Latin for which is *croona* and the corona of the sun, that also being derived from the Latin for crown, so *corona* was adopted for the name of this virus group" (Dave Cavanagh, "Coronaviridae: a review of coronaviruses and toroviruses," in Axel Schmidt, Manfred H. Wolff and Olaf Weber, *Coronaviruses with Special Emphasis on First Insights Concerning SARS* [Basel, Switzerland 2005], p. 4).

29. "Coronaviruses in humans are usually considered to be the cause of nothing more serious than the common cold." (Cavanagh, "Coronaviridae: a review of coronaviruses and toroviruses"; "Coronavirus was not supposed to be of major importance in humans until we came across the SARS coronavirus" "Interview: the virus hunter," *The New Scientist* [January 22, 2005]).

30. Institute of Medicine of the National Academies, *Microbial Threats to Health: Emergence, Detection and Response* (Washington: Institute of Medicine of the National Academies, 2003), p. 1.

Although it sounds alarmist, the balanced view is that we are overdue a major pandemic.

Prudence and precaution require that effective planning and preparedness for an influenza pandemic be undertaken.<sup>31</sup>

While sensibly preparing for a possible pandemic we must never forget nature's capacity to toss a curveball when it's least expected.

### SARS vs. Pandemic Flu

One big difference between SARS and a pandemic flu was that SARS was spread mostly in a health workplace, while a pandemic spreads through the community.

As Table 1 indicates, more than seven of every 10 SARS cases involved health workers, patients or visitors.

**Table 1 – Probable and Suspect SARS Cases Contracted in Health Care Settings<sup>32</sup>**

	Phase 1	Phase 2	Total Number of Suspect and Probable Cases	Percentage of Total Number of Cases (375)
Health workers	118	51	169	45%
Patients	23	35	58	15%
Visitors	20	23	43	11%
Total	161	109	270	72%

While SARS never spread uncontrollably into the community, it nevertheless brought Ontario to its knees and put unprecedented strain on the health system. An influenza pandemic would be much more catastrophic because of the devastating scale of its community impact. The Ontario Health Pandemic Influenza Plan estimates that:

31. SARS Commission, second interim report, p. 348.  
32. Dr. Colin D'Cunha, presentation to the SARS Commission public hearings, September 29, 2003.

Depending on the severity of the pandemic, Ontario could see between 1.8 and 4.2 million outpatient visits, between 7,500 and 65,000 hospitalizations and between 2,900 and 19,700 deaths from influenza.<sup>33</sup>

Despite these and other differences, many lessons from SARS can be applied to preparing for a pandemic and for another infectious disease outbreak like SARS.

## Precautionary Principle

One of the key lessons of SARS is the importance of the precautionary principle that reasonable steps to reduce risk should not await scientific certainty.

Mr. Justice Horace Krever emphasized this principle in the report of the Commission of Inquiry on the Blood System in Canada:

Where there is reasonable evidence of an impending threat to public health, it is inappropriate to require proof of causation beyond a reasonable doubt before taking steps to avert the threat.<sup>34</sup>

This approach was in use at Vancouver General Hospital when it received B.C.'s first SARS case on March 7, 2003, the same day Ontario's index case presented at the Scarborough Grace Hospital. When dealing with an undiagnosed respiratory illness, health workers at Vancouver General automatically go to the highest level of precautions and then scale down as the situation is clarified. While the circumstances at Vancouver General and the Grace Hospital were different, it is not surprising that SARS was contained so effectively at an institution so steeped in the precautionary principle.

In Ontario, the precautionary principle was not a fundamental part of the SARS response, and the situation has not sufficiently improved since the end of the outbreak. As one witness told the SARS Commission's public hearings:

In the workplace context, while the precautionary principle endorses a philosophy of extreme caution until the hazard is well understood, often the opposite approach is taken.<sup>35</sup>

---

33. Ontario Health Pandemic Influenza Plan, May 2004, p. 10.

34. The Honourable Mr. Justice Krever, Commission of Inquiry on the Blood System in Canada, (Ottawa: November 26, 1997), 295 and 989-994. (The Krever Report)

35. SARS Commission public hearings, November 18, 2003.

During SARS, these two approaches to worker safety – one based on the precautionary principle, the other on scientific certainty – came to a head over the issue of the N95<sup>36</sup> (a respirator that protects much more than a surgical mask) and fit testing.<sup>37</sup> Some experts believed that since SARS was spread mostly by large droplets, surgical masks were sufficient in most situations. Others argued that since not enough was known about how SARS was spread, and since the possibility of airborne transmission by much smaller particles could not be ruled out, it was better to be safe than sorry and to require health workers to wear fit-tested N95 respirators.

Knowledge about how SARS is transmitted has evolved significantly since the outbreak. Some recent studies suggesting a spread by airborne transmission lend weight to a precautionary approach to protect health workers against a new disease that is not well understood.

There is now a similar debate over how influenza is spread and how health workers should be protected during a pandemic.

Some experts believe that influenza is mostly droplet-spread and that surgical masks are sufficient protection for health workers. Others believe that airborne transmission is a possible means of spreading influenza and that health workers should, as a result, wear fit-tested N95 respirators when caring for people suffering from a pandemic flu virus.

The Commission is not in a position to wade into this evolving scientific debate. However, it is worth noting how the Centers for Disease Control (CDC) has used the precautionary principle in addressing this issue.

---

36. Using highly efficient filtering materials, N95 respirators are one of the nine types of disposable particulate respirators that are independently tested and certified by the National Institute for Occupational Safety and Health in the United States, which is part of the Centers for Disease Control. “The N indicates that the respirator provides no protection against oils and the 95 indicates that it removes at least 95% of airborne particles during ‘worst case’ testing using a most-penetrating-sized particle,” Yassi et al., “Research gaps in protecting healthcare workers from SARS,” *Journal of Occupational and Environmental Medicine*.

37. Fit testing helps users select a respirator that best fits their faces. It teaches them how to get a proper seal each time they use respirator, a procedure known as a *seal check*, and the safe donning and doffing of a respirator. And it conducts a test to verify that the chosen respirator works properly. There are two types of tests: a qualitative fit test “relies on the user’s subjective response to taste odour or irritation,” and a quantitative fit test “relies on an instrument to quantify the fit of a respirator” (Healthcare Health and Safety Association, “Respiratory Protection Programs”).

When originally issued in November 2005, the U.S. pandemic plan<sup>38</sup> recommended the use of N95 or higher respirators during medical activities with a high likelihood of generating infectious respiratory aerosols. But it recommended the following respiratory protection during patient care:

Wear a surgical or procedure mask for entry into patient room.<sup>39</sup>

In October 2006, the CDC used a precautionary approach when it updated the recommendations for respiratory protection:

The Centers for Disease Control and Prevention (CDC) is aware of no new scientific information related to the transmission of influenza viruses since the drafting of the *HHS Pandemic Influenza Plan* ([www.hhs.gov/pandemicflu/plan/](http://www.hhs.gov/pandemicflu/plan/)). As stated in the plan, the proportional contribution and clinical importance of the possible modes of transmission of influenza (i.e., droplet, airborne, and contact) remains unclear and may depend on the strain of virus ultimately responsible for a pandemic. Nevertheless, in view of the practical need for clarification, CDC has re-reviewed the existing data, as described below, and has prepared interim recommendations on surgical mask and respirator use. The purpose of this document is to provide a science-based framework to facilitate planning for surgical mask and respirator use in health care settings during an influenza pandemic.<sup>40</sup>

Regarding what kind of respiratory protection health workers should use, the CDC's updated recommendations now say:

This document ... reflects concerns that additional precautions are advisable during a pandemic – beyond what is typically recommended during a seasonal influenza outbreak N95 – in view of the lack of pre-existing immunity to a pandemic influenza strain, and the potential for the occurrence of severe disease and a high case-fatality rate. Extra

---

38. HHS Pandemic Influenza Plan, November 2005, [www.hhs.gov/pandemicflu/plan/](http://www.hhs.gov/pandemicflu/plan/) (HHS Pandemic Influenza Plan).

39. HHS Pandemic Influenza Plan, p. S4-24.

40. Centers for Disease Control and Prevention (CDC), "Interim guidance on planning for the use of surgical masks and respirators in health care settings during an influenza pandemic" (October 2006), pp. 1-2.

precautions might be especially prudent during the initial stages of a pandemic, when viral transmission and virulence characteristics are uncertain, and medical countermeasures, such as vaccine and antivirals, may not be available.

The prioritization of respirator use during a pandemic remains unchanged: N-95 (or higher) respirators should be worn during medical activities that have a high likelihood of generating infectious respiratory aerosols, for which respirators (not surgical masks) offer the most appropriate protection for health care personnel. **Use of N-95 respirators is also prudent for health care personnel during other direct patient care activities (e.g., examination, bathing, feeding) and for support staff who may have direct contact with pandemic influenza patients.**<sup>41</sup>  
[emphasis added]

The CDC is saying, in effect, we don't know enough about how a pandemic influenza might be spread, so it's better to be safe than sorry. It is the kind of precautionary approach all pandemic planners should carefully consider.

## Protecting the Front-Line Workers

Front-line health workers saved the day during the SARS outbreak. A significant number, 169, became ill, and three died. The performance of front-line workers evoked admiration from many.

An expert from outside Ontario was quite candid about problems in Ontario's public health system but singled out the performance of health workers trying to contain the outbreak:

I remain in awe of how hard a whole bunch of people were working at trying to deal with the issue of SARS. I have the utmost respect for the efforts that people put into some situations literally putting their lives on the line. For someone who has done infectious diseases in Canada for a

---

41. CDC, "Interim guidance on planning for the use of surgical masks and respirators in health care settings during an influenza pandemic" (October 2006), p. 2.



long time, that is very unusual but I mean people and particularly in the front line were working unbelievably hard.<sup>42</sup>

The nurses, hospital staff and ambulance attendants did their jobs despite a string of problems.

In most workplaces, the primary role of occupational health and safety laws, regulations and systems is to protect workers. Health care settings are different. They are workplaces where occupational health and safety protections perform a double duty, safeguarding workers while also shielding patients and visitors. As the Ontario Nurses' Association and the Ontario Public Service Employees Union told the Commission in their joint submission:

Workplace health and safety is important in any workplace but in a health care environment it's doubly important. If workers are not protected from health and safety hazards, patients and the public are not protected either. It's that simple.<sup>43</sup>

This important lesson of SARS is directly applicable to pandemic planning.

## **Effective Leadership**

SARS demonstrated the importance of medical leadership that is free of bureaucratic and political pressure. The absence of such leadership can sap public confidence and trust, crucial ingredients in any successful effort to fight deadly infectious diseases such as pandemic influenza or SARS.

As the SARS Commission noted in its second interim report:

SARS showed us that while cooperation and teamwork are important, it is essential that one person be in overall charge of our public health defence against infectious outbreaks. The Chief Medical Officer of

---

42. SARS Commission, first interim report, *SARS and Public Health in Ontario*, April 15, 2004, p. 29 (SARS Commission, first interim report)

43. ONA and OPSEU, joint submission to the SARS Commission public hearings, November 17, 2003.

Health should be in charge of public health emergency planning and public health emergency management.<sup>44</sup>

Ontario's Chief Medical Officer of Health, Dr. Sheela Basrur, underscored that point in her testimony before the Legislature's Justice Policy Committee:

The point is that someone has to be in charge; people have to know where the buck stops, where decisions are made and where they can be unmade, and who the go-to person is.<sup>45</sup>

During SARS it was unclear who was in charge. This cannot be allowed to happen during a pandemic.

A good start has been made in this regard, but more remains to be done.

The second interim report recommended that:

Emergency legislation provide that the Chief Medical Officer of Health has clear primary authority in respect of the public health aspects of every provincial emergency including:

- Public health emergency planning;
- Public communication of health risk, necessary precautions, regular situation updates;
- Advice to the government as to whether an emergency should be declared, if the emergency presents at first as a public health problem;
- Strategic advice to the government in the management of the emergency;
- Advice to the government as to whether an emergency should be declared to be over, and emergency orders lifted, in respect of the public health measures taken to fight the emergency;

---

44. SARS Commission, second interim report, p. 2-3.

45. Ontario Legislative Assembly, Standing Committee on Justice Policy, *Official Report of Debates (Hansard)*, Public Hearings, August 18, 2004, p. 142 (Justice Policy Committee, public hearings).

- Advice to the government in respect of emergency orders of a public health nature and emergency orders that affect public health, e.g., ensuring that gasoline rationing does not deprive hospitals of emergency supplies;
- Delegated authority in respect of emergency orders of a public health nature; and
- Such further and other authority, of a nature consistent with the authority referred to above, in respect of the public health aspects of any emergency.

Emergency legislation provide that the Chief Medical Officer of Health shall exercise his or her authority, so far as reasonably possible, in consultation with the Commissioner of Emergency Management and other necessary agencies. Conversely, the Commission recommends that emergency legislation provide that the Commissioner of Emergency Management, on any matter affecting public health, shall exercise his or her authority so far as reasonably possible in consultation with the Chief Medical Officer of Health.<sup>46</sup>

The Province has yet to act on these recommendations.

## **Effective Communication**

During a public health emergency like SARS or an influenza pandemic, good public communication contains an effective blend of empathy, candour and strong leadership.

The first interim report said:

When successful, public communication provides everyone with vital information, helps them make an informed assessment of the situation and the attendant risks, bolsters trust between the public and those solving the crisis, and strengthens community bonds. As Dr. Garry Humphreys, Medical Officer of Health for Peterborough County and

---

46. SARS Commission, second interim report, pp. 420-421.

City, said at the Commission's public hearings:

It is important to have a willing cooperation of the community with regards to disease control through voluntary quarantine. This can only be achieved when the community is continuously kept informed. In addition, those placed under quarantine must be fully informed of the circumstances, including what is expected of them and the followup through routine monitoring by staff of the health unit.

A failed effort can breed confusion and antagonism, disrupt an orderly response, poison relations with public authorities and sow mistrust. It can also significantly hamper the ... response.<sup>47</sup>

The first interim report noted that Tony Clement, then Ontario's Minister of Health, made a decision to make SARS information public, a good decision that was unfortunately not supported by any advance planning. As the Commission noted:

Unfortunately, Ontario had neither a public health communications strategy nor, as a default, a pandemic response plan with an integrated communication component.<sup>48</sup>

The government acted by amending the *Health Protection and Promotion Act* to give the Chief Medical Officer of Health the power to communicate with the public.<sup>49</sup> Health Minister George Smitherman introduced the amendment in the Ontario Legislature on October 14, 2004. He said:

When there is a health crisis and politicians speak, some people listen. But when there is a health crisis and the Chief Medical Officer of Health speaks, everybody listens. It is at those times, times when diseases like SARS or West Nile are a real threat, that the Chief Medical Officer of Health must be able to interact with his or her patients, all 12 million of them.<sup>50</sup>

The amendment received royal assent on December 16, 2004.

---

47. SARS Commission, first interim report, p. 57.

48. SARS Commission, first interim report, p. 60.

49. SARS Commission, second interim report, p. 24.

50. SARS Commission, second interim report, p. 23.

The second interim report noted that this amendment:

... gives the Chief Medical Officer of Health the power to communicate with the public, stating that the Chief Medical Officer of Health may make any other reports respecting public health as he or she considers appropriate and may present such a report to the public or any other person he or she considers appropriate.<sup>51</sup>

There was much confusion during SARS about who was the official and reliable voice.

This cannot be allowed to happen during a pandemic.

## **Public Cooperation, Public Trust and Voluntary Compliance**

Public cooperation is essential in the fight against any outbreak of infection. Legal orders and emergency powers are useless without public cooperation. Public cooperation during SARS was outstanding when 15,000 to 20,000 people were quarantined. The government has legal powers under the *Health Protection and Promotion Act* to issue quarantine orders, yet only 27 had to be issued. It was voluntary public cooperation, not legal orders or emergency powers, that won the fight against SARS.

This vital importance of voluntary compliance is one of the most important lessons of SARS. Voluntary compliance ensured that SARS could be contained. Voluntary compliance is even more essential in a crisis the magnitude of a pandemic.

The Commission's second interim report said:

Voluntary compliance is the bedrock of any emergency response. Even the most exquisite emergency powers will never work unless the public cooperates.

Legal powers are false hopes during a public crisis. No law will work during a disaster without the public cooperation and individual sacrifice shown during SARS. Nor will any law work without the machinery that

---

51. SARS Commission, second interim report, p. 24.

supports and compensates those who sacrifice for the greater good of public health.

Voluntary compliance also depends on public trust in those managing the emergency and public confidence that medical decisions are made on medical evidence, not on grounds of political expediency or bureaucratic convenience.<sup>52</sup>

A major U.S. study of the quarantine in Toronto found that the cooperative spirit in the general population was the driving force in compliance. The study drew on a series of interviews, telephone polls and focus groups with both health workers and the general population:

In general, fear of running afoul of the law played little role in compliance. None of the 68 General Population Survey respondents who were directly affected by quarantine said that their most important reason for complying was to avoid enforcement measures and penalties, and 24 of 30 respondents who had been quarantined and were aware of the penalties said that their knowledge of the penalties did not affect their decision to comply.<sup>53</sup>

The U.S. researchers identified loss of income as the main concern of people going into quarantine. Initially, the Government of Ontario offered no income support, and when it finally did, the message was at first not clear. As the study noted, on April 24, 2003, the Premier of Ontario reversed his position on compensation and said:

People will not have to choose between doing the right thing and putting food on the table.<sup>54</sup>

However, concrete steps were not taken until May 27, when the province announced a \$190 million compensation package for health workers who had lost wages due to SARS. It took until June 13 for the government to broaden the compensation to non-health workers who had missed work due to quarantine or caring for someone else in quarantine.<sup>55</sup>

---

52. SARS Commission, second interim report, p. 308.

53. Cleto Di Giovanni, Jerome Conley, Daniel Chiu and Jason Zaborski, "Factors influencing compliance with quarantine in Toronto during the 2003 SARS outbreak," *Biosecurity and Bioterrorism: Biodefense Strategy, Practice and Science*, 2, (2004): p. 267 (Di Giovanni et al., "Factors influencing compliance with quarantine.").

54. Di Giovanni et al., "Factors influencing compliance with quarantine," p. 267.

55. Di Giovanni et al., "Factors influencing compliance with quarantine," p. 267.

Despite the untimely release of the programme, Dr. James Young, Ontario's Commissioner of Public Safety and Security during the SARS outbreak, saw the compensation program as a vital element in the success of the voluntary quarantine program:

One of the important ways of getting people to abide by it [the quarantine] was by offering financial compensation so they would in fact abide by it and stay in quarantine if and when they were ordered by the medical officer of health. We got approval from the Ontario government to institute a quarantine programme and to pay people for that. That resulted in us being able to manage the quarantine in an effective manner.<sup>56</sup>

It is essential in any emergency to compensate those who suffer an unfair burden of personal cost for cooperating in public health measures like quarantine. The U.S. study also identified poor logistical support, psychological stress, spotty monitoring of compliance, inconsistencies in the application of quarantine measures between various jurisdictions and problems with public communications.

Public cooperation depends on public confidence that the government will do its part to help those who go into quarantine and step up to help. To ensure continued cooperation, governments must act more quickly to provide income protection for people who have been quarantined and must set up logistics support for them such as grocery deliveries. Worry about loss of income topped the list of concerns of people quarantined during the SARS outbreak.

These are useful lessons from SARS that should be applied to any pandemic situation.

In its second interim report, the Commission recommended that:

Emergency legislation require that every government emergency plan provide a basic blueprint for the most predictable types of compensation packages and that they be ready for use, with appropriate tailoring, immediately following any declaration of emergency.<sup>57</sup>

The Province has yet to act on this recommendation.

---

56. Justice Policy Committee, public hearings, August 3, 2004, p. 3.

57. SARS Commission, second interim report, p. 257.

Officials must also remain careful not to raise the alarm too loudly and too early. Not only can a failure to act decisively in the face of a public health emergency cause a loss of faith by the public in their leaders, so can an overreaction of the kind that occurred in the U.S. in 1976, when a few human cases of what appeared to be a new strain of swine flu appeared at Fort Dix, New Jersey, and led to the belief among many experts that a pandemic was imminent.

As Dr. Richard Krause, a key decision maker in 1976, recalled:

After much consultation and discussion at the highest levels of the US government, the Public Health Service launched a program to immunize 50 million people. Following the largest voluntary mass vaccination campaign since the mass vaccination programs with Salk and Sabin polio vaccines, nearly 25 per cent of the US population, or 45 million persons, were vaccinated by October, 10 short months after the alarm was sounded.<sup>58</sup>

The epidemic, however, did not occur. The Fort Dix outbreak was a false alarm, and the American public and much of the scientific community accused us of overreacting. As someone noted, 1976 was the first time we had been blamed for an epidemic that did not take place.<sup>59</sup>

## Preparedness, Planning and Resources

Ontario was not ready for SARS, or, if it had come, a pandemic. The public health system was, as noted in the first interim report, broken. The building blocks of public health emergency preparedness and planning were missing. There was insufficient attention to worker safety. There was not enough coordination and communication. There were too few infection control, worker safety and public health resources.

Ontario didn't even have a pandemic influenza plan. Such a plan would have been useful during SARS, especially early in the outbreak when it was feared SARS would

---

58. The vaccinations became controversial when three elderly resident of Pittsburgh who had pre-existing heart conditions died after being vaccinated. Pennsylvania and nine other states suspended vaccinations. Vaccinations resumed after President Gerald Ford and his family were shown on prime-time television receiving the shots.

59. Dr. Richard Krause, "The swine flu episode and the fog of epidemics," *Emerging Infections Diseases Journal* Vol. 12, no. 1 (January 2006).



spread uncontrollably into the community. To make do, Ontario had to borrow B.C.'s pandemic plan.

Since SARS, much progress has been made to better prepare Ontario for an influenza pandemic or an outbreak of another infectious disease like SARS. This is a commendable start, but more needs to be done. The measures implemented to date mark merely the end of the beginning of the effort to ensure that Ontario can effectively respond to a future public health crisis.

As the second interim report said:

There is wide agreement on what still needs to be accomplished. But it takes unflagging commitment and determination to rebuild a broken public health system. Without a sustained commitment to fund the necessary changes, much that has been done will wither away and much that is urgently required will never be realized.<sup>60</sup>

---

60. SARS Commission, second interim report, p. 297.