Seven Oaks: A SARS Footnote

Introduction

In the fall of 2005, an outbreak of legionnaires' disease[871] swept the Seven Oaks Home for the Aged in Toronto, infecting 70 residents, 39 staff, 21 visitors and five other people who lived or worked nearby. Twenty-three residents died.[872] The outbreak brought back memories of SARS and initially some talk about whether SARS was back.

Unlike SARS, legionnaires' disease is not spread by person-to-person contact. Instead, people are infected when they inhale mist from a water source with high concentrations of the *Legionella* bacteria. The source of the Seven Oaks outbreak was likely its cooling tower.[873]

Seven Oaks brought back memories of SARS[874] largely because of the mystery surrounding its causative agent, which was not identified until October 6, 2005, nearly two weeks after the first residents started getting sick.

The Ministry of Health commissioned an expert panel to investigate the response to the outbreak. The panel comprised two physicians who led the fight against SARS and another who had chaired an important SARS policy study.

871. A type of pneumonia caused by the *Legionella pneumophila* bacteria, it was first identified in 1977 after causing 34 deaths at a 1976 American Legion convention in Philadelphia.

872. Ministry of Health and Long-Term Care, *Report of the Expert Panel on the Legionnaires' Disease Outbreak in the City of Toronto September/October 2005*, December 2005, p. 4 (Seven Oaks Report)

873. "Given the high attack rate in the Seven Oaks facility, it seems very likely the long-term care home's cooling tower was the source, despite the fact that the home and its water and cooling systems were well maintained and that the maintenance program met current standards" (Seven Oaks Report., p. 28).

874. CNN sent a reporter to Toronto to cover the Seven Oaks outbreak. In a report broadcast on October 5, 2005, he said: "Keep in mind it was just two years ago there was a severe outbreak of Severe Acute Respiratory Syndrome, or SARS, right here in Toronto. Forty-four people died. There were certainly a lot of jitters in the community about that back then."

The Seven Oaks report provides the Commission with an opportunity to comment on developments in the health system since SARS.

The report said:

> The Legionnaires' outbreak was the first time since SARS in 2003 that Ontario faced the threat of an illness that could not be easily or quickly identified. It was also the first opportunity to test the lessons learned from SARS.[875]

Seven Oaks and Worker Safety

As noted throughout this report, the Ministry of Labour was largely sidelined during the SARS outbreak. When the Centers for Disease Control and Prevention (CDC) sent a team to Toronto to investigate the infection of nine health workers at Sunnybrook on April 13, 2003, for example, no one thought to notify the Ministry of Labour that a worker safety investigation was being conducted at Sunnybrook.

Two years after SARS, the Seven Oaks panel investigated an outbreak in a workplace where nearly 30 per cent of the victims were workers, but the Ministry of Labour was not an integral partner in the investigation[876] and the panel's membership did not include a worker safety expert.

This does not reflect on the qualifications and expertise of the three panel members, who are leaders in their fields and internationally recognized. It does show that worker safety is still not taken as seriously as it should be. It also meant that the panel, unfortunately, was not given the kind of worker safety expertise this type of investigation requires. That this would have been of value was demonstrated in a letter the Ministry of Labour sent to the Ministry of Health in February 2006. The letter identified issues that could have been better understood if the panel had had Ministry of Labour and worker safety representation.

The Seven Oaks report said:

875. Seven Oaks Report, p. 4.

876. The expert panel did interview one or more officials at the Ministry of Labour. See page 41 of the Seven Oaks Report for a list of organizations that were interviewed.

> EMS workers were wearing a higher level protection, including N95 masks, as is the norm for their practice. EMS workers have a different standard for personal protective equipment because they regularly go into environments where the health risks are unknown. Their standard PPE is designed to protect them from toxins and chemical contaminants in the environment as well as infectious disease. Although the differences in PPE are based on science and practice, they are not well understood in the workplace.[877]

Labour responded:

> In MOL's view, based on "science and practice", EMS workers would require a supplied air respirator or a self-contained breathing apparatus for suitable protection against "unknown" chemical hazards. An N95 respirator would not be suitable, for example, where the unknown risk was from carbon monoxide. The use of an N95 in the presence of carbon monoxide may result in serious disability or death to the EMS worker. In fact, EMS workers use N95 respirators for protection against unknown infectious agents and for protection during high-risk aerosol generating procedures such as intubation and pulmonary suctioning. An N95 respirator is not suitable for protection against unknown "toxins of chemical contaminants". This report, in endorsing this incorrect use of N95 respirators, may lead to significant morbidity and mortality among EMS workers when exposed to unknown chemical health risks.[878]

The Seven Oaks report said:

> Ontario does not have specific standards for environmental maintenance.[879]

Labour responded:

877. Seven Oaks Report, p. 21.
878. Appendix to February 22, 2006, letter from Virginia West, Deputy Labour Minister, to Ron Sapsford, Deputy Health Minister.
879. Seven Oaks Report, p. 29.

> This statement is not correct. In fact, the *Occupational Health and Safety Act and Regulation* contains requirements to prevent Legionella growth in water and ventilation systems.[880]

Any deficiencies in the Seven Oaks report do not reflect on its distinguished authors, who, unfortunately, were not provided with sufficient worker safety expertise. These deficiencies are, however, sadly reminiscent of problems during the SARS outbreak when the response to the outbreak lacked sufficient involvement of the Ministry of Labour and of independent Ontario worker safety experts.

Also reminiscent of SARS and the sidelining of the Ministry of Labour was the recommendation of the Seven Oaks report that Labour's standard-setting powers regarding worker safety be given to the Ministry of Health.

The Seven Oaks report recommended:

> 3.2 Clarifying the responsibilities of different ministries and ensuring consistent messages (i.e., making the Ministry of Health and Long-Term Care responsible for establishing policy regarding the appropriate infection prevention and control measures in an outbreak and the Ministry of Labour responsible for enforcing and ensuring compliance with that science-based policy).[881]

SARS demonstrated that worker safety requires an independent regulator with two important roles. First, the regulator must be responsible for the development of worker safety standards that reflect the latest scientific research, occupational health and safety expertise and best practices, and the standards recommended by other agencies, such as the National Institute for Occupational Safety and Health (NIOSH). Second, once safety standards are set, the regulator must ensure that all workplaces are aware of and in compliance with those standards.

It would be improper for the Ministry of Health, as the Ministry that funds and oversees the health care delivery system, to regulate itself and the system for which it is responsible. This would place it in an untenable position.

880. Appendix to February 22, 2006, letter from Virginia West, Deputy Labour Minister, to Ron Sapsford, Deputy Health Minister.
881. Seven Oaks Report, p. 35.

The Seven Oaks report also argues against taking a precautionary approach to personal protective equipment:

> While many may think that, in terms of infection prevention and control, "more is better" – that is not the case. There are serious and inherent risks – to health care providers, to patients and to the system – in using higher-level precautions when they are not required.[882]

The report lists six risks related to what it called an inappropriate use of higher-level precautions:

- Personal protective equipment is uncomfortable and difficult to put on, so it is often misused or worn improperly
- Errors are more common
- Workers tend to become over confident in their equipment and neglect other key measures, such as hand hygiene
- Health care providers experience health problems (e.g., rashes, problems breathing)
- Patient care may suffer
- It is costly and uses supplies that may be required when the system is faced with diseases that require that level of protection[883]

Representatives of health workers took issue with the report's arguments against the precautionary principle:

> On page 22, the report lists the "Risks of Inappropriate Use of Higher Level of Precautions." We do not accept that any of the factors on this list offer a compelling argument against accepting the precautionary principle and providing better respiratory protection. The first risk cited is that "personal protective equipment is uncomfortable and difficult to put on, so it is often misused or worn improperly." The work environment of an HCW [health care worker] is not known for its ease or comfort. It is our

882. Seven Oaks Report, p. 22.
883. Seven Oaks Report, p. 22.

experience arising from SARS that most workers are prepared to accept a certain level of discomfort if they believe it may save their lives. We have seen no evidence to support the statement that because the equipment is uncomfortable or difficult to put on that it is *often* misused or worn improperly. Our experience during SARS was that workers had never been fit-tested, nor had they received prior training about putting on and wearing N95s and other new PPE – consequently, they made errors. However, the problem was lack of training and experience, problems which can be readily addressed.

The next risk cited is that "errors are more common." We have no idea of what kind of errors are being referred to, or what evidence there is of these "errors."

Next, the report states that "workers tend to become over-confident in their equipment and neglect other key measures such as hand hygiene." It is [a health workers' union's] experience that this is true in some instances, especially around the use of protective gloves and hand-washing. This has been documented in studies and anecdotally. However, no one has suggested that protective gloves should be abandoned because workers fail to wash their hands properly. The focus has been on developing guidelines on when gloves should be worn, what kind of gloves should be worn and ongoing training to ensure that workers wear gloves appropriately and practice good hand hygiene. Consequently, we do not find this a compelling argument to decide not to provide N95 respirators.

Another risk listed is that "health care providers experience health problems (e.g., rashes, problems breathing)." In the early 1990s when HCWs began to develop latex allergies that were in some cases life-threatening, no one suggested that HCWs should no longer be provided with gloves to protect them from infectious agents. Once the allergy was better understood, scientists and manufacturers worked to develop alternative gloves that would not make HCWs sick. Within less than 10 years, it was rare to find an HCW who could not be accommodated back into her workplace using a non-latex or low protein latex glove. It is simply unacceptable for the Panel to suggest that because some PPE may cause health problems that workers should not be offered proper respiratory protection. Most workers will be able to find an appropriate N95 respirator that will not cause a rash. Some workers may need other accommodations.

> The report states that "patient care may suffer." [A health worker union] does not know what evidence the Panel is using to support that statement. It is our position that in cases where workers are afraid of contracting an unknown illness and where they believe that their employer is not taking all reasonable precautions to protect them, it may have an effect on the quality of care they are able to deliver.
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> The final risk is that higher level precautions are "costly and uses supplies that may be required when the system is faced with diseases that require that level of protection." If we believed that N95 respirators were unjustified, we would accept that statement. However, since it is our position that in cases where there is a risk of airborne infection, N95s should be used, we do not accept it.[884]

Other representatives of health workers also took issue with the Seven Oaks Report's arguments:

> A day in the life of a health care worker is replete with all varieties of discomfort. While health care workers (like all workers) would prefer not to wear respirators, they are prepared to adjust to discomfort when necessary to make the very air they breathe safe for themselves and safe to pass on to patients and family. Firefighters, steelworkers, chemical workers and others have for decades routinely crouched in cramped, confined spaces for hours at a time, dragged down by much heavier respiratory protection than the N95 respirators … Given information and training about hazards and the need for respiratory protection, all workers tolerate the discomfort.[885]

If the Commission has one single take-home message it is the precautionary principle that safety comes first: that reasonable efforts to reduce risk need not await scientific proof. The Ontario health system needs to enshrine this principle and to enforce it. It is the most important single lesson of SARS, and it is a lesson ignored only at our collective peril.

884. Letter from OPSEU to Premier Dalton McGuinty, January 24, 2006.
885. Letter from ONA to Premier Dalton McGuinty, December 15, 2005.

Conclusion

Seven Oaks showed the good side of Ontario's response to SARS: the excellent worker safety approach taken at North York General Hospital,[886] with the new infection control system under Dr. Kevin Katz in which health workers were enabled to choose the highest level of protection; the good communication between Toronto Public Health and the Ministry of Labour; and the fine leadership shown by Dr. David McKeown, the Medical Officer of Health for Toronto.

Seven Oaks also showed the bad side of Ontario's response to SARS systemic problems that remain unfixed; the problems at the provincial laboratory; the two solitudes between infection control experts and worker safety experts; the exclusion of the Ministry of Labour from the centre of the investigation and the subsequent report; the occupation by the Ministry of Health of worker safety territory, where one would expect greater presence and collegial involvement by the Ministry of Labour; the failure to ensure effective consultation with safety officials from health worker unions; and the strong echo of the turf wars between the health system and the worker safety system that so bedevilled SARS.

Seven Oaks demonstrated that many worker safety lessons of SARS have not been learned.

The Ministry of Labour must be independent in setting workplace standards and in enforcing them. It must be an integral member of the response to any infectious disease outbreak. It must be directly involved in any post-event review of any infectious disease outbreak in which workers have gotten sick. Any post-event review of an infectious disease outbreak in which workers have gotten sick must include worker safety experts.

The Seven Oaks outbreak also demonstrates the continuing reluctance of the health system to fully accept the importance of the precautionary principle in worker safety. Until this precautionary principle is fully recognized, mandated and enforced in our health care system, nurses and doctors and other health workers will continue to be at risk from new infections like SARS.

886. North York General Hospital was one of seven hospitals that treated cases.