

SARS Key Learnings From The Perspective of University Health Network

Notes for the Campbell Commission

University Health Network has cared for 38 SARS patients including 4 of its own staff who contracted SARS at the outset of SARS 2. In addition, 5 people died as a result of SARS during hospitalization at UHN. Our significant experience with SARS has provided us with a perspective that we would like to share with the Campbell Commission.

What Did the Health System Do Well?

SARS reinforced our belief that Ontario healthcare staff are hard working, dedicated and courageous. The primary goal during SARS was protection. While as a system we were less than perfect, we should nonetheless be pleased with how well we did in this emergency. Hospitals and their staff put in an extraordinary effort and rose to the challenge by implementing procedures and processes that kept most people safe.

What Health System Weaknesses Were Highlighted?

SARS shone a light on weaknesses in Ontario's health care system. The system is structurally fragmented and is overburdened with demands for services. This state of affairs and the pre-existing inadequate attention to infection control combined to create a system crisis.

I will briefly describe key learnings from the Ontario SARS experience.

(1) Central Versus Regional System

During SARS, coordination was hindered because Ontario hospitals and other elements of the health system operate independently as part of a loose association rather than grouped under regional governance. During an outbreak, a regional approach would have enabled better coordination of patient care by allowing the adjustment of service levels for SARS and non-SARS patients among providers to meet the needs of patients in the GTA.

(2) Public Health

SARS highlighted the weaknesses in the design of the Ontario Public Health system. Unlike most other provinces, which have Public Health integrated into Regional Health Structures, Ontario's system is run by Municipal Government.

The Ontario model can lead to poor communications and jurisdictional confusion.

There is a dearth of physicians in the Ontario Public Health system in Ontario who are certified infectious diseases specialists, despite the fact that several of the threats to Ontarians have involved infectious diseases (SARS, E. coli, West Nile).

(3) Lack of Infection Control Infrastructure in Ontario Hospitals

It became apparent during the SARS outbreak that some Ontario hospitals had ineffective or absent infection control programs. Outside of large teaching hospitals, the expertise to deal with serious infection control issues appears minimal.

(4) Staff Training and Compliance

Healthcare staff are not adequately trained in protecting themselves against acquiring infectious diseases. In other industries, workers would be required to undergo regular safety training, wear proper equipment, and would not be allowed to work if they did not meet safety standards. In health care we have tolerated regular breaches of good practice.

(5) Hospital Design

Designing hospitals to be open, public spaces, can make it quite difficult to control infectious diseases outbreaks. During the SARS outbreak, it became clear that the many public entrances each hospital has makes it difficult and expensive to control entry and therefore to control infiltration of infective diseases.

Few hospitals have an adequate supply of isolation rooms and negative pressure rooms on wards, in the Emergency Departments and in the Intensive Care Units (ICUs). Triage areas in the Emergency Department are often designed with patient flow and patient satisfaction in mind, rather than healthcare worker safety and protection.

(6) Intensive Care Unit Bed Bottleneck

SARS brought the lack of Intensive Care Unit (ICU) nurses into clear focus. Having 20 to 40 SARS patients occupying ICU beds with at 2:1 staffing ratio put other critically ill patients at risk because available staffing could not handle this additional number of patients. Had there been a major highway accident during SARS, there would not have been the nurses to care for the patients. The ability to open new ICU beds quickly would be a key issue for any future similar healthcare emergency. This will require many more ICU trained nurses to enable the system to be able to flex to meet the need.

The reality is that we are not training enough nurses. In 1970, approximately 10,000 nurses graduated in Canada. In 2000, the number was only 5,000 and the population had increased over the 30 years by almost 40%. To emphasize this point even further, because of staff shortages in the year 2000 nurses across Canada worked overtime the equivalent of 7,000 FTEs versus the 5,000 nurses that graduated.

(7) Staff Movement, Labour Issues

SARS highlighted the fact that many staff work part time, and work at multiple hospitals. This allows more flexibility in schedules to minimize hospital costs, as well as it allows staff to avoid working the less popular shifts. Staff moving between hospitals can result in the spread of infectious diseases during an outbreak. Future plans for controlling infectious diseases outbreaks must recognize this and take steps to minimize it. (e.g., increasing full time staffing levels and modifying collective agreements to remove the incentive to work as a casual)

(8) Sick Time Policies

Hospital policies that provide incentives to staff to come to work sick, (i.e., to have perfect attendance) may result in staff transmitting infectious diseases to others.

It should be noted that sick time for nurses is very high compared to other industries due to the difficult nature of the work (i.e., approx. 15 days/yr and 4 incidents). Overall, in Canada nurse absenteeism is equivalent to 9,000 FTEs.

(9) Communication

During SARS, messaging was sometimes confusing with different speakers contradicting each other. This frightened our staff and the general public. The media spoke with many “experts” in the community who gave different opinions on matters such as the severity of the situation and the actions to be taken. While different opinions are important and part of free speech, during emergency situations this leads to confusion both for the public and for hospital staff. In times of emergency, greater attention needs to be given to strategies for unified communications (e.g., a rotating infectious diseases spokesperson).

(10) Cannot Forget Other Contagious Diseases

SARS is a specific disease caused by a coronavirus. As we know more about SARS, the control measures become clearer. Other infectious diseases however can be just as deadly if not more so yet are transmitted in different ways (e.g., hemorrhagic fever viruses are transmitted through blood exposure). Preparing ourselves for SARS while not preparing for other infectious diseases would leave us vulnerable to future outbreaks. We were lucky that SARS was not consistently more contagious. Given the way our system currently operates in Ontario, had SARS been as contagious as, for example, Chicken Pox, there would have been many more deaths.