

The Outbreak at St. John's Rehabilitation Hospital

On May 20, 2003, St. John's Rehabilitation Hospital reported a respiratory outbreak among four patients and a health worker. The report and subsequent investigation led to the discovery of the second phase of SARS. When the report was made, no one involved with these cases or with the investigation into them had any idea of what was to come. No one knew that these cases were linked to a large outbreak of undetected SARS at North York General Hospital. No one knew that a second phase of SARS, equally devastating as the first, was waiting to be found.

The story of the outbreak at St. John's Rehab Hospital is a story of both tragedy and triumph. Tragedy, because we now know that the cluster of illness among patients at St. John's Rehabilitation Hospital traced back to a much larger, deadly outbreak at North York General Hospital, infecting patients, visitors and health workers, and spreading to other health care institutions. Tragedy, because three of the patients from St. John's were transferred to other health care institutions for treatment before it was known they had SARS, and at two of those institutions there was further spread of SARS. And tragedy for all those who became ill, especially for those who lost loved ones to the second phase of SARS.

The triumph, however, can be seen in the quick investigation and the collaborative effort of public health, hospitals and infectious disease and medical microbiology experts, which ultimately contained the outbreak at St. John's Rehab Hospital and led to the discovery of the outbreak at North York General Hospital. And triumph in the stories of strong medical leadership, strong infection control, strong occupational health and safety and strong communication on the part of St. John's Rehabilitation Hospital and Rouge Valley Health Centre, which prevented further spread of SARS.

But the story of the outbreak and its investigation also reveals a number of systemic problems, many already identified in the Commission's first interim report, including ineffective systems of communication between public health, hospitals and front-line health workers, a lack of central expertise, lack of public health resources and lack of lab support.

A Cluster of Respiratory Illness

St. John's Rehab Hospital, located at 285 Cummer Avenue in Toronto, is a leading hospital for specialized rehabilitation. The hospital has 160 inpatient beds, serving 2,600 patients annually from across the Province, as well as providing more than 47,000 outpatient visits per year, as part of a comprehensive outpatient rehabilitation program.⁷⁴³

After SARS, St. John's Hospital became a haven of support, both physically and emotionally, for health workers recovering from SARS. Through a program called "All Systems Go," St. John's Rehab partnered with the Workplace Safety and Insurance Board to provide post-SARS rehabilitation. It was the only program of its kind. Countless health workers interviewed by the Commission credited the hospital with helping them in their struggle to recover from the long-term impacts of SARS, including post-traumatic stress and chronic pain. Post-SARS, when hospitals returned to normal, many health workers felt abandoned in their illness and pain. St. John's Rehab Hospital was there for them. As one nurse told the Commission:

I wish to tell you one thing, St. John's hospital, the staff, the physios, the doctors, they have been there more for us than the hospital where I worked for 30 years.

On May 20, 2003, Dr. John Patcai, the medical director at St. John's Rehab Hospital, reported to Toronto Public Health a cluster of respiratory illness involving four patients and a health worker. The ill were three men and two women, ranging from 43 years of age to 68 years of age, each with a unique health history. Their common link was St. John's Rehabilitation Hospital and the onset of fever. A chronology of SARS II, prepared by Toronto Public Health, summarized the case history of these five cases:

[Mr. S],⁷⁴⁴ a 43-year-old male, was transferred to St. John's Rehab from Sunnybrook Hospital on May 9, 2003, following a laminectomy. He had developed fever on May 16 and fatigue on May 18. A portable chest x-ray on May 20, showed a right lower lobe pneumonia. While an inpatient

743. Numbers taken from St. John's Rehab Hospital website.

744. As with other parts of this report, patients referred to in this section have been randomly assigned a letter for reference, to protect their identity.

at St. John's Rehab Hospital, he was treated by health worker Ms. J prior to his onset of illness, and he was also a roommate of Mr. T.

[Mr. T],⁷⁴⁵ a 57-year-old male, was transferred to St. John's Rehab Hospital from Toronto General Hospital on March 19, 2003, following a double lung transplantation operation. His symptoms began on May 16 with a low-grade fever. On May 18, while he was at home on a weekend pass, he developed incontinence, weakness, tremors, jaundice and shortness of breath. He was taken to the emergency room at Toronto General Hospital but was returned to St. John's Rehab Hospital that evening. On May 20, he again developed a fever and complained of nausea, chills and cough, and was transferred back to Toronto General Hospital. While he was an inpatient at St. John's Rehab, he was a roommate of Mr. S and Mr. G and he had contact with health worker Ms. J.

[Mr. G], a 68-year-old male, was hospitalized at St. John's Rehabilitation Hospital on March 20, following a stroke. Mr. G's symptoms began on May 11, 2003 with fever. He was admitted to Scarborough Grace Hospital on May 13, with a diagnosis of fever of unknown origin. On May 20, he was diagnosed with congestive heart failure at Scarborough Grace Hospital. While an inpatient at St. John's Rehab Hospital, he was a roommate of Mr. S and Mr. T and was also treated by health worker Ms. J.

[Ms. N], a 55-year-old female, who turned out to be the index SARS case at St. John's Rehab Hospital, was admitted to St. John's from North York General on April 28, 2003, following a bilateral total knee replacement. On May 1, she developed fever and diarrhea. On May 6, she developed a cough. On May 9, she was transferred to North York General and seen in the emergency department, where she was diagnosed on a chest x-ray with pneumonia. She was returned to St. John's Rehab Hospital the same day. Her fever resolved on May 11, and on May 16, she was discharged home, where she remained well. She was called at home by St. John's Rehab Hospital on May 20, While an inpatient at St. John's Hospital, she had contact with health worker Ms. J.

745. As noted earlier, the initials of patients have been changed. This Mr. T is not related or connected to the index case, Mr. T, whose story is told earlier in connection with the outbreak at Scarborough Grace Hospital and the first phase of SARS.

[Ms. J] was a health worker at St. John's Rehabilitation Hospital. She complained of fever and fatigue starting on May 7 or 8, 2003. She was off work on May 8 and returned to work May 9 for one day only. She was then admitted to Scarborough Centenary Hospital with pneumonia, diagnosed on a chest x-ray. She had contact with all four above-listed patients while they were inpatients at St. John's Rehab Hospital.

The reporting of the cluster of illness at St. John's Rehab Hospital was a key step in the detection of the second phase of SARS. The actions of Dr. Patcai and the hospital reflected a keen understanding of not only their reporting obligations with respect to respiratory outbreaks⁷⁴⁶ but also the importance of heightened vigilance for any unusual clusters of illness. It is a strong example of what went right during SARS and it sets an example for future conduct. Without the actions of those involved in identifying and reporting the outbreak at St. John's Rehab Hospital, it is very likely that the second outbreak would have simmered much longer, spreading even further, before it was detected. As Dr. Rita Shahin, a Toronto Public Health physician, said, in giving credit to Dr. Patcai:

I have to credit the astuteness of the medical director at St. John's Rehab for realizing what he was dealing with. He had no training in infectious disease. He is not a specialist. He was very astute. He picked up on that unusual respiratory outbreak on his own and called it in to Toronto Public Health and that really was the first step in uncovering in the facility the second phase of the outbreak.

Not only did Dr. Patcai report the outbreak, he provided in-depth information to Toronto Public Health about the patients and also reported the case of Ms. N, who was no longer in hospital but was at home, having recovered from her illness. Dr. Tamara Wallington, from Toronto Public Health, told the Commission that the reports to Toronto Public Health, such as those made by the wife of Patient A, the man who died as an inpatient on 4 West at North York General and whose family became ill in May, and the report by Dr. Patcai, were important events in identifying the second outbreak:

So I spoke with Dr. Patcai on the 21st and he told me about four patients and a health care worker, and I'll just go through the brief history he gave

746. *Health Protection and Promotion Act*, R.S.O. 1990, c.H.7., s.27; and see Ontario Regulation 559/91, amended to O.Reg., 365/06, Specification of Reportable Diseases.

me on each one. And again, I think that this, for me personally was another really interesting turn of events. When I think of [Patient A's] family, the fact that they were never reported to us and that we probably wouldn't have known about them if they hadn't called in, it is to me pretty amazing. I'm so appreciative of the fact that she [Patient A's wife] called in.⁷⁴⁷

Something similar happened with Dr. Patcai when he phoned to tell us about this outbreak, because he ended up telling us about a patient who had been admitted to St. John's who was actually already at home and well. And just to give you the context around how outbreaks are reported, usually when facilities call in, a long-term care facility calls in to report a respiratory or even a GI [gastrointestinal] outbreak, they will tell you about the patients who are on the line list. So they'll take people who have the various signs and symptoms and they'll put them on what we call a line list, they'll document their names and that will include dates of onset, etc., and tests that have been ordered. They don't generally tell you about people who were sick a week ago and are now better, and he did that. He took that initiative and it turned out to be a very key person and that was [Ms. N]. And he didn't have to tell us about her and it's pretty amazing that he did ...

Dr. Patcai reviewed the health history of Ms. N with Dr. Wallington, including the fact that she had initially been an inpatient at North York General, that she had been seen in the emergency department at North York General Hospital and diagnosed with pneumonia during her stay at St. John's Rehab Hospital, and that she had been discharged home from St. John's Rehab and was doing well. Dr. Wallington credited Dr. Patcai's judgment in reporting the information and said that Ms. N's case was one of the turning points in the outbreak investigation, as it linked back to North York General:

She [Ms. N] was the first case and she was one of the turning points for us. If he had not told us about her, we would not have had the link back to North York, which turned out to be very significant. So, again, it was a very good judgment call on his part because you don't always hear about patients who were sick and then are better. So it was really excellent that he did that.

747. Patient A was a patient on 4 West, the orthopedic unit at North York General Hospital. He was the patriarch of the NYGH family cluster, admitted to North York General Hospital through the emergency department in May 2003. Their story is told earlier in this report.

St. John's Hospital had not only reported the outbreak and provided helpful details about the patients, those who were in hospital and Ms. N, who had since been discharged home, but they had also managed to contain the outbreak within the hospital. The containment of the outbreak at St. John's Rehabilitation Hospital was due to the hospital's strong approach to worker safety and its robust infection control policies. As one official from the hospital told the Commission:

The one saving grace is that any patient that comes into St. John's and has an elevated temp is put into isolation, and that had been even more strongly reinforced during SARS I, and so when SARS II happened after we'd done the critical incident review through SARS I, anybody that came in was on an automatic 48 hours' isolation, so we don't have any negative pressure rooms but we do have the ability to isolate.

Much like the experience at Vancouver General Hospital, whose story is told earlier in this report, the front-line staff at St. John's Hospital were used to being suspicious and cautious when confronted with a patient with fever or other respiratory symptoms and they understood the importance of isolation and the use of precautions. One official from St. John's Rehabilitation Hospital praised the staff for their strict compliance with precautions, preventing further spread of the outbreak:

... the right thing was that the staff were isolating the right patients and were doing the right thing in terms of their own personal protection, because when the patients were cohorted, you know, isolated, there wasn't any further transmission ...

The Naylor Report described the quick and cautious actions of St. John's Rehabilitation Hospital:

Meanwhile, St. John's Rehabilitation Hospital had a steady flow of patients from other institutions, including a transfer from 4 West at North York General Hospital. During the third week of May, staff at St. John's informed senior management that three patients were exhibiting SARS-like symptoms, and a call went out to Toronto Public Health. The hospital immediately instituted all the appropriate precautions.⁷⁴⁸

With the support of strong medical leadership under Dr. Patcai and a strong working

748. Naylor Report, p. 40.

relationship between management and front-line staff, St. John's Rehab Hospital proved that strong systems, strong leadership and good communication will stand even in the face of crisis and change. As one hospital official told the Commission, even a change in leadership immediately before SARS did not impact the hospital's ability to respond:

... the other thing that happened between SARS I and SARS II is that St. John's had no management team. Malcolm Moffat [the CEO] was hired a month before, just before SARS I. He closed the hospital on his third day of work ... So Mary Grace [Grossi] and some of the other folks really stepped up to be leaders during that. Mary Grace has been there for 20 years so she really knows the organization and I think really galvanized the staff to get them rallied around that first one [the first SARS], because certainly people were. There were very good systems in place that we got up and running for the second time around.

The identification and containment of the outbreak by St. John's Rehab Hospital is even more impressive when one considers that it did not have its own infectious disease specialist and did not have the infection control resources available at some of the large health care institutions in Toronto. St. John's, like many other small institutions in Toronto and across Ontario, had to rely on the help of outside experts for consultation and advice.

Around the same time the report was made to public health, Dr. Patcai, concerned about this outbreak, had also contacted Dr. Allison McGeer, the Director of Infection Control for Mount Sinai Hospital. On the advice of Dr. McGeer, and in consultation with the clinicians who were caring for these patients, a number of lab tests were ordered on the patients who had been transferred from St. John's Rehab Hospital to acute care hospitals, including testing for SARS coronavirus.

Toronto Public Health Responds

The May 20, 2003, report from St. John's Hospital about the cluster of respiratory illness was forwarded by the Toronto Public Health investigator who took the report to a public health physician for review. The physician, who was not on the SARS team at Toronto Public Health but rather was responsible for non-SARS outbreak reports, was concerned by what she was told, and reported it to the SARS team. Dr. Shahin explained how the report came to her attention as a member of the Toronto Public Health SARS team:

Late on May 20th, the medical director had called the west office of Toronto Public Health and spoke to one of the investigators about a respiratory outbreak that he was concerned about. She gathered more information from him. He sent her an email with some summaries of the number of cases and patients he was concerned about. And the next morning she spoke to [Dr.] Megan Ward, who was the physician dealing with everything that was non-SARS at Toronto Public Health, and Megan was concerned about the outbreak. It didn't sound like a typical respiratory outbreak, so she was trying to reach the SARS reporting line, the Toronto Public Health line, and wasn't able to get through, so she called me directly, knowing that I was at 277 Victoria.

The astute actions of Dr. Ward meant that alarms were being raised in a timely way, and with the right people.

Also on May 21, 2003, Dr. Barbara Yaffe, the Director of Communicable Disease Control for Toronto Public Health, became aware of the cluster of illness at St. John's Rehab Hospital while at a meeting of the Naylor Commission. She told the Commission that Dr. McGeer approached her at the meeting and raised concerns about St. John's:

I personally became aware of it May 21st, I was actually at the first meeting of the Naylor Commission, on Sheela's [Dr. Basrur's] behalf, and [Dr.] Allison McGeer was there too, and during a break she said to me that she had been called by St. John's, and she was concerned about it. So we went through together what was going on there, and I called the office right away, and I said transfer this St. John's situation to our SARS team and I asked [Dr.] Rita Shahin to take the role as one of the senior physicians to lead the investigation.

As noted above, on May 21, Dr. Wallington spoke to Dr. Patcai and gathered information from him about the four patients and the ill health worker. The various hospitals where these patients were now being treated were contacted by Toronto Public Health to review the cases with the front-line clinicians. She said that at that time, while it was clear that they were dealing with an outbreak of some kind, it was not clear that it was SARS. None of the patients had an epilink to a known SARS case, all had a possible alternative diagnosis and not all of their symptoms were clinically compatible with SARS. Dr. Wallington described the cluster of illness:

It was a clustering of individuals that had fever. Some, three of them had chest x-ray findings, so there was definitely something happening in the lungs but they didn't all complain of respiratory symptoms.

On May 22, 2003, there were a number of conference calls throughout the day involving Toronto Public Health, the Ministry of Health and Long-Term Care, the Provincial Operations Centre and a number of infectious disease experts and physicians from across Toronto.

It was clear that a number of other hospitals would be affected if these cases turned out to be SARS. The four patients⁷⁴⁹ had come from three different health care institutions in Toronto:

- Two patients had come from Sunnybrook Hospital;
- One patient had come from Toronto General Hospital; and
- One patient had come from North York General Hospital.

And as of May 21, the day the investigation started, three of the patients and the health worker had all been transferred out of St. John's Rehab Hospital to other hospitals in Toronto, where they were receiving medical care:

- As of May 21, Mr. G was at Scarborough General Hospital, having been admitted on May 13, 2003;
- Mr. T was at Toronto General Hospital, having been admitted on May 20, and also having been to the emergency department on May 18, 2003;
- Mr. S was admitted to Sunnybrook Hospital on May 20, 2003; and
- The health worker, Ms. J, was at Scarborough Centenary Hospital, having been admitted on May 16, 2003.

Also on May 22, 2003, staff from Toronto Public Health went to St. John's Rehabilitation Hospital for a meeting of the outbreak management team. The Naylor Report described the events of that day:

Toronto Public Health staff visited the hospital on May 22. Discussion again focused primarily on establishing an epidemiologic link to the patients. None was found.⁷⁵⁰

749. There were five people who were under investigation for SARS: four patients and one health care worker.

750. Naylor Report, p. 40.

Although the patients were being managed with SARS precautions, the absence of an epilink prevented health officials from classifying the case as SARS. As the Naylor Report found:

Still chasing down 30 to 40 possible cases of SARS per day, personnel at Toronto Public Health agreed by telephone that there was a respiratory outbreak, but suggested that SARS was not a likely culprit – as at North York General Hospital, no epidemiologic link could be established.⁷⁵¹

The patients were categorized as persons under investigation, in accordance with the case definition at that time. Public Health understood that the cases were being managed in isolation, with precautions, as if they were SARS. Public Health was investigating the cases and looking for possible epilinks.

Smells Like SARS

Ms. J, the health worker from St. John's, had been admitted via the emergency department, to Scarborough Centenary Hospital, part of the Rouge Valley Health System, on May 16, 2003. Prior to her admission, she had seen two family physicians, and she recalled that both had used precautions.⁷⁵² The cautious use of protective equipment by physicians and health workers likely prevented the spread of SARS within those clinics to patients or staff.

Because Rouge Valley Hospital had not dropped precautions in the period between what are now considered SARS I and II, when Ms. J went to the emergency department on May 16, precautions were taken from the moment she walked in the door. Protective equipment was used both by her and by staff who assessed and provided care to her. Ms. J recalled to the Commission that she was given a mask before she entered the emergency department, and that her husband was not permitted to accompany her. While she waited in the emergency department, a nurse took her temperature. Her temperature had gone up and she was put in isolation. As she described to the Commission:

751. Naylor Report, p. 40.

752. Ms. J went to her family doctor on May 14, 2003. She recalled that he wore a mask when he examined her. She went to a walk-in clinic near Scarborough Centenary Hospital on May 16, 2003. The physician who saw her at the clinic also wore a mask and directed her to go to the emergency department at Scarborough Centenary Hospital.

I don't remember how long I was sitting there but finally somebody came and they took my temperature. Actually it went up a little bit so the nurse put me in isolation because I had a fever. I guess to be sure they had to be put in isolation if somebody had a fever at the time. This is what was explained to me. And I was put in an isolation room, I think it was negative pressure, I haven't been in isolation before. And then the doctor came, he was one of the emergency doctors. He assessed me and he said, I don't know what's wrong with you, it seems like I cannot find anything. So I didn't have stroke, I didn't have headache, actually, my head was quite clear. And I was still complaining about a lot of pain. I was asking them to give me some Tylenol or something. It was difficult for me to sit or lying on the side, anything, any side, especially my right was very, very bad. And again, he was in this mask and he looked at me and said, I really can't find anything wrong with you but we will try to see the blood work, and somebody came and took my blood.

And after, I don't know what time it was, but after they came to me dressed and double-masked and they said that I have viral hepatitis and they don't know if I really have it or not, this is what I was told. And they ordered x-rays and blood work. So they eventually came with again, double gowns and masks, I was actually in the room, and the x-rays. It took a while because I guess they had to find a mask and everything. It wasn't just N95s anymore, it was like they were wearing full gowns. And even the doctor who came the second time I actually had my blood done, she was double-gowned too and double-masked at the time.

Also on May 20, 2003, Mr. S's mother, Mrs. S, was admitted to Scarborough Centenary Hospital with respiratory symptoms. She had visited her son on May 11, while he was an inpatient at St. John's Rehab Hospital. She began to develop fever, headache and myalgias on May 14, 2003. When she was admitted to Rouge Valley Hospital on May 20, 2003, Mrs. S was not known to have SARS. When she went to the emergency department, she was asked about recent travel history and reported that she had recently travelled to China. As a result, she was admitted into a negative pressure isolation room and emergency room staff used precautions. The clinician who saw her was concerned about her condition and reported her case to Dr. Ian Kitai, the medical director for infectious diseases at Rouge Valley Health Centre. Although Rouge Valley was unaware of her connection to St. John's Rehab Hospital, they reported her case as a respiratory illness to Toronto Public Health.

Despite the hospital's not being aware that Ms. J and Mrs. S had SARS, the precautions used and infection control measures taken at the Rouge Valley Hospital with these two patients meant that there was no further spread of SARS to other patients, visitors or staff. Rouge Valley Health System treated 28 probable and 21 suspect cases during SARS. They had no evidence of transmission to health workers, patients or visitors in the hospital.⁷⁵³ Dr. Kitai described the hospital's success as a "team success" and said that everyone, including administrators, senior management and front-line staff, was part of the team effort.

The cautious approach taken by Rouge Valley Health System was rooted in strong infection control and occupational health and safety, both essential to safeguarding patients and staff in a health care institution. Measures such as using their Joint Health and Safety Committee to ensure compliance with precautions and to provide education and reinforcement of policies, fostering and maintaining an open and strong relationship between front-line staff and the decision makers in the hospital, and respecting and valuing the opinions of front-line staff were hallmarks of an environment that promoted both patient and worker safety. Dr. Kitai described his infection control philosophy as follows:

If you are not sure, you act with the greatest of caution to maximize and protect health care providers.

Dr. Kitai was a leader, not only during SARS but also during the legionnaires' outbreak in 2005. His approach and outspokenness during both outbreaks showed strong medical leadership, rooted in an understanding and application of the precautionary principle, that action to reduce risk need not await scientific certainty.

The hospital's strong approach to infection control, a worker safety culture, communication and systems based on the precautionary approach were also hallmarks of the response of Vancouver General Hospital, a hospital that contained SARS when it arrived in the emergency department on March 7, 2003. The story of SARS at Vancouver General Hospital is told earlier in this report.

The infection control team and front-line staff at Scarborough Centenary Hospital were in constant communication with Dr. Kitai. When they expressed concerns, he listened. When they alerted him to the case of Ms. J, he shared their concerns. Here

753. SARS Commission Public Hearings, October 1, 2003.

was a health worker who was young and otherwise healthy and who was suddenly very ill to the point of almost requiring ventilation, and who worked at St. John's Rehab, a hospital that took cases from acute care hospitals in Toronto that had SARS patients. Despite the absence of an epilink, Dr. Kitai was very concerned about her case and felt that it "smelled like SARS." Even before the hospital became aware of concerns at St. John's Hospital, they reported the case of Ms. J, to Toronto Public Health, unaware of the connection.⁷⁵⁴ When Dr. Kitai heard about the cluster of ill patients at St. John's Rehab Hospital, he repeatedly phoned Toronto Public Health to express his concerns.

During one call to Toronto Public Health, on May 22, 2003, Dr. Kitai spoke to Dr. Barbara Yaffe, and expressed his frustration as to why these patients, in particular the health worker being treated at his hospital, were not being called SARS. Dr. Yaffe's notes of the conversation with Dr. Kitai provide:

Physio – smells like SARS – screw the orders re PUI
The epilink will come
Look at NYGH – had 2 psych pts
St. John's Rehab Hosp ? adjacent to NYGH
Get virology
Recording everything I'm saying to everybody
So what if you're wrong – regard as SARS until prove otherwise – isolate,
quar.
Nzes [short for "consequences"] of ignoring it + saying it's not SARS ...

Dr. Yaffe was asked by the Commission to explain what her notes meant:

Question: But then he's got noted, get something ... ology?

Dr. Yaffe: Virology.

Question: Got virology.

Dr. Yaffe: Virology.

Question: Virology, recording everything I am saying to everybody.

754. According to TPH records, Ms. J's case was reported by Rouge Valley Hospital on May 16, 2003.

- Dr. Yaffe: That is him telling me that.
- Question: That's him telling you that. So he is recording everything he is saying to everybody, so what if you are wrong, regard as SARS until proven otherwise.
- Dr. Yaffe: Isolate and quarantine.
- Question: Isolate and quarantine.
- Dr. Yaffe: Risks of ignoring it and saying it's not SARS, he is basically saying if you are in doubt, call it SARS, which is what we're doing.
- Question: Now go back to the top, though. He is saying screw the orders re: PUI.
- Dr. Yaffe: Yes, I don't know what he's talking about, I don't know what he meant by that. I don't know. I didn't write down what I said to him, but I would have explained to him that PUIs [persons under investigation], we do treat them as is if they have SARS and isolate them and quarantine the contacts, but I just wrote down what he was saying to me.
- Question: I am interpreting this and I may be quite wrong, but he's phoning up saying, screw the orders re: PUI, so call it SARS, so what if you are wrong?
- Dr. Yaffe: Yes.
- Question: Call it SARS until proven otherwise and the risks of ignoring it. It sounds like he is saying something to you at that point in time that strikes me as a layperson as just about bang on. So it is, screw the orders re: PUI [persons under investigation], were there orders about?
- Dr Yaffe: No, there were no orders.
- Question: ... and call it SARS.

Dr. Yaffe: You know, I think it has to do with how people interpret PUI. To me somebody, as I explained before, PUI did not mean they didn't have SARS.

Question: Right.

Dr. Yaffe: It just meant they didn't meet the case definition.

Question: At that time.

Dr. Yaffe: Yes, but we were treating as if they did.

Dr. Kitai's words resonate today.

The fact that a patient did not meet the formal classification of a suspect or probable case in a system designed to meet reporting requirements within Ontario and Canada and internationally, did not mean they did not have SARS and it did not mandate anyone to say SARS was gone or that cases were not SARS when it could not be ruled out. "Person under investigation" included a patient who clinically appeared to have SARS but for whom an epilink could not be found. But as we know from the story of the ill health workers from North York General Hospital in April, of the ill psychiatric patients and of the Patient A family cluster, because an epilink could not be identified did not mean one didn't exist, and its absence could not rule out SARS. Time and time again, the problem was that the classification of "person under investigation" did not reflect the reality that the patients "could be SARS" if and when an epilink turned up.

There were strong concerns among front-line clinicians involved with these cases that they could be SARS. And while the case definition did not change how these patients were managed, the identification of new cases of SARS, as suspect SARS until proven otherwise, as opposed to as persons under investigation until proven to be suspect or probable, would have signalled to front-line staff that SARS might be back. The identification of suspicion of new SARS cases would likely have resulted in greater vigilance for additional cases across Toronto and to a reinstatement of many of the precautions that helped contain the early cases of SARS. As will be seen below, at those hospitals not involved in this discussion about the St. John's cluster, front-line staff worked without protection, under the false belief that SARS was gone.

The problem was not that Public Health did not understand the meaning of "persons under investigation"; it was that others didn't. And the strict case definition, seemingly premised on the belief that the absence of an epilink meant not SARS, did not

account for the risk that there would be cases for which no epilink could be found, possibly ever. The classification system, based on this strict case definition, did not accurately reflect the potential risk of a new case that looked like SARS and smelled like SARS but for classification reasons could not be called SARS.

It is important to point out that Public Health did not create the case definition. They were operating with a definition that they were required to use. But SARS showed us that in any future outbreaks, there must be complete clarity around case definitions: what do they mean to public health, what do they mean to the provincial government and what should they mean to the rest of the community, especially health care institutions that must take steps to ensure the safety of staff, visitors and patients.

SARS Is Back

May 22, 2003, was a key date in the identification of the second outbreak. Although the cases from St. John's were being investigated, it was still not known if they were SARS or some other outbreak. But on May 22, 2003, as further information about the patients was learned, the pieces came together that made it clear to everyone that SARS was back.

Toronto Public Health identified four things that became apparent on May 22, 2003, and that solidified to them that this was SARS:

- i) results on the broncho-alveolar lavage for [Mr. T] was positive for SARS associated coronavirus;
- ii) the condition of the ill health worker from St. John's Rehab [Ms. J] had worsened significantly. She is being transferred to the ICU;
- iii) the mother of [Mr. S] fell ill with SARS-like symptoms three days following her visit to him on May 11, 2003; and
- iv) the index case, [Ms. N], had been transferred from the orthopedic floor at North York General Hospital to St. John's Rehabilitation Hospital. She had a mild course of illness and had already recovered and was at home. [Ms. N] was [later] linked to 4W where Patient A was a patient and Patient A's wife [the A family cluster]⁷⁵⁵ visited regularly.⁷⁵⁶

755. The story of the Patient A family cluster is told earlier in this report.

756. Toronto Public Health Chronology, SARS II.

Dr. Shahin described for the Commission how these pieces of information came together on May 22, 2003:

We had I think three pieces of information that came together at the same time. One was the test results on [Mr. T], the other was [Mrs. S] who was [Mr. S's] mother, and [Mrs. S] had gone to China about a month before the onset of her illness, so when she became ill, what everyone was focusing on was her travel and the fact that it had been so far out of the normal incubation period that it didn't fit the picture. What we didn't know about was that she had a son at St. John's Rehab and she visited him on May 11th. That piece of information only came together after we were doing the outbreak investigation for St. John's Rehab. And then the third piece that came a little bit later was [Ms. N], who was the patient at St. John's Rehab that had been transferred from North York General and turned out to be the source of the outbreak at St. John's. So as we were investigating St. John's Rehab, we were looking at all the patients and where they had come from because they had all been transferred from acute care facilities.

Dr. Yaffe agreed that on the afternoon of May 22, things fell into place. During a conference call with experts and with officials from the Ministry of Health and Long-Term Care, it was determined that SARS was back and that the public had to be notified and St. John's Rehab Hospital had to be closed. As Dr. Yaffe told the Commission:

You know that day, May 22nd, it was quite a day. Things started to kind of fall in place very quickly in the afternoon. I had a call that there was a positive PCR on the broncho-alveolar lavage from one of the patients who had been transferred from St. John's to Toronto General. We made a connection finally between, there was a woman called Mrs. S, and her son was at St. John's and we didn't realize, she hadn't named him as a contact. And she had travelled to China or Hong Kong but the time period didn't fit, so we were not sure what was going on with her, and they all of a sudden realized she had visited her son who now was ill, so then we started to make the connection with the physiotherapist, Ms. N, who had been transferred from North York [Hospital].

And meantime, all of a sudden it was all coalescing, as all this happened. So then I spoke to the Ministry, I spoke to [Dr.] Erica Bontovic at the ministry, and we said well we need to do a case review of all this right

away. And then in the middle of all of this, [Dr.] Ian Kitai called me. And then we had a case conference with a lot of people on the phone. I called the Ministry and asked for the, what now they are calling the adjudication, I asked for the ID [infectious diseases] physician on call to consult on a difficult situation, it was Dr. Kevin Goff, and got him on the line, and I got the Ministry, and St. John's, and different sections of the ministry, Public Health, and we went through systematically all the different pieces of the whole thing, and based on that, and I was appointed again, the Acting Medical Officer of Health because Sheela [Dr. Basrur] was away, I said okay, SARS is back ...

Late that evening of Thursday, May 22, at approximately 9:30 p.m., Toronto Public Health held a press conference, where they announced to the public the outbreak at St. John's Rehabilitation Hospital. The press release issued about the St. John's outbreak identified four cases under investigation for SARS. The fifth case, Ms. N, was not identified because she was no longer in hospital and had recovered from her illness, although she was considered a case at that time. The press release provided:

News SARS cases under investigation

Toronto, May 22/CNW/ – Four individuals are currently under investigation for SARS. These patients are all being treated in hospital, and full precautionary measures are in place.

As a result of possible exposure to SARS, Toronto Public Health is asking all individuals who were in St. John's Rehabilitation Hospital between May 9 and May 20 to isolate themselves at home and call Toronto Public Health at [number provided] Friday morning starting at 9 a.m.

These individuals should monitor their temperature, and watch for the following signs and symptoms of SARS: sudden onset of fever (greater than 38 degrees C or 100.4 degrees F), AND respiratory symptoms, including cough, shortness of breath, or difficulty breathing.

Staying at home and limiting your exposure to others is the best way to control the spread of SARS to family, friends, and coworkers.

Anyone in isolation must take the following precautions:

- Do not leave your house, and do not have anyone visit you at home.

- Family members do not have to be quarantined, unless a member of the household is diagnosed with SARS.
- Wear a mask when you are in the same room with another member of your household. Change your mask twice a day. Family members do not have to wear a mask.
- Do not share personal items, such as towels, drinking cups, or cutlery.
- Wash your hands frequently.
- Sleep in separate rooms.

St. John's Rehabilitation Hospital is closed to admissions, visitors, discharges and transfers.⁷⁵⁷

By this time it was clear that there was a connection between the SARS outbreak at St. John's Rehab Hospital and a number of hospitals. While the precise details of the connection may not have been clear, those involved in the investigation knew that all of the patients involved had come from other institutions, and all but one had gone back into hospital since being at St. John's Rehab Hospital.

As noted above, Ms. N was believed to be the index case of the outbreak at St. John's. Although she had since recovered from her illness and was no longer in hospital, she had come to St. John's from North York General Hospital. Also at this time, public health officials were worried about the cluster of illness among Patient A's family, a North York General Hospital case they had been monitoring since May 12, 2003. They were worried that Patient A's family might have SARS, and this, combined with what they were learning about Ms. N, led them back to North York General. Dr. Wallington described the concerns about Ms. N and Patient A and his wife, in the context of what was also learned about Mr. S and his mother and the tests results for Mr. T:

So on the 22nd, things started to come together. [Mr. T's] PCR [polymerase chain reaction] came back positive for SARS. [Ms. N], who was the first case at St. John's, had been a patient at NYGH, where a patient [Patient A], who we had heard about anecdotally, had died, and his family was sick. She [Ms. N] was the first person to be sick in the cluster at St. John's. She was therefore the source case for St. John's. Where was she before that? Where did she get it? She was at North York General Hospital where Patient A had died and his family was sick.

757. Toronto Public Health press release, May 22, 2003.

There was a third piece of information that Dr. Lisa Berger may be able to speak to regarding Mrs. S, who was the mother of Mr. S. I wasn't directly involved in her case, but I believe she also developed SARS. She had gone to China a month before, came home and put herself into a 30-day quarantine. She then visited her son at St. John's, got sick and died. Although she had been to China, she acquired SARS as a visitor at St. John's. That was the third piece of information that came to us on May 22nd.

That evening, Thursday, May 22, 2003, after the press conference that announced the St. John's Rehab outbreak, a decision was made to go to North York General to review case files. As Dr. Wallington told the Commission:

At about 11 o'clock I said to Barbara [Dr. Yaffe], I think we need to go to North York [General Hospital]. Somebody needs to go to the hospital and review her chart [Ms. N], and review the charts of her hospital roommates. We need to review the medical charts because there is something going on at North York General Hospital. She [Ms. N.] is the index case at St. John's [Rehab Hospital]. She had been transferred to St. John's from the hospital where [Patient A] died [NYGH], we didn't have any information on him. I felt we needed to go to North York and start looking at charts to get a better understanding of what was going on. And she [Dr. Yaffe] agreed. Lisa [Dr. Berger] and I would go. Allison [Dr. McGeer] and Don [Dr. Low] were standing there. I turned to Don and asked him if he would come with us to review charts. We were at 277 Victoria, at the office. They were there at the time of the press conference.

Protecting North York General Hospital Staff

The investigation into the St. John's outbreak was reported to Public Health officials on Tuesday, May 20, 2003, and commenced on Wednesday, May 21, 2003. North York General was advised of their possible connection late Thursday, May 22, 2003. When meetings and conference calls were taking place on May 22, North York General was not on the line, despite the fact that one of the patients under investigation had come from their hospital.

Dr. Glen Berall, co-chair of the North York General Hospital SARS Task Force, recalled learning on May 22, that Public Health wanted to come on site the following

day to review patient charts, and recalled that it wasn't until May 23 that everything fell into place:

Dr. Berall: On the 22nd, I was aware that they were coming to look into any possible connection to St. John's and they wanted to go over some charts. So I thought, okay, well, if there's something that I need to facilitate, I should be there. So I was at that meeting.

Question: But you'd never had to do that before when they came in.

Dr. Berall: No.

Question: So was there already sort of a signal that it may have been a bit unusual?

Dr. Berall: I sent an email to Sue Kwolek on the night of the 22nd saying, do we have any patients from St. John's? Because I wanted to make sure that she and I both looked into that the next day. And then we had that meeting and it was being covered. I became aware of that meeting anyway and that was my total email to Sue Kwolek, was exactly that line and nothing else. It just said that. And so we then had that meeting. And at the meeting, as the meeting progressed, it took us until late in the afternoon to put the entire picture together with all of that expertise around the table. And as the day progressed, it became more and more obvious to us that there was a problem right there at North York General Hospital. That's when I became aware of it and apparently, that's when Toronto Public Health and [Dr.] Donald Low became aware of it, or certain of it. They had gone to St. John's Rehab, I gather, the day before and therefore they were coming to North York General the next day. And that's my understanding of how that proceeded. So when did they become aware they needed to come to North York General for these things? It was on the 22nd. They arranged to come the next day and we saw them.

Dr. Keith Rose told the Commission that he had no idea prior to May 23 that Public Health was looking at a possible SARS connection to North York General. He said:

I had no idea. We know that our patient went to St. John's. That was a fairly common source of referral for an orthopedic patient and it was an absolute surprise to me on May the 23rd that there was a link, the link was to 4 West. Understanding the patient that transmitted it now and seeing the Health Canada report, understanding who it was and how it got there, I can see all that now. At that time, I had no idea. But I will say I was surprised that if there was a postulate that North York was involved, that we were only notified on May the 23rd.

Toronto Public Health staff and physicians were working very hard to investigate the outbreak. It is apparent that a lot happened on May 22, and the story that now seems so clear was not so neat and clear at the time. As Dr. Wallington said to the Commission as she was reviewing the story of the outbreak at St. John's Rehab Hospital:

So this all sounds neatly packaged, but it's all in retrospect. I need to give you that caveat.

It is also clear that Toronto Public Health officials and government officials had no idea that an outbreak such as they discovered on May 23, 2003, was spreading through the hospital. When they went there on May 23, they intended to review only the charts of Ms. N, her roommate and Patient A. They did not know that there was a large outbreak among patients, staff and visitors on 4 West.

Dr. Berall, the co-chair of the SARS Task Force, said that everyone, including Toronto Public Health, came to the meeting on May 23, 2003, without any idea of the role that North York General had in the St. John's outbreak:

I think they started to suspect it when they went to St. John's and looked at the key patient who had come from North York General to St. John's and then came to North York General because of that suspicion and then the dawning awareness happened during that meeting. The way I look at the meeting is that it was a period of time during which our jaws sequentially dropped over time, and that's everybody around the table. It wasn't like, I didn't at all have the impression that Public Health, Health Canada and Donald Low came thinking, aha, we've got it and, you know, you guys don't know but this is what we think. But rather, they

were wondering and looked because of the St. John's connection. So I don't think that it would have fallen into place earlier because there wouldn't have been the link.

On May 22, 2003, there were suspicions that there were at least two undetected cases of SARS associated with North York General Hospital: Ms. N and Patient A. It was believed that Ms. N was the index case of the outbreak at St. John's Rehabilitation Hospital, and suspicions that the cluster of St. John's patients did have SARS were confirmed. Toronto Public Health staff told the Commission that it was not until they began to review charts on site on Friday, May 23, that they realized that Ms. N had been on the same unit as Patient A.

As seen time and time again throughout the outbreak, minutes, hours and days made a difference. Health workers could not protect themselves if they did not know they were at risk. Any delay in identifying the outbreak on 4 West and reinstating precautions put nurses, doctors and other health workers at risk of exposure. For example, one nurse was exposed to SARS when she came to work on May 22, ironically to cover a shift on 4 West for a nurse who was off sick. The nurse who covered her shift recalled bathing a very ill elderly patient on the orthopedic floor. Even though precautions had been relaxed on the unit, she recalled that she decided to wear a mask, but the only mask she could find was a surgical mask. The patient was one of the 4 West patients who was later identified as having SARS. This nurse contracted SARS and began to experience symptoms on May 26. Her story shows how every moment counts when it comes to protecting workers and the importance of protecting workers at the earlier signs of risk.

The Commission finds no evidence to suggest that public health officials deliberately kept information from North York General or that they had any knowledge of the risk faced by staff, patients and visitors to 4 West. The Commission accepts that prior to May 23 Toronto Public Health officials did not know that both Ms. N and Patient A were linked to the same area of the hospital: 4 West. Public Health did not know that 4 West staff were working, unprotected, with patients who had SARS. They did not know what was happening at North York General Hospital and in no way could have predicted what they would find when they went to the hospital on May 23, 2003. Public Health officials did not have the knowledge that we have today about what was happening on the 4th floor at North York General.

There was at the time no protocol that required North York General Hospital to be notified of the investigation into St. John's Rehab, nor does the Commission suggest

there was a lapse in existing standards. But there lacked a policy and clarity around reporting of potential infectious disease outbreaks by Public Health to potentially affected health care institutions. North York General and staff were not clearly notified of the potential link to the St. John's outbreak at the earliest possible opportunity. While Public Health officials did not know before May 23 that Ms. N was an inpatient on 4 West, the same unit where Patient A died, had North York General been told of the investigation at St. John's Rehab from the outset, and that a former patient was under investigation as part of the cluster, the hospital might have identified the link earlier than May 23. Had it been able to identify the link earlier, the hospital might have communicated to staff the fact that two patients connected to 4 West were under investigation for possible SARS and reinstated precautions until the risk could be ruled out.

As noted by the Commission in its first interim report, the obligation to report potential public health hazards is a two-way obligation: the hospital must report to public health, but public health must also report risks to hospitals. They should not wait until a risk has been fully investigated or crystallized, but should err on the side of disclosure. Nor should the ability of a hospital to be kept informed of risks in the community depend on their being part of the inner circle of experts who are consulted for advice by public health or Ministry officials. As we saw time and time again, hospitals cannot protect themselves if they do not know the risk they face, and in a health system such as Ontario's, where a patient can travel between multiple health facilities in a single day,⁷⁵⁸ diseases can quickly spread beyond what is thought at the time to be the source. Public health must have policies that support and allow the sharing of information with health care institutions and must have clear legal powers to disclose personal health information to hospitals or any other institution that might be at risk, where necessary to protect the public, which of course includes patients, visitors and health workers within those institutions.

758. For example, in the story detailed below under "Communication Breakdown," we see a patient come from St. John's Rehab Hospital, through North York General emergency, to Scarborough Grace Hospital, on the same day.

Communication Breakdown

Although the diagnosis of SARS was not confirmed until May 22, 2003, with the report of the positive results for Mr. T, five patients from St. John's were identified on May 20, 2003, as under investigation for SARS and the investigation was commenced on May 21, 2003.

Those hospitals that were lucky enough to be in the loop as the cases were discussed and conference calls were held, were in a position where they could ensure that their front-line staff, especially their emergency departments, knew about what was happening and were on the alert for respiratory cases from St. John's Rehab Hospital. North York was not one of those hospitals.

Those physicians and staff working in the emergency department at North York General the night of May 22, 2003, did not know about the investigation into a cluster of illness at St. John's Rehab Hospital or the identification of those cases as SARS. As far as they knew, there had been no new cases of SARS since early April. SARS was over.

That evening, they received a patient from St. John's Rehab Hospital who was quite ill. Unaware of the developments at St. John's, physicians and staff intubated the patient in the emergency department without using protective equipment. The doctor who intubated the patient told the Commission that he first saw this patient around 8:00 or 9:00 p.m. He said that when he performed the intubation, he had no idea anything was wrong at St. John's Rehab Hospital:

What happened was I saw her and we were [not] concerned given, at that point, we had been told, or led to believe, or it was suggested strongly that SARS no longer was a problem in Toronto. Right? We had no information about St. John's, and it happened at that hospital that day. And we had been told she had decreasing levels of consciousness for reasons unknown. She had no fever as well.

Because the intensive care unit was full, a not uncommon event in hospitals across the Greater Toronto Area, the patient was then transferred to Scarborough Grace Hospital. Nursing staff from Scarborough Grace inquired whether there were any concerns that the patient might have SARS. North York General reassured them that the patient did not have SARS. The physician who gave this assurance had no idea that cases of SARS had been identified earlier that day at St. John's Rehab Hospital.

He had no reason to suspect this patient might have SARS and he understood that there were no cases of SARS in Toronto. As he said:

On May 22nd, I knew there was no SARS in Toronto. That's what I had been told by some pretty reliable sources. North York General, [Dr.] Barbara Mederski, [Dr.] Glen Berall, the administration, Province of Ontario, Government of Canada sort of got together on that. I'm not sure about the WHO though.

Later that night, one of the physicians on duty in the emergency department at North York General Hospital received a telephone call from a very angry physician at Scarborough Grace Hospital. The front-line staff at North York General still had no idea about the outbreak at St. John's Rehab Hospital:

... I got a call from Scarborough Grace; a physician from there, he was actually I think the internist on duty that night, asked for me. I came on the line and this guy started yelling and screaming at me. He said, what are you guys doing, you know you just transferred a patient with SARS to us ... I said, excuse me, what patient with SARS, we transferred one from St. John's. He said, don't you guys know anything, haven't you been listening to the radio? And I said, no, I work in the middle of emergency; when am I going to listen to the radio? He said, it's all over the news, there's an outbreak in St. John's.

When he said that, no more goosebumps, just a big hot feeling went down my back, because the first thing I knew was, [the doctor who intubated the patient] is dead, [the doctor] is going to die. In fact I was really very, very, very upset. [The doctor] is a very good friend of mine. I phoned [the doctor] right away. I said before you hear it on the news, let me tell you what's happening, and I told him there is an outbreak, we don't know who's involved, which patients, this patient may or may not be involved, but we don't know, but I'll keep him posted.

The physician involved in the intubation recalled receiving that telephone call described above, in the early morning hours while he was at home:

I went home about one o'clock in the morning and the patient was intubated and [the above-quoted doctor] was looking after her. So I got a call about 3:00 a.m. on May the 23rd from [the above-quoted doctor]. He wanted to know if I was sitting or standing, well, I'd better sit down

again. He said, that patient you looked at from St. John's, St. John's has closed their hospital, they've got some SARS suspects in the hospital. I sent the patient to Scarborough Grace. They just got a call from St. John's saying the patient may have SARS. Doctors at Scarborough Grace were not exactly thrilled about that.

One emergency room physician at North York General described the communication around the St. John's outbreak as "a total breakdown":

I think there is a total breakdown and it shouldn't have happened. If St. John's knew in the morning that they may have SARS cases, and they did the appropriate thing, and that was to call Public Health to investigate by midday, at that point they, of course they had to transfer out a critically ill patient, but why was nobody told in our department when they have sent this patient, that they are the place that may have SARS. And this lady was in the next room to where these cases were found, the next room or on the same floor, whatever, but there was a connection there. And this is why I bring this up, the communication had to improve. Public Health should have just taken control of the situation and said while they were investigating, even though we are not willing to go to the media and say it's St. John's because they hadn't released that information yet, they should have forewarned two hospitals when they were sending these patients out, or at least warn us and then we would have forewarned Scarborough. If she was SARS, God forbid, what would have happened.

Dr. Rutledge, the Chief of the Emergency Department, received a call at 3:00 a.m. on Thursday, May 22, 2003, advising him of the intubation and transfer of the St. John's patient, a hospital where emergency department staff had just learned there was SARS. He told that Commission that at that time he said that the emergency department was to reinstitute the use of personal protective equipment:

As it turned out, that patient did not have SARS but that second, on that conversation, I told everybody, back in PPE. I went back into the hospital early the next day and that was the day our hospital was basically shut down. We basically went into full PPE in the emergency department thinking that we've got SARS back again.

Although it later turned out this patient did not have SARS, the point is, what if she had? Had this patient turned out to have SARS, the failure to notify staff of the events developing outside North York General would have had profound implica-

tions, not just for North York General but also for Scarborough Grace Hospital.

Toronto Public Health told the Commission that an email was sent out the night of May 22, 2003, to emergency room physicians and infectious disease specialists to advise them to be on the alert for patients and health workers from St. John's Rehabilitation Hospital. As Dr. Shahin told the Commission:

It was a general email that went out, so much like the earlier ones that Dr. Henry had sent out to the emergency room physicians and infectious diseases specialists, saying that we have a cluster of cases of SARS associated with St. John's Rehab, and it was really to alert them to the fact that if they had any patients that had been through St. John's or any staff, that they could probably have SARS, possibly, if they have any other symptoms.

The email was sent on May 23, 2003, at 2:28 a.m. from Dr. McGeer to a number of physicians and infectious disease experts in Toronto, including Dr. Tim Rutledge, the Chief of the Emergency Department at North York General. The email provided the following information:

5 cases (1 HCW [health care worker], four patients, one visitor) from St. John's Rehab facility in Toronto with clinical illness compatible with SARS.

No clear epi link (one possible link to a hospital with cases, but at least from current knowledge would require invoking something awful like airborne spread; potential travel link, but is visitor who travelled; her onset was 23 days post-return and one patient and HCW ill first, so not likely).

However, BAL on one patient is coronavirus pos [positive] (SARS by restriction), repeat tests pending. Coronavirus testing on two others so far negative (but no stool results as yet). Other investigations – no pathogen to date.

Not probable cases because of lack of epi link, but we are behaving as if SARS.

The status of the patients is home recovering (1), hospitalized (5 – 2 Centenary, 1 TGH [Toronto General Hospital], 1 SBK [Sunnybrook]). At

all three hospitals, patients were managed in isolation for nearly all their hospital stay, so there are a few staff quarantined, but no major disruption. St. John's is closed – they have very few private rooms and no facility for acute care, so will need to transfer out most of their febrile patients.⁷⁵⁹

These attempts at communication with front-line staff, although well intended, were not timely and did not work. The conference call that confirmed SARS at St. John's Rehab Hospital took place the afternoon of May 22, 2003, almost 12 hours before the email from Dr. McGeer was sent. The news conference was at approximately 9:30 p.m. Shortly after the news conference, at approximately 11:00 p.m., a decision was made to go to North York General to review files. For those working the front lines that night, such as the physicians and nurses in the emergency room at North York General, an email to the Chief of Staff in the middle of the night was of no assistance. Emails and news releases all depend on someone's having the time to see these alerts and read them. In the busy, chaotic environment of an emergency department like North York General, the doctors and nurses were too busy saving lives to sit and check their email or watch television or listen to the radio. And both notifications came too late, as the patient from St. John's Rehab had already been transferred and intubated around the time the press conference occurred and long before the email was sent.

There was no system in place to ensure that front-line physicians throughout Toronto were on the alert for possible cases of SARS, as they should have been, as soon as it was suspected that SARS was at St. John's Rehabilitation. Although SARS wasn't proven until May 22, 2003, between May 21 and May 22, 2003, there were five people under investigation for an outbreak of some kind. Whatever these five people had, it was a cluster of illness, and they had been in a number of health care institutions. Their contacts could be numerous. While the investigation was taking place and experts discussed the possibility of a SARS outbreak among patients at St. John's Rehab Hospital, staff at North York General, the hospital from which the index case of the outbreak came, continued to work unprotected, unaware of the risk they faced.

Even if the link to North York General had not been crystallized or even identified, even if suspicions that these patients were SARS were not confirmed until the afternoon of May 22, 2003, there was no system to ensure that front-line physicians were put on alert, as they should have been, at the earliest sign that SARS might be back, whether or not anyone knew where it came from or where it was, whether or not tests results had confirmed that it was SARS.

759. Dr. Allison McGeer, email to a number of GTA physicians [names not listed in this reference], dated May 23, 2003, 2:28 a.m., RE: SARS Update.

The communication failure was not the fault of Dr. McGeer or any of the outside experts who provided advice during this investigation. It wasn't their responsibility to alert front-line staff across the Greater Toronto Area. The problem was that Ontario and public health officials still did not have an effective means to communicate quickly with front-line staff across Ontario's hospitals. The same weak communication systems that existed in March, that failed to alert all front-line physicians and health workers about concerns about atypical pneumonia cases arising out of China, also failed to alert front-line staff in May 2003 that SARS was back.

Dr. Yaffe, the Director of Infectious Diseases at Toronto Public Health, candidly acknowledged that communication did not always work, as they lacked the resources to keep up with the volume of work and the systems to communicate quickly with the health sector stakeholders:

The third thing I think that went wrong is communication, and I said it went well, but parts of it didn't go well, and I think our ability to communicate quickly with all the stakeholders in the health sector was stymied really, particularly with physicians, as we discussed before. Our ability to communicate, even internally, was difficult because we were just so busy, so much volume of work, and information was just coming flying at us, sometimes we would be saying things on the press conference before our hotline staff hear it, which is terrible, right? So they hear it on the news and so that is something we are working hard at looking at how to correct that.

Knowledgeable, alert and vigilant front-line health workers, especially those working in the emergency departments, were the strongest ally in the fight against SARS. They could not protect themselves, or others, if they did not know there was a risk. Their notification cannot be left to emails, radio, television or faxes. In the busy chaos of an emergency department, they need to be informed promptly and clearly so they can take immediate steps to protect themselves and other patients and so they can be on alert for new cases to come through their doors or for cases already in the hospitals.

The Commission finds that the failure to notify front-line physicians, first, of the investigation into possible SARS at St. John's Rehabilitation Hospital and, second, of the confirmation of SARS at St. John's was a major communication breakdown. The Commission finds that the communication with front-line staff was neither effective nor timely. No adverse finding arises against public health or hospitals because there was at the time no standards or system to ensure timely communication. The Commission recommends the institution of such systems and standards.

Post-SARS, individual health units, like Toronto Public Health, continue to struggle with their ability to quickly communicate with front-line physicians and health providers. The local public health agencies must have the resources and support necessary to allow them to protect the public. It is quite simple: they cannot protect the public without quick and effective access to front-line health providers.

Lack of Centralized Expertise and Support

The story of St. John's Rehab Hospital also underscores the importance of ensuring that there is a clear system of support for smaller hospitals and health care facilities. Few hospitals in Ontario have the resources or the depth of expertise of the major teaching hospitals in our large urban centres. It was fortunate that Dr. Patcai could consult with outside experts such as Dr. McGeer, and that so many experts, like Dr. McGeer, were so generous with their time and knowledge and always answered a call for help.

The problem in Ontario was that the Ontario public health system lacked the critical mass of professional expertise one would expect in a crucial branch of government in a province the size of Ontario. Hospitals such as St. John's Rehab had to turn to experts from other hospitals through their own networks and professional contacts because there was no central agency that could provide the same level of knowledge and expertise. As the Commission found in its first interim report:

SARS demonstrated that our most valuable public health resources are human resources and that Ontario lacked a critical mass of expertise at the provincial level. It is crucial to the success of any public health reform initiatives in Ontario that there be a high level of expertise at both the local and central levels of public health. Ontario cannot continue to rely on the goodwill and volunteerism of others to protect us during an outbreak ...⁷⁶⁰

760. SARS Commission, first interim report, p. 83. An action plan released by Health Minister George Smitherman in 2004 said:

An Agency Implementation Task Force is being struck to provide technical advice on the development and implementation of the Agency. Together with the advice of international and national experts, the Ministry will establish the Agency by 2006/07. (Source: Ministry of Health and Long-Term Care, *Operation Health Protection: An Action Plan to Prevent Threats to our Health and to Promote a Healthy Ontario*, June 22, 2004, p. 23)

The Final Report of the Agency Implementation Task Force, titled *From Vision to Action: A Plan for the Ontario Agency for Health Protection and Promotion*, was released in March 2006.

One official from St. John's Rehabilitation credited Dr. McGeer for providing advice and help when needed:

... it goes back to saying what we don't have onsite. We sent patients out, but our ability to even do diagnostics just aren't there and [Dr.] John Patcai, who's our Chief of Staff, he's a physiatrist, he sort of acted as our infection control physician. As Chief of Staff he's the chair of the infection control committee and at that point we didn't have an on-site infection control practitioner either. So we didn't have a lot of resources available and John [Dr. Patcai] was able to talk to Dr. Allison McGeer, which was a lifesaver in many ways because she was very, very helpful, but we had no formal links to any kind of infectious disease help ...

Another expert whose assistance proved invaluable was Dr. Raymond Tellier. Dr. Tellier, a microbiologist and senior associate scientist at the Hospital for Sick Children in Toronto, had been working on a diagnostic test for the SARS coronavirus. It was Dr. Tellier's test that rapidly identified the results on the bronchoalveolar lavage for Mr. T as positive for SARS-associated coronavirus. The positive test result on May 22, 2003, was a key piece of information that signalled that the St. John's cases were SARS.

Because the provincial lab lacked the expertise and capacity to meaningfully participate in the struggle to contain SARS, scientists at hospitals such as Mount Sinai, Sunnybrook and the Hospital for Sick Children worked tirelessly to fill the void left by a starved, ineffective provincial lab system. As the SARS Commission found in its first interim report, the central lab capacity must be revitalized and strengthened:

The capacity of a laboratory system to respond to an outbreak of infectious disease must pre-exist any future outbreak because it is impossible to create it during an outbreak. The functions performed by public health laboratories require the work of highly skilled professionals. This work cannot be done by recruiting inexperienced volunteers during an emergency. Nor is it adequate to rely on the hope that the private and hospital laboratories will have the extra capacity when needed. Laboratory capacity is like the rest of public health; its importance is not appreciated, nor the impact of its inadequacies felt, until there is an outbreak and then it is too late.⁷⁶¹

761. SARS Commission, first interim report, p. 96.

A hospital as small as St. John's cannot reasonably be expected to sustain an infectious disease specialist, medical microbiologist, epidemiologist or occupational hygienist. During an infectious disease outbreak such as SARS, they will have to depend on outside help. The ability of a hospital to obtain advice or to get access to a newly developed diagnostic test should not depend on knowing the right person or on the goodwill of busy experts who, during a large-scale outbreak, may not have the time to provide support outside their own facility.

Health care institutions, whether they are big or small, urban or rural, acute care, rehab hospitals or long-term care facilities, must have access to a central body of expertise to which they can turn for help. As the SARS Commission found in its first interim report:

Examples abound of centres of excellence for disease control: British Columbia, Quebec, and Atlanta, among others. Ontario needs to learn from their example. Without a critical mass of the right professionals public health reform, no matter how well-reasoned and well-resourced, has no chance of success.⁷⁶²

A central body of expertise is important to provide support on many levels. The St. John's story also underscores the frailty of public health resources. Public health resources were stretched to the maximum. They had enormous responsibilities, including understanding the outbreak from an epidemiological perspective; investigating, monitoring and reporting SARS cases; identifying SARS contacts and ensuring they were quarantined and monitored; and fielding questions from the public, hospitals and other health care providers, businesses and other organizations, both private and public, who needed advice about SARS. Twenty-hour workdays were not uncommon for the medical staff at Toronto Public Health.

But health care facilities like St. John's, which did not have the same depth of expertise or resources as the larger hospitals, needed help. The absence of a centralized support agency and the lack of capacity within public health to fulfill that role with the limited resources available to them became evident at St. John's Hospital when the second outbreak hit. When SARS II hit, they needed on-the-ground assistance, and they had nowhere to turn to get it. Public Health was swamped; the Ministry of Health Public Health Branch lacked the capacity and depth of expertise to provide on-the-ground support; and infectious disease physicians, infection control practi-

762. SARS Commission, first interim report, p. 83.

tioners and occupational health and safety professionals were needed within their own institutions. There was no agency or organized response system in place by which operational and on-the-ground support could be provided and maintained, wherever it was needed. As one official from St. John's told the Commission:

... Toronto Public Health, they were trying to get information, but what we also wanted was assistance and so we were giving a lot of information but we weren't getting much assistance. And again, I think that they were very stretched. So if there was some kind of a central registry to say these people need help, can you go and help them out. Particularly when we didn't at that time and still only have limited resources available to us onsite. It's different for [a major teaching hospital], which has got six infection control practitioners and a couple of infectious disease docs and a fairly large occupational health and safety group, they've got some internal resources that they can bring to bear that we just don't have.

As the focus shifted to North York General and the size of the outbreak grew daily, St. John's Rehab Hospital found itself working hard to contain the outbreak in its institution without much outside support. As one St. John's official told the Commission:

... the difference between St. John's in the first round and the second round was that, in the first round that was probably all right, the kind of resources that we had and who we were able to get in touch with, but for the second round, because we were sort of an epicentre of a cohort, it would have been nice to have had the resources onsite. A recommendation that we would have liked to put forward was that somehow there's a central agency that has the resources that they can deploy to the organizations that need them that don't have them on a regular basis. We can't sustain having an infectious disease physician or a fleet of infection control practitioners, but if there'd been one available it would have been a great help to have someone come in because in fact John [Dr. Patcai] was very good at sleuthing through, but he's just not an epidemiologist or trained to look for things like that.

It is unrealistic, unsustainable and unsafe to expect the limited expertise available in the private sector, whether it is in infectious diseases, epidemiology, infection control or occupational health, to stretch to fill the gaps in the public health system. The province cannot fight an infectious disease outbreak by hoping that a doctor, scientist or expert might be able to work 21 hours instead of 20. By the end of April 2003

those involved in the fight to contain SARS were overworked and exhausted. SARS was identified and contained in less than five months. What if it had been longer? This province cannot expect tired, overworked, mentally exhausted people to fill the voids in the public health system. In many ways we asked too much of our experts who pitched in to help, at either the provincial or local level, and of those public health staff who also worked tirelessly during SARS. But we had to, because the institutional capacity that existed in public health, at both the local and the provincial level, including the laboratories, was simply not capable of managing the outbreak, and someone had to.

The burden of responding on behalf of the largest province in Canada cannot be placed on outside experts, some of whom may not have the time or the desire when the next infectious disease outbreak hits to fill the voids in the public health system that the government has failed to address – voids that were glaringly obvious during SARS and that have been identified by a succession of reports and investigations post-SARS.⁷⁶³

The importance of a central agency with the expertise and resources to provide support during an infectious disease outbreak was one of the key aspects of the successful containment of SARS in Vancouver. In that case, Vancouver General Hospital was closely linked to and had strong working relationships with the provincial agency, the British Columbia Centre for Disease Control. The B.C. Centre for Disease Control housed the provincial laboratory and epidemiology services. It had the depth of expertise, including expertise in vital areas such as occupational health and safety, infection control, infectious diseases, medical microbiology and epidemiology, to provide support to hospitals and health care facilities big and small.

As noted above, rapid, effective communication with health care institutions and front-line health providers is a vital tool in the fight to protect the public from infectious diseases and other health risks. A centralized public health agency, with the necessary resources and information technology and communication systems, could assist local public health units in communicating information about risks and could provide communication where a health risk is not of a local nature. Infectious diseases do not respect local health unit boundaries. In addition to strong communication policies and systems for local public health agencies, there must be strong communication policies and systems for the central public health agency.

763. Naylor Report, Walker Report, and the SARS Commission, first interim report.

In April 2004, in its first interim report, the Commission recommended:

An Ontario Centre for Disease Control should be created to provide support for the Chief Medical Officer of Health and independent of the Ministry of Health. It should have a critical mass of public health expertise, strong academic links, and central laboratory capacity.⁷⁶⁴

A strong central public health agency was completely lacking in Ontario in 2003 when SARS struck, and is as necessary now as it was then. The commitment to resources and the attainment of a standard of excellence within the proposed agency remains a vital priority. Ontario's ability to effectively respond to future outbreaks remains in serious jeopardy without meaningful reform of our central public health system.

764. SARS Commission, *Interim Report, SARS and Public Health in Ontario*, p. 3.