North York General Hospital

Introduction

The shock of the disastrous May 23 press conference was followed by questions. How could SARS be back, just after the government said it had gone and declared victory? How long had SARS simmered at North York General? Why did the hospital and the authorities not realize what was going on?

As more facts emerged, the questions became pointed. It soon became known that nurses at North York General had warned the hospital that SARS had returned and that their concerns culminated in a meeting with hospital officials on May 20, when the nurses were told incorrectly that they were wrong and that SARS had not returned at North York General. In fact it turned out that the nurses were exactly right and the hospital's assurances were exactly wrong.

Did North York General listen to the nurses who said SARS was back? Why did the hospital dismiss as wrong the warnings, which proved to be so tragically correct? Were there other warnings? The questions were mixed with rumours. Was there a cover-up? Did the hospital and the government hide SARS in order to lift the economically devastating World Health Organization travel advisory? Who knew what, and when did they know it? As it became more clear that SARS had simmered undetected at North York General since April, these questions and rumours became even more pointed.

Because of these questions and these rumours, because North York General was the epicenter of the second wave of SARS which sickened 118[471] and killed 17 in addition to the casualties from the first wave, and because the failure to detect SARS at North York General shook public confidence in official assurances, there was much to investigate and there is much to tell the public in this report.

471. 118 is the estimated number of cases associated with the second phase of SARS. Source: Dr. Colin D'Cunha, SARS Commission Public Hearings, September 29, 2003.

As Dean Naylor pointed out, the impetus for this Commission came largely from issues arising out of the second outbreak at North York General:

> Mr. Justice Campbell's mandate arose in meaningful measure from events around the second wave or "SARS II" …
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> … On June 10, largely because of the tangled chain of events at North York General Hospital, but also because of mounting pressure from nursing associations and unions, opposition politicians, and the media, the Province of Ontario announced a formal arm's-length investigation into the SARS crisis, headed by Ontario Superior Court Justice Archie Campbell.[472]

The North York General study is the longest section in the Commission's story of SARS because this second outbreak raised the most troublesome questions: how and why SARS was undetected and misdiagnosed with such tragic results after the province had declared that SARS was gone.

Based on confidential interviews with over 150 individuals associated with North York General,[473] and on hundreds of documents, this chapter will trace the story of the second outbreak at North York General. This is not the story of SARS at North York General, merely the account of how the second outbreak came to pass, so far as it will ever be known.

This chapter seeks to answer a single question: how did North York General become the epicentre of SARS II? This single-minded focus limits, of necessity, the scope of the story told here.

The story includes the hospital as SARS initially found it in March of 2003, the first three nurses who came down with SARS in April, two other nurses who fell ill, the mysterious illness of three psychiatric patients in April and May, the consultations with Toronto Public Health and outside experts, the presentation of a cluster of five family members who turned out to have SARS, the belated discovery on May 23 that SARS was back at North York General, and the immediate steps taken to deal with the disaster.

472. Naylor Report, p. 23.

473. In most cases witnesses are quoted without personal attribution. In some cases witnesses agreed to be quoted by name.

Outside the scope of this chapter is the story of how North York General coped with the return of SARS with such excellence as one of the four "alliance" hospitals that took the second outbreak cases. Outside the scope of this focus are the many improvements since SARS in infection control and prevention and disease surveillance. Reference will be made later to the state-of-the-art infection control and surveillance system now in place at North York General, a system referred to by some as the gold standard.

Outside the scope of this chapter is a scientific question that will probably never be answered: the question of the exact pathway through which SARS entered and initially spread at North York General. Various theories, not all of them consistent, have been advanced by various authorities from time to time. Dean Naylor said it is doubtful that we will ever know for sure exactly the precise transmissions of infection through which SARS spread undetected at North York General. As Dean Naylor said:

> Despite extensive investigations by Toronto Public Health, Health Canada and the CDC [Centers for Disease Control], the exact chain of events leading to the second wave of the SARS outbreak remains a mystery. In fact, a definitive link between the first outbreak and the cases on the orthopedic unit (4 West) has yet to be established, although officials have suggested different possibilities. How the psychiatric patients fit into the overall picture is also unknown, and may never be definitively solved.[474]

Although further scientific investigation after Dean Naylor's report has produced a plausible working theory that makes sense to those who have studied the problem, an element of the unknown will probably always remain. This theory is discusses later in the report.

Outside the scope of this chapter is much of the work of the administrators and physicians and nurses and health workers who displayed such skill and dedication and courage at North York General during SARS. The hospital told its own story of SARS during the Commission's public hearings, and that presentation is set out in the public hearing material on the Commission's website.[475]

North York General is home to some of the finest and most dedicated physicians, administrators and health workers in Canada. Many of those doctors and nurses

474. Naylor Report, p. 40.
475. www.sarscommission.ca

worked tirelessly on the front lines during SARS, putting their lives at risk to help others. Nothing in this chapter detracts from its present distinction as a fine hospital. To tell the story of how North York General tragically missed the return of SARS is not to point fingers or assign blame: it is simply to tell what happened without any findings of civil or criminal liability and without any adverse finding against the hospital or anyone associated with it.

Although the second outbreak happened to occur at North York General, it is possible that given the deep systemic province-wide inadequacy of preparedness, infection control and worker safety systems, it could have struck any other hospital. Those who wish to prevent similar disasters in the future, instead of pointing the finger at North York General, should focus on system-wide weaknesses illustrated by the insidious spread of SARS that happened to occur at that particular hospital. The lesson from North York General is not that the hospital deserves blame. The lesson from North York General is that because of systemic weaknesses, what happened there could, but for good fortune, have happened at almost any other hospital in the province.

All that being said, the failure to detect the return of SARS at North York General was a tragedy of enormous dimensions. It sickened 118, killed 17,[476] caused unspeakable loss and suffering, shook public confidence in the ability of authorities to inform and protect the community, and shook the faith of health workers in the ability of their employers to keep them safe from harm.

We owe it to those who died and those who suffered to learn how this happened, to correct the mistakes that led to the tragedy and to build systems to make sure it does not happen again. That is why the North York General story is so important to us all.

The outbreak at and from North York General became known as "SARS II." For many this was a misnomer, as it suggested two separate outbreaks, each with a distinct beginning and end. In reality there is no clear dividing line to demarcate two separate outbreaks. SARS never left.

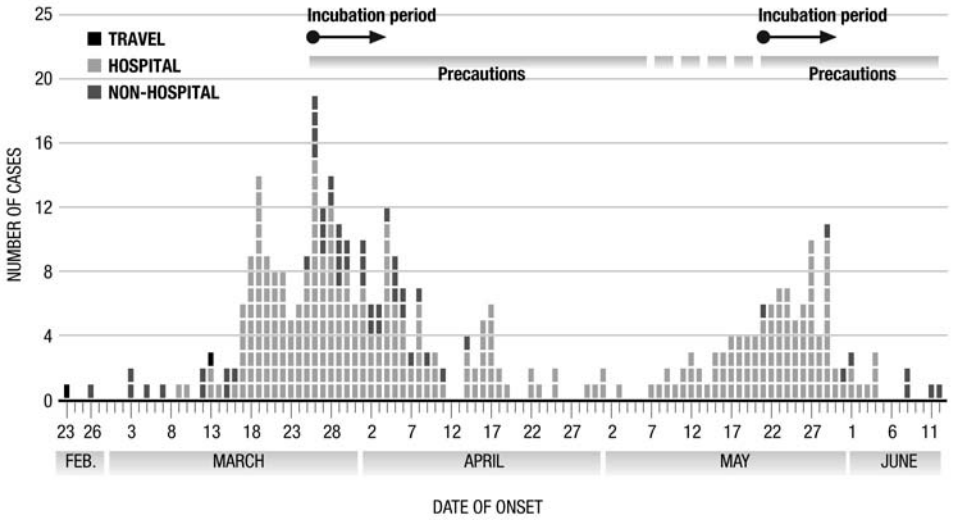
SARS simmered throughout North York General Hospital during April and May until, cautiously and according to provincial directives, the hospital relaxed precautions in May. As soon as precautions were relaxed, SARS sprung up quickly at North York General. Simmering since April, it spread remorselessly with ever increasing speed leading to widespread infection in the hospital and to its sudden closure on

476. Presentation of Dr. Colin D'Cunha, SARS Commission Public Hearings, September 29, 2003.

May 23, 2003. The SARS cases that simmered undetected and misdiagnosed in North York General since April remained stable in number until North York General complied with provincial directives and relaxed precautions in early May. The chart shows what happened next. As soon as precautions were relaxed, SARS started to spread rapidly within one incubation period. Then as soon as precautions were reintroduced on May 23, SARS declined just as rapidly within one more incubation period.

Nothing is clearer than this relentless relationship between SARS and precautions. As the chart[477] below shows, precautions down, SARS up. Precautions up, SARS down.

The Distribution of Cases in the Severe Acute Respiratory Syndrome (SARS) Outbreak in Ontario, Canada, from February 23 to June 12, 2003.



The second outbreak was devastating. In the end 118[478] people contracted SARS. Seventeen of them died, including Nelia Laroza, a highly respected and much-loved nurse who worked on 4 West, the orthopedic unit where SARS simmered undetected and undiagnosed. For those who fell ill and for those who lost loved ones, the cost of SARS II is immeasurable.

477. Dr. Donald Low and Dr. Allison McGeer, "SARS – One Year Later", NEJM, 349:25, December, 2003.

478. 118 is the estimated number of cases associated with the second phase of SARS. Source: Dr. Colin D'Cunha, SARS Commission Public Hearing, September 29, 2003.

Whenever one speaks of cost – the cost to the government to protect us better, the cost to hospitals of better infection control, surveillance and worker safety – we should never forget the cost of SARS in sickness, pain, suffering and unspeakable loss.

The second outbreak also had a terrible impact on the morale of health workers. Many lost faith in the system and the ability of their employers to protect them. It was not only the public who had been led to believe that SARS was gone. Nurses and health workers were told that SARS was contained and that there were no new cases of SARS. SARS was over. Nurses at North York General, concerned about outbreaks of staff illness and clusters of SARS-like illness, were told again and again by the hospital "Not SARS" when it turned out that these cases were in fact SARS.

On May 23, 2003, nurses and others at North York General learned, along with the rest of the world, that SARS was not in fact over. It was not contained. There were new cases of SARS right in their midst. Many of their colleagues were ill with SARS, and in the coming days more would become ill and be admitted to hospital.

But once again these nurses and doctors and clerks and technicians were asked to step into danger. And once again they did. Once again they risked their lives and health for the sake of others. What is it in their character and their professional culture that produced this courage? Will they heed that call the next time if they lack confidence that governments and hospitals will do better next time to protect them? More will be said later about the need to restore the faith and to build trust with those health workers who no longer trust the system.

The challenges we faced during SARS were overcome only through the hard work, dedication and sacrifice of people too many to identify in person. Everyone did their best, from the front-line staff, to hospital managers and administrators, to the experts who volunteered their time, to public health, to those within the government. They all worked hard, always with the best intentions. But they could not repair in a day or a week or a month the gaps and cracks in the system, the lack of preparedness, the lack of infrastructure, the lack of basic resources. You cannot change tires on a car travelling at 80 miles an hour.

As a North York General nurse said so eloquently:

> Valiant efforts were made, I think we have to acknowledge that, but effective efforts were not made. They weren't organized, they weren't fast enough, they weren't cohesive.

SARS was unforgiving. It did not pause to wait until the system got its act together. SARS was a wake-up call – a chance to see where things went wrong, what needs to be fixed, and what cannot happen again. The problems that arose during SARS must be fixed. If we do not fix them, we risk that those who worked so valiantly to save us from SARS the last time will not be willing to step once more into danger. Why would anyone step into danger again without confidence that everything reasonable has been done to protect them? Without the willing support of the health workers in the face of a system that let them down so badly during SARS, we will have no one to save us next time around. It behooves us to do everything reasonable to secure their confidence that we will protect them better next time. If we do not fix the systems that let them sicken and die, we cannot reasonably ask them to step forward into danger when the next outbreak strikes.

This is why the lessons from SARS, in particular from the second outbreak, are so important to our health system and to the Province of Ontario as a whole. It would be a grave error for any hospital to view the story of North York General as something that happened to someone else. It would be unfair to scapegoat North York General for the general systemic failures that came home to roost in that particular hospital. North York General cannot be blamed for the fact that Ontario, like some other jurisdictions, had too low a standard of surveillance and systemic protection against the spread of infectious disease. The take-home message from North York General is that every hospital must prepare better and must develop systems to ensure effective surveillance of hospital-spread diseases.

The problems that arose at North York General were not unique to that hospital. They reflect seven systemic problems that run like steel threads through all of SARS, through every hospital and every government agency:

- Communication
- Preparation planning
- Accountability: who's in charge, who does what?
- Worker safety
- Systems: infection control, surveillance, independent safety inspections
- Resources: people, systems, money, laboratories, infrastructure

- Precautionary principle: action to reduce risk should not await scientific certainty

As the narrative unfolds during April and May, right up to the belated discovery of the outbreak on May 23, 2003, these seven themes underpin the story of how the re-emergence of SARS at North York General Hospital was missed by the hospital and by all the outside experts upon whom it relied.

Every other hospital was similarly vulnerable to the spread of SARS. The story of North York General has lessons for everyone. We must all learn from the story of North York General, so that whatever infectious disease follows SARS, we are all better prepared.

"Infections, pandemics, epidemics, they're not going to happen"

North York General Hospital is a multi-site hospital. The main site is located at 4001 Leslie Street, at the corner of Leslie Street and Sheppard Avenue, in North York (now part of Toronto), Ontario.[479] It is a busy community teaching hospital with approximately 420 beds. In 2001-2002 it had approximately 65,000 emergency visits and 175,000 outpatient visits.[480]

Like most other hospitals in Ontario, infection control at North York General was not given a high priority before SARS. Unlike programs with higher profiles and more obvious results, the benefits of a robust infection control program were not readily apparent. Its lack of resources and priority become apparent only in the face of an outbreak or crisis, as it did during SARS.

North York General was no exception to this. When SARS hit, North York General Hospital, like most other hospitals in Ontario, did not have enough infection control resources to deal with a major infectious outbreak. The hospital had

479. It also has a site at 555 Finch Avenue West, known as the Branson Division, as well as Senior's Health Centre, located at 2 Buchan Court (Leslie and Sheppard). The Senior's Health Centre is a 192-bed long-term care home.
480. SARS Field Investigation, p. 8.

one full-time infection control practitioner at the General site as well as one at the Branson site. One hospital official described the makeup of the infection control program pre-SARS:

> Pre-SARS, we had an infection control program. We had a leader designated and she had one full-time person working with her and another person who was training to be an infection control practitioner. We did not have a designated medical leader for infection control. The role was assumed by Dr. Barb Mederski, who on an informal basis was an advisor to the infection control program. Her primary responsibility was as an infectious disease specialist. That was about 50-60 per cent of her activity, although she did do some work as an internal medicine specialist. That is her background. She provided advice and counsel when we got into outbreaks. She provided advice around standard infection prevention and control issues within the hospital. We had one other infectious disease specialist … There was not a formal sign-out system between the two of them, but they looked after the majority of patients in the hospital who required an infectious disease specialist.

There was a third member of staff with a specialty and certification in both infectious diseases and medical microbiology, but he worked in the emergency department during SARS and was not utilized in an infection control capacity. As noted above, although there were two physicians with infectious disease specialties. Dr. Mederski assumed primary responsibility during SARS. There was no formal division of responsibilities between Dr. Mederski and the other infectious disease specialist. As the other infectious disease specialist explained to the Commission:

> Before SARS there was no formal infectious diseases call schedule, and so there would be people who called me to see the patient in consultation for infectious diseases, but there were people who would call Dr. Mederski. There was nothing formal, whoever decided to call me or call Dr. Mederski, so there was never really on-call or not-on-call.

More will be said later about the role of Dr. Mederski and the responsibilities she held during SARS. Regardless of the division of responsibilities, the inadequate resources became apparent when SARS hit. As one physician described the problem:

> Infection control personnel were totally overworked. It was just one of those things that has never received a lot of priority, I guess, and we've taken it for granted up until now. Not just we, meaning North York, but I mean everybody.

Another senior physician at North York General, described how infection control had simply ceased to be a priority not only for health care institutions but also for those working inside them:

> We believed, in all institutions, that infections had gone away … [Pre-SARS] I would say NYG was no different than any of the other hospitals in which I had privileges, and it was cursory, we really weren't very concerned about major problems … Infections, pandemics, epidemics, they're not going to happen. So you would get your training in medical school and do your residency about hand washing and changing your clothes, but it had become lax.

Not only were infection control resources not in place, but structurally North York General was not equipped to deal with an influx of infectious patients. This problem was in no way unique to North York General Hospital. Prior to SARS, few hospitals imagined that they would need large numbers of negative pressure rooms or isolation facilities. When SARS hit at North York General, it, like most other hospitals, had to scramble to increase its capacity to isolate and care for infectious cases. It was not enough simply to designate a room as an isolation room; it had to be properly ventilated, and negative pressure rooms had to be created. When SARS hit North York General, there were only two proper negative pressure rooms in the entire hospital, both located in the emergency department. One ICU physician described the challenge:

> Pre-SARS you could essentially make any room an isolation room just by closing the door and putting a sign out and using appropriate barrier precautions … We didn't have a proper negative pressure room in the ICU, the old ICU. And I don't think there were any floor rooms that were actually negative pressure. We had very few negative pressure rooms pre-SARS. The ones that we needed during SARS we generated for the most part until our new ICU opened.

Prior to SARS, most health workers had never heard of, much less used, protective equipment such as the N95 respirator or a Stryker suit. All of a sudden, proper use of this unfamiliar equipment, including very precise care in its application and removal, could mean the difference between becoming ill with SARS and remaining safe. Overnight, health workers were expected to apply and maintain precautions of a type and level that they had never used before. This too was not unique to North York General Hospital, as other hospitals in the Greater Toronto Area were in a similar situation of having never used this level of precautions before.

When SARS hit North York General, much of the senior administration was relatively new. Although senior management stepped up to the task and devoted countless hours to managing the SARS outbreak, there was no long-standing relationship between front-line staff and those in charge. There was not the same established foundation of trust as existed in other institutions.[481] As one physician said:

> Senior management is so new, there's not yet any buildup of trust. I don't think that's their fault, except for timing, they should've chosen a better time for SARS, after they'd been there for five years, right. So I find them workable and approachable, but the president and the vice-presidents, most of them had been there less than a year when this hit, and it takes much longer than that to build trust.

The trust of staff at North York General became a key issue during the outbreak and remains the source of anger for many of the staff even years after SARS. More will be said later in the report about communication with staff, listening to staff, and the feeling of some that their trust was misplaced.

Despite the systemic problems identified throughout this report, North York General Hospital remains home to many fine nurses, physicians and other health workers. They worked tirelessly during SARS, often in the face of frightening unknowns. Those who worked at North York General during SARS, and particularly those who cared for SARS patients, exemplify the ultimate of selfless sacrifice and public service. They went to work every day knowing that they might become ill. Ever present was the fear that they might infect their families with a deadly illness. As one nurse said:

481. For example, at Scarborough Grace Hospital, the Vice-President during SARS was Ms. Glenna Raymond, a former nurse who had worked her way up through management. She was well known to staff, and many of those interviewed, including many nurses, expressed a deep trust and confidence in her leadership abilities.

> There's one thing with becoming ill yourself at work, and then there's another thing coping when you could potentially bring that home to your family. It really had a huge impact on me in that way. I would get up in the middle of the night checking the doors and the windows making sure everything was locked. Check on my children all the time. If my husband was out with the kids and I had expected them home at a certain time and didn't hear from them, I would be in a panic thinking that something awful had happened. It really shook my foundation of safety that I had, and that I thought that my family had.

Another nurse who worked on the SARS unit described how suddenly her job became a potential source of danger to her family:

> I never thought in my whole world of nursing that I would ever potentially bring something home to my family. When my son went into quarantine and it impacted my family like that, I genuinely questioned whether or not I should go get a job at A&P, and it came that close, very close, very, very close.

Nothing in this report should be taken as any criticism of those at North York General who worked so hard and so selflessly on the front lines of the war against the deadly disease that was SARS. They fought bravely in the face of a new and unknown disease, never knowing what the next day might bring, always wondering if they and their families were safe. As will be seen in the story of North York General, even when the second outbreak became evident, in the face of anger, fear, despair and overwhelming disappointment, they continued to work and provide care for those infected with SARS. Everyone in Ontario owes a debt of gratitude to these front-line heroes. Whatever mistakes were made and whatever lessons are identified from SARS have been learned through their efforts and tragically, in some instances, at their expense.

"Like Drinking Water from a Firehose"

North York General became involved in the SARS outbreak towards the end of March when it began receiving patients who had contracted SARS from the outbreak at Scarborough Grace Hospital.

Dr. Tim Rutledge, the Chief of Emergency Medicine at North York General, recalled that quite early it became apparent that this was a serious illness requiring a serious response:

> I can tell you first step we took. We started, I think because of our proximity to Scarborough Grace, we were seeing quite a number of cases. We were quite impressed that it was a very aggressive disease. I remember seeing one case myself where in the middle of night a patient had a very minor pneumonia, the next morning her lungs were whited out, she was an elderly lady and she was getting very ill. We knew she needed to go to the ICU. She was in one of our rooms that was an isolation room. We didn't have any room in our ICU. Somebody had to transfer her down to 3A … We were able to get a bed for her at St. Mike's [Hospital]. Somebody had to transfer her down to the ICU. I did it. I put on a mask, hat, gown and gloves and bagged her all the way down in the back of the ambulance. It was pretty impressive to all of us as to how sick she got, so fast. By March 25th we had seen enough, and myself and the program director made a call early that day that we would put everybody in mask, gowns and gloves whether they were taking care of ankle sprains. That was really radical at that time because it was alarming to patients coming in. The next day the provincial emergency was declared and there were directives for all emergency departments to do that.

On March 26, 2003, the Province declared a provincial emergency. Following the declaration of the provincial emergency, all hospitals in the Greater Toronto Area were directed to activate their Code Orange emergency plans. This meant suspending elective surgeries, restricting visitors, suspending non-essential visits by hospital staff, suspending volunteer work in hospitals, and restricting overall access to hospitals to essential services only.[482]

North York General, along with other hospitals in the GTA, was asked by the Ministry of Health and Long-Term Care to set up a SARS unit. North York General's first SARS unit was established on 3 North (then pediatrics) at the Leslie site.[483]

On March 26, 2003, North York General issued its first SARS Update to staff. This marked the first of 96 updates to staff, distributed via the hospital's internal email system.

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482. MOHLTC Fact Sheet, March 2003.

483. The units previously on 3 North also moved. The pediatrics unit moved to the old labour and delivery unit on 2 West, and eating disorders moved to 8 North.

By March 28th, 2003, the hospital had established a Logistics Command Centre at the General site, to serve as a central point of contact to respond to SARS-related issues.[484] The hospital also established the SARS Task Force Steering Committee.[485] The Steering Committee comprised 21 people representing various parts of the hospital. The group met daily throughout March and April. The minutes of the meetings were posted on the hospital intranet. The Steering Committee focused on day-to-day management issues such as hospital status, census of patients, changes to directives and communications with staff. Branching out from the Steering Committee were a number of subgroups, focusing on a wide range of SARS-related issues.[486]

North York General Hospital, like other hospitals in the Greater Toronto Area, scrambled to institute precautions, develop and adopt new policies and protocols that complied with the constantly changing directives from the Ministry of Health and Long-Term Care, and communicate this information to front-line staff. One member of the SARS Steering Committee spoke of the difficulty of keeping up with the directives and the enormous amounts of information coming out in the early days of SARS:

> Information was coming at us from it seemed all sides and from a few different sources. Some from the Ministry of Health and Long-Term Care and some from the Provincial Operations Centre. Early on it seemed as if we were drinking water from a firehose. We were getting information that was very important from world literature and World Wide Web. All that stuff had to be taken in and considered and integrated into practice.

As the directives came out, they had to be reviewed, understood, changed into hospital policy and communicated to staff. As one member of the SARS Steering Committee told the Commission, this was no small task:

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484. SARS Update #5, March 28, 2003.

485. At the end of April, the SARS Task Force Steering Committee changed its name to the SARS Management Team. The last meeting of the SARS Task Force Steering Committee took place on April 28, 2003. The SARS Management Team began meeting on April 30, 2003.

486. "Such as administration, the Branson site, staffing and human resources, building issues, patient – including ER [emergency room], infection control and discharge and followup, supplies, communication – staff/external and physicians, policy and directives, command centre, and front door." NYGH SARS Task Force, minutes, March 31, 2003, at 1600-1730.

> Some of them [the directives] were complicated … There were times when they didn't make sense. There were times when it seemed that we were changing direction from what we had been taught the day before. One of the roles of our Task Force was to try and make them useful for the front-line staff. Some were very clear and direct and explicit, and those we basically passed on to the staff and educated them right away. Others were vague and tough to interpret, so our job was to try to make them something that could be put into practice.

At times it took hours to go through the directives. For many, it seemed like an inordinate amount of time was spent trying to figure out how the directives had changed and what those changes meant within the hospital.

And time was a precious commodity in the early days of SARS, as there were many competing issues that needed to be resolved. As noted above, one of the early challenges of SARS was to establish a number of isolation rooms with negative pressure. This was particularly key for the emergency department and for any areas that would admit and provide care to suspected SARS patients. It was a difficult task, compounded by the fact that they still did not know everything they needed to know about SARS. One physician explained the challenge they faced as they established negative pressure rooms to care for SARS patients:

> We were using negative pressure wards that we had generated through the help of our engineering and building people. And that's how we looked after the SARS patients. During SARS I we looked after them on wards that were completely isolated and completely negative pressure. They were basically an entire ward that was designated to serve that purpose, and then we sort of retrofitted them to become negative pressure using our ventilation system. It wasn't ideal probably, initially. And we didn't know everything in SARS I about how the virus was transmitted. So, some of the rooms were very hot. For example, one of the nurses had a fan in there. Obviously we knew through SARS II that that's really not a good thing. We didn't necessarily know that in SARS I. There were things that we didn't know … we obviously didn't do later on when we knew how things were actually transmitted. And part of it is just because we were all scrambling to do the best we could for the patient, to make it as safe as we could. Because what we did was better than having that patient put in a non-isolated room and a non-negative pressure room. But was it a perfect negative pressure room? No.

Another big issue North York General and many other hospitals in the Greater Toronto Area faced early into the outbreak was a shortage of personal protective equipment. By March 31, 2003, the hospital had only enough N95 respirators in stock to last two days. The Task Force Steering Committee grappled with the problem of locating sufficient supplies, in a market that was being tapped by every hospital in the province. As the minutes noted:

> NYGH has enough N95 masks in stock to last two days. Directives state that N95 masks should be given to staff in all patient care areas. As more stock becomes available to us, we will filter the N95 masks to all areas. [Name] cautioned that with the current stock we cannot give everyone an N95 mask. [Name] says he will continue to try and get more masks from the MOH supply, but to date they are not sending us enough N95's.

As the requirement for precautions increased, the hospital, like other institutions in Toronto, rushed to obtain personal protective equipment for its staff. The SARS unit, emergency department, front-line staff, direct patient care workers, community care centre staff and labour and delivery staff were the only units who would receive N95 respirators. Anyone else who wanted to wear a respirator had to use yellow procedure masks.[487]

By April 2, 2003, the Ministry of Health and Long-Term Care warned the hospital that, from an epidemiological perspective, it should expect to see more cases that week.[488] This meant that the hospital would need a greater capacity to isolate and care for SARS patients. In response, the hospital announced to staff that a new SARS unit would be established on 8 West. The capacity of the new SARS unit was to increase from the current 23 beds on 8W to 38 beds for SARS patients, including beds in the existing unit on 3N, if needed.

This would be one of many changes to the location of SARS patients over the course of SARS I and II. The changes were as follows:

March 27, 2003 – April 2, 2003	1st SARS unit was created on 3N
April 2/3, 2003 – May 22, 2003	2nd SARS unit was created on 8W
May 22/23, 2003 – June 2, 2003	3rd SARS unit was created on 5SE
June 2/3, 2003	4th SARS unit was created on 6SE[489]

487. Follow-up of Discussions and Decisions, Monday, March 31, 2003 – 10:00 a.m.
488. SARS Update #9, April 2, 2003.
489. Wong et al., SARS Field Investigation at North York General Hospital, June 1–June 28, 2003 (SARS Field Investgation).

On April 2, 2003, the policy on personal protective equipment changed significantly as all staff in the hospital were now required to wear an N95 respirator at all times.[490] This directive would remain in place at North York General until May 7, 2003, when they began to relax precautions in some areas of the hospital. More will be said below about the changes in precautions in May and their connection to the second outbreak.

On Friday, April 4, 2003, North York General announced that because ten days had passed since the unprotected encounter with a SARS patient in the emergency department on March 23, 2003, the hospital's designation was changed from Level 2 to Level 1, under the hospital classification system established by the Provincial Operations Centre.[491]

The classification system established by the Provincial Operations Centre at the end of March[492] identified four levels to designate health care facilities, depending on whether or not they had SARS cases and if there was any unprotected exposure to staff or patients. Those levels were:

Category 0	Healthcare facility has no known cases of SARS (suspect or probable)
Category 1	No unprotected SARS exposure – staff and/or patients. Healthcare facility has one or more cases of SARS (suspect or probable)
Category 2	Any unprotected SARS exposure within the last 10 days but without transmission to staff or patients. The healthcare facility may or may not currently have one or more cases of SARS (suspect or probable).
Category 3	Unprotected SARS exposure with transmission to HCW's [health care workers] and/or patients. The healthcare facility may or may not currently have one or more cases of SARS (suspect or probable)

The classification system was significant because it determined things such as restric-

490. SARS Update #9, April 2, 2003.
491. SARS Update #11, April 4, 2003.
492. Directives to GTA/Simcoe County Acute Care Hospitals, Saturday, March 29, 2003.

tions on patient transfer, quarantine for patients discharged from the facility, level of protective equipment required in various areas of facility, restrictions to visitors, and movement and management of patients within the facility.[493]

Hospitals with SARS patients paid a big price if they were upgraded from Level 1 to Level 2 or, even worse, to Level 3. Moving to a Level 2 or Level 3 designation had profound consequences on the day-to-day workings of the hospital, for everyone at the hospital, such as:

- Level 2 & 3: Visitors prohibited except in special circumstances (and then on full droplet and contact precautions);
- Level 3: Closed to admissions and no new clinical activity permitted; Level 2: Emergency and urgent cases and admissions only;
- Level 3: Use of full droplet and contact precautions for all direct patient contact and use of a N95 mask or equivalent for all staff in the facility; Level 2: Use of full droplet and contact precautions for direct patient contact in all area(s) affected by the unprotected exposure;[495]
- Level 2 & 3: No transfers to long term care facilities and no admissions from long term care facilities unless there were no other alternatives;[495]
- Level 3: Working quarantine for essential staff only, all other staff on home quarantine; Level 2: Essential staff only in areas affected by the unprotected exposure. Staff must work in the affected areas only and cannot work at other facilities and are on working quarantine.[496]

In contrast, a Level 1 facility was permitted a gradual return to normal clinical activity, could permit visitors as per hospital discretion, had no requirements in respect of quarantine of staff, did not require all staff to wear protective equipment and could transfer patients out to long-term care facilities.[497]

It is evident from North York General Hospital records that the SARS Task Force

493. Description of Activity for Acute Care Facilities by SARS Categories, April 14, 2003.
494. And use of full droplet and contact precautions in any area with a patient who failed the SARS screening test or had respiratory symptoms suggestive of an infection, and for taking care of suspect or probable SARS cases. This was the required level of precautions in a Level 1 facility.
495. Directive Regarding Transfer of Individuals from Hospitals To Long-Term Care Facilities (LTCF).
496. Description of Activity for Acute Care Facilities, April 14, 2003. The above is a summary of the key points in the document. To see all the differences between the four levels, reference should be made to the original source document, the Description of Activity for Acute Care Facilities, April 14, 2003.
497. Description of Activity for Acute Care Facilities, April 14, 2003.

worked hard throughout both outbreaks and did its best under very difficult circumstances. It was a remarkable achievement for the hospital and everyone in it that no staff or patients contracted SARS during these early days despite the infectious nature of this deadly disease and all the challenges it brought.

As evidenced by the updates and the recollections of front-line workers, this was a terrifying period for everyone, as the course of the outbreak remained uncertain and directives from the Province changed almost daily. The hospital struggled to respond to the emergency in the face of so much that was new and unknown, while front-line workers struggled to work in an environment where the direction they were getting in respect of protective equipment and management of SARS cases seemed to be constantly changing.

The change to a Level 1 designation on April 4, 2003, signified a return to a more normal working environment. It looked as if things were under control, as there were no known unprotected SARS exposures.

But on the weekend of Saturday, April 5, and Sunday, April 6, just after the hospital was downgraded from Level 2 to Level 1, things changed drastically. On April 6, 2003, North York General reported to staff that for the first time, staff members were under investigation for SARS.[498] As April progressed, five nurses were investigated for SARS. With the exception of one, who was initially reported to staff as not SARS then later as SARS, all of these cases remained under investigation. Three were eventually classified by Toronto Public Health as "does not meet case definition," while the fourth remained classified as a "person under investigation" until after the second outbreak. All five nurses were subsequently classified as SARS, four of them probable cases, and one a suspect case.

With the exception of one nurse whose story will be told in greater detail below, there appears to be no link between the illness of staff in April and the second outbreak. That being said, the story of the second outbreak must be told in light of their illness. The fact that health workers were becoming ill in April weighed heavily on the minds of those who went to work in the hospital. It brought home the risk they all faced simply by going to work, and underscored the importance of ensuring worker safety through strong precautions. It also marked the first time the hospital had to commu-

498. To protect the privacy of these health care workers, they will be referred to in the report as simply Health Worker No. 1, Health Worker No. 2, Health Worker No. 3, Health Worker No. 4 and Health Worker No. 5.

nicate with the staff about the illness of one of their own while simultaneously trying to assure staff that they were safe.

In the days and weeks that followed, as more staff and patients became ill, those working within the hospital and those with family members in the hospital would come to question not only their own safety but also the truth of continuing reassurances from the hospital that it was safe and that certain individual cases that looked like SARS were not SARS. No one could anticipate the events that unfolded at the hospital throughout April and May, and no one could foretell the lasting impact that SARS would have on North York General Hospital, its patients and its staff.