ROUGE VALLEY HEALTH SYSTEM

PRESENTATION TO THE CAMPBELL COMMISSION
Wednesday, October 1, 2003

PRESENTERS:
Hume Martin, President and CEO,
Rouge Valley Health System
Glynn Boatswain, Charge Nurse, SARS Isolation Unit,
Rouge Valley Health System
Sonia Peczeniuk, VP, Professional Practice,
Rouge Valley Health System
Dr. Ian Kitai, Paediatrician,
Certificate in Infectious Diseases

TEXT TO ACCOMPANY POWERPOINT SLIDES

Slide 1
Good evening Justice Campbell. Thank you for providing Rouge Valley with the opportunity to discuss our experiences during SARS and to offer our suggestions for improvements in the future. We believe this forum is an important opportunity for RVHS to be accountable to the public for its performance during the outbreak.

With me this evening are ***Glynn Boatswain***, RN and Charge Nurse in our SARS Assessment Clinic and SARS Isolation Unit at our Rouge Valley Centenary site. Glynn played a key role in mobilizing staff to respond so effectively and compassionately in our highest risk areas. ***Sonia Peczeniuk***, VP of Professional Practice who lead our infection control team and ***Dr. Ian Kitai***, RVAP Paediatric Infectious Disease Specialist and most recently Rouge's Medical Director for Infection Control.

Slide 2
To put our experiences into context, Rouge Valley Health System was formed in 1998 as a result of an HSRC directive to merge the Ajax and Pickering General Hospital with the Centenary Health Centre.

Together the two sites provide a wide range of speciality and community hospital services including the only free standing angioplasty service in Ontario, an extensive range of mental health services, as well as complex continuing care and rehab services. Our two extremely busy Emergency departments care for over 90,000 patients a year.

Rouge Valley Centenary is located just east of the Scarborough General and east and south of Scarborough Grace and our Rouge Valley Ajax and Pickering site is another 22 km east of that. Rouge Valley was at the SARS epicentre.

Slide 3
We cared for 28 probable cases, 21 suspect cases, 93 under investigation cases and 318 respiratory isolation cases. Our Scarborough SARS Assessment Clinic had 383 patient visits.

During this time we had 3 SARS related deaths and our thoughts continue to be with the families of these individuals. Dr. Nestor Yanga, the only physician who died of SARS, was a much loved and active member of our Department of Family Medicine.

Our processes were dramatically put to the test twice during the outbreak. Once when it was determined four days after a patient's death that it was SARS related and the second time during SARS 2 when a cluster of deaths with initially SARS positive laboratory test results prompted our concern. In both cases RVC was closed by the POC and all staff were put in quarantine. After an independent review of our infection

control practices by senior Public Health and Provincial officials it was quickly determined that Rouge Valley had followed all Infection Control protocols and that we could return to more normal operations

Slide 4
Tonight we'd like to use this opportunity to discuss four key messages
First I would have to say it's the enormous pride the Board and I have for the extraordinary skill and resourcefulness displayed by our staff and our physicians. These groups worked exceptionally hard to keep their patients, their colleagues and their community safe. We owe them an immeasurable debt of gratitude.

Secondly I would like to thank both the Durham Region and City of Toronto Public Health units for their leadership and support during the outbreaks. We also wish to extend our thanks to the public for being so understanding with the service delays and restricted visiting hours resulting from our response to SARS.

Our third message is that managing as a team and ensuring effective communication both inside and outside the organization helped us in the battle against SARS. Front line staff, unions, managers and physicians worked as an effective team, problem solving and taking immediate action to respond to a rapidly evolving situation.

Finally we want to leave you with some suggestions of the resources and processes that have to be put in place so that the healthcare system as a whole can respond to future more adequately to future outbreaks.

I'd now like to invite Glynn Boatswain to address you on the reality of setting up both a SARS Assessment Clinic and a SARS Isolation Unit at our Rouge Valley Centenary site.

Slide 5
I address you this evening as a front line nurse who, along with a number of dedicated, frightened and courageous staff members, gave care to a large number of patients with a diagnosis of Patient Under Investigation (PUI), Suspect or Probable SARS diagnosis.

The SARS Assessment Clinic was set up within a week's notice and we were able to see three hundred and eighty three (383) patients. The clinic was also used for discharged clients' ten (10) day follow up visits as per the Ministry of Health directive. In what is now called SARS I and SARS II, our front line staff was faced with SARS in all of its uncertainties.

How were we able to staff these units?

The Inpatient Isolation Unit was a challenge to staff in the beginning. A lot of the staff members were junior staff from the medical unit. What worked well for us was working collaboratively, to provide the best care for our patients and at the same time protect ourselves. Staff members including nurses, Patient Service Representatives or PSRs and clerks needed to know that the information they were receiving was reliable and accurate. We were able to accomplish this by having a constant presence of some on in charge who the staff could voice their concerns and offer feedback to and have any issue dealt with in a prompt and effective way. Also frequent management presence on the unit gave staff a lot of reassurance.

Isolation protective gear was adequately and readily available for staff. Frequent demonstrations on the proper usage of the mask, gowns and disposal technique were given. Frequent breaks with fluid provision were provided. Staff sensed that their hardwork and dedication was recognized and this gave them a sense to continue to work as diligently as possible. After starting with a handful of volunteers to work on the unit I now have a core group of highly trained nurses who continue to work in the Isolation Unit.

The SARS Assessment Clinic was staffed more interestingly. Just to give you an idea about how collaboratively we had to work – physicians staffing the clinic came from Emergency, Internal Medicine and Anesthesiology. Nurses came from different areas of the hospital including CCU, ICU, the Cath Lab and the surgical floor. Together we had to work as a team and trust each other to constantly review changing epidemiology, epi-links and new protocols for Isolation or monitoring symptoms. I remember at our daily staff meetings, staff would express how challenging but at the same time how fulfilling it was to work in the clinic. They knew we were providing a service that was our obligation in keeping the members of our community and family members safe. I am very proud of the work we did in the clinic.

I would also like to stress that the experience at our Centenary site was echoed at our Ajax site where similar teams staffed a second Isolation Unit and Assessment area for patients presenting at our West Durham site.

In summarizing this entire experience, I can still clearly hear Dr. Kitai saying you have to constantly “Think on your Feet.” I think we succeeded in doing this. With keen observation we were able to identify an “address” as a possible epi-link. The bottom line was that each nurse, PSR, clerk, radiology technician, lab technician, Respiratory Therapist and physician committed themselves to caring for our patients. As for my feelings and the feelings expressed by many of my nursing colleagues, we became nurses first of all to give care regardless of the diagnosis. Although our commitment

was put to the test, together as a team, we were able to give care to our patients in an efficient, safe and caring way.

Sonia Peczeniuk will now speak to you about some of the other things that worked well at Rouge.

Slide 6
Thank you Glynn.
As you can see dedicated staff and physicians at Rouge Valley did not hesitate to step up in the battle against SARS. And this can be explained by looking at a number of areas where we feel we did an exceptional job:

Staff and physicians were committed because we ensured they were getting all the necessary information. We have a video link between our two sites and we used this tool to run daily management updates for our management group, union leadership and resource nurses. Topics discussed at these updates would include the latest directives and their implication to Rouge, supply management for items such as masks, gowns and goggles, staffing issues and the latest infection control guidelines.
These management updates then formed the basis for an electronic newsletter that was distributed on our email system to all staff and posted on our web site for remote access by our physicians. Periodically during SARS I and SARS II we held Town Halls so that staff, wearing their masks, could hear from the Senior Team, ask questions and discuss their concerns.

Group communication was supplemented by one on ones between our Infection Control practitioners and the front line units. The whole process was run through our Command Centre that was staffed on a round the clock basis. Sometimes ongoing communication became a real challenge as directives were constantly updated to reflect the changing situation and staff became frustrated with the pace of change. But we felt it was important to get everyone involved and educated and the result was that they all became infection control experts and worked as a team on solving problems.

Our Facilities Support including Materials Management, Security, Maintenance Engineers, Patient Support Representatives who were responsible for keeping patient rooms clean and Environmental Support Reps who kept the rest of the building clean were also key to our success. Purchasing staff worked their contacts to get us the supplies we needed and developed the distribution system to get them on the units and returned for cleaning if not disposable. Our Security officers helped to shut the buildings down so that we could restrict access through only one or two doors. Additionally these officers worked with the PSRs in the safe transport of SARS patients from one area of the hospital to another. Our Maintenance Engineers met the challenge

of providing the hospitals with additional negative pressure capacity both in the SARS Assessment Clinic and in the Isolation Units. **We went from 9 negative pressure rooms before SARS hit to 57 negative pressure rooms across the two sites by the time the outbreak ended.**

Our PSRs and EFSRs, who in many ways are the unsung heroes of SARS, were the ones to don double protection when cleaning the rooms of SARS patients and scrubbing down every piece of equipment that came into contact with an isolated patient. These employees also used enhanced cleaning methods on elevators and elevator buttons, hallways, washrooms, waiting rooms, public telephones and many other public areas.

Our very conservative and cautious approach to Infection Control was also a critical success factor at Rouge Valley. We reacted quickly to the first bulletin from Durham Public Health on March 14th that something was amiss and immediately began screening everyone coming into our Emergency Departments for links to Scarborough Grace and or Far East travel. Our screening process was then expanded to include everyone entering the two sites, including the physician and retail offices at our Rouge Valley Centenary site, and this screening process remained in place until August 27th. We instituted mask fit testing for high risk staff, later expanding it to all staff, and ensured that discharged patients were sent home with the necessary supplies such as masks and thermometers to help break the chain of infection. We started an active surveillance program to take the temperatures of all admitted patients twice a day. We were in the process of introducing a hospitalist model at our Ajax site just prior to the outbreaks and this proved invaluable for the frontline units who had a consistent physician presence on the unit to monitor patients and manage their care. We constantly stressed the importance of handwashing with staff and physicians. In addition to directives and information received from the Provincial Operations Centre, we used our own informal networks to stay on top of what was happening in healthcare settings across the province and even overseas. And we didn't let our guard down between SARS I and SARS II maintaining our precautions right thru including the masking of all staff and physicians. In fact our Joint Occupational Health and Safety Committee became the compliance police ensuring that their coworkers were protected and providing education and reinforcement of our policies.

The people of Rouge Valley went above and beyond the call of duty, sacrificing their personal lives, dealing with the anxiety of families and friends, to care for their patients. This brief look at some of our critical success factors hides the weeks and weeks of work that each and everyone put into it.

Dr. Ian Kitai will now address you on some key Infection Control issues and his suggestions to meet future challenges.

Slide 7
DR. KITAI

Thank you Sonia, Justice Cambell and members of the Commission

At the outset please note that the remarks that follow are my own and do not necessarily reflect those of the Rouge Valley Health System.
Requirements for effective infection control include the following:
Good Policies – I will not deal with this in the interests of time
Good People (in quality, training and number)– the infection control team, and the staff who carry out most of what is needed (housekeeping, nurses, physicians and all levels of staff)
Good Facilities
Good Diagnostics
Context and support

Slide 8
Good people: The team
I have been very fortunate to work with an amazingly supportive administration and to be part of a great team during the SARS outbreak. Despite caring for many SARS patients, 4 of whom were ventilated, we had no known transmission to staff or other patients. (We await serology on a staff member who developed a brief febrile illness and recovered and was not thought to have SARS.) Prior to SARS, this team had achieved very low rates of nosocomial infection (VRE, MRSA, C difficile) at both sites. In my view this was achieved by everyone working beyond the call of duty and by an ethos of zero tolerance for nosocomial infection. A year ago we began planning around respiratory isolation with regards to tuberculosis: this allowed us to respond rapidly to the outbreak with expansion of negative pressure and isolation capacity.

We believe caution stood us well. Despite the city wide feeling that SARS was over we did not remove precautions between SARS 1 and SARS 2. We admitted 2 patients from what turned out to be SARS 2 hospitals between May 15 and 20, These patients were handled with full isolation and we informed public health of our concerns.

There are nonetheless health system wide deficiencies that need to be addressed and I am assuming the purpose of the commission is to improve practice. An unadorned view of our reality is therefore important.

Infection control has been compared to domestic work: when it is done really well no one notices. Recent data suggests that in Canada there are 250 000 episodes of

hospital acquired infection per year and that nosocomial infection accounts for and between 8 and 12 000 deaths per year. This makes it the fourth leading cause of death next to heart disease cancer and stroke, and its costs are enormous. Placed in this context infection control at **all** Canadian hospitals is woefully underresourced in relation to the burden of illness. Hospital clinical programmes are supported by many physicians, numerous nurses, and much equipment. The Infection Control department at our 2 site institution is better resourced than at many hospitals but by contrast it has a clinical manager and 2 (now 3) infection control practitioners. We were fortunate to be supported by one of the corporation's senior administrators with a great track record in process detail.

The CDC and others have recognized 4 components to be important in reducing nosocomial infection: two elements are at least one full time infection control practitioner per 250 beds, and a trained hospital epidemiologist at the MD or doctoral level.

Large teaching hospitals in Canada generally have a physician director of infection control: community hospitals often don't or when they do such physicians are viewed as volunteers or a very part time addition to the team. As a physician with Infectious Diseases certification I began working in that volunteer capacity 6 years and then part time after the merger of our corporation; our administration had began to move towards a more formal role before the SARS outbreak. SARS has to make us rethink the roles and responsibilities of all members of the team My thesis is that we need to move to a PROFESSIONAL- rather than volunteer model for infection control at Canadian hospitals at **all** times, and that many more resources are needed to support infection control efforts.

We need to be wary of volunteer positions when many lives are at stake. We need dedicated professionals and clear assignment of specific roles, responsibilities and accountability for decisions taken.

Slide 9

For the infection control team there are many untested ethical issues: who is responsible ethically and medicolegally if there is an outbreak which could in some way be traced to lapses in practice?

Some specific recommendations with respect to staff are.

1. A clear definition of the number of ICPs needed and added training for them
2. The creation of modular short courses in infection control for nurses and all cadres of staff which could be used system wide

3. A definition of the roles, responsibilities, optimal training, reporting structure and liability for medical director of infection control and physicians involved with infection control. It should be clear that this is a professional job with a large amount of responsibility and needs suitable training and time.
4. Further training in modular or other forms for physicians involved in infection control.
5. Support at a provincial or other level in infection control at a doctoral or physician level perhaps through a dedicated unit that helps coordinate training and policy: this should be better resourced so that the few experts are not besieged by the many without resources.
6. A system wide sharing of policies and procedures: too often we are reinventing existing material. (The ability to deviate at times is also important; we believe we were protected by a very cautious ethos between SARS one and SARS 2. However system wide and where available evidence based practices are vital) The MOHLTC website is a good example of what can be achieved. In addition province wide policies will help in those situations where the interests of an individual patient may have to be balanced against the interests of many: protected code blue is a case in point.

Slide 10

I have to echo the fundamental issue that more full time staff are needed to provide excess capacity in the system. When more staff working at a single site the capacity for between site spread is reduced. If a nurse falls ill she/he should not feel they have to come to work because of gaps in coverage. Cleaning and Housekeeping staff are the cornerstone of good infection control, removing viral laden droplets which survive for hours from surfaces and objects. The additional support the corporation provided for this was probably crucial but is costly: who will bear these costs?

Slide 11

Our corporation created a remarkable amount of isolation capacity in a very short space of time. This has helped remove the guesswork from infection control: if a patient has any reasonable chance of a transmissible infectious disease he/she can be isolated until we are sure of the diagnosis. Some new problems arise:

1. Caring for isolated patients, especially if they are ill, requires more nursing and housekeeping hours and takes more physician time. This **has** to be factored into hospital funding in the future

2. Good inpatient isolation capacity is unhelpful if many inpatients spend hours and days in halls and holding units of emergency rooms waiting for beds. In addition the system wide shortages have led to patients moving from hospital to hospital which certainly encouraged spread. **There has to be excess capacity in the system to deal with surges in patient numbers if infection control is to be effective.**

Slide 12

Good diagnostics

The biggest challenge in dealing with SARS though was the immediate identification of SARS patients and timely confirmation of a diagnosis through laboratory tests. Because of considerable overlap between symptoms of SARS and those of other conditions the best clinical judgement proved poor in differentiating patients without SARS from those with SARS at the time of presentation.

One experience we had was an admission between SARS 1 and SARS 2 of a patient who appeared to have gallbladder inflammation. She was kept in full isolation partly because she had visited Hong Kong. It turns out she was infected at a visit to St Johns hospital: a risk factor we did not yet know about. She went on to have a very severe respiratory course; she was correctly isolated for the wrong reasons!

The provincial health laboratory who worked to the best of their ability needs to be better resourced for quick turnaround times. Specific virology when staff fall ill may prevent unnecessary quarantine. For example if a health care worker who develops fever chills and cough is proven to be influenza A or adenovirus positive we can rethink the need for quarantine for his contacts. These specific virologic studies are not always available on a routine basis with quick turnaround times and probably cannot be made available without new technologies or laboratories being better resourced.

Context

A better mechanism needs to be developed to immediately notify hospitals and emergency departments of potential emerging infectious diseases. This mechanism should include who should be contacted on a round the clock basis. This should also include immediate communication with all hospitals as outbreak situations in particular institutions are noted. This would greatly assist in the identification and isolation of at-risk patients who have been transferred or in attendance at other healthcare institutions.

We also need to enhance those informal networks that developed during the outbreak between Infection Control Practioners and Physicians at various sites. This information sharing became invaluable as we managed the outbreak and needs to continue in some sort of formal capacity. Again a provincial overseeing body with suitable resouces might help. In the latter part of SARS 2 Toronto public health sent out much of this information.

These are some of my key points and now I'd like to turn it back to Hume for the conclusion of our presentation.

Slide 13

Thank you Ian.

At Rouge Valley we are continuing to monitor the situation and take steps to keep our sites safe:

- We continue to screen all patients and visitors arriving at our Emergency departments and have created special negative pressure areas inside each department for the immediate isolation of any infectious patients.
- In addition we screen all patients arriving for admission
- With the assistance of the OHA we revised our visiting policy to be consistent with other hospitals in our area but continue to restrict the number of visitors allowed at the patient's bedside.
- We continue to maintain only two public access points to each of our sites. Staff and physicians have been provided with electronic access cards so that they have additional doorways in and out of the sites.
- Signage encourages anyone entering the building to self screen for SARS and hand washing stations are located in all areas of the buildings.
- And we continue to actively monitor admitted patients for temperature changes and conduct sweeps of patient areas for any infectious agents.
- In addition a team of staff from all levels are developing an Infection Control Contingency Plan taking all the lessons learned from SARS and putting it into a master plan so it can be easily reactivated if the need arises.

Slide 14

The healthcare system, and especially the healthcare system in the east GTA, paid a high price in responding so effectively to SARS

Financially, SARS has cost Rouge Valley over $9 million in increased operating and capital costs and lost revenue. While some of these costs to the end of June have been funded by the Ministry of Health and Long Term Care, there is considerable uncertainty regarding the degree to which RVHS will be remunerated for all these extra costs after June.

Access to the sites were severely curtailed during SARS I and SARS II when it became necessary to postpone all but the most urgent cases in the hospital. This meant rescheduling hundreds of clinic appointments and diagnostic imaging procedures. We are still working to recoup this lost volume.

Our staff were severely affected by SARS We have seen many instances of staff burnout and fatigue and have tried to address this with the use of EAP services. This has lead to significant recruitment and retention challenges that will make it difficult for us to maintain access to services in our part of the east GTA.

What still needs to be done?

- Recognition of the outstanding effort put forth by healthcare professionals and physicians across the province. Finger pointing is destructive and does not allow for improvement, only accusations.
- A formalized network of Infection Control Practitioners and perhaps the regionalization of Infection Control Physician Leadership to support a number of hospitals at the same time.
- The creation of task force to develop a system wide Protected Code Blue Policy so that hospitals are clear on their ethical and clinical responsibilities in intubating an infectious patient.
- A defined body to ensure timely distribution of infectious diseases alerts to all healthcare institutions.
- Assistance from the Province in developing the computerized tools for effective screening and storage of these records for immediate reporting in outbreak situations.
- Assistance by the province in the ongoing translation of the SARS signage and posters required at many sites in the GTA.
- Appropriate funding for consistent, standardized application of provincial directives across the hospital system to ensure a level playing field for the protection of the community. With special support for those facilities in the east GTA most seriously affected by the outbreak.

Thank you for letting us speak to you this evening and we would welcome any of your questions.