The SARS Experience at Humber River Regional Hospital

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Our hearts go out to those affected by SARS.
The memory of those taken by SARS remains with us.

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Humber River Regional Hospital

- 610 bed acute care facility that serves North West Toronto, Southern York Region and West Peel Region with a catchment area of > 800,000 residents

- Three sites

  Church – all acute care services

  Finch – all acute care services

  Keele – ambulatory diagnostics and comprehensive Mental Health Program

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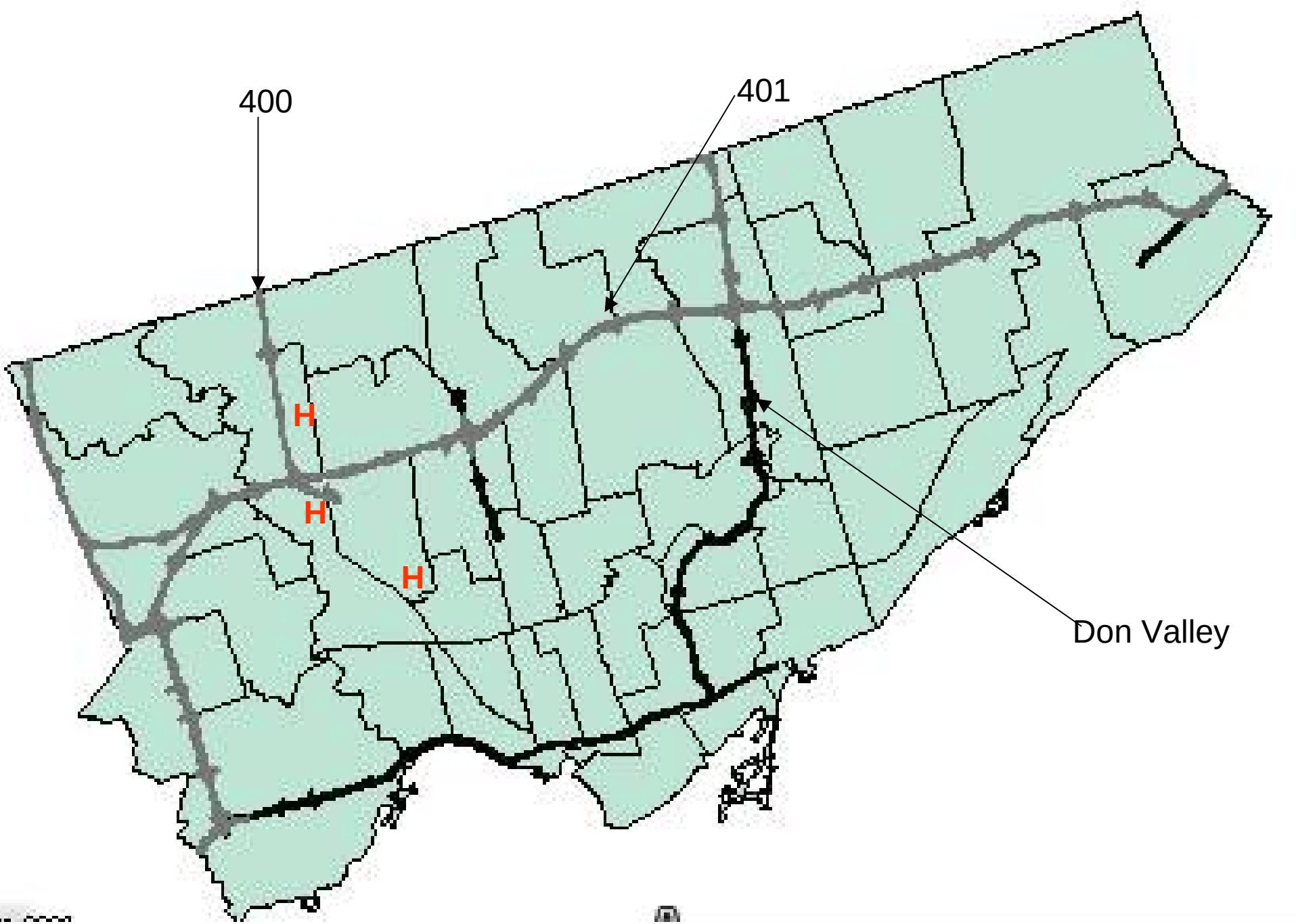
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- 2850 Staff
- 342 Specialist Physicians
- 291 Family Practice Physicians

- Shared catchments with
  - North York General
  - York Central Hospital
  - William Osler - Etobicoke
  - St. Josephs

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HRRH Annual Activity

- Acute care beds - 610
- ER Visits - 110,000
- Inpatient discharges -29,800
- Ambulatory Visits - 370,000
- Surgical Procedures – 62,000
- Obstetrical Deliveries – 4, 800

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HRRH Facility Limitations

- Both Sites - small crowded critical care rooms without negative pressure
- Church Site - 3 inpatient rooms with negative pressure
- Finch Site - no inpatient rooms with negative pressure
- Finch Site - undersized ER which was under expansion and renovation at the time of the outbreak

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HRRH SARS Experience

- Admitted 30 cases of PUI, Suspect or Probable
  13 to Critical Care (10 ventilated)
  6 confirmed as SARS cases

- 31 others treated in ER and sent home on quarantine

- No deaths

- No transmission

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Knowledge about the Disease

- SARS was an unknown disease when it emerged, shrouded in uncertainty, with new aspects of the disease process being realized almost daily

- Sense of fear was heightened because of the information circulated from many unofficial sources (some informed and some uninformed)

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Any assessment of the practices and outcome of this disease tend to lose the realization that we know much more about SARS today than we did when we were actually living with it in our hospitals and communities.

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What Worked Well

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Leadership Responsibility

- HRRH Administration recognized that it was our responsibility to keep the organization safe in the presence of an emerging disease
- We listened to our staff and physicians and spent a great deal of time talking with them
- We dealt quickly with their concerns and when possible implemented their suggestions

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Leadership Responsibility

- Most of our leadership team are experienced clinicians, allowing us to establish an efficient decision-making model
- Administration and the Management team focused on implementation and adherence to directives
- The Medical Staff focused on patient care and were supported by Management

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Leadership Responsibility

- The Control Center Team included CEO, COO, VP's, CNO, Program Directors, Physician Service Chiefs and ID specialists
- Approval of all policies and procedures by an executive committee of CEO, COO and CNO
- Responded to Directives within 24 hours unless limited by a supply or physical issue, in which case compliant alternatives were introduced

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SARS Directives and Activity

- During SARS 1 & 2 POC issued:
  - 24 sets of directives and 18 sets of Q&A's with a total of 606 pages of information reviewed and acted upon
- HRRH created >400 policies, procedures, protocols and screening forms
- Essentially adapted most methods of patient care

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SARS Directives

- SARS directives were complex and sometimes conflicting. We developed treatment algorithms to ensure consistent protocols were followed for key issues. These simplified the understanding for staff and physicians:
  - Screening
  - Identification of SARS Symptoms
  - Diagnosis & Classification
  - Notification of Public Health
  - Isolation Protocols for Patients in Hospital
  - Isolation Protocols for Staff & Physicians

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Effective Communication

- Frequent Leadership Forums to keep Management Team updated so they could relay facts to staff:
  - SARS Newsletter issued to staff, physicians almost daily
  - SARS directives provided to all HRRH physicians
  - Letters to patients and families
  - Letters to our stakeholders
  - Updated web site frequently
  - Translated information and screening tools into the languages required for our community

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Effective Communication

- Communication with staff and physicians by managers, educators, senior team and the CEO by attending the units and departments frequently to answer questions, clarify rumors

- Our nursing staff contacted one designated family member or friend for each patient *every* day

- Managers remained a part of the screening team to ensure consistent messaging to visitors and families as they arrived at the facility

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Education of Staff and Physicians

- Administration, Management and Clinical Educators remained on site seven days per week
- Education provided to all staff for 18 hours per day, 7 days per week
- All directives related to physician activity were sent to our physicians' offices by HRRH

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Isolation Protocols

- Created 2 SARS units at the Church Site
  - 16 bed inpatient care unit
  - 6 bed critical care unit
- All patients requiring SARS isolation were admitted to these units
  - Allowed us to create separate entrances and “clean areas” for application of isolation garb
  - Additional education and training focused on staff in these SARS units

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Isolation Protocols

- Used HEPA FILTER units with ultraviolet radiation chamber in SARS isolation rooms since we did not have negative pressure rooms
- Implemented the use of protective Stryker Suits as soon as they were available
- Continuous training of staff & physicians in the proper application and removal of isolation garb, in particular the N95 mask, ensuring adherence to proper technique

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Infectious Disease Management

- Increased the profile of infectious disease surveillance, implementing a comprehensive program
- Ongoing education for management, physicians and staff regarding infection control practices
- Investment in additional resources to support a comprehensive surveillance program

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Patient Monitoring

- Recognized that HRRH and Public Health shared a post discharge monitoring responsibility
- Public Health notified of all reportable cases
- All patients diagnosed as PUI or Suspect discharged from our Emergency Departments were followed for 10 days by an HRRH ER nurse who checked on symptoms, fever status and adherence to quarantine

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Patient Monitoring

- Patient monitoring completed March 29 to determine other health care facilities patients had attended in past 30 days
- Computer program developed to automate data analysis and a review was completed each time a new site was added to the list of affected facilities
- Patients who attended affected facilities isolated and monitored for 10 days even if they were asymptomatic

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Staff & Physician Monitoring

- Staff & Physician monitoring and documentation of other facilities they attended in previous 12 days introduced immediately
- Physicians & Staff were required to remain away from HRRH until they were absent from any other facility for 10 days
- Staff that worked at other facilities were paid for shifts missed at HRRH

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Providers Worked Together

- Health Care Organizations worked together to sort issues and frequently share resources
- HRRH was able to keep two of the busiest ER departments in Toronto fully open throughout the entire outbreak accepting almost twice the usual number of ambulances each day
- HRRH provided maternity care to 93 families when their original hospital was closed

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Challenges/Issues to Consider

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Communication

- The information circulated from so many sources made it difficult for us to present accurate facts to our internal and external community

- Information from the scientific community often differed with the published directives, with no established format to hear feedback or suggestions from the affected stakeholders

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Directives

- Some of the Directives issued were not practical for implementation in all hospital settings

- As information about the disease changed so did the directives, sometimes so quickly it created an air of uncertainty

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Directives

- Consideration should be given to developing a policy-making model that brings the scientific community, providers and practicing physicians together to suggest directives that can be implemented effectively

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Alliance Hospital Model

- SARS Alliance Hospitals did not provide any support to HRRH. When beds were required, they could not accommodate our SARS patients

- Double pay and increased staffing in Alliance Hospitals created staffing shortages at HRRH while we were providing care for SARS patients

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Alliance Hospital Model

- All hospitals must remain vigilant, educated and prepared to recognize and treat SARS and other infectious diseases
- The creation of a few specialized hospitals may result in others not being as vigilant or lacking in the experience required to recognize and diagnosis the disease
- Alliance hospital model should be abandoned

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Fit Testing or Fit Checking

- There is conflicting evidence regarding the need and benefits to fit testing of N95 masks
- This ongoing program is costly and in the absence of evidence that it is beneficial, should be reconsidered
- An N95 properly applied and removed provides better protection against transmission of SARS
- Nothing replaces good technique. Fit testing has not yet proven to add significantly to that, in our view

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HRRH Achievements

- No spread of SARS within our hospital
- No staff member contracted SARS
- No physician contracted SARS
- *No patient or visitor contracted SARS*

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HRRH Achievements

- Received many compliments from Patients and Families
- Staff tell us they felt protected and well educated
- Our focus on communication and listening minimized labour relations issues
- Humber River Staff and Physicians Recognized in The House of Commons

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On April 30th, York West MP Judy Sgro told the Members of Parliament:

"**I** RISE TODAY TO PAY TRIBUTE TO OUR HEALTH CARE WORKERS IN TORONTO AND ACROSS THIS COUNTRY WHO ARE WORKING LONG HOURS UNDER DIFFICULT CONDITIONS TO CONTROL AND TREAT SARS.

I WANT TO PARTICULARLY MENTION THE ***HUMBER RIVER REGIONAL HOSPITAL*** *IN MY OWN RIDING AND THE NURSES, DOCTORS, AND ADMINISTRATIVE PERSONNEL WHO HAVE WORKED TIRELESSLY TO PROTECT MY COMMUNITY*."

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Conclusions

- A focus on staff & physician safety translates to patient safety
- Shouldn’t plan for yesterday’s crisis but for tomorrow’s
- Crisis management is different than everyday management
- Directives should be created by an integrated team

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Conclusions

- Directives should be based on science, taking into consideration safety, cost effectiveness, ease to implement and efficacy
- Funding needs to follow directives
- There should be a standing crisis management team

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We wish to acknowledge and thank the Staff & Physicians of Humber River Regional Hospital who demonstrated dedication & professionalism in a challenging and stressful time.

We also would like to acknowledge the cooperation and support from our patients, their families and our community.

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