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POST-SARS PUBLIC HEALTH EMERGENCY PREPAREDNESS

The Health and Emergency Medical Services Committee recommends the adoption of the recommendation contained in the following report, November 2, 2007, from the Commissioner of Community and Health Services:

1. RECOMMENDATION

It is recommended that:

1. This report be received for information.

2. PURPOSE

This report outlines how lessons learned from York Region Health Services' SARS response are enhancing the Public Health Branch's emergency preparedness to identify and respond to any type, relevant and size of infectious disease outbreak.

3. BACKGROUND

3.1 Impact of SARS in Ontario greater than health impact

In Ontario, SARS infected 375 people, including 169 health workers, and killed 44 people, including two nurses and one physician. The ring of impact, however, was greater than that related to infection: hospitals were closed, cancer treatments and heart surgeries were postponed, patients were denied visitors, healthcare workers and their families lived in fear, thousands of people were isolated in quarantine, and businesses suffered unrecoverable losses.

3.2 York Region second largest epicentre for SARS in North America

York Region was the second largest epicentre for SARS in North America, following Toronto, and was involved in the SARS outbreak from the onset, with the first suspected case identified March 15, 2003. By the end of the emergency, York Region had reported 88 cases of SARS, which included eight deaths.

4. ANALYSIS AND OPTIONS

4.1 Public Health emergency planning processes are incorporating lessons learned from the SARS response

Following the SARS outbreak, York Region Health Services obtained feedback on its level of preparedness for another public health emergency through staff and management

de-briefing exercises and a staff survey. In addition, Health Services staff were involved in several panel discussions and working groups that examined the impact of the SARS outbreak and lessons learned from it.

The following lessons learned from both internal and external mechanisms are gradually being incorporated into York Region Health Services' Health Emergency Planning processes:

4.1.1 Staff are receiving more emergency preparedness training

Feedback from staff on individual preparedness for an emergency has led to enhanced training for all York Region Public Health staff.

A five-year cycle for Emergency Core Competency Training for all Public Health staff was adopted in 2005. Core competency training includes:

- The Incident Management System (IMS)
- Infection Prevention and Protection
- Risk Communication
- Coping and Self Care in a Disaster
- Clinical Skills Refresher
- Basic Emergency Management (BEM)

Public Health staff have already been trained through "Pandemic 101", a series of workshops and educational materials developed by York Region Public Health to increase awareness of ongoing pandemic influenza planning and anticipated roles during an emergency response. In 2007, a campaign to promote personal and family preparedness is intended to facilitate staff readiness to perform their duties during any emergency.

4.1.2 York Region Health Services has enhanced epidemiological resources

During SARS, aggressive recruitment for Infectious Diseases and Epidemiology staff from other health units and agencies was required to deal with additional case management, contact tracing and follow-up, and data analysis needs.

Since 2003, York Region Health Services has enhanced its own epidemiological resources through the recruitment of three additional epidemiologists to provide enhanced monitoring and reporting of population health status, patterns of infectious diseases, and impact on human health of environmental issues.

4.1.3 York Region Health Services has implemented the Integrated Public Health Information System (iPHIS)

York Region Health Services has implemented the Integrated Public Health Information System, a provincially-mandated data system that facilitates the tracking of infectious diseases and management of outbreaks. This system, which replaced the outdated Reportable Disease Information System, includes a customized outbreak management functionality developed in response to the 2003 SARS outbreak.

However, the Integrated Public Health Information System has also presented new challenges in the investigation of infectious diseases and the management of outbreaks. For example, certain pertinent information, such as laboratory results, symptoms, exposures and risk factors, cannot be extracted from the Integrated Public Health Information System. Also, no data dictionary has been established in order to ensure standards for data entry across different health units, which may result in questionable data integrity. These challenges were outlined in Clause No. 6 of Report No. 4 of the Health and Emergency Medical Services Committee on May 25, 2006, and as a result Regional Council urged the provincial government to address as a priority the limitations of the Integrated Public Health Information System.

4.1.4 New Infectious Diseases Surveillance Unit monitors and reports on infectious diseases in York Region

Surveillance is an integral part of public health practice. It involves collecting, analyzing, and interpreting health data in order to identify trends and implement public health interventions. During SARS, the absence of system-wide surveillance strategies in Ontario allowed cases to remain undetected for extended periods of time, increasing the potential for unmitigated disease transmission.

Within York Region Health Services, surveillance resources have been enhanced through the development of an Infectious Diseases Surveillance Unit in the Infectious Diseases Control Division in 2006. The mandate of the Infectious Diseases Surveillance Unit is to monitor and report on infectious diseases in York Region and to scan emerging infectious diseases beyond our borders, in order to help prevent and control infectious diseases within the Region.

In the past year the Infectious Diseases Surveillance Unit has engaged community partners in the implementation of several innovative surveillance strategies. For example, York Region Health Services has partnered with the Public Health Agency of Canada to participate in a pilot project to monitor over-the-counter sales trends of gastrointestinal and respiratory products. Increases in sales of these drugs can be early indicators of infectious disease activity, long before individuals seek professional medical care.

4.1.5 York Region Health Services staff are participating in the implementation of Regional Infection Control Networks

Regional Infection Control Networks are local networks of infection control professionals from various health disciplines that help promote standardization in healthcare facilities across the province, and improve infection control and communicable disease capacity across the health care sector. Fourteen Regional Infection Control Networks are in development by the MOHLTC, using the same boundaries as the 14 Local Integrated Health Networks.

York Region Public Health staff have played a central role in the implementation of the Central Region Infection Control Network, which covers the majority of York Region, as well as north Toronto and south Simcoe. A York Region staff person is vice-chair of the Central Region Infection Control Network steering committee, and represents all three public health units encompassed by the Central Region Infection Control Network. Public health participation in the Central Region Infection Control Network is especially important to help facilitate the development of complementary infection prevention and control roles for public health, acute and non-acute care facilities, and community care agency programs in the Central Region.

5. FINANCIAL IMPLICATIONS

There are no financial implications for York Region Community and Health Services as a result of this report.

6. LOCAL MUNICIPAL IMPACT

Ongoing development of York Region Community and Health Services' emergency preparedness will help protect the health of local residents in case of a public health emergency.

7. CONCLUSION

Based on lessons learned from the Health Services Department's SARS Response, the Public Health Branch continues to develop its public health emergency preparedness:

- Staff have received increased training in emergency core competencies and personal emergency preparedness.
- The Branch has recruited three additional epidemiologists and has implemented the Integrated Public Health Information System (iPHIS), a provincially-mandated data system used to track infectious diseases and manage outbreaks.
- The Branch has also developed an Infectious Diseases Surveillance Unit to monitor and report on infectious diseases in York Region.
- Finally, York Region Public Health staff have participated in the implementation of the Central Region Infection Control Network, to help facilitate the development of complementary infection prevention and control roles for public health, acute and non-acute care facilities, and community care agency programs.

As a result, the Community and Health Services Department has increased capacity to deal with a public health emergency and to help protect the health of local residents.

For more information on this report, contact Dr. Karim Kurji, Medical Officer of Health and Director of Public Health Programs, in the Public Health Branch of the Community and Health Services Department.

The Senior Management Group has reviewed this report.