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SARS HOUSEHOLD TRANSMISSION STUDY

The Health and Emergency Medical Services Committee recommends the adoption of the recommendations contained in the following report, August 13, 2003, from the Commissioner of Health Services:

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council authorize the Associate Medical Officer of Health to execute a Memorandum of Understanding between Health Canada and the City of Toronto, regarding funding of the SARS Household Transmission Study.
2. Staff be authorized to expend a maximum of \$23,310 to conduct their obligations under the SARS Household Transmission Study on a full cost-recovery basis from Health Canada.

2. PURPOSE

The purpose of this report is to provide information on York Region Health Services Department's involvement and participation in the Severe Acute Respiratory Syndrome (SARS) Household Transmission Study and to request authorization for the Associate Medical Officer of Health to execute a Memorandum of Understanding between Health Canada and the City of Toronto, regarding funding of the SARS Household Transmission Study.

3. BACKGROUND

SARS is a respiratory illness that has been described in patients in Asia, North America and Europe. SARS is characterized by fever, malaise, cough, shortness of breath and abnormalities on chest radiogram (x-ray) and is thought to be caused by a coronavirus. SARS was first identified in York Region in early March 2003. Transmission of SARS to household members of cases has occurred since the illness was first identified.

The early identification of index cases in households, the immediate isolation of infected persons, and the quarantine of their exposed household members appear to be essential to disease prevention and control. A better understanding of the transmission of SARS within households will help public health officials both nationally and internationally understand the public health measures that protect individuals from becoming ill if exposed to SARS in a family member. The results of this study will also provide information regarding the duration of infectivity and potential spread of this illness.

The overall objective of this research study is to determine the risk factors associated with the transmission of SARS within households.

Specific objectives are to determine:

- a) Factors that affect the risk of transmission within households (household risk factors and individual risk factors);

- b) The seroprevalence (overall occurrence in a population, as measured by blood tests) of the coronavirus among household members.

4. ANALYSIS AND OPTIONS

In April 2003, York Region Health Services Department, Toronto Public Health and Health Canada initiated discussions on a collaboration to investigate the factors associated with household transmission of SARS. The study protocol underwent a successful ethics review and Health Canada approved the funding to carry out the study in the two health units.

There are approximately 64 households in York Region that would be eligible to participate in this study, if they wish to do so. Participation in the study will require 4–5 public health nurses who will work as study interviewers and venipuncturists (trained staff who take blood samples).

Health Canada is currently finalizing the terms of the Memorandum of Understanding (MOU), following extensive review and discussion with the study partners. It is anticipated that the final MOU document will be received at the end of August. As per the proposed terms of the MOU, it is estimated that the study, including final analysis, will be completed in early spring 2004.

Most public health nurse volunteers have worked on the SARS outbreak in some capacity. A half-day training session has been designed to ensure consistent use of the study tools and understanding of the research goals and objectives. Their work and the progress of the study will be overseen by York Region's principal investigator, the Manager of Epidemiology and Research, as well as the epidemiologist with the Infectious Disease Control Division.

5. FINANCIAL IMPLICATIONS

In accordance with the Memorandum of Understanding with Health Canada, York Region's participation costs, which includes salaries, mileage, printing, data entry and analytic support, will be reimbursed (on a cost-recovery basis) to a maximum amount of \$23,310. Equipment and processing costs for serum samples are being covered by the National Microbiology Laboratory in Winnipeg. There will be no tax levy impact as a result of the Region's participation in this study.

6. LOCAL MUNICIPAL IMPACT

Through participation in this study, it is anticipated that a better understanding of the transmission of SARS within households will help public health officials both nationally and internationally understand the public health measures that protect individuals from becoming ill if exposed to SARS in a family member. The results of this study will therefore inform public health measures that will be used in York Region in the event of future outbreaks.

7. CONCLUSION

A research study on household transmission of SARS has been funded by Health Canada in collaboration with York Region Health Services Department and Toronto Public Health. The results of this study will provide important information on the spread of SARS within households and will inform future public health control measures.

The Senior Management Group has reviewed this report.