

INTEGRATED PUBLIC HEALTH INFORMATION SYSTEM (IPHIS) PILOT PROJECT

The Health and Emergency Medical Services Committee recommends the adoption of the recommendations contained in the following report, August 14, 2003, from the Commissioner of Health Services:

1. RECOMMENDATIONS

It is recommended that:

1. Health and Emergency Medical Services Committee and Regional Council approve the participation of the Health Services Department in the Integrated Public Health Information System (iPHIS) Pilot Project, and that it permit the Health Services Department to receive funds forthcoming from the Ministry of Health and Long-Term Care (MOHLTC) to offset the costs incurred.
2. In the event that the Health Services Department is required to enter into an agreement to participate in the iPHIS Pilot Project that the Commissioner of Health Services and Medical Officer of Health be authorized to execute this Agreement.

2. PURPOSE

The purpose of this report is to describe the iPHIS Pilot Project being undertaken by the MOHLTC, the Health Services Department (Public Health Branch) and selected health units in Ontario, and to seek Committee and Council approval to participate as one of the two pilot sites.

3. BACKGROUND

3.1 Ontario Disease Reporting

All reportable diseases, which also include diseases designated as communicable and virulent, in Ontario are first reported to local health units and then, in turn, must be reported electronically using the Reportable Disease Information System (RDIS) to the MOHLTC. Eventually these reports are transmitted to Health Canada and then to the World Health Organization. The RDIS system is intended to meet the case management and the public health surveillance needs of the health unit.

However, RDIS is an aging system that is severely limited when evaluated against current information technology and demands. It was developed by a private company in the US in the mid 80s and was selected for use by the MOHLTC at that time. RDIS is based on a proprietary architecture that is no longer widely used or supported. It is based on DOS and is therefore not "Windows-driven," or user friendly. It has no standard training instruments, is a stand-alone system that cannot be integrated into other systems, is technically unsustainable, and results in a lack of timely data capture and reporting. Its case management information cannot be shared among clinical practitioners. RDIS was the only MOHLTC system that could not meet the Y2K deadline due to its technical complexity and almost non-existent support in the vendor field and marketplace. Its continued use is considered a liability for the MOHLTC and the residents of Ontario.

To address these and other public health information system deficiencies, the MOHLTC established the Public Health Information System Advisory Committee (PHISAC) in

2000 to prepare a strategic plan for the replacement of RDIS and other systems and recommend a system architecture for the future. In 2002 a subsequent group, the Ontario Advisory Board, was established to oversee the description of the information gaps in the Ontario disease surveillance system, and the mapping of the needs of that system, against the capacities of iPHIS.

3.2 iPHIS

IPHis is a web-based, integrated client-centered case management information system intended to enable and improve the accuracy, quality, timeliness, coordination and delivery of case management and surveillance information for reportable diseases. It supports public health provider interventions, tracking, follow-up, appointment scheduling, case management, reporting, referral management and surveillance. The system is designed to provide access to one client record by multiple public health providers as well as access to, and sharing of, immunization and reportable disease surveillance information.

IPHis was originally developed by the British Columbia Centre for Disease Control and has been operational in BC since the late 90s. It was developed with health care, information technology industry and public health input and on Oracle, an open architecture platform. IPHis has recently been adopted by Health Canada as the basis for its public health case management application under the Canadian Integrated Public Health Surveillance (CIPHS) and is endorsed as a key component of its public health End-to-End Surveillance Architecture. Health Canada retains the intellectual property rights for the iPHIS application but shares these rights free of charge with Canada's public health jurisdictions. Health Canada and collaborative members are funding the continued development of the application based on the iPHIS federal/provincial/territorial change management process being supported by the CIPHS collaborative.

Health Canada's adoption of iPHIS was based on a comprehensive environmental scan of public and private public health information systems in Canada, USA and internationally. Its formal evaluation rated iPHIS as the most cost effective integrated system solution for federal/provincial/territorial adoption. IPHis pilot projects are currently in the planning stages or in actual pilot operation in seven provincial, regional, or municipal jurisdictions across Canada in The Northwest Territories, British Columbia, Saskatchewan, Alberta, Manitoba, Newfoundland and now Ontario. As a participating partner in the iPHIS Pilot initiative, Health Canada will assist in the planning, project management, training, implementation, support and evaluation of iPHIS pilots in any jurisdiction that approves it.

4. ANALYSIS AND OPTIONS

The goal of the iPHIS Pilot Project is to test and validate iPHIS against the information needs and business processes of both the health units and the MOHLTC, Public Health Division. The new information infrastructure created by iPHIS should ensure the accurate, complete and timely collection, use, analysis, integration, interpretation and dissemination of current surveillance information. Information will also be collected

from multiple sources including the health units, laboratory and in the longer term other clinical sites.

While the reportable disease modules of iPHIS (communicable disease, STD/HIV/AIDS and tuberculosis) are being tested at this time, an immunization module is also under development that has the potential to replace the Immunization Record Information System (IRIS).

York Region and Toronto have been selected as the two health unit pilot sites in Ontario. A Steering Committee has been formed by the MOHLTC including representation from York Region, Toronto and three other health units. The Steering Committee is now planning the pilot project. Testing of the system for a three-month period is expected to begin this fall followed by an evaluation expected to last another three months. During the testing period, reporting of records will be continued through RDIS and duplicate reporting will be done through iPHIS. This double entry will require the hiring of additional temporary staff.

York Region Health Services has a history of partnership and involvement with the MOHLTC in information system development. In the early 1990s a representative of the Region participated on the Steering Committee for the development of the IRIS and York Region was one of the pilot sites for the system. The Infectious Diseases Control Division was one of the pilot sites to test the Y2K compliant version of RDIS and the division's Director served as the Vice-Chair of PHISAC and the Chair of the Ontario Advisory Board. York Region has consistently provided expertise, experience and leadership to provincial information system development with respect to both information technology support and critical business application analysis.

5. FINANCIAL IMPLICATIONS

York Region will need to hire additional temporary staff (three clerks for three months) to accommodate the double data entry required during the testing period. The cost of the additional 0.75 FTE (estimated at \$40,000) will be reimbursed at 100% by the MOHLTC from funds provided to carry out this project (*see Attachment 1*). Other time commitments from management and epidemiological staff will be accommodated within the 2003 Public Health Budget. It is anticipated that, after implementation of the pilot, ongoing operational support would be minimal from the IT Department due to the project's web-based nature.

6. LOCAL MUNICIPAL IMPACT

There is no impact on any specific municipality from this pilot project.

7. CONCLUSION

York Region has been selected as one of two pilot sites to test iPHIS, a new web-based, integrated case management and reportable disease surveillance public health information system for Ontario. If the tests are successful, the plan to implement iPHIS in all Ontario health units will begin next year. The system, which is Oracle based, is also expected to replace IRIS and possibly other public health information systems in future versions. The pilot project will begin this fall and will require approximately three months of double data entry which will be done by additional staff hired for this purpose at 100% MOHLTC funding.

The Senior Management Group has reviewed this report.

(A copy of the attachment referred to in the foregoing was forwarded to each Member of Council with the September 4, 2003 Health and Emergency Medical Services Committee agenda and a copy thereof is on file in the Office of the Regional Clerk.)