MIDDLESEX-LONDON HEALTH UNIT

REPORT NO. 017-13

TO: Chair and Members of the Board of Health

FROM: Bryna Warshawsky, Acting Medical Officer of Health

DATE: 2013 February 19

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OVERVIEW OF INFORMATION TECHNOLOGY SERVICES

Recommendation

It is recommended that Report No. 017-13 re "Overview of Information Technology Services" be received for information.

Key Points

- Information Technology Services provides and supports the computing and technology requirements for all MLHU staff, allowing them to effectively deliver programs and services to the MLHU's clients.

- Supporting these technology requirements involves new initiatives, regular upgrades/replacements, providing training to all MLHU staff and addressing many requests and problems on a daily basis.

Description of Services

Information Technology Services (I.T.) is a centralized MLHU service area whose clientele is, primarily, other MLHU service areas' programs and staff. I.T. supports its clients across the three primary MLHU office locations and also supports staff working in locations in the community. I.T.'s services include:

- Leading the Technology and Service Improvement Strategic Action Group, a strategic direction for the Health Unit.
- Working with program areas to use technology to improve client service and program delivery so they can be provided as efficiently and effectively as possible.
- Computing and telephone hardware "infrastructure" (servers, desktop and laptop personal computers, phones, network switches, internet connectivity, etc.). This includes loading and configuring these systems, replacing them as they age and keeping them running properly. This also includes ensuring staff have the appropriate software applications by purchasing them, loading them, keeping them current and supporting their use. Software used at the Health Unit consists of the following:
    - standardized personal computing software (eg. Microsoft products);
    - Ministry of Health and Long-Term Care applications/databases (these include databases with communicable disease, immunization, new births, and oral health information); and
    - service/program area-specific applications/databases (which include databases with inspection information).
- Operational support of MLHU's public websites (www.healthunit.com; inspection.healthunit.com/DineSafe, etc.)
- Data analysis and geographical information services (GIS mapping) support services for MLHU epidemiology and program evaluation functions.
- Technology and software training to enhance staff capacity to use new software and hardware, to optimally use existing software and to understand changes to software.
- Maintenance, design and support of the MLHU's Intranet.
- Data protection—security/data encryption, antivirus/anti-spam and firewalls.

- Helpdesk support for all MLHU staff using the above-listed technologies and software.
- Support for organizational changes (moves, hires, departures, organizational restructuring).
- Business continuity planning and capacity development to ensure that computer systems remain functional and/or can be fixed in the event of an emergency or other major event.

Target Population

The primary client population for I.T. is MLHU service/program areas and their staff. Delivering I.T. service to this client population currently requires I.T. to manage and support:

- 400 active network logon and e-mail accounts for all MLHU staff, including more than 150 security/access groups and 60 e-mail and voicemail distribution lists.
- 410 networked personal computers (160 laptops and 250 desktops), 40 network printers and 400 phones.
- The network, server and server application infrastructure to support all staff using these devices across the three primary MLHU locations and from within the community.
- 150 cellphones and 50 Blackberry smartphones.
- More than 50 software applications including 30 database applications that directly support MLHU program delivery.

All the above-noted technology and software are used by MLHU staff in delivering public health services to the residents of Middlesex-London. These residents also directly use the MLHU's websites (www.healthunit.com; inspection.healthunit.com/DineSafe) for program information and registration.

Key Performance Measures

Some key performance measures I.T. tracks to help assess the success of service delivery are outlined below. See Appendix A for specific details.

Operational Support—I.T. has implemented an incident management system to receive, manage and track staff and equipment-related work, and client requests and problems. Statistics from this system help I.T. to assess the success and opportunities for improvement to service delivery.

Environment "currency"—Constant change and demands placed on technology require that the technology environment be kept current. Many companies have technological "refresh" frequencies (whereby they replace older machines with new ones) that would not be fiscally prudent or possible for the MLHU to achieve. I.T. has developed practical refresh levels for technology infrastructure and software applications as follows:

- Replacing computing hardware (personal computers, laptops, servers) every 4 to 5 years;
- Replace common software applications every 6 to 7 years.

Additionally, there are many regular software upgrades/maintenance releases to address problems and security issues within both the common software applications and program-specific applications/databases.

New Initiatives—Each year, I.T. undertakes the planning and implementation for new initiatives in order to support service areas' program delivery. These projects could include the design and implementation of new applications/databases, the research, acquisition and deployment of new technologies, or the development of strategy for major new initiatives. Some current and past representative projects included:

- Leading an MLHU-wide team and providing I.T. staff expertise for two initiatives within the Technology and Service Improvement Strategic Achievement Group—an Electronic Client Record and an Intranet redesign.

- In conjunction with Family Health Services, the development of a new Resource Lending System for all MLHU staff and partner organizations (such as teachers) to borrow Health Unit materials.
- Assisting with the development and implementation of the newly-launched Community Health Status Resource (which provides information on the community's health).
- Support and planning for the Ministry of Health and Long-Term Care's new Panorama system (a province-wide data base to support the work in immunization, communicable disease and vaccine inventory management).
- Implementation of an electronic system for the Dental Clinic to take and view electronic X-rays (rather than film).

Training— I.T. develops and delivers training to Health Unit staff to ensure technologies are used effectively. This training may be related to existing, new or changed computer programs or equipment. Since mid-2011, I.T. has undertaken significant training activities in support of the following technologies:

- SmartBoards and Smart Notebook software—used by many of our staff both at the Health Unit and at schools.
- Microsoft Outlook—introduced efficiencies and improved functionality for booking meeting with staff and reserving meeting rooms.
- Microsoft Office 2010—a major training initiative to support the organization-wide Office 2010 upgrade.

Budget Overview

Staffing Level

2013 proposed staff total of 8.50 Full-Time Equivalents (FTEs):
1.0	Director
1.0	Administrative Assistant
1.0	Business Analyst
1.0	Data Analyst
1.0	Network & Telecom Analyst
1.0	Server Infrastructure Analyst
1.0	Desktop & Applications Analyst
1.0	Helpdesk Analyst
0.5	Corporate I.T. Trainer

Overall Expenditures Budget

Personnel Costs	$ 693,075
Administrative Expenses	13,500
Materials & Supplies	8,000
Purchased Services	33,838
Furniture & Equipment	342,000
Other Expenses	0
Total Expenditure	**$ 1,090,413**

Notes:
- Administrative Expenses include staff development, training and travel.
- Purchased services include external consulting and internet service provider services.
- Furniture and equipment includes the costs for computer/network hardware and software.

Public Health-Specific Services/Requirements

While Information Technology services are somewhat generic across many organizations, every organization has some unique and specific requirements and public health is no different. The Health Unit's I.T. services fall within the following Ontario Public Health Organizational Standards:

- 3.2 Strategic Plan
- 6.1 Operational Planning improvements
- 6.2 Risk Management
- 6.12 Information Management

Specific/unique technology requirements for public health include:

- Privacy Legislation (the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA) and the Personal Health Information Protection Act (PHIPA)) has several specific data implications for public health units as follows:
  - o Strong encryption of mobile devices (memory keys, laptops, tablets, smartphones, etc.) is a requirement. There have been a number of orders from the Information and Privacy Commissioner of Ontario related to this requirement and Medical Officers of Health in all Ontario public health units have had to sign an attestation that mobile devices within their organization are properly encrypted to avoid confidential client information ending up in the wrong hands if the mobile device is accidently lost or stolen.
  - o The storage and transfer of data have unique considerations that constrain public health from employing some mainstream technology solutions.
  - o MLHU Information Technology staff support the applications that store confidential client data. To provide this support, I.T. staff must, on occasion, access this confidential information. Access is governed by the Health Unit's privacy policies (6-010 and 6-040). This includes an annual mandatory acknowledgement of confidentiality responsibilities.
- Public Health Unit-specific software applications/databases – MLHU has more than 30 Service Area/Program-specific databases/applications. Over one-third of these databases are provided by the Ministry of Health and Long Term care. Support for these is coordinated between program staff, MLHU's I.T. staff and Ministry of Health and Long-Term Care/eHealth staff.
- Dedicated/secure eHealth network connectivity—eHealth Ontario's network provides the MLHU's primary internet access, but, more specifically, provides secure access to some eHealth service/applications that would not be available over a generic internet connection.

This report was prepared by Mr. Rick Shantz, Director, Information Technology Services.

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