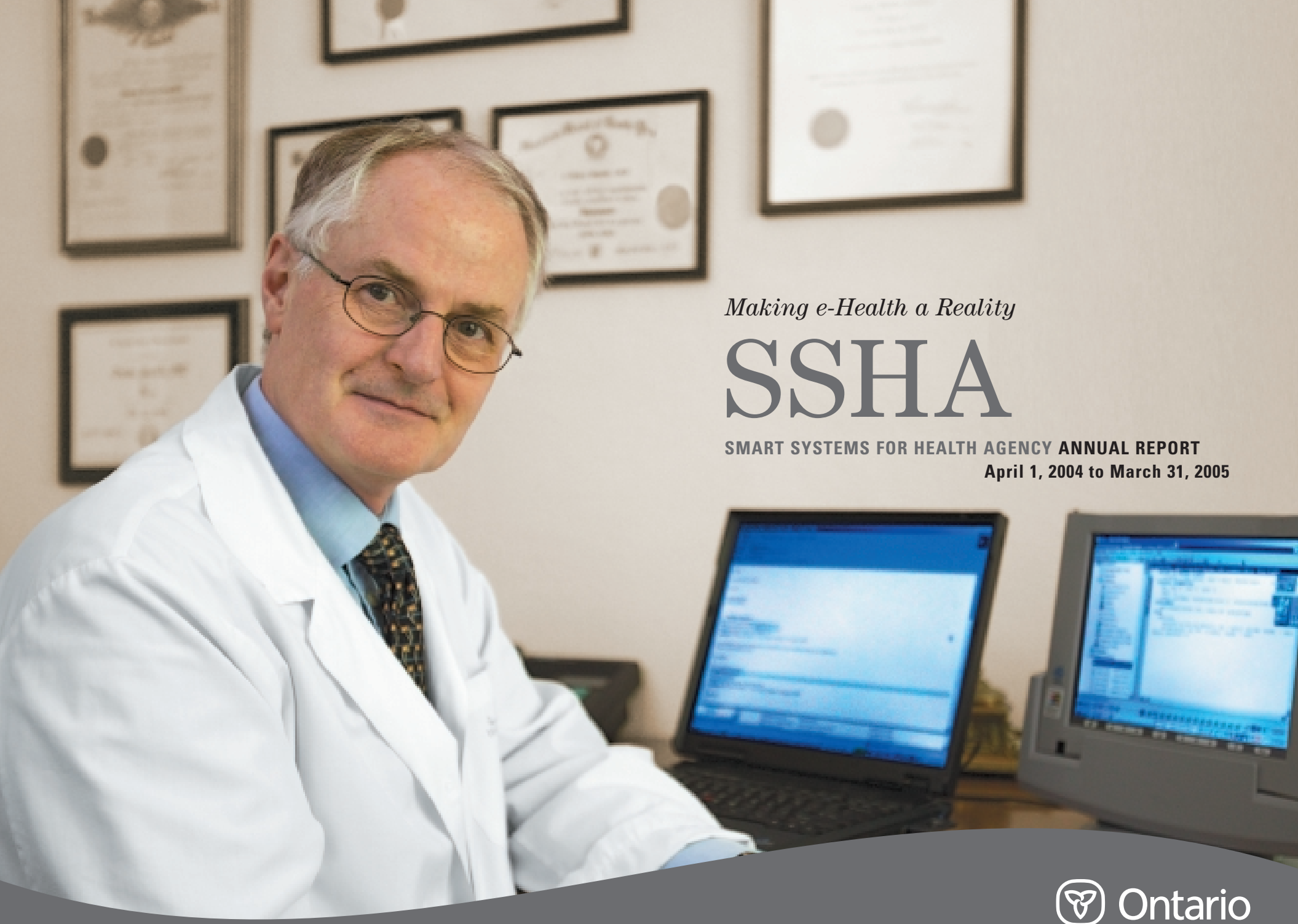


Making e-Health a Reality

SSHA

SMART SYSTEMS FOR HEALTH AGENCY ANNUAL REPORT

April 1, 2004 to March 31, 2005

Ontario

Smart Systems
for Health Agency

VISION

SSHA's world-leading e-Health services will help to transform health care delivery in Ontario by enabling the secure electronic exchange of health information among providers and patients.

MISSION

SSHA works with the health care sector to enable providers and patients to:

- Electronically share health information quickly and securely; and
- Make better care decisions.

VALUES

SSHA employees are passionate about making a difference to Ontario's health care system.

We strive to:

- Ensure that the patient care impact of our products and services is always our first priority
- Protect personal privacy of health information in every aspect of our business
- Excel in the delivery of reliable products and services
- Treat everyone with fairness and respect – every patient, health care provider, supplier and co-worker
- Be accountable to the people of Ontario for the productive use of public resources
- Work in partnership with health care providers, the Ontario government and suppliers
- Make our expertise and talent the keys to our success
- Continually improve individual and team performance in all aspects of our work.

CONTENTS

GREAT EXPECTATIONS

As we momentarily look up from our task of developing a sophisticated, state-of-the-art information sharing network for Ontario's health care providers, we observe that we are engaged in a genuinely remarkable and pioneering project.

Efforts to establish e-Health are under way in other provinces and Ontario's approach has been to create a provincial IT infrastructure, namely Smart Systems for Health Agency (SSHA).

SSHA has already begun to facilitate regular and near-instantaneous e-communications between health care providers over vast geographical reaches. Adaptable to a myriad of health care situations, expanded use of our products and services is improving outcomes, reducing wait times and promoting more efficient use of resources.

As an example, a Timmins stroke victim benefited from an expert medical diagnosis from Toronto, delivered quickly enough to prevent permanent brain damage. Such scenarios are becoming more common as increasing numbers of health care professionals use the SSHA products and services we are putting at their fingertips.

Major SSHA achievements in 2004/05 include the successful implementation of secure e-mail to a first group of users. In the field of public health, we now host a communicable disease management application, and continue to supply the network for the Ministry of Health and Long-Term Care and Public Health Units that will allow them to react in the event of a disease outbreak. We have also built the groundwork for the launch of a public health portal, a powerful weapon in the event of a crisis – big or small.

We look forward to rolling out our services and products in high volume, with great expectations of the many benefits this will bring to the people of Ontario.

Allan J. Greve,
Chair of the Board

BEYOND INFORMATION TECHNOLOGY

Ontario's goal of connecting 150,000 health care providers from over 24,000 sites is one that we hope to see accomplished in the coming years. The first product we began implementing was our managed private network. It is already delivering substantial benefits to health care providers and their patients across the province. Over the past year, health care organizations found ways to increase their use of the network, and to do so in innovative ways. This progress is encouraging for us because we believe it sets a pattern that will be followed in the future.

Ontario's health care IT infrastructure is extensive. Extending across Ontario's *entire* health care sector naturally involves many technological challenges. To avoid reinventing the wheel, planners often seek what they call a scalable solution; that is, the ability to expand operations of a technological system that already works brilliantly on a small scale. Instead of serving a community of 1,000, can we extend it to 50,000 users with equal performance? The answer is sometimes yes, sometimes no.

Still, all things considered, we've learned that technology is the easy part of an IT project. The real challenge lies in helping our clients change their business processes, a necessary step before products, such as secure e-mail, can be useful. This knowledge has spurred us to intensify our client focus in 2004/05 and work with clients through all phases of the co-operative venture of deployment that we are working to speed up.

The secure e-mail system now linking the University Health Network and other Toronto-area partners is a successful example of the sort of sophisticated integration we aim to furnish to all health care providers. As such projects demonstrate, the exhilarating goal of making Ontario's e-Health agenda a reality is already leading to improved health care and better quality of life for the residents of Ontario.

Michael Connolly,
Chief Executive Officer

INTRODUCTION: A YEAR OF TRANSITION

SSHA is an arms-length agency of the Ministry of Health and Long-Term Care (MOHLTC), mandated to provide a secure, integrated, information infrastructure for the health care providers of Ontario. Once fully operational, SSHA will connect more than 150,000 physicians, community care providers, hospital and laboratory personnel, pharmacists, public health professionals and other health care personnel across 24,000 sites throughout the province.

Beginning operations as an agency in January 2003, SSHA completed its first full fiscal year on March 31, 2004. This report covers the Agency's second full year of operation, the period from April 1, 2004 to March 31, 2005.

In the original Regulation, the government directed SSHA to concentrate on six specific priority initiatives it had established to reform the health care system – a seventh, for public health, was later added. Regulatory changes were recommended in December 2004 as part of the government e-Health strategy and health care transformation agenda. The amendment to SSHA's enabling Regulation removed the restriction to operate within specific sector-based Ministry programs and reinforced that SSHA services need to be available to all health care providers in Ontario as directed by the Minister of Health and Long-Term Care in line with government and Ministry priorities. This change in the Regulation was consistent with two program approvals that cut across the health care sector – a series of public health initiatives, and delivery of secure e-mail to all health care providers.

For SSHA, fiscal 2004/05 was a period of intense corporate change and operational policy development, adapting to the new initiatives and gearing up for large-volume deployment of products and services. To this end, SSHA refined its corporate business model and heightened its client focus. We restructured our Infrastructure Services Division, established an e-Health Solutions Division, and created a Deployment Management Office. It was also a time of aggressive staff hiring. Continuing a shift from a consultant-based to an employee-based staffing model, the Agency's pool of permanent staff more than doubled.

As to accomplishments, SSHA made major progress with two projects that the government designated as priorities. The integrated Public Health Information System application, hosted in the SSHA data centres, became operational in November 2004. Once rollout is completed in 2005/06, public health officials will be able to track infectious diseases, provide quarantine management and fulfill other vital functions in the event of a public health emergency. Also, a first implementation of secure e-mail went live in February 2005 as the University Health Network (UHN), Toronto Community Care Access Centre (CCAC) and Saint Elizabeth Health Care (SEHC) became the first health care institutions in Ontario to be able to use SSHA secure e-mail services between each other.

In addition, hospital connectivity has been accomplished for all but one public hospital in the province (Ontario's remotest hospital, the James Bay General). Telemedicine video-conferencing consultations – which use SSHA's network – almost doubled during the year. SSHA continued to support and maintain services to all provincial CCACs, Public Health Units (PHUs) and other projects.

Overall, fiscal 2004/05 was a year of growth and development as SSHA transformed from a start-up build organization to a large-scale deployment engine. While for various reasons deployment did not proceed as quickly as we had hoped, strategic advances occurred to facilitate the large-scale delivery of products and services that is projected for the year, and years, ahead.

CLIENTS

SSHA provided the following services to Ontario's health care clients:

PUBLIC HEALTH: iPHIS, ISCIS AND PHIIT

Commissioned in the aftermath of Ontario's SARS crisis of 2003, the Justice Campbell Report recommended that the MOHLTC rapidly implement a more robust public health IT system, one that would allow for contact tracing and quarantine management by Ontario's 37 Public Health Units (PHUs) in case of a deadly epidemic.

Consequently, a powerful integrated Public Health Information System (iPHIS) application became operational in November 2004 – hosted in SSHA's data centres and available over our network. iPHIS allows the PHUs and the MOHLTC's Public Health Division to collect, share and manage communicable and reportable disease information. iPHIS has been called "a live, real-time centralized database for infectious disease tracking and management." It was designed for 75 reportable diseases as well as food poisoning outbreaks, but can be easily adapted to new situations should an unfamiliar disease or outbreak scenario arise. Fully operational in our data centres, the iPHIS application is ready for use in case of emergency anywhere in Ontario and several waves of implementation training for PHUs will allow all of them to use it for their ongoing needs in the coming fiscal year.

The Integrated Services for Children Information System (ISCIS) is another public health sector program that SSHA supports. The ISCIS software application is used by public health nurses to manage the delivery of the Healthy Babies, Healthy Children Program that tracks children from birth until their sixth birthday. Public health nurses, speech language pathologists and other service providers will eventually be connected to the program, which will operate through hundreds of community-based agencies throughout the province to provide an expanded range of services over time.

The MOHLTC's Public Health Information and Information Technology (PHIIT) strategy requires two portals for information and data exchange among Ontario's nearly 50,000 public health providers and stakeholders. The PublichealthOntario.ca and eHealthOntario.ca portals were launched in spring 2005 following many months of intense work. Now that they are in place, improvements and upgrades will follow. SSHA also maintains a reserve capacity of secure e-mail boxes that could be rapidly deployed in the event of a public health emergency.

SECURE E-MAIL FOR UNIVERSITY HEALTH NETWORK, TORONTO CCAC & SAINT ELIZABETH HEALTH CARE

Voicemail messages, faxes and bicycle couriers weaving through city traffic: these were the means by which staff at the University Health Network (UHN), Toronto Community Care Access Centre (CCAC) and Saint Elizabeth Health Care (SEHC) used to exchange details about discharged patients requiring followup care. But that's all changing, thanks to the first phased use of SSHA's secure e-mail, which will replace less efficient office procedures with modern IT processes.

UHN will soon be sending patient information by secure e-mail to the Toronto CCAC, which in turn will develop a care plan and then forward elements to SEHC for followup home care. SSHA led most aspects of the deployment, including compilation of a user directory, which has 3,800 names. Many more such projects are envisioned as physicians, laboratories, CCACs, PHUs and providers of long-term care, home care, mental health care, addiction support and others join our information highway.

A key lesson from this project is that the IT is often one of the easier aspects of an IT project. In this case, the organizations needed several months to determine how they are going to use secure e-mail to transmit patient discharge information electronically. The need for change is accepted by all, but using IT in new ways when people's lives depend on it requires careful thinking and intelligent change management.

HOSPITAL CONNECTIVITY, TELEMEDICINE AND OTHER HOSPITAL-BASED PROGRAMS

While 80 per cent of public hospitals were connected to the SSHA network before the fiscal year, connectivity exceeded 99 per cent at year end. Only one hospital, James Bay General, remained unconnected, owing to its extreme remoteness. SSHA hopes to have this final hospital connected in the coming year. As a result of growing hospital utilization rates, especially involving videoconferencing, SSHA has embarked on a hospital bandwidth strategy. Bandwidth upgrades were in progress at 26 hospitals at year-end and we foresee a growing need in the coming years.

Telemedicine uses two-way videoconferencing to link patients in rural and remote communities with medical specialists in larger centres, providing services to northern and rural communities much closer to home. Using SSHA's network, NORTH Network facilitated more than 1,700 consultations during 2004/05, almost double the previous fiscal period. SSHA also provides services to two other networks in Ontario, CareConnect and VideoCare.

The Cardiac Care Network of Ontario, which runs a wait list registry for cardiac procedures, collected data about more than 75,000 cardiac procedures during the year. Two cardiac centres joined SSHA's high-performance network in the summer of 2004, with the other centres scheduled to connect in 2005. SSHA also offers network services to other provincial programs such as Ontario Air Ambulance Base Hospital Program, Cancer Care Ontario and Trillium Gift of Life Network. By making them more efficient, these organizations can provide improved services.

CHATHAM-KENT AND OTHER FAMILY HEALTH NETWORK TEAMS

SSHA continued to provide connectivity, hosting and security services for a group of physicians in the Chatham-Kent Health Alliance. Their clinical management system allows them to electronically schedule appointments for diagnostic imaging, nuclear medicine, cardiology tests, respiratory tests and other procedures, 24 hours a day, seven days a week.

Eight doctors are participating in this promising prototype. By storing patient data in electronic health records, they are exploring how SSHA technology can help all doctors to use their time more effectively by spending less time on paperwork and more with patients.

SSHA provided connectivity services to seven more Family Health Network Team locations from Kingston to Kitchener, and is planning to connect health care providers at the Trillium Health Centre in western Toronto and Mississauga.

ONTARIOMD.CA

SSHA planned for hosting of the updated OntarioMD.ca portal for the Ontario Medical Association (OMA). The physician portal will offer health news, alerts, a drug interaction database, journals and the latest information on clinical trials and patient information materials. In November 2003, OntarioMD.ca went online with a pilot version for 500 physicians. While the OMA has temporarily deferred a more substantial rollout, SSHA readied the planned e-mail capability for all physicians and their staff and enhanced the registration system in anticipation of expected deployment beginning in 2005/06.

COMMUNITY CARE ACCESS CENTRES

Ontario's 42 CCACs offer one-stop shopping access to a wide range of community-based care options and services. All 42 CCAC main offices and 40 per cent of their satellite offices are connected to the SSHA network. SSHA also supports a diverse and growing array of shared CCAC applications as well as 22 CCAC web-sites. The Toronto CCAC's partnership with the UHN and SEHC, as described earlier, resulted in a pioneering secure e-mail rollout.

A good example of how SSHA products and services are helping health care providers is Toronto CCAC case co-ordinators spending more time with their 9,400 daily client caseload. Instead of being tied down to one office, co-ordinators make their rounds with laptop computers, then input client data from any convenient CCAC satellite site across the city. Less time in the office equals more time with clients.

SSHA also partnered with MOHLTC and CCACs to set up a hosting environment for a human resources and payroll application. The project became operational in March 2005. Further, SSHA established a hosting environment for the CCAC's Resident Assessment Project – Home Care.

Also in 2004/05, SSHA completed the build of a centrally hosted and managed secure enterprise e-mail system for CCACs. Deployment is about 25 per cent completed with 1,100 CCAC staff members using SSHA-hosted mailboxes by the end of the fiscal period.

PHARMACIES: THE ONTARIO DRUG BENEFIT PROGRAM AND EMERGENCY DEPARTMENT ACCESS

The current Health Network System (HNS) allows pharmacies to access the Ontario Drug Benefit (ODB) Program. HNS, which connects some 3,000 pharmacies and handles about five million transactions annually for 2.5 million recipients, plans to switch from its current network and join SSHA's network.

Design has also begun for an application to allow hospital emergency departments to access the ODB database; the first pilot is scheduled for 2005 and rollout following in 2006. Planning these activities began in 2004/05.

LABORATORIES: THE ONTARIO LABORATORY INFORMATION SYSTEM (OLIS)

OLIS is an IT initiative that is expected to improve patient care by making the ordering and delivery of results of millions of diagnostic lab tests every year available electronically to physicians and other health care professionals. SSHA is closely involved in planning efforts as a key partner in the OLIS rollout in late 2005/06.

PRODUCTS AND SERVICES

DATA CENTRES WITH AROUND-THE-CLOCK CLIENT SUPPORT

SSHA operates two state-of-the-art data centres that offer around-the-clock reliability. Robust and sophisticated, these centres are designed with the utmost safeguards in place to ensure the integrity and confidentiality of personal health information. They feature more than 200 servers, 12 firewalls, 80 routers and switches, and massive storage capacity.

Software applications used by all of the province's CCACs and PHUs are hosted in our data centres. Some clients place a self-contained system in our data centres that they manage and operate themselves. Others require SSHA to help design, develop and host their systems, making full use of SSHA technologies and services including storage, backup, recovery, firewall, intrusion detection and virus scanning.

SSHA's Contact Centre offers technical support for clients should any problems arise.

SECURE E-MAIL

E-mail is a modern technological innovation that is increasingly relied upon as an essential tool in business and personal life. SSHA will be providing all provincial health care professionals with secure, reliable and confidential e-mail by which to communicate with colleagues throughout the health care system.

Secure e-mail allows health care providers to share personal health data over a fully protected channel to the intended recipient and no one else. While unsecure e-mail is commonly used, it is insufficient when exchanging patient information.

Secure e-mail makes information rapidly available. For instance, a general practitioner could send a medical file to a specialist to whom she is referring a patient. Laboratory tests could be rapidly sent to the physician who ordered them. In the case of an outbreak, public health officials could alert health care providers of important public safety measures.

PORTALS

SSHA works with organizations to design and build sophisticated web portals that meet their specific information needs.

SSHA is completing work on PublicHealthOntario.ca and eHealthOntario.ca – two portals designed by the MOHLTC's Public Health Division to allow for the rapid dissemination of up-to-date information. This is important for day-to-day operations, but clearly vital in the event of a public health emergency.

ENSURING PRIVACY AND SECURITY

In our first year of existence, ensuring the security of the SSHA system architecture was the focus of our efforts. Probably the biggest milestone was the successful completion and launch of our state-of-the-art IT products and services, the heart of our province-wide IT infrastructure.

While the build of the core IT infrastructure was completed in November 2003, SSHA continues to develop integral components to ensure privacy and security, and this has been an ongoing concern in 2004/05. The task demands compliance with federal and provincial privacy legislation as well as co-ordination with initiatives under development like the Electronic Health Record (EHR) and the Ontario Drug Benefit/ Emergency Department project. It is likewise for security reasons that client applications undergo privacy impact assessments, threat and risk assessments, and technological tests before operating in SSHA's secure hosting environment.

Another milestone was the creation of Chief Privacy Officer courses for client organizations to teach them best practices and the implications of using SSHA products and services. In all, seven of these courses were held, and an alliance with a major university will allow us to expand the scope and market of our training programs in the coming year.

USER REGISTRATION

Health care providers and the people of Ontario require their e-Health system to be secure. When and for whom do you allow access? This determination is best made in the form of an Identity and Access Management System to ensure that only appropriate health care professionals gain access to patient data as required.

Within the registration process, the parallel functions of Identity and Access Management are key challenges that require groundbreaking solutions, especially on a provincial scale. SSHA is developing a three-tiered approach to registration that involves Registration Authorities, self-registration for solo practitioners and staff of small organizations, and a federated process for staff of larger institutions.

SSHA is working with client organizations to develop an appropriate registration process that meets the needs of users with low, medium or high level of security assurance. Wherever possible, SSHA's Registration Management System will piggyback on existing client registration processes, simplifying the process and facilitating volume deployment.

ELECTRONIC HEALTH RECORD (EHR)

A key MOHLTC e-Health initiative currently in strategy development, the EHR, is intended to put a patient's full health care history at the fingertips of health care providers to enable them to make better and more informed medical decisions.

It is expected that the EHR will contain a health profile that includes information regarding allergies, medications, diagnostic test results and underlying medical conditions. It will also contain service-encounter information such as visits to hospital emergency rooms. Health care providers, such as doctors and nurses, will have access to the EHR at the point of care, including hospital emergency rooms.

STANDARDS MANAGEMENT

Universally accepted technological and data standards are required to allow all provincial health care professionals to collect and share clinical information in a meaningful way.

Initially established by SSHA to co-ordinate development of health informatics standards for use in Ontario, the Ontario Health Informatics Standards Council (OHISC) reviews, recommends and upon ministerial approval, supports the use of health informatics standards as they apply to Ontario's e-Health strategy. The change in Ontario's e-Health governance structure means that OHISC, which consists of 17 representatives from health care and technology organizations and various provincial and national bodies, will report to the Ontario e-Health Council. SSHA worked to support the change of governance as it continued its participation in national and international standards activities.

As well, SSHA completed the research and preparation for ministerial approval of coding standards for language, country and regions, and a code of practice standard for information security management. The information security standard will include the development of a toolkit to ensure consistent implementation. SSHA completed the initial analysis of data standards to support the MOHLTC's Client Identity Management project and the EHR core data set. These will be released for consultation during the next fiscal year. Other activities included supporting standards activities for projects such as emergency room access to drug history from the ODB Program, OLIS and the Continuing Care Sector's initiatives for e-referral and wait-list management.

AGENCY PERSPECTIVE

GEARING UP FOR DEPLOYMENT

Parallel to our involvement in a wide range of client activities, SSHA underwent significant internal changes and growth in 2004/05.

In keeping with the corporate objective of shifting from a consultant-based to an employee-based organization, our staff pool more than doubled in 2004/05. By the end of the fiscal period, SSHA had substantially completed this migration, with about 275 permanent employees, many with exceptional technical skills that required considerable recruitment efforts. SSHA also implemented employee pension and benefits plans and established a performance development plan that recognizes competency and rewards performance.

We established a new e-Health Solutions Division to develop an integrated deployment strategy that was presented to the Ontario e-Health Council in June 2005. Strategic objectives are to optimize the time, effort and cost of deployment, maximize benefits and minimize disruption to health care service providers, and meet provincial targets. We established a Deployment Management Office to help meet those strategic objectives and our client needs in the most effective way possible.

Other initiatives to improve our client and delivery focus include the use of project management methodology throughout the organization and the development of a Balanced Scorecard to align our priorities to meet client needs and Ministry mandates.

INTEGRATED APPROACH TO DEPLOYMENT

SSHA sought new ways to engage clients and devised a more hands-on means of extending our IT infrastructure to communities of health care providers. Our integrated approach works through three primary service delivery modes to engage clients through *sector*, *community* and *disease-based* groups and projects.

On a *sectoral* basis, SSHA plans to engage physicians, hospitals, CCACs, pharmacies, laboratories and others through projects like the provincial Family Health Teams, OntarioMD, OLIS and telemedicine networks (NORTH Network, VideoCare and CareConnect). Already strong champions of IT automation, PHUs are being engaged through programs like iPHIS, PHIIT and ISCIS. Deployment to pharmacists is expected through the eventual replacement of the existing Health Network System through which pharmacies connect with the ODB Program with SSHA's network.

The UHN, Toronto CCAC and SEHC worked with SSHA to implement a secure e-mail system and user directory – a shining example of a *community-based* model of deployment and the first of many that are expected.

On a *disease-based* level, hospital-based programs like Cancer Care Ontario, Cardiac Care Network and Trillium Gift of Life Network for organ and tissue donation help to integrate related programs by using the SSHA network. In 2004/05, SSHA provided connectivity to the Cardiac Care Network to its 17 hospital surgery centres.

HEALTH CARE E-COMMUNITIES

The rise of health care e-communities presents further opportunities for deployment. An e-community is a virtual community of health care providers, linked by a common objective. Their mission may be spontaneous and short-lived or predefined and long-term, and participation may be open or by invitation only. Amalgamation onto the SSHA network should greatly improve collaboration among participants by offering them a sophisticated array of powerful tools for information-sharing and communication.

Our integrated strategy involves deploying through local or regional-based projects, as well as utilizing provincial and local governance structures as much as possible. We are working to maintain a local presence across the health care sector to identify stakeholders who are ready for upgrade to the SSHA network and those whose business processes require substantial modification first. Cookie-cutter solutions are rare. Our heightened client orientation means working with clients to implement the tailor-made solution they require.

LOOKING AHEAD

Events in 2004/05 have established a firm foundation for the delivery of e-Health services in Ontario and provided valuable lessons for SSHA.

The government's development of an e-Health strategy and subsequent change to the governance and regulatory environment affected SSHA and other groups involved in e-Health planning and policy development. These changes will provide a greater alignment of all e-Health activities and provide a strong footing for SSHA. The impact of these changes will become evident over time, but they have served to demonstrate the government's commitment to e-Health and its recognition of the need for flexibility in achieving its goals in this challenging area. In addition, the government's funding commitment to SSHA in 2004/05 demonstrates its desire to implement e-Health on a larger scale.

In the face of this commitment to e-Health, SSHA has been challenged to take the deployment of its products and services to a much larger client base. SSHA has responded by reorganizing itself and successfully implementing two key projects in 2004/05: hosting the iPHIS application in our data centres and carrying out the first implementation of SSHA secure e-mail between health care organizations. While these successes are valuable, they are clearly only the start of what is actually needed.

In 2004/05, SSHA grew and undertook essential work to bring its products and services into a state where they can serve the needs of thousands of health care users. This includes our e-mail and Identity and Access Management services – our registration of new users and verification of existing ones.

Our portal development team also worked extensively on the preparation of two new portals, PublicHealthOntario.ca and eHealthOntario.ca, which launched in April 2005. They will continue to grow and provide the foundation for electronic communications in the public health and broader health care sectors.

Other projects that will bear fruit in 2005/06 include SSHA's first geographic implementations in Renfrew County and Ottawa to provide all health care institutions and professionals with access to a number of basic electronic communications tools. These massive undertakings require extensive planning and the support of all local stakeholders. We are undertaking them in collaboration with various stakeholders including MOHLTC program areas, such as the Public Health Division, in support of their goals. Following these two areas, SSHA will work to deploy across Ontario in the coming years right down to every location where publicly-funded health care is provided.

Other key projects for 2005/06 include establishing hospital Emergency Department Access to ODB information – a potential lifesaver for patients on medication coming into hospital unconscious or unable to remember their medications.

An initial implementation of OLIS is also foreseen along with ongoing work with Trillium Health Centre on the creation of an extensive network of health care providers in their community, especially physicians.

SSHA has taken on a Balanced Scorecard framework to provide a context for measuring its success. This framework supports our mission and vision, and ultimately the MOHLTC vision.

The Balanced Scorecard translates strategy into action, succinctly describing SSHA's corporate strategy and explicitly linking strategic objectives to daily activities. Quantifiable performance measures will enable SSHA to monitor its progress toward strategic objectives, and will become a mechanism for accountability internally, with the Board of Directors and external stakeholders.

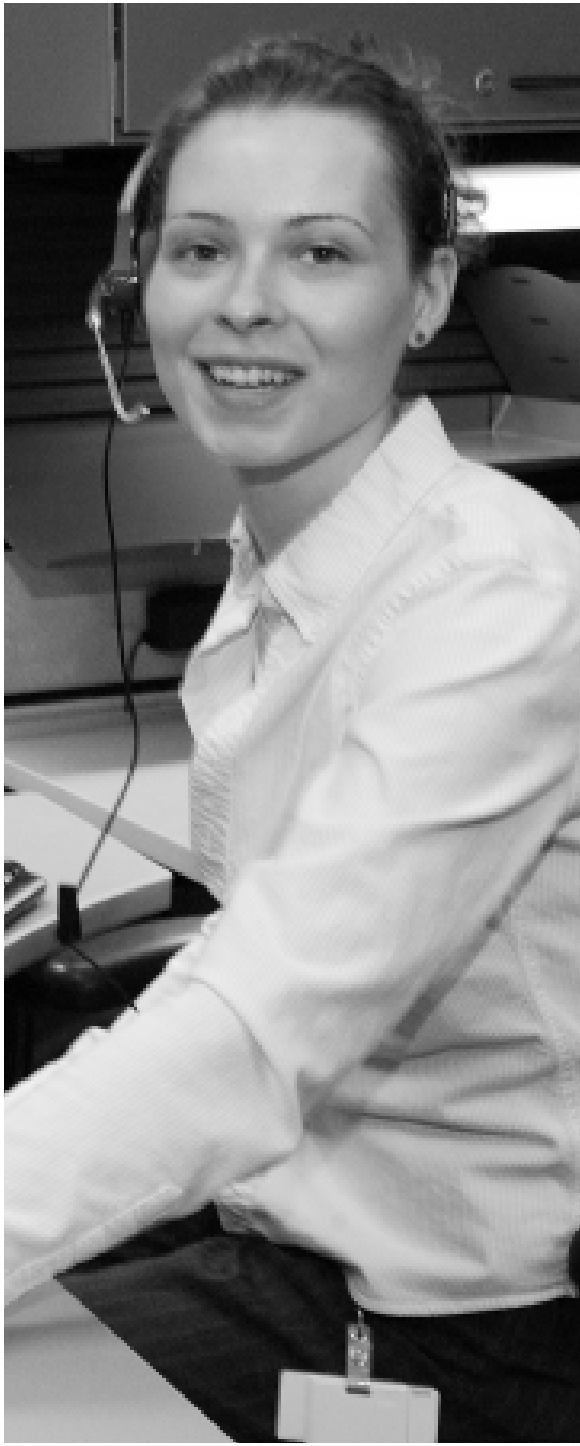
The five strategic themes of SSHA's Scorecard reflect the core elements of SSHA's strategy:

- **Dependable infrastructure**
  SSHA is a trusted partner in providing a flexible, secure and reliable province-wide technical infrastructure.
- **Provider communication**
  Health care providers can effectively communicate electronically using SSHA's services.
- **Delivering e-Health**
  Health care providers are supported by information and applications that meet their needs.
- **Engaging communities**
  SSHA is engaged with health care communities to support the deployment of e-Health solutions.
- **Corporate excellence**
  SSHA is a recognized model of corporate excellence in its management processes.

Twenty strategic objectives support these themes; more will emerge as divisional scorecards, aligned with corporate and the Ontario government's e-Health strategy, emerge.

What we have learned in 2004/05 is that the exciting work of e-Health almost always presents complexities that cannot be imagined at the outset. Many of them are technical, but others represent the need for effective change management in the way health professionals work so that they can take full advantage of the benefits of IT and the products and services that SSHA can provide.

Backed by the government's commitment to e-Health and our growing experience, we look forward to helping improve health care services for the people of Ontario.



KEY 2004/05 ACHIEVEMENTS AND OUTCOMES

	ACHIEVEMENTS	OUTCOMES
CLIENTS		
Physician	• Connectivity provided to seven new Family Health Team locations • New extended Wide Area Network (eWAN) services for remote access to physician offices • Assessing connectivity to over 200 physician sites identified by OntarioMD • Connectivity planned for more than 300 health care providers to Trillium Health Centre • E-mail services for OntarioMD developed • Nearing completion of three-way contract negotiations for hosting physician Clinical Management System • Connectivity to three pilot clinics to HIV Information Infrastructure Project (HIIP) application by Ontario HIV Treatment Network	✓ SSHA and OntarioMD positioned to support physician deployment in 2005/06
Hospital Programs	• 99 per cent of public hospitals connected • 34 hospitals received network upgrades for telemedicine, 26 in progress • Built hospital access to MOHLTC's Health Card Validation through SSHA network with rollout planned in 2005/06 • Received approval and began initial planning to host Electronic Master Patient Index application among 14 hospitals in Ottawa area • Provision of access to ODB information by hospital emergency departments over SSHA network in planning • E-mail and directory implemented between UHN, Toronto CCAC and SEHC • Connectivity for Cardiac Care Network to its 17 hospital surgery centres established	✓ A common, reusable and secure network available ✓ Supporting over 1,700 video-conferencing consultations per month ✓ Reduced waiting times through co-ordinated and managed service delivery to networks like Cancer Care Ontario and Cardiac Care Network
Continuing Care	• Maintained connectivity services to CCAC head offices and 40 per cent of satellite locations • Developed a corporate e-mail service, and implemented it to four CCACs and 1,100 users with rollout to all CCACs in 2005/06 • Hosted three new applications, and began implementation of Halton-Peel Case Management • 22 CCAC web-sites hosted	✓ Greater efficiency in sharing patient information among hospitals and community care providers

continued	ACHIEVEMENTS	OUTCOMES
Public Health	• All 37 Public Health offices and available satellite offices connected to SSHA network • Hosting a new application for web reporting to support programs for children • Hosting iPHIS application and supported first phase deployment • Provided security and registration services to ISCIS and iPHIS • Developed PublicHealthOntario.ca portal for April 2005 launch	✓ Foundation in place for provincial communications on public health issues ✓ Common infrastructure in place for expansion of new programs for children
Pharmacies	• Support Drug Programs Branch in planning for deployment to 250 independent pharmacy sites and to acquire four sites in 2005/06	✓ Prepared to deploy when client is ready
Laboratory	• OLIS requirements for hosting the application and providing laboratory connectivity under development • E-mail services deployed to OLIS project team members	✓ Working with client to support deployment
Integrated Community Deployment	• Planning e-mail, provincial directory and portals beginning with Champlain Local Health Integration Network, Ottawa Public Health Department and Renfrew County	✓ All health care providers will have secure e-mail capability
PRODUCTS AND SERVICES		
Networks	• 517 circuits operational through Wide Area Network (WAN) and eWAN services • Vendor of Record for eWAN established • Established connectivity with MOHLTC for health provider access to programs, e.g. Health Card Validation • Launched long-term strategy network services in conjunction with Management Board Secretariat	✓ Secure, scalable and reusable solution
Secure E-mail	• 60,000 mailbox capacity maintained of which 30,000 are available at a moment's notice for emergency use • Developed corporate mailbox product for CCACs and OntarioMD • Secure e-mail pilot of UHN, Toronto CCAC and SEHC provided important lessons for widespread use of secure e-mail	✓ Full suite of e-mail products available for different needs
Infrastructure Security	• RSA Security interim solution deployed to PHUs for iPHIS pending availability of Public Key Infrastructure (PKI) • Deployed PKI server certificates to secure connectivity between UHN, Toronto CCAC and SEHC	✓ PKI services defined and ready for deployment

continued	ACHIEVEMENTS	OUTCOMES
Registration	• Registration services restructured into an Identity and Access Management program • Development of models for large-scale deployment: Registration Authority-assisted Federated – leveraging client systems Self-service over Internet	✓ Provide secure assurance of identity and meet various enrollment models
Portal	• OntarioMD.ca restructured to hosted model and readied for relaunch • Public Health and e-Health portals in final development for launch in April 2005	✓ Scalable service to meet emerging needs
Hosting	• Continued to host eight client applications and 23 web-sites • Planning for hosting of OntarioMD Clinical Management System/ Application Service Provider and OLIS	✓ High availability facility to support e-Health
Electronic Health Record	• Preparing core data set proposal for OHISC endorsement as a standard • Working with MOHLTC on proposals to Canada Health Infoway for pediatric EHR • Working with hospitals on preparedness for EHR solutions • Working with Continuing Care sector on international standard record for application	✓ Health sector emerging needs for EHR are supported in a standards framework
Data and Technology Standards	• Completed four new data standards and one new security standard for OHISC review • Working with MOHLTC in Canada Health Infoway registry design workshops and submissions • Enhanced OHISC priority setting process to meet time to market consideration	✓ Solid foundation for eventual transfer of OHISC to Ontario e-Health Council
Privacy and Security	• Developed and offered two-day privacy courses to health care sector • Provided consultation on the new Regulation of *Personal Health Information Protection Act* and subsequent operational alignment • Numerous Threat and Risk Assessments and Privacy Impact Assessments completed • Working with OHISC to adopt ISO 17799 for Information Security Management as a provincial standard • Developed and implemented internal Freedom of Information and Protection of Privacy program	✓ SSHA champions privacy and security standards and awareness

continued	ACHIEVEMENTS	OUTCOMES
AGENCY PERSPECTIVE		
Operations	• Restructured to create e-Health Solutions Division to put a priority focus on client deployment • 2003/04 audited financial statements approved with no management notes • 2003/04 Annual Report tabled • Diamond Award in the Public/Private Partnerships category at Showcase Ontario 2004 • Instituted comprehensive project management methodology and life cycles • Initiated SSHA's risk management framework and business continuity plan development • Defined a quality system framework, including ISO certification • Implemented a strategic management framework using Balance Scorecard as part of a corporate performance management program • Proceeding with a business intelligence strategy to realize responsive information management and analysis	✓ Positioned for volume deployment ✓ Alignment with Ministry e-Health strategy and evolving role of SSHA ✓ Leadership recognition of SSHA's project management best practices
Human Resources	• Successful migration from a consultant to staff model of operations • Implemented Performance Development Program • Designed and implemented a flexible benefits program • Completed first employee satisfaction survey	✓ Framework to foster career development and employee recognition
Public Relations	• Launched SSHA Internet site • Developed print materials • Significant increase in trade publication coverage • Increased visibility at key conferences	✓ Increased stakeholder awareness and dialogue

June 6, 2005

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL INFORMATION

Management and the Board of Directors are responsible for the financial statements and all other information presented in the Annual Report. The financial statements have been prepared by Management in accordance with Canadian generally accepted accounting principles and, where appropriate, include amounts based on Management's best estimates and judgment. Management is responsible for the integrity and objectivity of these financial statements. The financial information presented elsewhere in this Annual Report is consistent with that in the financial statements in all material respects.

Smart Systems for Health Agency (SSHA) is dedicated to the highest standards of integrity in its business. To safeguard the Agency's assets and assure the reliability of financial information, the Agency follows sound management practices and procedures, and maintains appropriate information systems and internal financial controls.

The Board of Directors ensures that Management fulfills its responsibilities for financial information and internal controls. The financial statements have been reviewed by the SSHA Board Audit Committee and approved by the Board of Directors.

The financial statements have been examined by PricewaterhouseCoopers LLP, independent external auditors appointed by the Board of Directors. The external auditors' responsibility is to examine the financial statements in accordance with Canadian generally accepted auditing standards to enable them to express their opinion on whether the financial statements are fairly presented in accordance with Canadian generally accepted accounting principles. The Auditors' Report outlines the scope of the Auditors' examination and opinion.

Michael Connolly
Chief Executive Officer
Smart Systems for Health Agency

Geoffrey Knapper
Chief Administrative Officer
Smart Systems for Health Agency

April 29, 2005

AUDITORS' REPORT

To the Board of Directors of Smart Systems for Health Agency

We have audited the statement of financial position of **Smart Systems for Health Agency** (the Agency) as at March 31, 2005 and the statements of operations and fund balance and cash flows for the year then ended. These financial statements are the responsibility of the Agency's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Agency as at March 31, 2005 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Chartered Accountants

STATEMENT OF FINANCIAL POSITION

As at March 31, 2005

	2005	2004
Assets		
Current assets		
Cash	$ 5,070,474	6,205,076
Prepaid expenses	646,476	370,557
Due from the Province of Ontario (note 3)	6,743,000	8,702,688
	12,459,950	15,278,321
Capital assets (note 4)	17,582,802	21,430,495
	$ 30,042,752	**$ 36,708,816**
Liabilities		
Current liabilities		
Accounts payable - including held cheques of $nil (2004 - $5,187,395)	$ 2,217,761	11,009,242
Accrued liabilities		
Operating	7,433,221	2,883,492
Capital	2,803,947	958,466
	12,454,929	14,851,200
Deferred capital contributions (note 5)	$ 17,582,802	21,430,495
	30,037,731	36,281,695
Fund balance	$ 5,021	427,121
	$ 30,042,752	**$ 36,708,816**

Approved by the Board of Directors

Director

Director

STATEMENT OF OPERATIONS AND FUND BALANCE

For the year ended
March 31, 2005

	2005	2004
Revenues		
Government funding (note 3)	$ 78,104,325	72,443,411
Amortization of deferred capital contributions (note 5)	11,840,747	10,796,976
Recoveries of expenses (note 3)	–	2,551,470
	89,945,072	85,791,857
Expenses		
Information technology operations		
Production	$ 42,741,566	33,396,321
Development	16,130,010	19,030,787
Client support	6,251,405	9,551,054
	65,122,981	61,978,162
Privacy, security and standards	5,965,700	5,650,748
General and administrative	7,437,744	6,563,422
Total operating expenses	78,526,425	74,192,332
Amortization	11,840,747	8,914,877
Gain on disposal of capital assets	–	(403,053)
	90,367,172	82,704,156
Excess (deficiency) of revenues over expenses for the year	$ (422,100)	3,087,701
Fund balance - Beginning of year	$ 427,121	(2,660,580)
Fund balance - End of year	$ **5,021**	**427,121**

STATEMENT OF CASH FLOWS

For the year ended
March 31, 2005

	2005	2004
Cash provided by (used in)		
Operating activities		
Excess (deficiency) of revenues over expenses for the year	$ (422,100)	3,087,701
Items not affecting cash		
Amortization of deferred capital contributions	(11,840,747)	(10,796,976)
Amortization	11,840,747	8,914,877
Gain on disposal of capital assets	–	(403,053)
	(422,100)	802,549
Change in non-cash working capital items		
Due from the Province of Ontario	1,959,688	(8,702,688)
Prepaid expenses	(275,919)	(341,220)
Accounts payable	(8,791,481)	10,442,129
Accrued liabilities - operating	4,549,729	697,220
	(2,557,983)	2,095,441
	(2,980,083)	2,897,990
Investing activities		
Purchase of capital assets	$ (6,147,573)	(10,530,100)
Financing activities		
Deferred capital contributions received	$ 7,993,054	13,753,489
(Decrease) increase in cash during the year	$ (1,134,602)	6,121,379
Cash - Beginning of year	6,205,076	83,697
Cash - End of year	**$ 5,070,474**	**$ 6,205,076**

NOTES TO FINANCIAL STATEMENTS

March 31, 2005

1. NATURE OF OPERATIONS

On February 11, 2002, the Smart Systems for Health Agency (SSHA or the Agency) was established as a corporation without share capital by Ontario Regulation 43/02 (O. Reg. 43/02) in accordance with Section 5 of the Development Corporations Act. SSHA is an operational service agency as defined by the Management Board of Cabinet Directives. Subsection 2(3) of O. Reg. 43/02 provides that SSHA is, for all its purposes, an agency of Her Majesty within the meaning of the Crown Agency Act and its powers may be exercised only as an agency of Her Majesty. Subsection 6(1) of O. Reg. 43/02 provides that the Board of Directors is composed of the members appointed by the Lieutenant Governor in Council. Pursuant to subsection 7(1) of O. Reg. 43/02 and subject to any directions given by the Minister of Health and Long-Term Care under Section 8, the affairs of the Agency are under the management and control of the Board of Directors. The Lieutenant Governor in Council appointed 11 members to the SSHA Board of Directors.

The Board of Directors passed its first by-law on January 16, 2003. As such, SSHA ceased operating as part of the Ministry of Health and Long-Term Care (MOHLTC) and began operating as an arm's length agency of MOHLTC on January 17, 2003.

The Agency prepares its financial statements in accordance with Canadian generally accepted accounting principles as opposed to the cash basis, which was its accounting policy when it was operating as part of the MOHLTC.

SSHA is fully funded by the Province of Ontario through the MOHLTC. As an agency of the MOHLTC, SSHA is exempt from income taxes. The Agency is currently awaiting its exemption from the federal goods and services tax (GST). However, in the interim, the Agency has received permission from the MOHLTC to quote its GST exemption number.

SSHA provides the secure, integrated, province-wide infrastructure to allow electronic communication among Ontario's health care providers, in support of Ontario's e-Health initiatives. The protection of personal health information of Ontarians is of utmost importance at SSHA. Privacy and security services provided by SSHA complement the network infrastructure services to safeguard personal information maintained by SSHA. In addition, SSHA strives to build consensus on data and technology standards within the health care community in Ontario.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of accounting

These financial statements have been prepared in accordance with Canadian generally accepted accounting principles. Outlined below are those accounting policies considered particularly significant.

Revenue recognition

SSHA follows the deferral method of accounting for contributions. Contributions with respect to the purchase of assets are deferred and recognized as revenue in the year in which the amortization expense is recognized. Transfer payments from the Ontario government used to purchase capital assets are deferred in the year received and recognized as revenue in the year in which the amortization expense of the related asset is recognized. The balance is recognized as revenue when received, or when receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Expense recognition

Expenses are recognized as incurred, on an accrual basis, in the period to which they relate.

Expense categories

Information technology operations include the following:

- Production primarily includes network operations, data centre operations, contact centre operations and the chief technology office.
- Development primarily includes Public Health Information and Information Technology and ePhysician Portal, the registration management system and ongoing work done for establishing a voluntary electronic health record.
- Client support includes client services, the executive project office and planning and product management.

Privacy, security and standards include costs related to establishing and maintaining a high standard for information security and privacy and building consensus on data technology standards in Ontario's health care community.

General and administrative expenses include Board of Directors, chief executive office, corporate services, human and corporate resources, with the exception of legal, rent, recruitment and internal IT costs, which have been allocated to other expense categories based on the work consumed or the floor space occupied.

Capital assets are recorded at cost net of accumulated amortization. Amortization is provided on a straight-line basis with only one-half of the amortization recorded in the year of purchase, over the estimated useful lives of the assets as follows:

Computer hardware	3 years
Computer software	3 years
Furniture and office equipment	5 years
Licences	1 year
Leasehold improvements	over the term of the respective leases

Use of estimates

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires that management make estimates and assumptions that affect the reported amounts of assets and liabilities as at the date of the financial statements and the reported amount of revenues and expenses for the period. Actual results may differ from those estimates.

3. GOVERNMENT FUNDING

As required by the Management Board of Cabinet Directive, the Agency and the MOHLTC have entered into a memorandum of understanding (MOU). The MOU outlines the operational, administrative, financial and other relationships that exist between the MOHLTC and the Agency. The Agency operates on the same fiscal year as the Ontario government.

The Agency obtained a funding commitment of $86,524,500 (2004 - $86,196,900) from the MOHLTC for the year, of which $6,743,000 (2004 - $8,702,688) was collected subsequent to year-end. This funding was accounted for in accordance with the Agency's accounting policies as follows:

	2005	2004
Committed funding	$ 86,524,500	86,196,900
Clawback of prior year committed funding (i)	(427,121)	–
Amounts received and designated as deferred capital contributions (note 5)	(7,993,054)	(13,753,489)
Funding recognized in the statement of operations	**$ 78,104,325**	**72,443,411**
Recoveries of expenses from other MOHLTC programs (ii)	**$ –**	**2,551,470**

i) During the year, the MOHLTC requested repayment of the prior fiscal year's surplus. The amount was recorded as a reduction of the funding recognized in the statement of operations.

ii) Represents billings to the MOHLTC for agreed upon expenses incurred by SSHA to provide services to various MOHLTC program areas including Integrated Services for Children Division, Public Health pilot project, Emergency Department Access to Drug History project, Health Network System, Community Care Connects project and ePhysician project.

4. CAPITAL ASSETS

	2005			2004		
	COST	ACCUMULATED AMORTIZATION	NET	COST	ACCUMULATED AMORTIZATION	NET
Computer hardware	$ 24,848,419	12,751,411	12,097,008	$ 19,951,082	5,415,951	14,535,131
Computer software	8,920,502	5,659,409	3,261,093	8,289,119	2,791,426	5,497,693
Licences	1,819,308	1,295,227	524,081	771,147	385,573	385,574
Furniture and office equipment	1,651,172	528,556	1,122,616	1,250,488	238,391	1,012,097
Leasehold improvement	769,511	191,507	578,004			
	38,008,912	**20,426,110**	**17,582,802**	**30,261,836**	**8,831,341**	**21,430,495**

During the year, certain computer equipment, which was no longer in use with an original cost of $245,978 and a net book value of $109,412, was written off and expensed as amortization.

During 2004, SSHA traded in certain computer equipment. The details are as follows:

Fair value of equipment purchased	$ 3,601,964
Cash paid	(1,337,041)
Trade-in value ascribed	2,264,923
Net book value of trade-in equipment	(1,861,870)
Net gain	**403,053**

In addition, as a result of this trade-in, the Agency recognized as revenue $1,861,870 of unamortized deferred revenue, which corresponded to the trade-in. This amount is included in amortization of deferred capital contributions for the prior year.

5. DEFERRED CAPITAL CONTRIBUTIONS

Deferred capital contributions represent the capital assets transferred from the MOHLTC on January 17, 2003 as well as subsequent contributions received for the purpose of purchasing capital assets. These contributions are being recognized as income on the same basis as the amortization expense of the related capital assets.

	2005	2004
Balance - Beginning of year	$ 21,430,495	18,473,982
Contributions received	7,993,054	13,753,489
Amortization	(11,840,747)	(10,796,976)
Balance - End of year	**$ 17,582,802**	**$ 21,430,495**

The contributions received during the year are made up of the following:

Contributions used to fund current year capital asset purchases	$ 7,993,054	13,037,270
Contributions used to fund prior year accrued capital asset purchases	$ –	716,219
	$ 7,993,054	**$ 13,753,489**

Amortization of deferred capital contributions is made up of the following:

Amortization of capital assets	$ 11,731,335	8,914,877
Amortization relating to assets written off (see note 4)	109,412	1,861,870
Amortization relating to accrued capital assets from prior year	–	20,229
	$ 11,840,747	**$ 10,796,976**

6. CONTRACTUAL COMMITMENTS

SSHA has contractual commitments to fiscal 2007, to build and deploy infrastructure services to support Ontario's e-Health vision and strategy. The commitments are for providing highly secure data centres in hosting client application and establishing and operating the public key infrastructure. Payments required on these commitments are as follows:

2006	$ 8,677,199
2007	8,457,432
2008	4,462,482

7. OPERATING LEASE COMMITMENTS

a. Office space

Ontario Realty Corporation now holds four leases on the office space occupied by SSHA. SSHA is responsible for all the operating lease payments. The payments required to the date of expiry are as follows:

2006	$	1,184,529
2007		254,406

b. Desktop information technology

SSHA leases its desktop technology through the Government of Ontario Vendor of Record. The existing lease commitments are as follows:

2006	$	37,269

SSHA has made the decision to purchase desktop technology from January 2004 onwards. The existing commitments are for the leases that were transferred from MOHLTC, which expire in fiscal 2006.

8. EMPLOYEE BENEFITS

During 2004, the Agency established a defined contribution pension plan for its employees. Contributions to this plan during the year amounted to $616,934 (2004 - $67,750).

PHOTOGRAPHY

Name	Page
Dr. Brian Gamble, *Chatham, Ontario*	Front Cover
(From left to right) Alisha Abdool, *Contact Centre, SSHA,* Brandy Bain, *Contact Centre, SSHA,* Bill Ng, *Contact Centre, SSHA,* Peter O'Neil, *Contact Centre, SSHA,* Robyn Murray, *Contact Centre, SSHA,* Amanda Aldridge, *Contact Centre, SSHA*	4
Dr. Frank Silver, *University Health Network, Toronto, Ontario*	5
(From left to right) Michael Connolly, *Chief Executive Officer, SSHA,* Linda Weaver, *Chief Technology Officer, SSHA*	6
(From left to right) Arif Khan, *System Support, SSHA,* Lori Sylman, *Facilities, SSHA,* Ali Atri, *System Support, SSHA*	7
Matthew Anderson, *University Health Network, Toronto, Ontario*	8
(From left to right) Alex Nagorny, *System Support, SSHA*, Arif Khan, *System Support, SSHA*	12
Reynold Rocha, *Facilities, SSHA*	15
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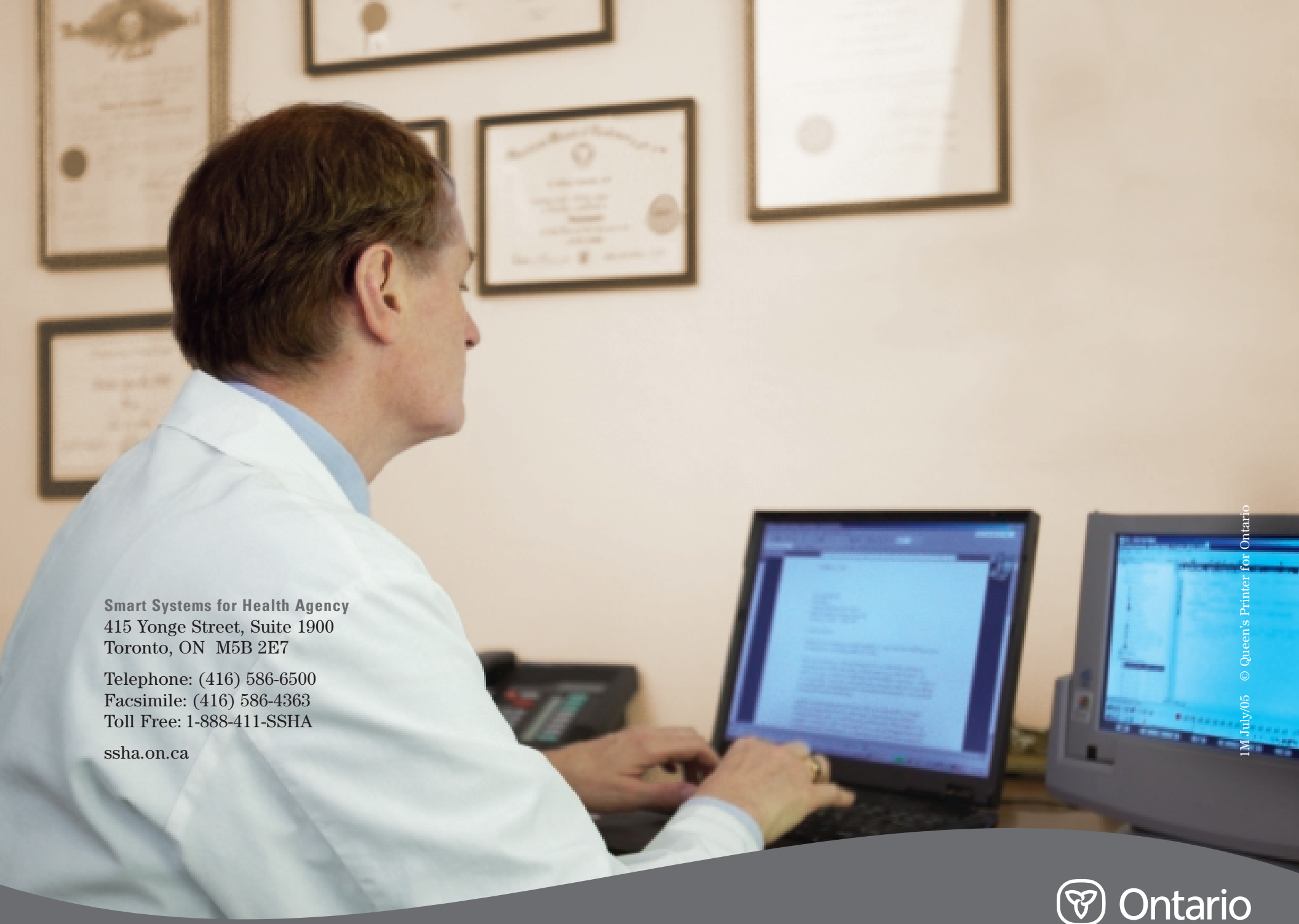
Dr. Brian Gamble, *Chatham, Ontario*	Back cover



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