



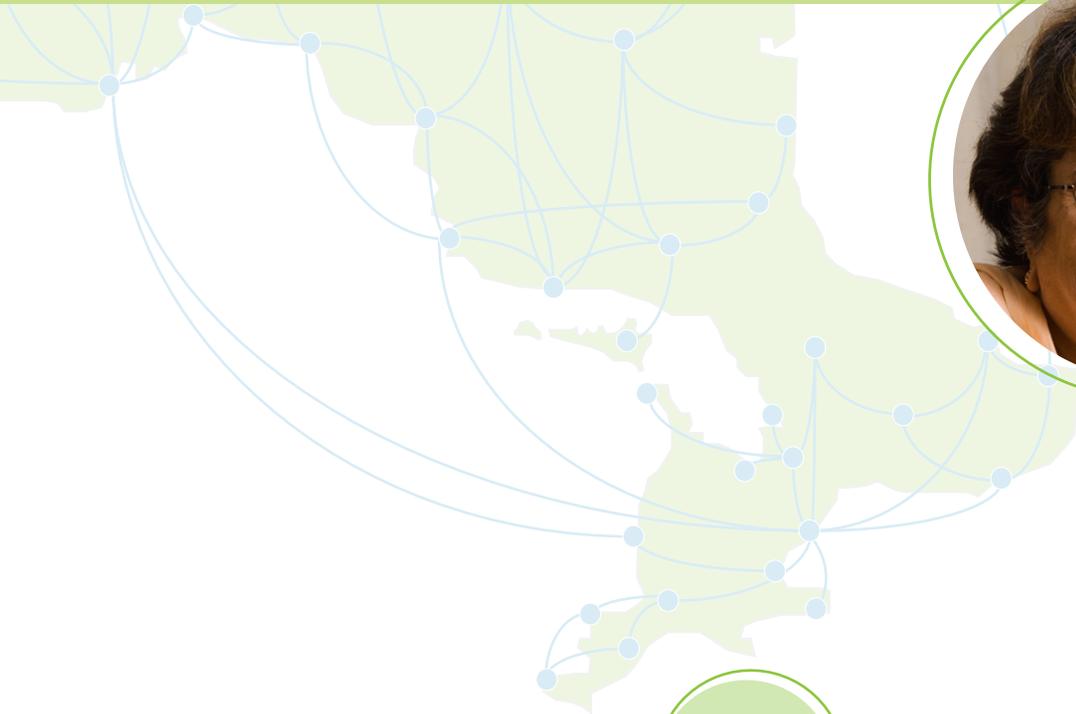
# Embarking on the Journey for Virtual Care

2012/13 Annual Report



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# Report from the CEO and Board Chair

With each passing year, we are witness to small steps that increase delivery of virtual care, nudging system transformation a little bit at a time. Over the past year, our efforts to lead the entry of Ontario's health care system into the virtual environment have allowed us to chart a new course which will result in significant system transformation over the next few years.

## Telemedicine nurse initiative

OTN worked with the Local Health Integration Networks (LHINs) to develop and execute plans in conjunction with Members to support the hiring and training of 191 Telemedicine nurses to support the delivery of virtual patient consultations, assessments, training, and knowledge exchange. OTN also established the Clinical TMC Certification Program as the best practice standard for nurse training in Telemedicine.

## Virtual care in 2012 Physician Services Agreement

OTN's Dr. Ed Brown was an active participant at the "virtual health care" side tables in the Government-OMA negotiations, providing insight and expertise for its incorporation into mainstream delivery. For the first time ever, virtual care delivery was formally acknowledged in the Agreement, from the inclusion of provisions for supporting more virtual care in the North, to approval processes to encourage the replacement of in-person visits with virtual equivalents, to the establishment of eConsult fee codes for dermatology and ophthalmology (with subsequent expansion to other specialties). The Agreement was unanimously endorsed by the OMA Board.

## Launch of Personal Videoconferencing

OTN began rolling out its Personal Videoconferencing service, a web-based software application that accommodates the delivery of real-time, high-quality videoconferencing for clinical care and health care education from the convenience of a personal computer. Convenient, flexible and inexpensive, Personal Videoconferencing offers the same secure connectivity as room-based telemedicine systems and is supported with a variety of easy-to-use tools.

## Expansion of Telehomecare

With a goal to support 2,300 patients in the first year, and upward of 30,000 patients by 2015, the Telehomecare program rolled out in the Toronto Central, Central West and North East LHINs. OTN's work in Telehomecare has qualified it as a Registered Nurses' Association of Ontario "Best Practice Spotlight Organization".



## Numbers

This year, our numbers suggest that the move to making virtual care mainstream has some traction. Consider that three quarters of all clinical activity now occurs in a community/primary care setting, versus a hospital. That solid growth continues in the North (LHINs 13 & 14), but that nearly two-thirds of all patients being seen using OTN reside in the South. That OTN hosted more than 700 new consultants last year. Finally, that more than 308,000 patients (a 51% increase over last year) received care through OTN.

The move to virtual care doesn't mean moving to care delivered by robots! The idea that somehow introducing technology into care removes the human element is belied by OTN's patient satisfaction surveys, which consistently demonstrate high levels of satisfaction with Telemedicine visits. Virtual care is truly based on the concept of patient-centric care, making the patient experience the best it can be by reducing the stress or burden often associated with access to care. If we believe in patient-centric care, we owe it to our patients to deliver it. The reality is that while we can and will develop new and innovative solutions for virtual care delivery, patient demand will play a significant role in advancing it.

Health care providers are faced with the realities of a constrained fiscal environment, shifting demographics, a rise in the occurrence and cost of chronic disease and ever-increasing patient familiarity with, and acceptance of technology in health care delivery. This convergence of factors provides the opportunity for all those involved in health care to explore and invest in solutions that deliver exceptional patient care cost-effectively. In the coming year, the opportunity for creativity and innovation - for both OTN and for you, our Members - is enormous! At OTN, the Board and staff have every confidence that we can steer the course to better serve our Members, the health care providers who use OTN and the public, in making virtual care a reality.



*Ed Brown*

Ed Brown, MD  
Chief Executive Officer



*Ray Marshall*

Ray Marshall, Board Chair

Did you know...

...use of Telemedicine resulted in more than \$60M in avoided costs charged to the Northern Health Travel Grant if patients had travelled for care?

Did you know...

...237,221,884 kilometres of patient travel was avoided by using Telemedicine?

## ● TN Navigates the Virtual Journey

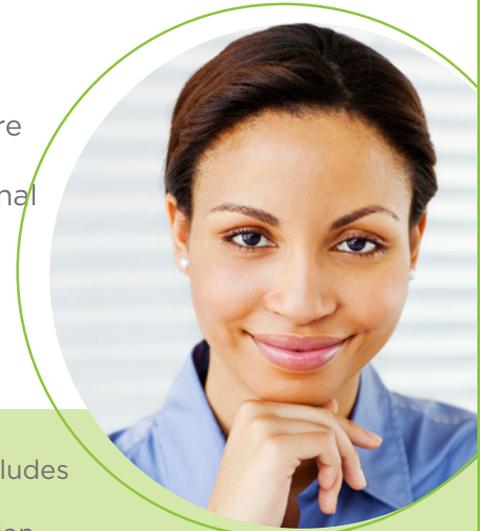
Did you know...

...467 new systems joined the Network last year?

## Personal Videoconferencing

*The concept for the journey is simple – be everywhere, from anywhere.*

OTN began rolling out Personal Videoconferencing last summer, offering Members an exclusive invitation to access the service. Personal Videoconferencing is a web-based software application that accommodates the delivery of real time, high-quality videoconferencing for clinical care and health care education from the convenience of a personal computer. More than 42,000 patient encounters were managed through Personal Videoconferencing in 2012/13. Convenient, efficient, and affordable, Personal Videoconferencing brings virtual care to the desktop.



A neurologist based in the Greater Toronto Area, **Dr. Mark Guttman's** practice includes Parkinson's and Huntington's disease sub-specialties, conditions that can make travelling increasingly difficult for patients as their disease progresses. Dr. Guttman added Personal Videoconferencing to his practice because he believed that the service would provide him with greater personal flexibility. He now spends part of his week consulting from home because the service eliminates the 90 minute commute to his office. Dr. Guttman notes, "As long as connectivity is business-grade, I can consult from anywhere without comprising quality of care."

**Dr. Peter Rossos** is a gastroenterologist and Chief Medical Information Officer at University Health Network in Toronto. He is an experienced telemedicine practitioner, and thinks that one of the benefits of Personal Videoconferencing is that "once you are set-up and have sufficient practice, you are relatively independent compared to a traditional telemedicine studio. With a few relatively inexpensive peripherals you can effectively care for patients from the convenience of your own personal computer."



Oncologist **Dr. Robert El-Maraghi** practices at the Simcoe Muskoka Regional Cancer Centre. He is an advocate for and active member of multidisciplinary cancer conferences. An experienced room-based telemedicine physician, Dr. El-Maraghi says that Personal Videoconferencing's "quality of sound and video is excellent, better than in a room. It is so easy to use, just point and click."

## Telestroke

### *A lifesaving journey requiring careful navigation.*

Each year in Ontario, 16,000 people will experience a stroke that may result in their death or a significant disability. A stroke's enormous burden can be significantly reduced by implementing the use of a thrombolytic drug like tPA within the first 4.5 hours of symptom onset. The sooner the treatment is started the better the results.

The Provincial Telestroke Program is a component of Ontario's stroke strategy and provides stroke patients in remote areas of the province with access to life-saving emergency care that they might not receive without this real-time expert neurological assessment. Stroke quality indicators among patients managed through Telestroke are comparable to patients treated by on-site stroke specialists at Regional Stroke Centres.

To date, there are 22 referring sites in the program, supported by ten neurologists. Last year, 652 patients were treated through the program, with 196 of them (30%) receiving tPA.





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**Dr. Andrew Samis** is based in Belleville, one of five staff intensivists and physician stroke champion at Quinte Health Care. He implemented Quinte's use of Telestroke, recognizing its capacity to "help more of our residents than before. Telestroke allows me to administer tPA under the supervision of a neurologist, which provides me with the confidence that I am doing the best for my patient. I rely on their expertise."

**Dr. Demetrios J. Sahlas** is a neurologist in Hamilton and has been involved with the Telestroke program since 2004. He notes that, "Telestroke made it possible to see the patient, the treating physician and even a CT scan, allowing me to focus my full expertise on what I could observe. Telestroke has improved the standard of care for stroke victims, keeping many of them out of long-term care and allowing more of them to continue with the life they led prior to the stroke."

A neurologist in Huntsville who has been providing his services to the Telestroke program since 2006, **Dr. Blaine Foell** says, "Telestroke makes it possible to use my expertise in stroke care to the fullest, because it allows me to provide care well beyond Huntsville and its environs to all across the province. When a Telestroke call comes in, I am able to work with the attending physician in the Emergency Department at the far end in real-time, allowing for direct knowledge transfer with immediate impact for the patient."



## Otn.teledermSF

*The journey for virtual care usually takes five days or less – and it begins with a picture.*

A physician takes a digital image of a patient's skin condition and sends it electronically to a dermatologist through OTN's secure servers. The dermatologist reviews the information, returns a diagnosis and suggested treatment to the referrer – all without a long wait, added costs or travel time for patients.

Increasing numbers of physicians – both referrers and dermatologists, are making the journey. More than 5,100 consultations took place last year.



**Dr. Lili Mileva** is a General Practitioner in Kingston and a new user of Otn.teledermSF, and “finds it incredibly useful. I got speedy advice – within two days! It is an amazing service. I am very happy that I am able to use it.”

**Dr. Robert Solomon** is a dermatologist based in Toronto. When he learned about teledermatology in medical journals, he thought it was “neat”, because he enjoys technology and the medium lends itself well to dermatology, which is so highly visual. According to Dr. Solomon, “Patients do not have to wait – my referrals from Otn.teledermSF are turned around in one business day, sometimes within 15 minutes, because I am always on a computer. It was easy to mix in the practice; great for patients and fun for me!”

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## Telehomecare

*The goal for this journey? Better health. At home.*

Telehomecare is based on OTN's successful 2007 pilot. Simple-to-use equipment is installed in the patient's home and connected to a Telehomecare nurse who monitors their vital signs and provides updates to the patient's Primary Care Provider.

In 2012/13, with funding from the Ministry of Health and Long-Term Care and Canada Health Infoway, three regions of Ontario became early adopters of OTN Telehomecare.

Local Health Integration Networks Central West, North East, and Toronto Central partnered with local organizations to deliver OTN Telehomecare to patients with Chronic Obstructive Pulmonary Disease (COPD) or Heart Failure (HF). William Osler Health System (Central West), the North East and Toronto Central Community Care Access Centres (CCACs) hired RNs who were then trained by OTN in chronic disease self-management as well as the management of COPD and HF.



Cheryl McMahon

**Cheryl McMahon** is a Telehomecare nurse with the Toronto Central CCAC. She says, "The goal of the Telehomecare program is to empower patients to take control of their own health and have a better quality of life. We do health coaching based on what they identify as gaps in their knowledge about their health. Patients love the program; they love being able to monitor their health in their own home."

**Dr. Frank Martino** is President of the Ontario College of Family Physicians and Chief of Family Medicine at William Osler. He notes that Telehomecare "addresses two chronic diseases that are probably in the top five that affect patients and result in a lot of emergency room visits, hospital admissions and specialized clinic appointments. Programs like Telehomecare really demonstrate how we can use technology to improve the health care we provide our patients while using our healthcare dollars more effectively. This is quality care."



Dr. Frank Martino



## Teleophthalmology

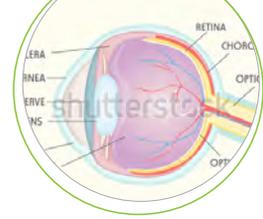
*Making the journey clearer for people with diabetic eye disease.*

Early detection of diabetic eye disease prevents vision loss. For some of the more than 380,000 diabetics in Ontario, however, there are barriers to regular eye screening.

OTN's Teleophthalmology program improves access to eye care, by providing patients with free retinal screening at convenient times in easily accessible locations across the province. Referred by their family physician, images of patients' eyes are captured by technicians and uploaded to a secure central server. Ophthalmologists then remotely review the images and provide an assessment to the patient's family physician, recommending treatment if necessary.

Of more than 2,000 screens completed last year, approximately 30% had abnormal findings.

OTN will add additional sites to reach remote communities that do not have local eye care resources.



**Lianne Charette** is a Health Promoter / TOP Coordinator with the Manitoulin Central Family Health Team who shares that, "Prior to the Teleophthalmology program being available, some patients had not had an assessment in two, three or even five years. Weather and cost play significant factors in being able to access this type of care, so the fact that this is offered locally alleviates lots of patient anxiety and stress."

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## Webcasting and webconferencing

Eliminating the distance of a journey and accommodating collaboration is what both webcasting and webconferencing makes possible.

Webcasting streams room-based events to your computer, live and on-demand while webconferencing makes learning and meetings completely virtual using your computer or mobile device.

The two services extend the reach of an event beyond video-conferencing equipped rooms by making them accessible at the desktop, improving access by removing the barriers of time, distance and rigid scheduling.

OTN hosted 2,294 webcasts last year, for a total of 65,254 webcast views. OTN hosted 8,284 webconferences that included more than 23,000 participants.



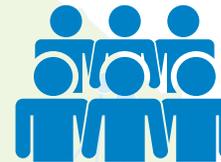
2,294  
webcasts



65,254  
views



8,284  
webconferences



23,000+  
participants



- **Dr. Marcel Doré**, a Hospitalist at Guelph General Hospital says, “Distributed medical education is here to stay, no question about it. The potential for exploring the full range of services through OTN is amazing!”
- In a recent survey, OTN asked webconferencing users what they liked about the service. They said:
- “It reduces administrative burden and is a great way to bring various providers/sectors together to mitigate travel expense and time. We found that meeting participation is much higher.”
- “It makes working with people on virtual teams much easier and cuts down on the cost and wasted time of traveling long distances.”



Did you know...

...that the Telemedicine Directory can provide you with access to more than 1,000 telemedicine consultants through organizational programs at *St. Michael's, University Health Network, Health Sciences North, Thunder Bay Regional Health Sciences Centre* and others?

Did you know...

...more than 700 new consultants joined the network last year, a 53% increase over the year before?

## Member Spotlight

Did you know...

...more than 4,000 visitors viewed more than 83,000 pages in the Telemedicine Directory over the past year?

## Navigating the clinical virtual care journey

*Southlake Regional Health Centre in Newmarket had a clear vision – to increase its clinical use of OTN.*

It began with its Nurse-Led Outreach Team, in which Outreach nurses partnered with Long Term Care homes to reduce avoidable emergency room visits. *Southlake* built the use of Telemedicine into the program, connecting to long-term care homes in their region to provide care to residents in their homes, rather than moving them to the Centre.

The success of the first two homes resulted in a conversation with other long-term care homes in *Southlake's* region. With support from the Central LHIN, the Outreach program expanded to six more homes and a much broader range of medical consults, in internal medicine, GI, geriatrics and mental health.

Having successfully made the long-term care journey, *Southlake* began charting new courses, expanding community access for consults, as well as offering consultations in hematology, internal medicine and endocrinology. Recently, *Southlake* expanded the OTN service to other hospital programs, including cardiology and mental health and added Otn.teledermSF.

Well aware of the explosion of chronic disease, *Southlake* is currently using OTN to deliver “The Arthritis Program”, a comprehensive educational offering aimed at supporting patients around the province who are living with chronic disease. The Arthritis Program covers rheumatology clinics for patients in Kenora, Sudbury, Alliston, and Espanola, as well as osteoporosis patient education for patients in Alliston, Fenelon Falls, Orangeville, Shelburne, and Markham. It also includes a Fibromyalgia patient education program for patients in Orangeville, Shelburne, Longlac, Mount Forest, Ignace, Cambridge, and Haliburton.

*Southlake* is engaged in making the journey for virtual care because it makes sense – for patients, for providers, and for organizations.





## Using virtual care in the journey for better mental health

*The Royal in Ottawa has spent the last year developing extensive partnerships with sites across the Eastern region of the province that have seen significant uptake of its Telemedicine program.*

More than 1,025 patients received virtual care at *The Royal* last year, a whopping 78% increase over the year before. This was made possible not only by the increased number of consultants and allied health care professionals using Telemedicine to provide care, but that all programs at *The Royal* are using Telemedicine in some capacity.

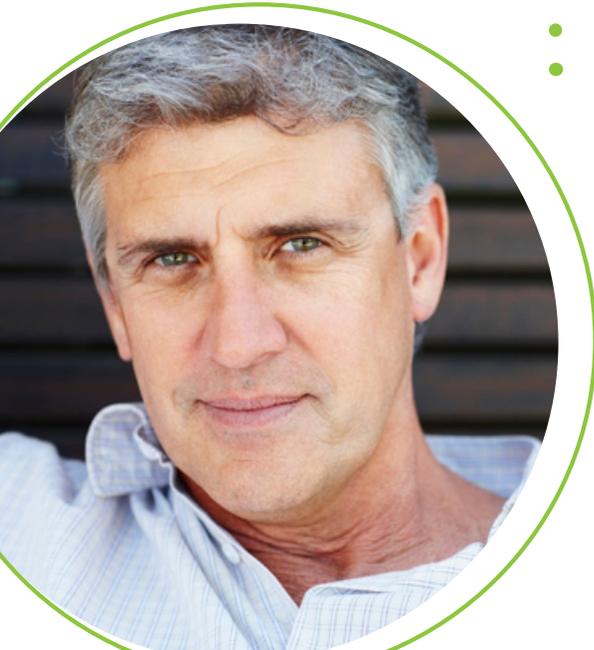
*The Royal* has established clinics with St. Francis Memorial Hospital (Barry's Bay), Deep River and District Hospital, Renfrew Victoria Hospital, Renfrew Community Mental Health and most recently, Carleton Place District Hospital.

*The Royal* has also started a number of exciting new virtual care initiatives, including the provision of weekly after-care sessions for clients of Meadow Creek rehab facility, and a support program for family members of Meadow Creek clients.

Using telemedicine to support education has long been part of *The Royal's* programming, and in addition to a wide variety of programs, they have recently added a program of GP education on addictions medications.

- *The Royal* is looking forward to expanding its virtual offering through the provision of mobile units, which will allow consultants to work directly from their office, rather than booking room-based systems.

The implementation of virtual care across its broad range of programming provides another venue for *The Royal* being a place - even at a distance - where lives are transformed.



## A virtual journey for patients and families

### *Thunder Bay Regional Health Sciences Centre uses virtual care to enhance the patient journey*

*Thunder Bay Regional Health Sciences Centre* in Northwestern Ontario serves a population of approximately 240,000 dispersed over an area roughly the size of France. Committed to patient and family-centred care, the *Centre* promotes the support of family and friends in the recovery of its patients. Having implemented a successful clinical telemedicine program, it wasn't a stretch, therefore, to think about how it might take that clinical success and extend it to include family and friends living at a distance from in-patients.

The *Centre* established the program with a view to connecting patients with families across a variety of circumstances – birth, death, health consults with physicians, and when visitor restrictions may be in place (for example, a viral outbreak like H1N1). Televisitation provides a way to ensure that the circle of care is as complete as possible, which is especially important for patients who may be in hospital for long periods of time. An in-patient or an out-patient residing in Thunder Bay for treatment, can avail of the service by asking any member of their care team to book the appointment through the *Centre's* Telemedicine Program. The service is available at the bedside or in studios to accommodate larger groups. For patients from First Nations communities, the *Centre* works with KO Telemedicine to organize the event.

In May of 2011, Accreditation Canada designated the *Centre's* Televisitation Program as a “leading practice”, one considered creative and innovative and demonstrating efficiency in practice and adaptable by other organizations. The *Centre* promotes its program in posters located across the hospital and has facilitated 55 virtual visits since November, 2011.

*Thunder Bay Regional Health Sciences Centre's* use of virtual care to enhance a patient's journey to better health is another reflection of its commitment to patient and family-centred care.



Did you know...

...more than 65 million kilograms of pollutants was avoided and nearly 26 million litres of fuel was saved by using Telemedicine?

Did you know...

...nearly 4,000 people completed OTN Training Courses? The most popular course this year was TM 101, with 823 course completions.

## OTN by the Numbers

Did you know...

....more than 1,600 Telemedicine sites can be found using the Telemedicine Directory Site Finder?

## Sites, Systems and Members

OTN membership provides access to the world's largest collaborative community of telemedicine-enabled organizations, enabling participation in clinical, educational and administrative events.

1,605 Sites

3,014 Systems

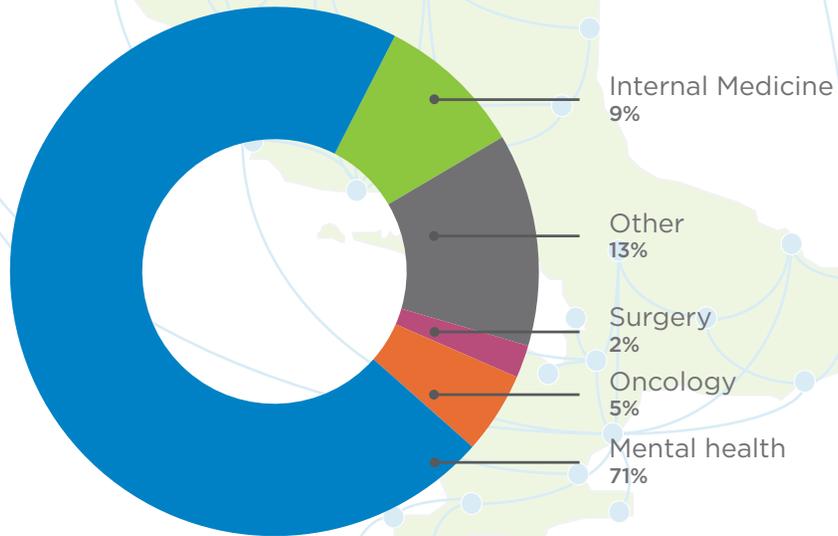
1,054 Members

## Maximizing the Value of Telemedicine



## Provincial Therapeutic Areas of Care

Telemedicine supports access to care across a wide variety of clinical therapeutic areas of care.



## Local Health Integration Network (LHIN) Activity

Ontario's 14 LHINs are responsible for planning, funding, and integrating health care tailored to local community needs within broader provincial strategic directions.

The chart represents a high-level summary of telemedicine distribution and activity across the LHINs in Ontario at the end of 2012/13.

Chart totals reflect LHIN activity only.

LHIN	Active Sites		Active Systems		Hosted Utilizations		Participated Utilization	
	#	%	#	%	#	%	#	%
1 Erie St. Clair	82	6	149	5	18,351	8	11,809	4
2 South West	176	11	356	12	10,450	4	15,894	5
3 Waterloo Wellington	77	5	120	4	15,178	6	6,064	2
4 Hamilton Niagara Haldimand Brant	137	9	234	8	7,646	3	16,005	5
5 Central West	20	1	29	1	3,254	1	11,487	4
6 Mississauga Halton	25	2	54	2	1,201	0	9,046	3
7 Toronto Central	103	6	313	10	6,472	2	46,579	15
8 Central	76	5	119	4	7,671	3	67,495	22
9 Central East	92	6	159	5	27,359	11	22,471	7
10 South East	128	8	238	8	17,218	7	10,077	3
11 Champlain	168	10	358	12	33,218	13	19,656	6
12 North Simcoe Muskoka	77	5	139	5	9,200	4	8,185	3
13 North East	273	17	478	16	58,341	22	40,876	13
14 North West	168	10	265	9	43,796	17	20,468	7
<b>TOTAL Ontario</b>	<b>1,602</b>		<b>3,011</b>		<b>259,355</b>		<b>306,112</b>	



# Board of Directors

Ray Marshall, **Chair**

Jean Bartkowiak

Anne Brace

Nancy Croitoru,  
President & CEO, *Food & Consumer Product of Canada*

Dr. Mark Guttman, **Vice-Chair**  
Director, *Centre for Movement Disorders*

David Murray, **Treasurer**  
CEO, *Sioux Lookout Meno-Ya-Win Health Centre*

Lynn Nagle, RN, PhD  
*Nagle & Associates Inc.*

Camille Orridge  
CEO, *Toronto Central LHIN*

Dr. Jeffrey Turnbull  
Chief of Staff, *The Ottawa Hospital*

Stephen Sorocky  
President, *Exigent Innovations Inc.*

Marcia Visser



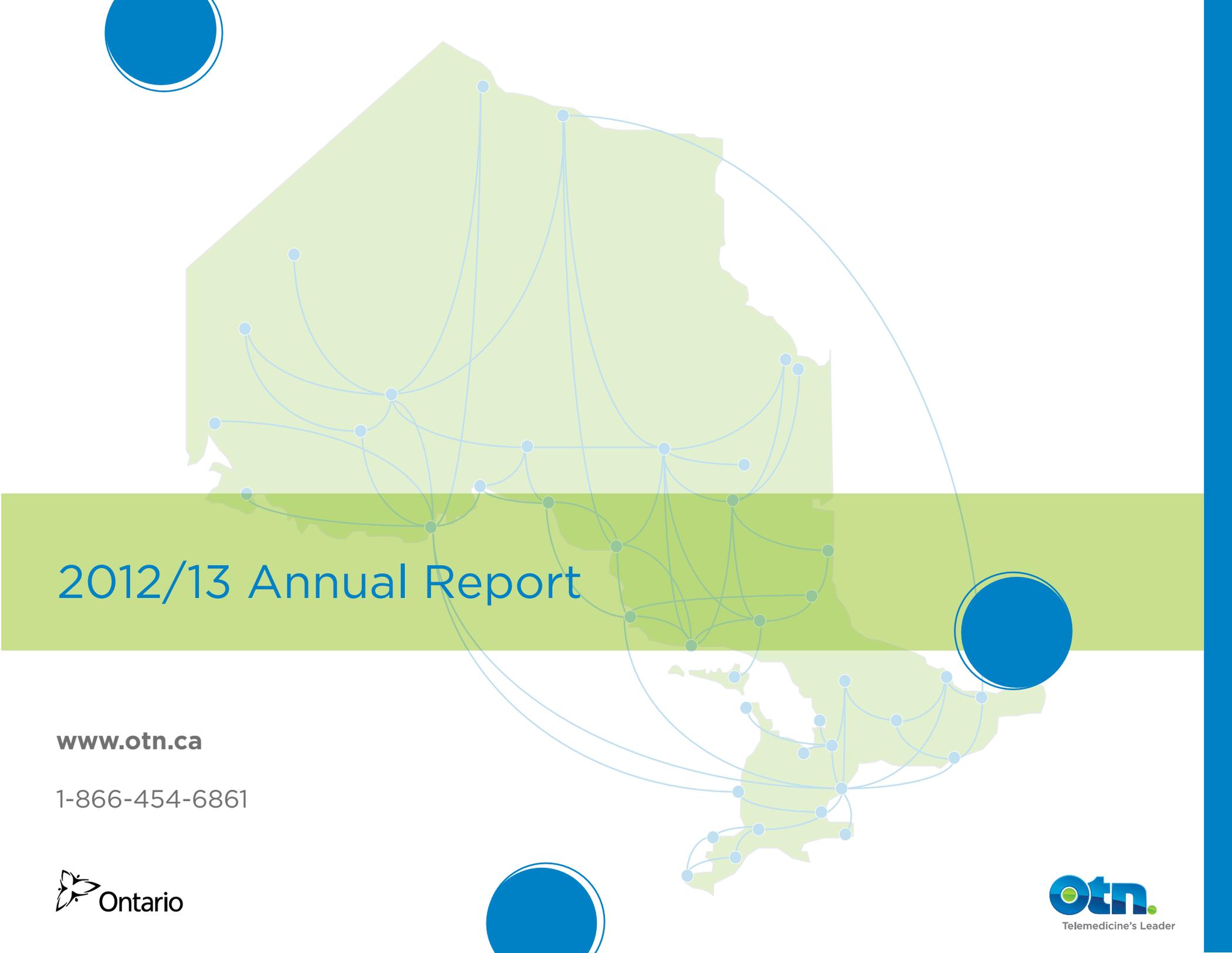
## Vision

OTN's vision is that Telemedicine will be a mainstream channel for health care delivery and education.

## Mission

To develop and support Telemedicine solutions that enhances access and quality of health care in Ontario, and inspires adoption by health care providers, organizations, and the public.





# 2012/13 Annual Report

[www.otn.ca](http://www.otn.ca)

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