



# Reaching beyond our walls:

## Creating new possibilities

HAMILTON HEALTH SCIENCES | 2013 - 2014 COMMUNITY REPORT







## Reaching beyond our walls: Creating new possibilities

We've all heard it. The prediction that our healthcare system is in trouble.

What many are overlooking is the remarkable resilience of healthcare providers across our community, our province and beyond.

With an unwavering commitment to the patients and families we serve, organizations like Hamilton Health Sciences are working together to find new solutions to old problems.

Conversations are happening. Collaboration is taking place. And solutions are emerging.

With optimism and energy, we're reaching beyond our walls to build new relationships and create possibilities that will advance care and improve outcomes.

Integration is a key word going forward - connecting the dots for our patients to ensure they receive the care they need, where they need it, when they need it.

Here at Hamilton Health Sciences, we are focused on the future, and we've set some very specific goals that we intend to achieve.

We believe that innovation is vital in order to reach these very ambitious goals.

We also see promise ahead, and many opportunities for change.

**Through this report, learn more about how we are preparing for the future with initiatives undertaken during this past year.**

**Paul Chapin**  
Chair, Board of Directors,  
Hamilton Health Sciences

**Rob MacIsaac**  
President & CEO,  
Hamilton Health Sciences



Visit this link: [vimeo.com/hamiltonhealthsciences/beyondourwalls](https://vimeo.com/hamiltonhealthsciences/beyondourwalls)





# CONTENTS

**5**  
Our Vision

**6**  
Seamless System

**10**  
Community Partnerships

**14**  
Patient & Family-Centred Care

**18**  
Patient Safety

**22**  
Quality & Performance

**26**  
Research

**30**  
Milestones

**32**  
Hamilton Health Sciences Care in numbers

**34**  
Financial Overview

**36**  
Hamilton Health Sciences Foundation

**38**  
Hamilton Health Sciences Volunteer Association



Reaching  
beyond  
our walls:  
Creating new possibilities



## Our vision is to provide the Best Care for All.

We will bring this vision to life through  
our five strategic goals, which are:

- to provide an excellent patient experience for all
- to be world leaders in moving evidence into practice to deliver the best patient care
- to be leaders in driving change to achieve a seamless healthcare system
- to be a leader in attracting and stewarding resources to advance our mission
- to be the organization of choice for talented people

We embark on this journey  
with our core values at the forefront  
of everything we do.

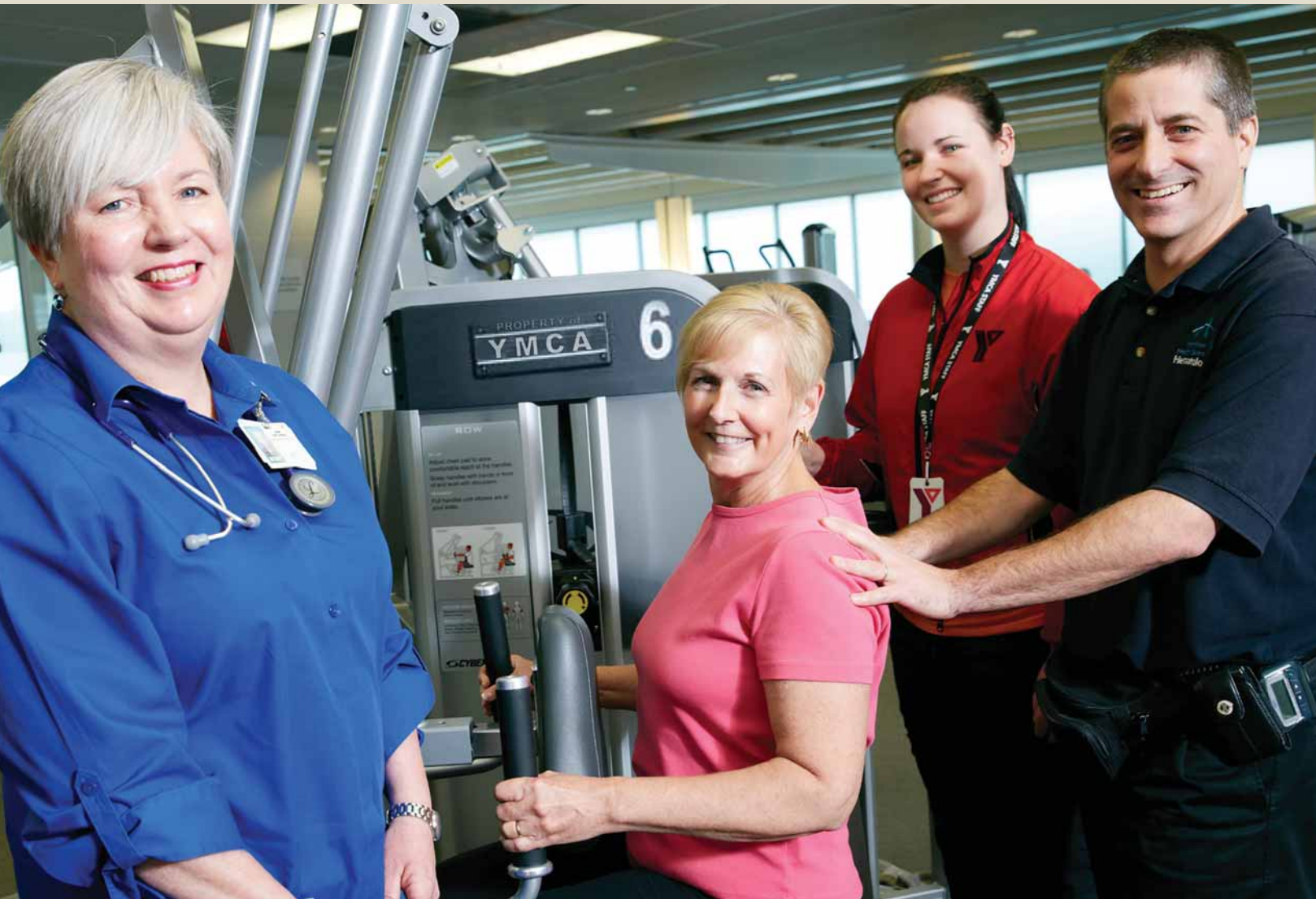
They are:

**Respect** | **Caring** | **Innovation** | **Accountability**



# Seamless System

Cathy (pictured, centre) works with staff and therapists in the LiveWell program at the YMCA. They helped her to stay active through her recovery from breast cancer.



Hamilton Health Sciences is pleased to lead and be part of a number of exciting initiatives which are aimed at improving the coordination of care for individuals in our region and beyond.

## SEAMLESS SYSTEM

### Health Links

In late 2012, the provincial government launched an initiative called Health Links. A Health Link is a voluntary collaboration between local health providers, community service agencies and organizations, and municipalities. Its purpose is to enhance the lives of seniors and individuals with complex conditions by doing a better job of coordinating and personalizing their care.

Hamilton Health Sciences is privileged to lead the Hamilton West and the Niagara North West Health Links. The Health Links include local healthcare providers such as family physicians, specialists, hospitals, long-term care, home care, and other community supports like educational providers, food banks, emergency medical and police services. Together, we are helping patients get the care they need when they need it and in the most appropriate setting. We are doing this by sharing patient information and developing solutions that address each patient's specific needs.

#### Health Links will ensure that patients:

- No longer need to answer the same questions asked by different providers
- Have support to ensure they are taking the right medications appropriately
- Have a care provider they can call, eliminating unnecessary visits to doctors' offices and emergency departments
- Have an individualized, comprehensive plan for every patient, developed with the patient and their care providers, with all involved in ensuring that the plan is being followed.

Over time, the Health Links are expected to improve the healthcare system by: reducing unnecessary hospital admissions and emergency department visits; reducing time between initial referrals to specialist appointments and first home care visits; reducing the time patients spend waiting for discharge from hospital to other kinds of care settings like long-term care homes; and enhancing the experience of the system for patients with the greatest healthcare needs.

### LiveWell Partnership

LiveWell is a unique partnership between the YMCA of Hamilton/Burlington/Brantford, McMaster University and Hamilton Health Sciences aimed at improving the health outcomes of people with cancer, a spinal cord injury, mobility impairment, heart disease, or who are recovering from stroke or heart attack.

The partnership links hospital care with community health and wellness programs. It is coordinated by staff from the YMCA and Hamilton Health Sciences, and is continually evaluated by McMaster University.

Following treatment for breast cancer at the Juravinski Cancer Centre, Cathy Webster (pictured in centre on p. 6) was encouraged to join the LiveWell program. "I was able to connect with other women who are going through what I am," says Cathy. "They gave me the support I needed to get through this. At the same time, I was able to stay connected to staff from Hamilton Health Sciences who monitored my progress and encouraged me to take care of myself."

More than 500 people benefit from this partnership each year.



# SEAMLESS SYSTEM

## ClinicalConnect™

In health care, as elsewhere in society, information sharing is more important today than ever before. Patients are cared for by many healthcare professionals, through a wide range of services, agencies and organizations.

Each step along the way, comprehensive and complex information is generated about the patient's condition and treatment. While this province's efforts to develop a common eHealth system has been challenging and, at times, controversial, HHS and its partners in south central Ontario have quietly built a system that will soon encompass one third of the population of the province.

It is called ClinicalConnect™ and it's a secure, online web portal that gives healthcare providers real-time access to their patient's medical information. Already, the ClinicalConnect network includes 28 hospitals plus two Community Care Access Centres and Cancer Centres in two Local Health Integration Networks (Hamilton Niagara Haldimand Brant, and Waterloo Wellington.) Two more LHINs are coming on board next (Southwest, and Erie St. Clair.) That will bring 71 hospitals and 1,800 health organizations online, and include 3.6 million patients.

Through ClinicalConnect™, healthcare providers can access a patient's medical information – lab results, diagnostic tests, allergies, treatment plans, hospital discharge summaries, and much more – anytime, anywhere on a desktop computer or portable device. In addition to improved access to patient information, care providers can continually update the online health record throughout a patient's health journey, further enhancing the flow and quality of information.

For patients and their family members, ClinicalConnect™ eliminates the need for them to recount vital and accurate information in stressful situations. In addition, care providers can instantaneously share X-ray, lab and other digital test results with patients, encouraging greater collaboration around a patient's care plan.

## Integrated Decision Support (IDS) Business Intelligence Portal

Hamilton Health Sciences and the Hamilton Niagara Haldimand Brant Local Health Integration Network have developed a high level information sharing system that, like ClinicalConnect™, has created a great deal of interest and engagement across Ontario.

It is called IDS – Integrated Decision Support – and it provides health system planners and leaders with data about how patients receive care in hospitals, rehabilitation centres, acute mental health facilities, complex care centres, Community Care Access Centres and some Community Health Centres. This allows doctors and other healthcare professionals to better understand patients' needs and better manage services. Ultimately, this sharing of information improves the way patients experience care, and improves their outcomes.

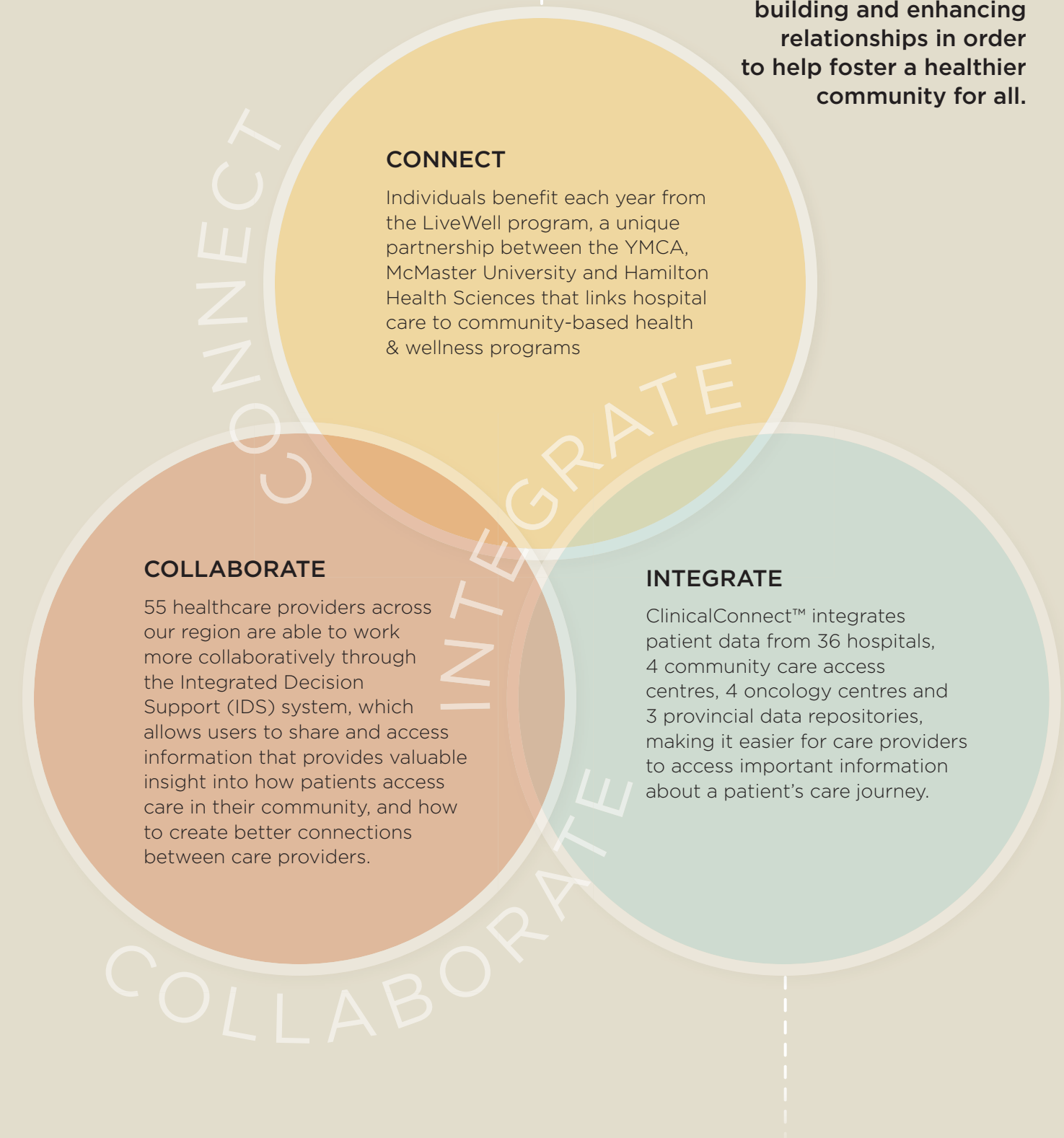
The Integrated Decision Support (IDS) system is emerging as an important tool the province's new Health Links program (see story page 7). In our region, the Hamilton West Health Link utilized IDS to identify individuals whose lives could be enhanced through improved coordination of care among providers in their community.

IDS also has participants in Toronto Central LHIN, South West LHIN, and parts of Waterloo Wellington LHIN.

# SEAMLESS SYSTEM

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Some of the ways we're  
building and enhancing  
relationships in order  
to help foster a healthier  
community for all.



# Community Partnerships

On June 26, 2013 the Hamilton Niagara Haldimand Brant Regional Cancer Program Screen for Life Coach made its official debut in the McQuesten neighbourhood in North Hamilton.



Our diverse, collaborative partnerships with organizations across our community and region enable us to achieve a higher level of care and service to the people we serve, and a healthier community for us all.

## COMMUNITY PARTNERSHIPS

### All aboard for improving access to cancer screening

The Hamilton Niagara Haldimand Brant Regional Cancer Program is making it possible for more people to get on board with breast, colorectal and cervical cancer screening with the launch of the Screen for Life Coach, which rolled into Hamilton on June 26, 2013.

The Screen for Life Coach is about the size of a large passenger bus and is fully equipped with state-of-the-art digital mammography technology, and is supported by allied health professionals trained to perform Pap tests and provide cancer screening consultations. Fecal Occult Blood Test kits, the at-home test for colorectal cancer screening, are also available to patients who meet the eligibility criteria.

The coach is modeled after the very successful northern Ontario coach that has been traveling to remote areas, offering mammography in those communities since 1992. This is the first time that cervical and colorectal screening has been made available in a mobile screening coach.

The Screen for Life Coach program is focused on reaching under- or never-screened women, 50 to 74 years old, who may face cultural, social and other barriers that make it difficult for them to participate in screening. During the initial year of its launch, the coach is serving priority areas which include McQuesten, Keith/Jamesville and Riverdale neighbourhoods in North Hamilton.

Services offered through the Screen for Life Coach are offered in partnership with Hamilton Public Health, the Creating Access to Screening and Training in the Living Environment (CASTLE) project and other community planning teams.



### The Screen for Life Coach provides screening services for:

- cervical cancer
- breast cancer
- colorectal cancer

### The Coach is equipped with:

- a full-field digital mammography suite
- an exam room
- two change rooms
- wheelchair accessibility
- calming neutral decor
- running water
- two back-up generators
- Wi-Fi to support information systems and communications



# COMMUNITY PARTNERSHIPS

## Growing in the community, together

Over the last year, Hamilton General Hospital (HGH) has embarked on several community engagement projects to explore different ways of providing support to those less fortunate living in the immediate neighbourhood surrounding the hospital.

“As members of the healthcare community, we often serve those who are most vulnerable,” says Teresa Smith, president, Hamilton General Hospital. “The General is situated in Hamilton’s northeast community, which has with many strengths, but is also facing many challenges. As healthcare providers and as neighbours, we are well aware of those challenges and we want to help.”

One such challenge is the community’s reliance on food banks and its lack of fresh produce. Hamilton General Hospital staff volunteer at the Hamilton Victory Gardens, a non-profit team that grows fresh produce on raised garden beds on unused land throughout the city for food banks and hot meals programs.

Barb Klassen, trauma prevention coordinator at HGH, was among the 15 staff members and five Regional Rehabilitation Centre patients who volunteered over three days in Fall 2013. They prepared beds for replanting and harvested vegetables.

“What an experience,” said Barb. “It was a beautiful day and a great opportunity to discuss and learn about agriculture, food resources, growing conditions and small space utilization in urban settings, while helping in the community.”



## Put a lid on it! – Hamilton Helmet Initiative

Head injuries are the leading cause of serious injury and death in children. A properly fitted helmet can reduce brain injury by 88 per cent, and can prevent bicycle-related deaths in children by 75 per cent.

A new collaboration between Hamilton Public Health Services, McMaster Children’s Hospital, and Hamilton Police Services, is aimed at reducing brain injuries by increasing helmet use and skill development in the community.

“Although it’s the easiest way to prevent serious head injuries and even death, many children and adults in our community do not wear their helmets when riding,” says Dr. Karen Bailey, pediatric trauma surgeon at McMaster Children’s Hospital.

The Hamilton Helmet Initiative is committed to providing education, tools and resources to individuals and families across Hamilton.

To date, the Hamilton Helmet Initiative has facilitated the purchase of more than 12,000 high-quality bike and multi-sport helmets to Hamilton-area families and schools.

“Your brain is you,” says Dr. Bailey. “It only makes sense to put a lid on it!”

# COMMUNITY PARTNERSHIPS

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# Patient & Family-Centred Care

Maria Restivo, child life specialist at McMaster Children's Hospital uses a medical play doll with Keaton to help him understand his treatment.



Providing the best experience means supporting and relating to each of our patients in ways that are unique as they are.

## PATIENT & FAMILY-CENTRED CARE



### End-of-life care: The most important conversation

One of the biggest challenges facing hospitals, and indeed society itself, is ensuring that people die in the setting they prefer, whether that be at home, in a hospice, or a hospital. How they would like to spend their last days is one of the most important conversations those patients and their families and caregivers will ever have.

We know that there are several barriers preventing effective communication around end-of-life goal setting. This can lead to a disconnect between a patient's wishes and the treatment they actually receive. These barriers can include: patient and family members' lack of acceptance of prognosis; language barriers; lack of an available substitute decision-maker; or, a healthcare providers' lack of experience, time, and training to address end-of-life care effectively.

Hamilton Health Sciences is committed to ensuring all patients at HHS receive end-of-life care that is compassionate and respectful.

In 2009, HHS established the Quality End of Life (QEoL) Taskforce. One of its initiatives has been an end-of-life protocol that sets out a standardized approach to resuscitation orders.

More than ever, quality end-of-life care is at the forefront of what we do every day, as part of our vision to provide the best care possible for our patients throughout their care journey and in all chapters of their lives.

### Artful Moments: Supporting personhood through art therapy

By combining specialized strategies for dementia care with art appreciation and art-making activities, "Artful Moments" explores how art can help to create a world of in-the-moment engagement and enjoyment for patients with dementia. This new program is a unique partnership between St. Peter's Hospital (SPH) and Foundation and the Art Gallery of Hamilton.

Despite the cognitive and physical impairments that can be caused by dementia, it's important to remember that persons affected by the disease have emotions, social relationships and a personal history. They want and need to express themselves. The "Artful Moments" program uses art therapy to support creativity and feelings of self-worth, and to offer comfort and stimulation, even when individuals are unable to communicate verbally.

"We're committed to ensuring that our patients are able to have the best life possible," says Rebecca Repa, president of SPH. "Artful Moments" is motivated by a deep respect and understanding that personhood is an essential element to dementia care."



# PATIENT & FAMILY-CENTRED CARE



## Mindfulness at Hamilton Health Sciences: Increasing our capacity to care

There is a quiet revolution going on at Hamilton Health Sciences. The weapon of choice? Stopping and breathing.

Healthcare workers are extraordinary—they embrace the care of others, sometimes at the expense of their own well-being. Supporting patients and families in heart-wrenching situations every day and working to improve care in a complex and chaotic system, takes its toll. Studies confirm that many helping professionals experience high levels of “compassion fatigue”, a profound emotional and physical exhaustion that occurs over the course of a career when workers are not adequately refueled or recharged to meet the needs of their roles, colleagues and patients.

Over the past three years, Hamilton Health Sciences (HHS) has partnered with the McMaster University Program for Faculty Development (PFD) to offer staff, physicians, students and faculty access to courses designed to alleviate compassion fatigue and promote resilience. Since its inception in 2011, over 200 HHS staff and physicians have participated in the Mindfulness-Based Stress Reduction (MBSR) program.

“The first step to alleviating compassion fatigue is awareness of one’s physical and mental state. Awareness is cultivated through mindfulness, which means bringing full attention to the present moment, in a non-judgemental way,” says Dr. Andrea Frolic, director of the office of clinical & organizational ethics at HHS. “These courses are designed to support frontline care providers and leaders in developing a repertoire of practices to reduce stress and enhance resilience.

“Even when there isn’t time for a formal break, being mindful allows me to take a break from the sometimes chaotic ward by stopping my mind, even for half a minute,” says Bonnie Buchko, physiotherapist at Hamilton General Hospital who completed the MBSR program. “This helps me recharge and be able to enter my next patient encounter with greater focus and presence.”



## Expanding our capacity to care

More than 200 HHS staff members and physicians have participated in Mindfulness-Based Stress Reduction, a program designed to support frontline care providers and leaders in reducing stress and enhancing resilience.

200+



## A voice in what matters

Patient & Family Advisory Councils provide a forum for information sharing between hospital staff and patients and their families, helping to contribute to the understanding and improvement of patient-centred care and the patient/family experience.

## Empowerment through play

At McMaster Children’s Hospital, child life specialists use specially-made medical dolls to help teach young patients about different treatments and procedures, encouraging them to develop a sense of control and ease around their hospital experience.



## Supporting the person behind “the patient”

New initiatives such as the “Artful Moments” art therapy program at St. Peter’s Hospital support and encourage each patient’s unique needs and sense of self-worth, helping to foster better outcomes and a more positive hospital experience.

## PATIENT AND FAMILY-CENTRED CARE

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beyond  
our walls:  
Creating new possibilities

# Patient Safety

In January 2013, McMaster Children's Hospital led the largest-known hospital simulation exercise to prepare for the opening of the second phase of its new pediatric emergency department.



Making our hospitals as safe as possible for our patients means understanding how mistakes occur and finding innovative, efficient solutions to prevent them from happening in the future.

## PATIENT SAFETY

### Reducing transmission of antibiotic resistant organisms

Antibiotic resistance is a concern for hospitals all over the world. Antibiotic resistance occurs when bacteria in the body change in a way that prevents antibiotics from effectively fighting them. This can happen when bacteria are repeatedly exposed to the same antibiotics, or when bacteria are left in the body after taking antibiotics (particularly, when someone does not finish a full round of antibiotic medicine). These bacteria can multiply and become strong enough to resist the antibiotic in the future, increasing the risk of infection and transmission.

In February 2014, Hamilton Health Sciences modernized its identification and flagging process for patients with antibiotic resistant organisms (AROs) such as staph bacteria, C-difficile and other potentially deadly infections. This revised process helps to reduce error and increase communication about ARO patients.

The ARO flag will automatically appear in a patient's chart, so that the information is clearly visible to registration staff once the patient arrives in hospital. This allows for better communication of the patient's history and increased monitoring throughout their care journey.

Staff can more effectively monitor antibiotic treatment and carry out appropriate preventative procedures when caring for an ARO patient, increasing safety of both the patient and the caregiver.



### Hamilton Early Warning Score: Catching in-hospital cardiac events before they happen

A new project at Hamilton Health Sciences has taken the act of monitoring vital signs to a whole new level.

The "Hamilton Early Warning Score" is an innovative project modelled after systems introduced in the United Kingdom and modified to suit patients in Hamilton hospitals. A patient's vital signs are assigned a score reflective of what is considered "normal" and "not normal". Using a strategy called "track and trigger", staff can respond promptly to vital sign scores that are not normal and indicate that a risky situation is developing.

The preliminary results following implementation at HHS have been impressive and have resulted in a 50 per cent decrease of in-hospital cardiac arrests.

"It's a unique program that adds an extra layer of safety for patients," says Dr. Alison Fox-Robichaud, a critical care physician and project lead.



# PATIENT SAFETY

## McMaster Children's Hospital leads largest known hospital simulation exercise in North America

It's January, 2013, and a three-week-old patient arrives at the McMaster Children's Hospital (MCH) emergency department crying, and begins to vomit as doctors, nurses and staff try to assess the cause. Only, the patient isn't real. She's a mirror image of the real child who came into the emergency department only a short time earlier, on the other side of the department.

This simulation exercise tested the final phase of the new children's emergency department before it opened to patients in January 2013. But it's not like anything ever tried before. In fact, this is the largest known hospital simulation exercise in North America, a unique mirroring of what's really happening in the emergency department duplicated with simulation dolls and actors in near real time.

"The best way to create a typical day is to use a typical day," explains Dr. Ehud Rosenbloom, pediatric emergency physician at MCH. The day earned the team first place for a Program Innovation Abstract from the 2014 International Meeting of Simulation in Healthcare. It also ensured the new space would be safe when it opened the following month to our young patients.



## Pharmacy robotics: Minimizing medication errors

The mechanism itself is so big that it fills an entire room. But it can define and count the smallest of pills. Pharmacy robotics improve individual patient safety by reducing medication errors.

Hamilton Health Sciences' first robotic pharmacy went live at St. Peter's Hospital in June 2013, and a second is scheduled to be operational at the Hamilton General in September of this year. The Juravinski Cancer Centre is also planning for a robotic chemotherapy pharmacy.

Each robot holds many different medication types and can dispense as many as 1,000 doses per hour. But those aren't the impressive numbers. According to the patient safety literature, about 23 per cent of hospital errors are related to medication errors, and 14 per cent of those occur at the dispensing time. Already, the St. Peter's technology has created a 99.9 per cent accuracy rate at the dispensing point.

All of this will provide more time for pharmacists to interact on a personal level with patients, creating not only a better patient experience, but another way to improve patient safety.

## PATIENT SAFETY

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99.9%

**accuracy rate**  
offered by new robotic pharmacy  
dispensing system at St. Peter's Hospital

50%

**reduction in Code Blue  
(cardiac arrest)**  
shown in preliminary analysis  
of Hamilton Early Warning  
Score pilot project



please wash your hands

## Largest known hospital simulation exercise

led by McMaster Children's Hospital  
emergency department in January 2013

In 2013, a hand hygiene awareness poster campaign created by the pediatric intensive care unit team at McMaster Children's Hospital was the **winning selection** in the Canadian Patient Safety Institute's "Stop! Clean Your Hands Day" contest.





# Quality & Performance

Sue Swayze, nurse clinician at Juravinski Hospital and case manager with the Seniors Mobile Assess Restore (SMART) pilot project meets with one of her patients.



“Each of our facilities will be providing the highest quality care for every patient. It aligns with our vision of best care for all.”

**Dr. Richard McLean** – executive vice president of inter-professional practice & chief medical executive.

## QUALITY & PERFORMANCE

### Quality-Based Procedures enhance quality and efficiency of care

In Ontario, there is a shift toward providing funds to hospitals that can demonstrate they are providing care that is of high quality, efficient and based on the latest, scientific evidence. The provincial government has instituted a new review and improvement process that examines specific procedures and treatments. They are called Quality-Based Procedures or “QBP”.

Properly designed and implemented QBPs will result in process improvements, enhanced patient experience and outcomes, as well as cost savings.

This work is foundational to providing the best care and to balancing our organization’s budget in the future. Hamilton Health Sciences is pursuing the implementation of four QBPs: congestive heart failure, chronic obstructive pulmonary disease, non-cardiac vascular procedures, and stroke. Preliminary investigation has also begun on two additional QBPs: chemotherapy treatment and endoscopy.

“Our work in designing and implementing Quality-Based Procedures exemplifies HHS’ commitment to managing our organization’s resources in a way that is fiscally responsible and offers the best possible outcome for our patients,” says Dr. Dick McLean, executive vice president of inter-professional practice and chief medical executive. “Each of our facilities will be providing the highest quality care for every patient. It aligns with our vision of best care for all.”



### PAWS: A unique approach to improving hand hygiene

Hand hygiene is an important step in the patient care process to reduce the spread of infections. As healthcare providers, washing our hands is one of the easiest ways we can help to protect our patients, colleagues, hospital visitors and ourselves from infections and communicable disease.

In 2013, the McMaster University Medical Centre Hand Hygiene Committee launched “PAWS”, a code word that staff members and physicians can use to remind each other to wash their hands. The code word is another tool that will help us improve our hand hygiene rates.

PAWS is an acronym for “Please Attend Wash Station”, but also implies to take a pause, or to wash your “paws” (i.e. hands). Staff and physicians can use this word to remind their colleagues to wash their hands, if they have forgotten to do so, in a way that is positive and non-punitive.



## QUALITY & PERFORMANCE

### A 'SMART' approach to seniors' care

For an elderly patient, a lengthy hospital stay can heighten the risk of conditions such as delirium and physical de-conditioning due to reduced independence and physical mobility. At Hamilton Health Sciences, we have several strategies in place that help us create a stimulating, supportive environment for our senior patients to ensure the best possible outcomes.

In January 2014, Hamilton Health Sciences (HHS) received one-time funding to pilot the Senior's Mobile Assess Restore (SMART) program, aimed at creating seamless transitions through hospital and reducing the length of hospital stay for senior patients. The program involved a dedicated, inter-professional team that monitored the progress of patients throughout their hospital stay and, ultimately, their discharge back into the community.

Case managers followed each patient closely, screening for complications that relate to their physical and psychological well-being, including: mobility, medication, nutrition, hydration, pain, cognition and psycho-social. When necessary, patients received further assessment and intervention from a SMART team member, including physiotherapy, occupational therapy, social work, nursing, and/or pharmacy. Results from the first SMART pilot, which was completed in March 2014, showed promise. The mobile assess restore approach may actually help to reduce hospital readmissions and length of stay.

### "Time is brain" – Evidence-informed practice in stroke care

In stroke care, there's a saying that "Time is brain" after a stroke occurs. In fact, one to two million brain cells die for every minute blood flow is cut off to the brain. To optimize outcomes following a stroke, patients receive tissue plasminogen activator, or tPA, a blood clot-busting pharmaceutical administered by injection. To maximize the effectiveness of tPA, provincial and national benchmarks suggest that the drug be administered to patients within 60 minutes of the stroke.

At HHS, the Emergency Stroke Care Quality Improvement Committee has led a thorough quality improvement project to bring HHS below the provincial 60-minute "door-to-needle" (DTN) benchmark. The committee identified barriers and bottlenecks in efficiency in tPA treatment and found areas for improvement.

Since the implementation of the project, HHS has seen a 28-minute reduction in its median DTN time, from 67 to 39 (as of Oct. 30, 2013). This means more patients receive tPA within the 60-minute benchmark, enhancing patient recovery.

"This remarkable reduction in our stroke thrombolysis door-to needle times could not have been achieved without the outstanding commitment of all staff involved in the process," says Louise MacRae, director for the Central South Regional Stroke Program.

"I'm proud that our team is a top performer in the country, but more proud that patients have a better chance of recovering from their stroke," says Dr. Wes Oczkowski, neurologist at Hamilton General Hospital and medical director for the Central South Regional Stroke Program.

## QUALITY & PERFORMANCE

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our walls:  
Creating new possibilities

## SMART

### Outcomes for Senior Patients

In winter 2014, HHS received one-time funding to pilot the Senior's Mobile Assess Restore (SMART) program, a case management-based approach to fostering successful transitions and reducing the length of hospital stay for senior patients.



### Quality-Based Procedures

In 2013-14, HHS pursued the implementation of four "quality-based procedures", involving multidisciplinary teams in an evaluation procedure or process to better understand the patient's experience and identify opportunities for quality improvements and increased efficiency. In the coming years, we will do more, gradually building a comprehensive set of best practice standards for numerous treatments and procedures.

### Medical Directives for nursing care

The Main Street West Urgent Care Centre (UCC) recently became one of the first regional centres to implement medical directives for nurses, the first two of which allow UCC nursing staff to order X-rays and perform extremity splinting under the direction of a physician. This is helping to improve the flow of patients through the centre.



28 min.  
REDUCTION IN WAIT TIME

### Stroke Care

Through Lean Six Sigma methodology, HHS' Emergency Stroke Care Quality Improvement Committee generated a 28-minute reduction in the time between when a stroke patient arrives in the emergency department to when they receive the clot-busting drug, tPA. This improves outcomes for patients who have had strokes.



# Research

Dr. P.J. Devereaux, HHS cardiologist and researcher at Population Health Research Institute, takes a patient's pulse.



Our exceptional track record of lab-to-bedside innovation has earned us recognition as one of the world's leading health science research organizations.

## RESEARCH

### Research & Teaching

Hamilton Health Sciences is more than a family of local healthcare facilities. Patients from across Ontario are referred to our hospitals to receive treatment they can't get at home. To continue this tradition of excellence into the future, we are helping to develop the next generation of highly advanced and specialized care providers.

- We are a referral centre for highly advanced and specialized care. Patients come to our hospitals from across south central Ontario, and beyond, to receive treatment they can't get at home.
- We are also a living classroom for the next generation of healthcare professionals. Students from McMaster University, Mohawk College and other educational institutions gain valuable experience by learning how to care for patients under the careful guidance of our talented and committed staff.
- The third, vital component of our mission is research. Hamilton Health Sciences is one of the most prolific and respected health research institutions in the world. We have earned that reputation through many years of success in leading ambitious, innovative studies that have changed health care everywhere and saved countless lives. To learn more, visit <http://www.hhsresearchadmin.ca/>

Patient care, teaching and research – together they make Hamilton Health Sciences stronger. Together they make the care we provide the best it can be.

### The truth about Aspirin and clonidine use prior to non-cardiac surgery

Worldwide, 200 million adults undergo major noncardiac surgery annually and 10 million of these patients will suffer a major heart-related complication.

Dr. P.J. Devereaux, HHS cardiologist and Population Health Research Institute researcher (pictured, p. 26) spearheaded two international studies to evaluate whether two commonly used drugs – Aspirin and clonidine – used around the time of surgery are effective in reducing major heart related complications after noncardiac surgery.

These very large studies enrolled more than 10,000 patients at 135 institutions in 23 countries. The findings concluded that neither Aspirin nor clonidine was effective in preventing heart attacks after surgery, but that there are side effects associated with the administration of both interventions.

“These results can benefit patients immediately in that physicians can now have patients stop their aspirin prior to surgery and this will decrease their risk of a major bleeding event. Likewise, anesthesiologists can stop using clonidine in the surgical setting,” said Dr. Devereaux.

“Moreover, these studies provide important insights that inform new ideas for decreasing the risk of complications after surgery.”

Findings of these studies were featured in the New England Journal of Medicine.





# RESEARCH



## GERAS: The newest addition to HHS' research centres

A dedicated team of experts at St. Peter's Hospital and McMaster University have come together in a research venture that will focus on aging. The St. Peter's Geriatric Education and Research in Aging Sciences (GERAS) Centre will aim to improve the quality of living for seniors with chronic diseases through innovative research. They will also educate health professionals who care for seniors, and develop and evaluate educational health promotion strategies that enhance quality of life, function and independence for seniors and their families.

"The GERAS Centre demonstrates the respect our team of experts has for older adults and the commitment we have to providing exemplary care in geriatrics," says Dr. Alexandra Papaioannou, geriatrician, St. Peter's Hospital; professor of medicine, McMaster University and scientific director of GERAS. "This work acknowledges the link between research, practice and education and the importance of quickly implementing evidence-based strategies that will make a difference to patients."

## Dr. Salim Yusuf: Transforming the treatment and prevention of cardiovascular disease around the world

Each year, more than 17.5 million people die from cardiovascular disease globally. Dr. Salim Yusuf, Executive Director of Population Health Research Institute (PHRI), is an internationally renowned cardiologist and epidemiologist whose work over 35 years has changed the way cardiovascular disease is prevented and treated all over the world.

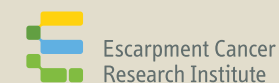
More than one million patients in 85 countries have been involved in the massive clinical studies that are the hallmark of PHRI.

The work led by Dr. Yusuf and his colleagues improved our understanding of risk factors for heart disease and strokes and tested drugs to reduce mortality from these conditions. His current work explores the role of the environment, health policies and health systems in influencing cardiovascular disease mortality globally.

Dr. Yusuf's influence on international researchers is perhaps one of his most enduring gifts. By involving researchers in collaborative networks, and by providing practical training in the conduct of productive research projects, he has helped an astounding number of research fellows advance their own work.

### Prestigious honors for Dr. Yusuf in 2013/14

- 2014 The Canadian Gairdner Wightman Award
- 2014 Canadian Medical Hall of Fame
- 2013 J. Allyn Taylor International Prize in Medicine
- 2013 The Order of Canada
- 2013 President Elect World Heart Federation (Dr. Yusuf was elected president taking effect January 2015.)



## RESEARCH AT HHS: IN OUR COMMUNITY AND AROUND THE GLOBE

Reaching beyond our walls:  
Creating new possibilities



### Population Health Research Institute (PHRI)

(located in the David Braley Cardiac, Vascular & Stroke Research Institute)

**EXECUTIVE DIRECTOR:**  
Dr. Salim Yusuf

#### RESEARCH FOCI:

- Cardiovascular Research
- Stroke, Diabetes, Genomics Research
- Population Sciences and Clinical Trials

### Thrombosis and Atherosclerosis Research Institute (TaARI)

(located in the David Braley Cardiac, Vascular & Stroke Research Institute)

**EXECUTIVE DIRECTOR:**  
Dr. Jeffrey Weitz

#### RESEARCH FOCI:

- Basic to Bedside Research
- Blood Disorders, Cardiac, Stroke, DVT, Pulmonary Embolism

### Escarpment Cancer Research Institute (ECRI)

(located at the Juravinski Hospital & Cancer Centre)

**SCIENTIFIC DIRECTOR:**  
Dr. Mark Levine

#### RESEARCH FOCI:

- Translational Research
- Clinical Trials
- Quality Health Care and Knowledge Translation

### Offord Centre for Child Studies

(located at the Chedoke Hospital)

**DIRECTOR:**  
Dr. Michael Boyle

#### RESEARCH FOCI:

- Determinants of child mental health and functioning
- Programs and policies to improve child mental health

### Geriatric Education and Research in Aging Sciences (GERAS)

(located at St. Peter's Hospital)

**SCIENTIFIC DIRECTOR:**  
Dr. Alexandra Papaioannou

#### RESEARCH FOCI:

- Frailty, Falls and Fractures
- Dementia and Delirium
- End of Life Care



# Milestones

Reaching  
beyond  
our walls:  
Creating new possibilities

## June 26, 2013

On June 26, 2013, the Screen for Life Coach made its public debut in the McQuesten neighbourhood in North Hamilton. The state-of-the-art coach provides screening services for breast, cervical and colorectal cancers.

## September 16, 2013

On September 16, 2013, McMaster Children's Hospital celebrated its 25th anniversary with a "Day in the Life" photo celebration, which had a group of photographers capturing moments of care throughout the hospital. Community members followed along on

social media, where the photographers' photos were shared near real time.

## September, 19 2013

St. Peter's Hospital and Foundation, along with McMaster University launch the Artful Moments art therapy program

## October 16, 2013

St. Peter's Hospital and the HHS research community celebrate the launch of the new Geriatric Education and Research in Aging Sciences (GERAS) Centre



## December 4, 2013

Mark Farrow, vice president and chief information officer (CIO) at HHS, CIO at St. Joseph's Healthcare Hamilton, and CIO & eHealth lead at Hamilton Niagara Haldimand Brant LHIN, is named one of Computerworld Magazine's Premier 100 IT Leaders

## February 1, 2014

Rob MacIsaac is welcomed as the new president and CEO of Hamilton Health Sciences

## February 6, 2014

West Lincoln Memorial Hospital officially joins the Hamilton Health Sciences family

## June 23, 2014

The Boris Clinic is an innovative adult outpatient unit for general internal medicine that combines both patient care and teaching. The first phase opened on June 23, 2014 for diabetes patients and those requiring assessment after emergency visits. The second phase will bring adult specialists in general internal medicine under one roof in 2015.







11,780  
employees



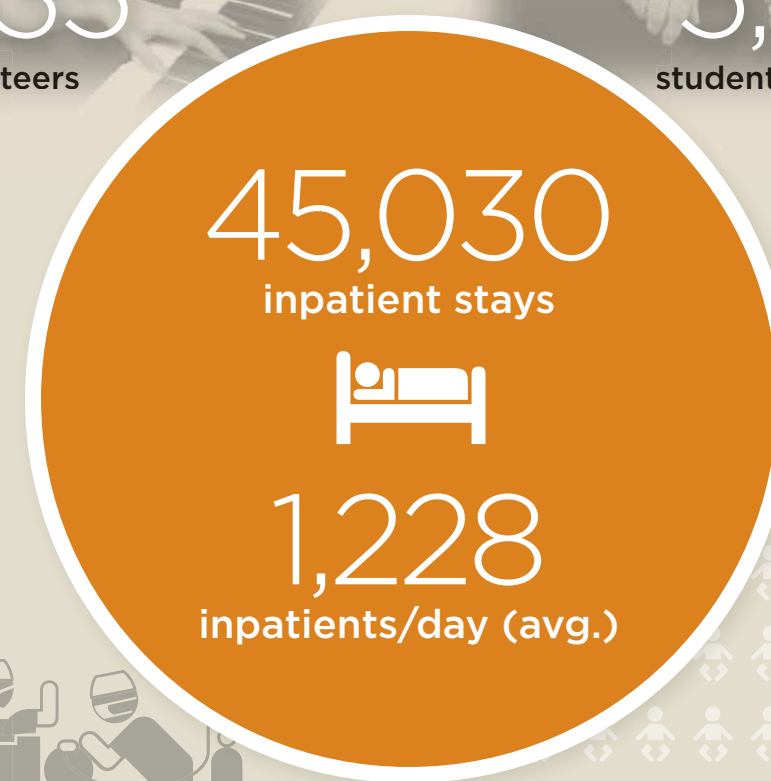
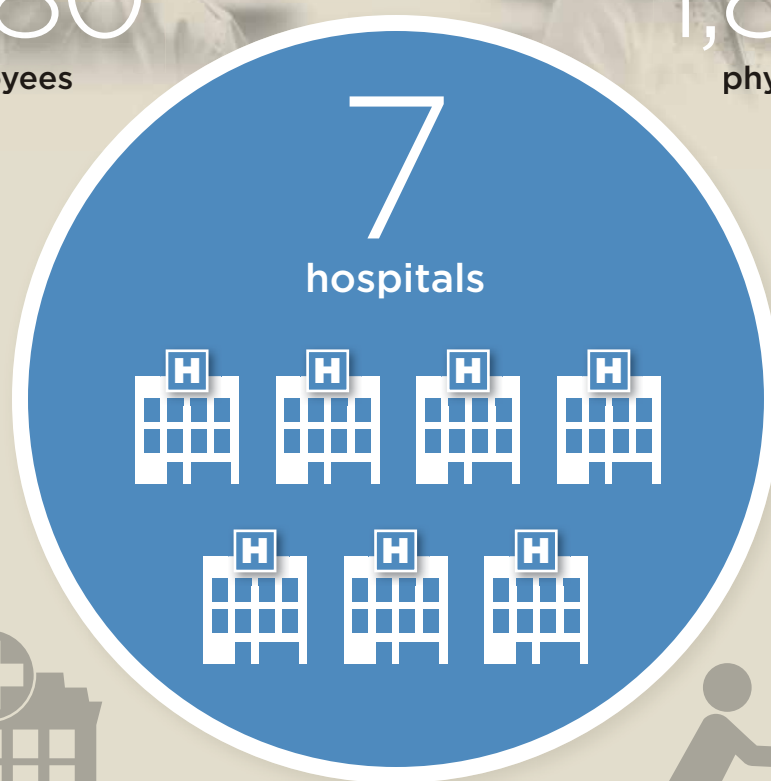
1,899  
physicians



1,535  
volunteers



5,315  
student placements



152,131  
emergency room visits



683,630  
ambulatory visits



24,576  
surgeries

51,036  
surgical hours



3,800  
births

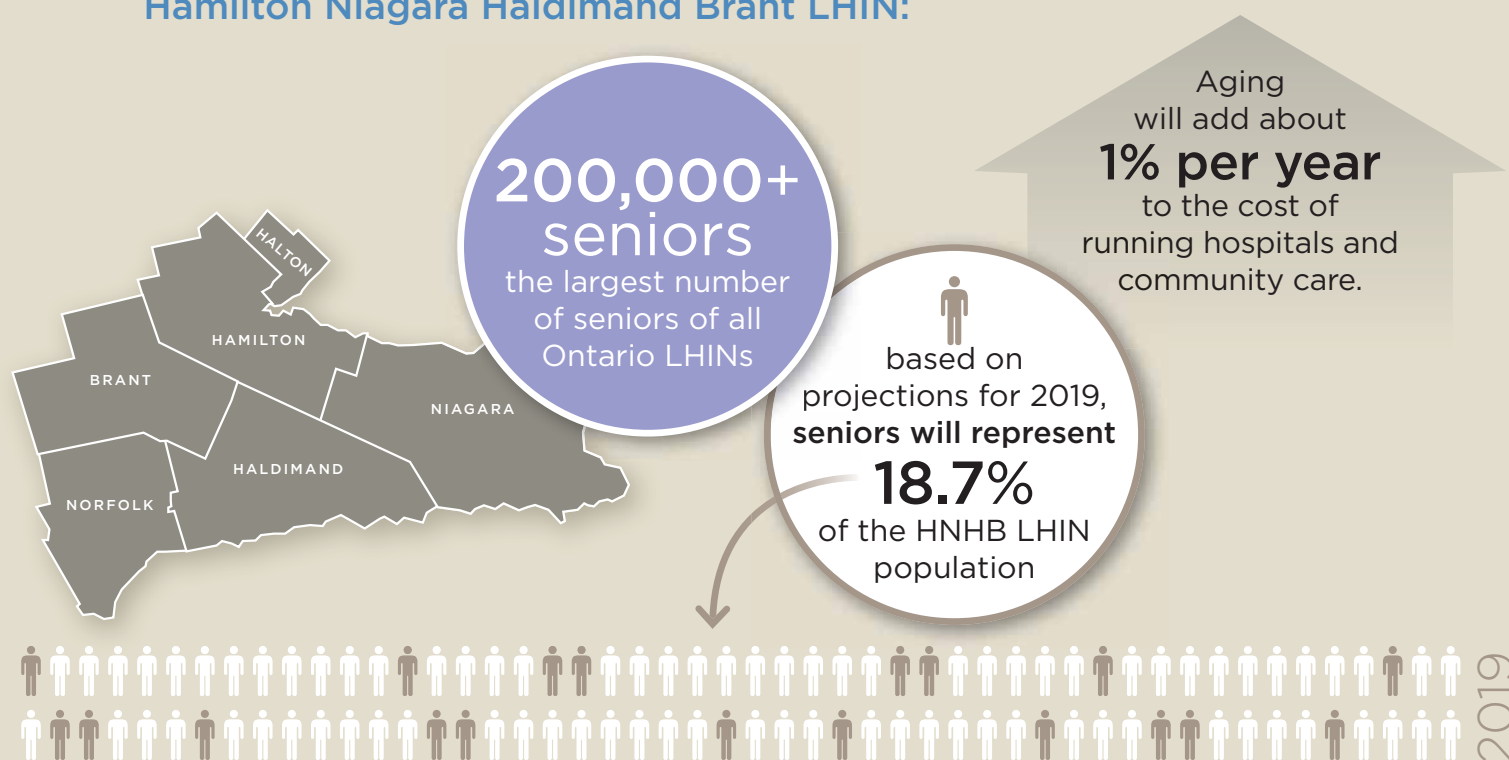


30,035  
Urgent Care Centre visits

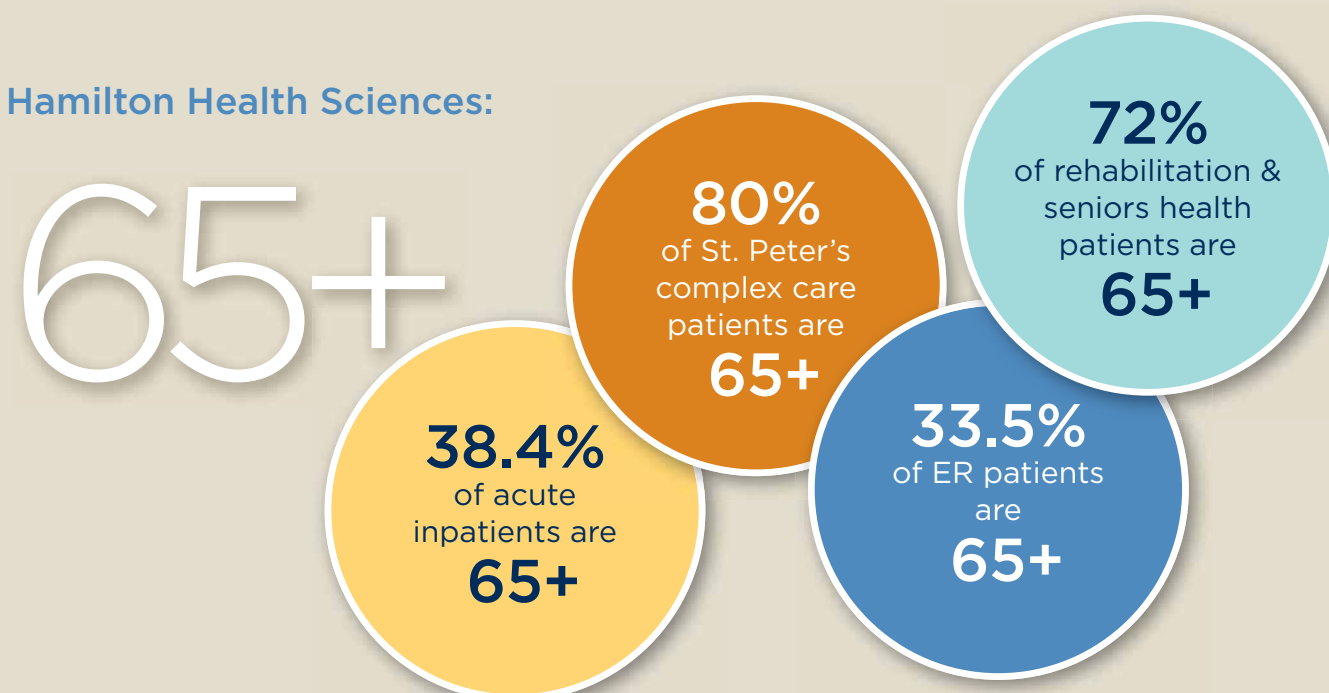
1,873  
ambulatory visits/day (avg.)

## Life in our LHIN: Caring for our aging population

### Hamilton Niagara Haldimand Brant LHIN:



### Hamilton Health Sciences:

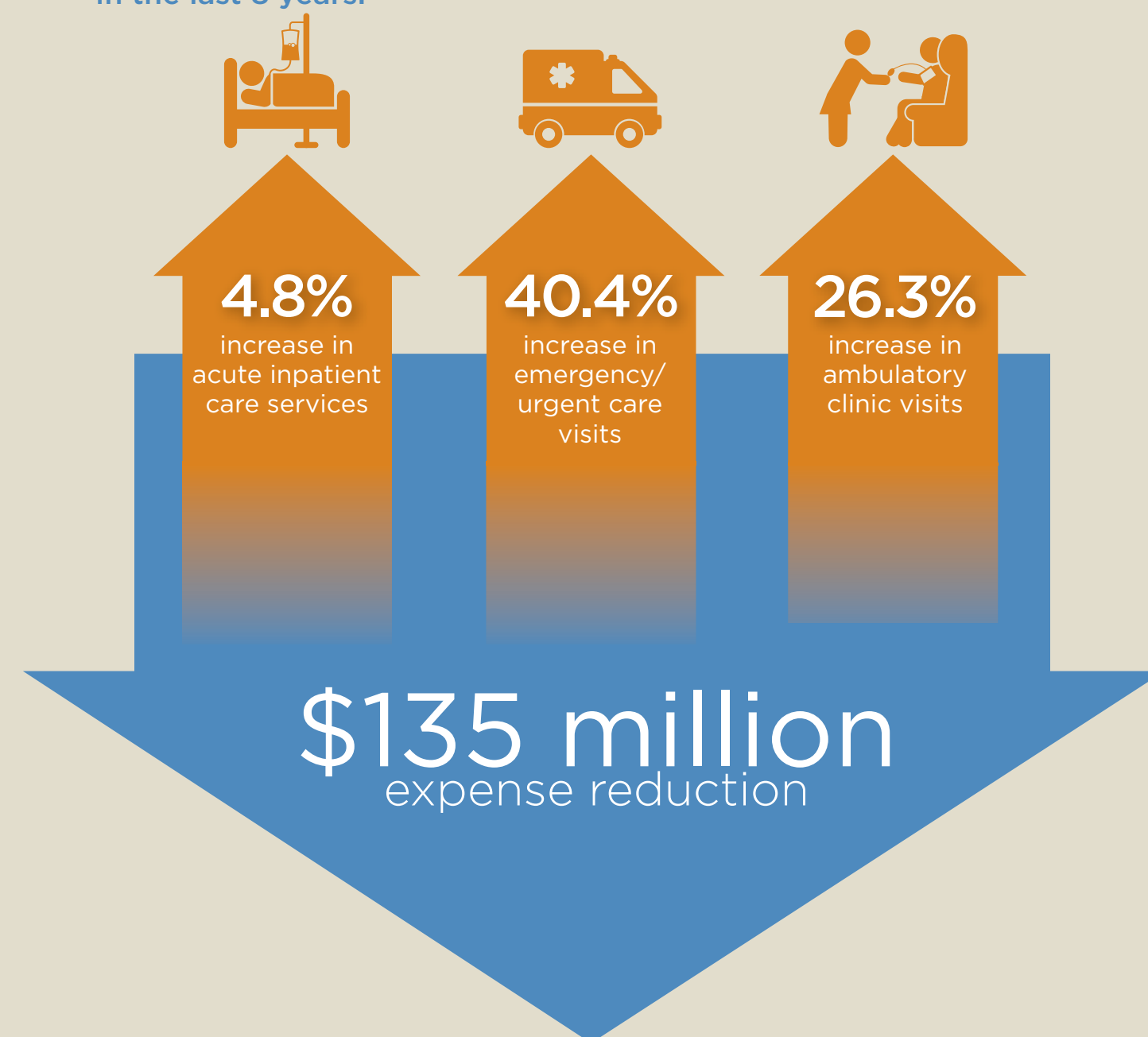


## Doing more with less

This fiscal year, we know that inflation will increase our annual costs, and that we will receive minimal additional funding.

Hamilton Health Sciences is already doing its part to address this challenge. We have been very successful at accomplishing significant savings while serving more patients and continuing to work toward our vision of providing the best care for all.

### In the last 8 years:





Pictured, from left: Amanda Coschi, student nurse; Christine Stevens, palliative care case manager; and Dr. Bev Hattersley, palliative care physician at St. Peter's Hospital.



## HEALTH CARE, TRANSFORMED

Each year **Hamilton Health Sciences Foundation** has the privilege of working with donors and patients as we raise funds to support various projects and campaigns. In 2013, we completed five major fundraising campaigns and behind each was the story of a life transformed.

The experience of Drew Nathan at St. Peter's Hospital had a profound impact on his sister-in-law, Jennifer. Our ability to complete the campaign to support the purchase of 10 computerized ambulatory drug delivery (CADD) pain pumps was enabled by Jennifer's touching story:

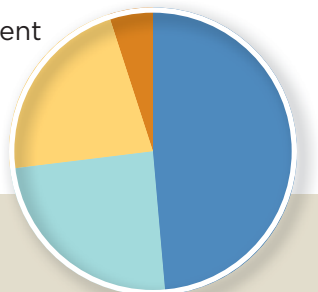
*"Drew was a funny, honest, and trusting young man who wanted to make a difference in the lives of others. He also possessed a strong will. In 2011, at the age of 30, Drew was diagnosed with malignant melanoma, and in January of 2013 his final destination was into the loving arms of the staff at St. Peter's Hospital. This is a group of women and men beyond compare to any I've ever known and will likely ever know again. From the minute I walked in I could feel we were home. Every staff member in the building has an air of kindness around them and it provides families with a sense of security so desperately sought during such sad times."*



*"Most importantly, the staff treated Drew with dignity, supported his choices and gave him hope. They allowed him to explore the final moments of his life so he was calm, allowing all of us to find peace. A CADD pain pump, which allows patients to self administer pain medication, gave Drew a sense of autonomy and control. While deeply saddened by his death, I take comfort knowing that his final days were peaceful."*

### 2013 Funding to HHS:

**44.4%** equipment  
**22.1%** research & fellowships  
**30%** redevelopment  
**4.5%** education & bursaries



## DID YOU KNOW?

**\$51.15**

MILLION  
in contributions  
over the last 5 years  
(2009-2013)

### We fund:

patient care amenities,  
equipment, research & fellowships,  
education & bursaries  
and facility redevelopment

### CAMPAIGNS COMPLETED IN 2013:

- CADD Pain Pumps
- CIBC Breast Assessment Centre
- Hogarth Family and Pioneer Energy Ophthalmology Centre
- Angiography Suite
- MRI at The General

**3,400+**  
MONTHLY DONORS



Recognized as one of 14  
**"best in class"**  
 healthcare foundations  
 in North America in 2013 for  
 the 4th consecutive year

**\$10.7**

MILLION  
TOTAL DISBURSEMENTS



In 2013, the Hamilton Health Sciences Volunteer Association opened its new Give Shop in the front lobby of McMaster University Medical Centre.



## MAKE A PURCHASE, MAKE A DIFFERENCE

**The Hamilton Health Sciences Volunteer Association (HHSVA)** is a non-profit organization which operates retail and parking services across the HHS family of hospitals. All profits are donated to enhance patient care through the purchase of much needed capital and patient services equipment, and funding of many patient care programs. HHSVA serves thousands of customers a day including, patients, families, visitors and staff, through its 31 shops and services, including cafes, cafeterias and gift shops, 21 parking lots and garages, and many other services. HHSVA's motto "Make a Purchase, Make a Difference" well defines the very important role that customers play in supporting patient care at HHS through the purchases they make, from buying a cup of coffee to parking their car. Every purchase translates into a positive impact on the patient experience and helps to support excellence in patient care at HHS.



### 2013/14 Funding to HHS:

**\$12,192,493**

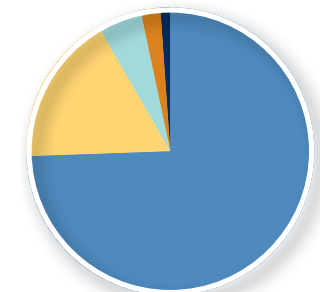
**74%** hospital operations

**17.1%** HHS capital

**4.9%** patient services

**2.2%** Volunteer support

**1.1%** HHS staff education and events



### DID YOU KNOW?

**\$12.2**

MILLION  
contributed in 2013/14

**31**

SHOPS AND SERVICES  
including cafes, cafeterias  
and gift shops

P P P P P P P

**21**

PARKING LOTS AND GARAGES

P P P P P P P  
P P P P P P P

**4.5**

MILLION  
customers served in  
2013/14



MILLION  
coffees served in  
2013/14

**300**

STAFF AND VOLUNTEERS  
working at HHSVA-operated  
retail and parking services  
across HHS





**Hamilton  
Health  
Sciences**

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[publicrelations@hhsc.ca](mailto:publicrelations@hhsc.ca)  
or visit [www.hhsc.ca](http://www.hhsc.ca)

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