

# THE NEW MEDICAL IMAGING AND VASCULAR CENTRE

*Re-imagining the Patient  
Experience at SHN*





## IMAGINE THIS...

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You arrive at the hospital in need of serious medical treatment, only to be sent home while several physicians take time to discuss the best course of action, causing you inevitable stress. This is a reality that many patients face - *patients like Ben...*

Ben is 62. He has lived with diabetes for many years. Recently, he discovered that his kidneys have been seriously affected and he needs life-saving dialysis treatment.

After undergoing a surgical procedure to create a fistula (a blood vessel made wider and stronger to handle the needles needed for dialysis), he starts treatments three times a week. Only a month later, the treatments are no longer as effective as they had been. His physician then refers him to an interventional radiologist at Scarborough Health Network (SHN).

The radiologist images the fistula and sees that a blockage is developing, which is not an uncommon problem, but he's not sure what to do. He can use angioplasty (threading a thin tube through the artery and then inflating a tiny balloon) to remove the blockage, but the fistula itself is still healing. Will he cause more damage by doing the procedure?

Today, the radiologist might have to stop the procedure and send Ben home while he consults with a vascular surgeon. Ben may wait a significant period time for another appointment and, in the meantime, he could be at risk of developing a dangerous clot in the vessel.

Now imagine that these physicians were centrally located in a single unit, working within arm's reach of each other. Expertise and information could rapidly be shared, and a consensus about a patient's next steps could be reached with significantly less delay.

This can be the reality with a new **Medical Imaging and Vascular Centre at SHN**. A vascular surgeon would work in the suite next door to the radiologist and, together, they will discuss Ben's case and determine the best course of action. If all is well, the radiologist will complete the procedure and Ben will go home, ready to continue dialysis and satisfied with his patient experience.

## EXECUTIVE SUMMARY

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*Medical imaging is about seeing more clearly and treating more effectively. That is what we want for ourselves, our families, our neighbours and our community. High-quality medical imaging and interdisciplinary collaboration means better outcomes for patients and families, long-term savings for our health care system and a healthier future for the community.*

At Scarborough Health Network's General site, diagnostic imaging and vascular surgery services are both inconvenient for patients and inefficient for the hospital.

Services are scattered in five different locations, with no designated reception area. All incoming patients must first register at the hospital's main patient registration area, after which they are directed to a treatment area where additional registration is required – a process that can be complicated and confusing. For physicians and hospital staff, pre- and post-procedure care are located on different floors, making follow-up more difficult, while a short supply of private interview rooms mean that patient privacy is hard to maintain.

Existing infrastructure also presents many challenges to the delivery of superior patient care and services. Our General site currently has only one interventional radiology room that is in constant use, leading to long wait times. As well, our air-handling systems were not designed to accommodate modern computerized equipment, meaning rooms are often uncomfortably hot or too cold and machines need to be shut down to due temperature fluctuations, further extending wait times and drastically impacting the overall patient experience.

**With a gift to create the new Medical Imaging and Vascular Centre at SHN, we will be better equipped to address these ongoing issues and transform quality care for our patients.**



# SERVING OUR COMMUNITY

## Scarborough's Distinct Challenges

Scarborough is a vibrant, diverse and growing neighbourhood of **more than 632,000 people**, and one that has changed dramatically since the turn of the millennium.

It is a settling ground for a uniquely multi-ethnic population – nearly 60% of all residents are first-generation immigrants and more than 73% are visible minorities, with the vast majority of Scarborough's citizens are of Chinese or South Asian descent. The community is also aging, with the number of people over the age of 60 nearly doubling since 2006 alone.

Scarborough has many critical challenges, including limited transit options, high incidence of culturally prevalent diseases, and, above all else, poverty. With the **lowest average family income in the GTA**, more than 21% of the Scarborough population is classified as "low-income status" while the community suffers from a disparately high unemployment rate or 9.8%.

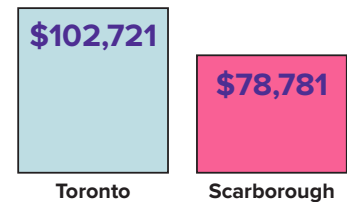
In spite of these challenges, as well as issues of hospital overcrowding and some of the oldest healthcare facilities in the province, **government spending on health care infrastructure in Scarborough has remained non-existent since 2010.**

# 60%

*of Scarborough residents are first-generation immigrants*

# 73%

*of Scarborough residents are visible minorities*



**Average Household Income**  
Toronto vs. Scarborough







# THE VISION

## *Enabling Excellence with a New Centre*

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The new **Medical Imaging and Vascular Centre** will be a state-of-the-art facility that groups all modalities together and fosters interdisciplinary collaborations for better patient care. It will include suites for nuclear medicine, breast imaging, CT scans, MRI and ultrasound, as well as a centralized registration area.

The Centre will stand apart as ***the only Centre in a community hospital in Ontario to bring vascular surgery and interventional radiology suites together in a single space***. This will drastically enhance the experience for SHN patients by providing seamless access to medical experts, up-to-date technologies and life-saving treatments.

In addition to supporting collaboration and integration among different specialty areas within the same location, the new Centre will increase capacity, reduce wait times, modernize technology, enhance continuity of care, and provide a more accessible and comfortable setting for patients, families, staff, and physicians. As well, the Centre will greatly alleviate common patient stresses by expediting test results and more quickly arriving at accurate diagnoses - and ultimately, quicker, more effective treatments.

The new Centre will be created on the concourse level of the SHN General hospital, which was carved out as part of the redevelopment of the Emergency Department in 2009. At last, we are ready to realize the full vision of this space.



This modern, fully accessible 36,000-square-foot facility will:

- **Add** a new interventional radiology suite, side-by-side with the vascular surgery suite, fostering collaboration and interdisciplinary care;
- **Combine** all imaging modalities together under one roof;
- **Mobilize** state-of-the-art technology, providing patients with the most accurate diagnostic results;
- **Support** operational efficiency, enabling fewer staff members to provide exceptional care;
- **Increase** convenience and comfort for patients and caregivers, reducing stress and anxiety;
- **Accommodate** both pre- and post-procedure care, as well as waiting and changing rooms and additional private interview rooms to safeguard patient confidentiality and privacy;
- **Enhance** continuity of care by ensuring physicians are close at-hand to follow up after procedures are complete;
- **Guarantee** staff and physicians have safe and comfortable places to work, fostering a positive work environment; and,
- **Support** ongoing education and research.

While much will change, SHN's focus on patient-centric, compassionate care will remain at the forefront of all we do. Understanding that the diagnostic process can often be a stressful experience, physicians, nurses, technologists, and volunteers will continue to support patients with respect, dignity and empathy as they move along their health care journey with SHN.

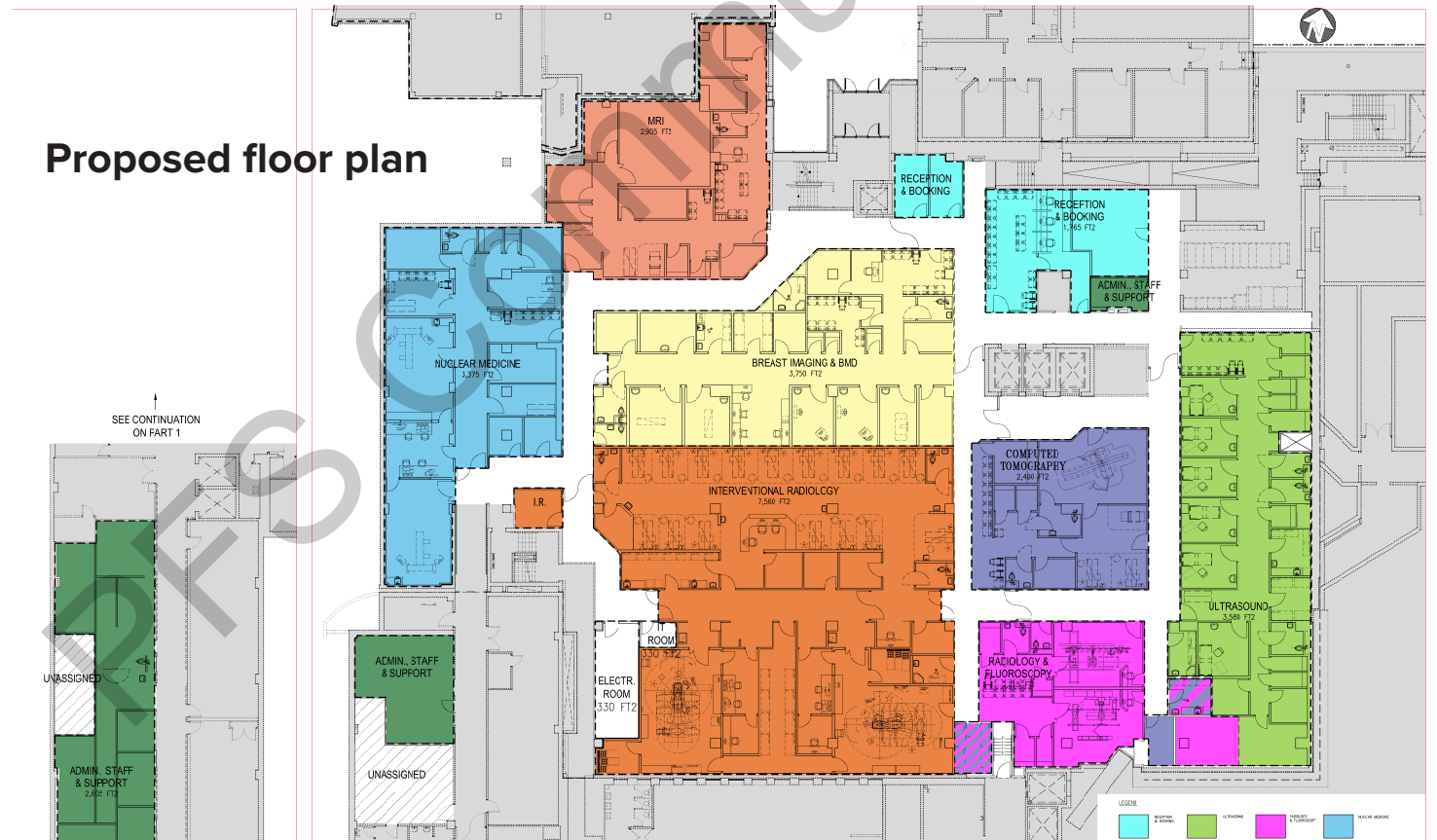
The first step in successful treatment is accurate diagnosis. SHN's **Medical Imaging and Vascular Centre** will be Toronto's most modern imaging facility, ensuring our exceptional health professionals have the space and tools they need to effectively and efficiently diagnose and – in many cases – treat.

*Patients, families, providers and the health care system will all win.*





Shelled-in space for the Centre at the General hospital



# RE-IMAGINING OUR CURRENT STATE

*Medical Imaging at SHN Today*

Medical imaging at Scarborough Health Network plays a vital role in providing timely and accurate investigations/interventions to assist physicians in the diagnosis and treatment of disease. Through the new **Medical Imaging and Vascular Centre**, our teams will work collaboratively with all clinical programs to ensure the best outcomes for the patients we collectively serve.

SHN currently offers a full range of diagnostic imaging modalities at all three hospitals that will soon be integrated into a single location through the new Medical Imaging and Vascular Centre, including:

- General X-ray
- Mammography
- Computed Tomography (CT)
- Ultrasound
- Nuclear Medicine
- Magnetic Resonance Imaging (MRI)
- Interventional Radiology →
- Bone Mineral Densitometry

The General and Centenary hospitals are affiliated with the Ontario Breast Screening program and are OBSP assessment centres. The Centenary hospital is also designated as a high-risk breast screening site, where MRIs are used to screen young women at significant risk of developing the disease.

# 335,000

*number of medical imaging exams performed annually at SHN*

## Interventional Radiology

Interventional Radiology is a critical support in SHN's nephrology program, which serves more than 6,000 patients as **the largest regional program of its kind in North America**. This imaging modality provides patients with minimally invasive, image-guided diagnosis and treatment of vascular disease, and includes procedures such as angioplasty, stent placement for dialysis patients whose veins have collapsed after prolonged treatment, and access creation and repair for patients undergoing dialysis.





# ADDRESSING OUR LIMITATIONS

*Breaking Down Barriers to Patient Care*

Despite the clinical excellence and extensive range of our imaging program, our current facilities significantly limit our ability to provide an exceptional experience and optimal care for patients and their families — problems that will be solved with **the new Medical Imaging and Vascular Centre**.

A crucial issue is capacity: *a second suite for interventional radiology is urgently needed*. Increased capability and advanced technology the new Centre will not only increase access and efficiency for SHN's existing interventional radiology activities, but it will also enable other procedures, such as interventional oncology for treatment of renal and hepatic cancers, and uterine fibroid embolization. Ultimately, it will mean that more people can benefit from minimally invasive procedures and techniques.

# 50%

*estimated reduction in wait time achieved by adding an additional interventional radiology suite at SHN*

Additional issues with current facilities that will be solved through the new Centre include:

- Growing patient volumes requiring additional ultrasound machines;
- New technology superseding existing equipment, requiring that these be replaced; and,
- Pre- and post-procedure care being located on different floors of the hospital, making it more difficult for physicians to follow up with their patients.
- No accessible washrooms or change rooms in the diagnostic imaging area; and,
- No waiting room space, with family members often waiting in uncomfortable hallway chairs for hours.

