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HumberRiverHealth

THE FUTURE OF CARE

10 YEARS OF
INNOVATION
AT HUMBER'S
WILSON SITE



Dr. Susan Tory inside the hospital's state-of-the-art Command Centre, P.18

Susan

Reflecting on the last 10 years at our Wilson site, we are proud of how far we have come and excited about where we are headed. This site was constructed to embody a lean, green and digital design, setting the stage for a new era in healthcare delivery. What began as North America's first fully digital hospital has grown into a system of care that continues to lead with safety, innovation and compassion at its core.

At Humber River Health, safety is foundational. Every system, process and advancement is designed with one purpose: to deliver safer care to our patients and our people. Over the past decade, we have built one of the safest hospitals in the country. According to the Canadian Institute for Health Information, our safer care numbers were reported as 60 per cent better than provincial and national hospital averages, marking our sixth consecutive year of being a leader in hospital and patient safety.

Innovation continues to be a driving force. From robotic-assisted surgery to real-time digital monitoring tools in our Command Centre, we harness technology to enhance patient outcomes, reduce delays and personalize care. As a proud member of the Toronto Academic Health Science Network, we are part of

a collaborative community that advances healthcare safety and quality.

Equally important is our culture, which is rooted in collaboration, inclusion and continuous learning. Our teams bring passion and purpose to their work, always striving to improve how we care for our community, our patients, their families and one another.

Our care extends beyond the walls of the hospital. With programs such as home dialysis, integrated community health hubs such as HUB@2115 (led by the North Western Toronto Ontario Health Team), our Reactivation Care Centres at our Church and Finch Campuses, and our Schulich Family Medicine Teaching Unit, we are committed to meeting people where they are.

There is more to come. We are building the future of healthcare today, guided by the same spirit that defined our beginnings, and inspired by the needs of those we serve.

Thank you for being part of our first 10 years. Our journey continues.



(l-r) Serge Gattesco, Barb Collins, Dr. S. Zaki Ahmed.

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Barb Collins President and CEO
Dr. S. Zaki Ahmed Chief of Staff

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PHOTOGRAPHY: SHLOMI AMIGA



PHOTOGRAPHY: SHLOMI AMIGA

Mimi Tran arrived at Humber before its official opening to give birth to her son, Tristan.

Growing together

Tristan, the first baby born at Humber's Wilson site, highlights the hospital's decade of compassionate, quality care.

By Jennifer Goldberg

Humber River Health's new Wilson site wasn't officially open to the public yet, but Mimi Tran couldn't wait. When she arrived in active labour in the early morning of October 18, 2015, contractions were coming on fast. So, at 5:40 a.m. – 20 minutes before the site's scheduled opening – hospital staff rushed her through the pristine, empty halls to the delivery room.

Six hours later, her son, Tristan, arrived. Delivered by Humber's former Chief of Obstetrics and Gynaecology, Dr. Ben Tse, he was the first of five babies born at the new Wilson site that day. Fast-forward a decade, and Tristan is celebrating a milestone birthday, just like Humber. The smiley fifth grader has a green belt in tae kwon do, a penchant for painting and a love of swimming. He's also a protective big brother to baby Chloe, who was born at Humber in January 2025.

Mimi's experience at the hospital was a bit different with her second birth. Ten years on, the Wilson site has become a bustling, fully integrated healthcare system providing high-quality, innovative care across northwest Toronto. The Maternal and Child Care Program now delivers more than 4,500 babies a year.

Mimi notes that she received the same level of care, though the hospital was busier this time around.

"Everybody at the hospital was so good, really nice and very patient," she says. "That's why I came back. And I tell my friends to come here, too." ♦



Lean + green

7 ways Humber promotes sustainability.

By Alex Mlynek

HUMBER RIVER HEALTH'S commitment to the community goes beyond physical and mental health – it also extends to the health of the planet. For years, the hospital has been doing its part to make healthcare more sustainable, earning it the title of second-most energy-efficient hospital in the world. Here are seven ways Humber is committed to sustainability.

1. FOOD WASTE

Humber uses equipment called ORCA – which stands for Organic, Recycling, Conversion, Alternative – to process its food waste and divert it from landfills. The technology combines microorganisms and oxygen in a large metal drum to break down solid organic waste into a liquid. This liquid is then sent via regular plumbing to a wastewater treatment plant.

2. RECYCLING

Basics matter a lot when it comes to recycling. Humber works closely with waste-management company GFL Environmental to ensure trash is properly separated and recycled. The hospital also has an ink and toner recycling program to further prevent hazardous materials from ending up in a landfill.

3. MEDICAL EQUIPMENT WASTE

Hospitals use a lot of medical equipment made out of polyvinyl chloride (PVC) – think oxygen masks, tubing and IV fluid bags – which is not included in municipal recycling

programs. In 2021, Humber participated in PVC 123, a program to help Canadian healthcare facilities create their own recycling initiatives for PVC medical equipment.

4. PHARMACEUTICAL EFFICIENCY

Humber reduces medication waste via the “Choosing Wisely” approach – a national initiative created to cut down on unnecessary pharmaceutical treatments in healthcare facilities. For example, Humber actively reduced its use of the anaesthetic gas Desflurane, since it has a high climate impact and more sustainable alternatives exist.

5. SUSTAINABLE BUILDINGS

The Wilson site’s LEED-certified lighting program and other upgrades have led to some impressive green numbers. Compared to healthcare industry standards, the site uses 29 per cent less energy, consumes 34 per cent less water and produces 43 per cent fewer greenhouse gas emissions.

6. HOSPITAL INFRASTRUCTURE

Each Humber site is at a different stage in its sustainability journey, and, as such, the maintenance team regularly evaluates and works to upgrade building systems to improve their efficiency. For example, the Church Campus uses an Angus predictive maintenance system to ensure its MRI equipment is operating as efficiently as possible.

7. SURGICAL EFFICIENCY

Humber employs what’s called “Hyper-Throughput Operating Rooms” (ORs) to quickly and safely provide joint replacements. Each step of the surgical process in these ORs is refined to ensure it’s as effective and efficient as possible. The result is a 50 per cent waste reduction, with less garbage created and fewer linens used.

In 2023, Humber’s ORs diverted 900 pounds of waste from landfills by safely reusing its medical equipment, cleaning, disinfecting and sterilizing it before each use. That earned the organization a Gold Stryker Environmental Excellence Award. And, in 2024, Humber diverted 1,056 pounds of waste, saving almost \$425,000 and earning them a Platinum award. ♦

1,056

The number of pounds of waste Humber’s operating rooms diverted from landfills in 2024.

ILLUSTRATION: JOHN MONTGOMERY

Listening to learn

Humber is working hard to address inequities in healthcare.

By Daniela Payne

IN THE WAKE OF COVID-19, Humber River Health faced an undeniable reality: the pandemic had disproportionately affected African, Caribbean and Black community members, who were overrepresented in essential front-line work and therefore at much higher risk of exposure to the virus.

“We saw the impact that COVID-19 had [on our community],” notes Barb Collins, Humber River Health’s President and CEO. “It’s not just the virus we’re talking about, but social determinants of health that the pandemic brought to light.”

Anti-Black racism is a deeply ingrained systemic inequity in Canada, starkly evident in disproportionately poor health outcomes. In June 2020, Toronto’s Board of Health recognized the issue as a public health crisis. As well, one 2021 Canadian study found that 53.1 per cent of Black individuals aged 15 to 40 experienced major racial discrimination in healthcare services.

Humber realized it was not immune to these problems. Since the hospital catchment area’s primary demographic is people who identify as African, Caribbean or Black, Humber’s leadership recognized they needed to address anti-Black racism, both in patient care and within their own workforce.

As a first step, they crafted carefully structured listening sessions with hospital staff, physicians, volunteers and community members who self-identify as African, Caribbean or Black. These 15 sessions, designed by Humber leaders who underwent specialized training to become effective listeners, were safe spaces where participants could share their experiences

and feel valued. The focus was on action and accountability, so participants knew the discussions would lead to concrete changes.

After the sessions ended, the Equity Diversity and Inclusion (EDI) Advisory Committee, made up of staff volunteers, identified themes and priorities including strengthening employee support and incident reporting structures, ensuring education and training are centred in compassionate and culturally inclusive care, and reinforcing relationships with services that support the African, Caribbean and Black community. These initiatives became the foundation of a comprehensive anti-Black racism action plan at Humber.

“Building that trust and cultural fluency is foundational,” says Faith Forbes, Chief Financial Officer and EDI Committee member. “Open communication and fostering deep, trusting relationships within the community and with healthcare providers, over time, will likely make the biggest difference.” ♦

“It’s not just the virus we’re talking about, but social determinants of health that the pandemic brought to light.”

— Barb Collins, President and CEO



EDI Committee leadership (l-r): Dr. S. Zaki Ahmed, Faith Forbes, Barb Collins and Jessica Allison.

PHOTOGRAPHY: SHLOMI AMIGA



Partners gather to celebrate the opening of the HUB@2115.

Putting down roots

Through collaboration and community partnerships, Humber is growing a strong care network in the neighbourhoods it serves.

By Mark Brown

WHEN BEATRICE EDELSTEIN tours the HUB@2115 at Humber River Health's Finch Campus, she sees a vision brought to life. The Vice President of Post-Acute Care and Health System Partnerships is proud of how deeply the hospital's roots now stretch in northwestern Toronto, thanks to the healthcare and social services providers that have partnered to offer a one-stop shop for community care.

"It's something we created from the ground up, with a great deal of support from our partners," Edelstein says. "It's been a meaningful and rewarding experience."

Launched in February 2024, the HUB@2115 has nine partners, including Humber, working side by side, offering everything from settlement and employment services to mental health and diabetes support. It's part of the wider North Western Toronto Ontario Health Team, which



Beatrise Edelstein
Vice President,
Post-Acute Care and Health
System Partnerships

helps a diverse community of more than 414,000 people gain access to healthcare services.

The HUB@2115 is just one way Humber supports the community outside hospital walls. The organization collaborates with 10 long-term care homes across its growing network to improve resident care, decrease avoidable visits to the emergency department and support skill development for front-line staff.

"By building trust and working closely together over the last few years, we've seen positive impacts," Edelstein says. "Providers have more capacity, residents and family members have better experiences, and we're seeing cost reductions."

Humber's work with older adults goes beyond long-term care facilities. The HEART@Home program ensures smooth transitions for seniors leaving the hospital, with regular in-home visits from healthcare providers and a fund to support patients in need with meals, transportation to and from medical appointments, and essential supplies.

There's also a partnership with Dorothy Ley Hospice, ESS Support Services and Ontario Health at Home to deliver the Hospice@Home program, which helps patients and caregivers cope with the emotional, spiritual and practical challenges of experiencing a life-limiting illness and loss.

And Humber's new Schulich Family Medicine Teaching Unit aims to connect 10,000 residents with primary care providers by training family medicine students who will practise in the community. "Once we help attach people to comprehensive primary care, we can support them with managing their health, with the focus on prevention," Edelstein says. "It's all about keeping the community healthier and vibrant." ♦

PHOTOGRAPHY: SHLOMI AMIGA (EDELSTEIN); COURTESY OF HUMBER RIVER HEALTH (GROUP PHOTO)

Prescription for safety

Robots pick and deliver medication with near-perfect accuracy at Humber's pharmacy.

By Mark Brown

GETTING THE RIGHT MEDICATIONS to the right patient is a multi-step process at every hospital. It involves checking for drug interactions, selecting the medication off the shelf, measuring the correct dose and ensuring it's administered to the patient exactly as prescribed. Every step introduces the chance for error, but thanks to innovations embraced by Humber River Health, this risk has been virtually eliminated.

Since 2015, Humber's Wilson site has been using state-of-the-art machines such as the Swisslog PillPick, which dispenses each medication into a sealed packet, or the Swisslog BoxPicker, which grabs premixed creams and oral solutions. Both machines use robotic arms to snatch medications off the shelf and affix them with a unique bar code. Once packaged for each patient, the meds are then either shot to where they need to be through a pneumatic tube; placed in an Automated Guided Vehicle, an autonomous cart that delivers them right to the nurse; or driven to the hospital's Finch, Church and Runnymede sites.

"For sustainability and efficiency, there's no better system in terms of inventory management," says Andrew Messiha, a Manager of Pharmacy Services at Humber. Where most processes are automated to increase speed, Humber's robotic pharmacy systems aim to ensure that accuracy and safety are as high as possible. For instance, the PillPick is more than a fancy vending machine, it visually confirms that each medication corresponds with what's been prescribed. If it detects that a pill is broken or that too much medicine has been dispensed, it'll prevent that mistake from leaving the system and dispense the corrected dose.

"Our automations are built around safety to ensure the right patient is getting the correct medication," says Andy Ma, also a Manager of Pharmacy Services. "Everything is prepackaged into a little unit dose cup or pouches with a bar code that the nurse can scan. If it's a syringe, it'll be pulled up in a syringe and sent up to the unit."



Humber's robotic systems dispense more than five million doses of prescription medication per year.

0.007%
Humber's medication error rate

There are other advantages to using robotic systems, too. Messiha says that by sealing each medication and affixing a bar code to it, any drugs that are no longer required can be safely returned to the system for future use.

The systems in place at Humber's pharmacy also help the hospital to maintain detailed files on every medication it dispenses, making it easy to respond to a drug recall. In the case of a Health Canada alert about a particular medication, the pharmacy team can determine exactly which patients received that drug and contact them, Messiha explains. "You can actually do recall, tracing and analysis, and find out who was affected by a product through the system."

More hospitals are introducing automation into their pharmacies, but none have it to the same extent as Humber. "You can't afford mistakes when you're doling out meds for 1,000 beds a day. "We have a very strong culture of safety," says Ma. "It's about being accountable and responsible, making sure all the patients are cared for and the correct medications and treatment get to them." ♦

PHOTOGRAPHY: SHLOMI AMIGA

HOW HUMBER CHANGED THE GAME

Ten years in, Humber proves that **innovation** can lead to superior patient-centred care.

By Elizabeth Chorney-Booth



PHOTOGRAPHY: SHLOMI AMIGA

Barb Collins oversaw the design, construction and activation of the Wilson site.

AT 6 A.M. ON THE MORNING OF OCTOBER 18, 2015,

a team of staff, physicians and volunteers eagerly greeted patients as they transferred to the new Wilson site of Humber from the old Keele Street, Finch Avenue and Church Street hospital locations. All 352 patients were transported via 50 ambulances, with the new emergency department set to open at 7 a.m. and surgeries scheduled for 11 a.m. Meanwhile, giant carafes of Tim Hortons coffee floated around the hospital, keeping busy staff and visitors sufficiently caffeinated.

Some staff quipped that they'd be fine so long as no one birthed a baby or had a cardiac arrest during the first few hours. That was not to be, as both events occurred that morning. The good news is that 10 years later, those patients are doing well. Barb Collins, Humber River Health's current CEO, had been having nightmares that the team would somehow forget a patient during the transition. To quell that feeling, she assigned herself a reception job that morning.

"I kept thinking that two days later, we'd find a patient at the legacy sites," says Collins, who was Humber's Chief Operating Officer and Redevelopment Lead at the time. "So we greeted every patient when they came in, checked their name off and turned them over to the team behind us."

Collins didn't need to worry, however. By mid-afternoon, patients were tucked into their beds, surgeries were under way and the emergency department was in full swing. The team's plan for the transfer had been executed meticulously, securing the final piece in a 15-year journey to create a hospital that would change the face of local healthcare in Toronto.

BUILDING FROM THE GROUND UP

That big move marked a new chapter for Humber. With outdated technology and cramped patient rooms, the aging Finch and Church sites



Scenes of Humber's Wilson site, from construction to ribbon cutting to opening day.



Dr. Jennifer Tredinnick
Senior Director
of Planning and
Redevelopment



Dr. Leon Rivlin
Former Chief Medical
Director of Emergency
Medicine

were no longer meeting the needs of the growing northwest Toronto community. In 2005, when a plan to redevelop was approved by the Ontario government, Collins and the late Dr. Rueben Devlin, then President and CEO, were keenly aware that renovating and retrofitting their old, overcrowded buildings would ultimately not be as effective as building a new hospital. Rather than just amalgamating the older hospitals, they and the rest of the redevelopment team, which included Senior Director of Planning and Redevelopment Dr. Jennifer Tredinnick and other key members of Humber's board and staff, began planning for a hospital that would be "lean, green and digital."

The new hospital wouldn't just be modern and cost-effective, it would also excel at patient-centred care, becoming a place the community could be proud of and trust in terms of safety and quality. Built as a public-private partnership or P3, which combines support from the government and private sector, the redevelopment was also meant to create a new culture and methodology of cultivating innovative care.

"The hospital we envisioned required more than adding to old buildings from the 1940s or '50s," Collins says. "It had to be a digital environment where the technology was very special, allowing us to care for patients in a modern setting."

Naturally, the planning had to be fastidious, and Collins kept an eye on delivering everything on

budget and keeping the hospital efficient. The new site was approximately double the size of the three predecessor hospitals combined, with larger single rooms for patient comfort. The expanded footprint could have led to increased staff travel time within the building, a.k.a. "sneaker time," but technological solutions were built to overcome this challenge. Meanwhile, the design team worked on getting fresh air into the hospital to mitigate airborne diseases – a SARS-era concern that came in handy once COVID-19 hit – while remaining energy efficient. The wish list was bold, but Collins and her team were unwilling to compromise on what mattered merely to simplify the process.

"It wasn't just about being bigger and shinier," Dr. Tredinnick says. "We all had to remind ourselves that moving toward big and shiny could actually be worse if we weren't careful with how we designed it."

A VISION FOR BETTER PATIENT CARE

While the new facility's efficiency and environmental impact were vital, ultimately the most important factor was assisting clinical staff in implementing patient-centred care through a more spacious, comfortable design and digital innovation. New digital tools were developed in partnership with GE HealthCare to ensure they had real medical merit, explains Dr. Leon Rivlin, Humber's former Chief Medical Director of Emergency Medicine. And while these tools, such

352

The number of patients moved to Humber's new building from all three former sites on opening day.

as electronic charts and bedside control screens for both patient and clinician use, created a learning curve for everyone, the staff worked hard to ensure they were more than just novelties and were significantly improving patient care.

"We really needed to see where the digital piece could actually help us with efficiency," Dr. Rivlin says. "We asked ourselves how we could integrate the digital platform to improve our efficiency and possibly even our quality."

Collins and her team swung big with the move, and it's clear 10 years later that faith in their vision has paid off, even as the hospital continues to find new ways to innovate. Humber has won accolades for being North America's primary fully digital hospital and the second-most energy-efficient hospital in the world. It's also known for its remarkable safety record, and it's become a place patients intentionally choose for their care – even when they have other nearby options.

"At the end of the day – to this day – we are still one of the most energy-efficient hospitals," Collins says. "We have a balanced budget. We have a lower cost of delivering care than most other hospitals in the province of Ontario, and our safety record is 60 per cent better than any other hospital in Canada because of the processes we put in place. All of that came from really being committed to a lean, green and digital vision that would allow us to use technology in a different way to provide high-reliability care." +

PHOTOGRAPHY: SHLOMI AMIGA (DR. RIVLIN AND DR. TREDINNICK)

PHOTOGRAPHY: COURTESY OF HUMBER RIVER HEALTH

A WAY AROUND SNEAKER TIME

HUMBER FOUND A DIGITAL SOLUTION TO A COMMON HOSPITAL PROBLEM.

By Glynis Ratcliffe

ON ANY GIVEN SHIFT, a nurse can rack up between 7,000 and 11,000 steps darting from patients to workstations to supply rooms. That's the equivalent of five to eight kilometres.

All that walking isn't just physically taxing – it's a hidden drain on their time. The more nurses walk around, the less time they have to tend to patients. The profession even has a name for it: "sneaker time."

When Humber River Health began designing its Wilson site, the hospital's leadership knew sneaker time was a challenge they had to address. The new hospital would cover 1.8 million square feet and transition from multi-patient rooms to private ones, increasing the distances nurses would have to walk each shift.

To address this challenge, then-Redevelopment Lead Barb Collins hired GE HealthCare in 2007 to study how Humber's nurses divvied up their time. The results were eye-opening: 38 per cent of each shift was devoted to direct patient care, such as checking vitals and changing IVs. Paper documentation, e-charting and extra processing work took up 29 per cent of a nurse's shift, while walking consumed another 13 per cent.

If Humber was going to keep its patient-to-nurse ratio of five to one in a building where patients were significantly farther apart, something would need to change.

"Healthcare is a very human resource-intensive business," notes Dr. Peter Bak, Humber's Chief



Dr. Peter Bak
Chief Information Officer

Information Officer. "It's one of the last sectors to leverage tech to automate processes and people."

Dr. Bak was hired in 2009 to help Humber design a fully digital hospital that would save time and money while improving care – all in a space three times the size of the original buildings.

"It's all well and good to say, 'I want a digital hospital,'" he says. "But then what?"

Dr. Bak didn't want to design Humber's digital tools from scratch because of time and cost. Instead, he looked to existing commercial-grade solutions from other industries and integrated them into the hospital computer network. Here are some of the technologies he helped put in place to reduce sneaker time.

NETWORK-CONNECTED VITALS MONITORS

Before the move to the Wilson site, charting could account for up to 16 per cent of a nurse's shift. Today, they can scan a bar code on a patient's hospital bracelet to automatically upload their vitals – blood pressure, temperature, etc. – to their digital chart, eliminating the need to write them down and later record them at the nursing station.

DIGITAL PATIENT ROOM SIGNS

Patient rooms need signage that quickly informs clinicians of important information before they enter, such as infection control precautions or fall risks. Updating handwritten or printed signs are a time drain for nurses and can lead to human error. Now, screens outside every room display specific information attached to that patient's bar code, showing their health status in real time.

INTEGRATED BEDSIDE TERMINALS AND SMARTPHONES

In most hospitals, patients press a call button when they feel cold, need help or want test results. This alerts the nursing station, where staff relay the request to the nurse doing rounds. To streamline this process, Humber introduced bedside terminals that allow patients to adjust their room's temperature and access physician reports. To keep nurses connected while on the go, they're equipped with ASCOM smartphones connected to the hospital's encrypted data network. These devices handle internal calls, display bedside alerts and alarms, scan patient and medication bar codes, and act as a nurse call system for patients.

AUTOMATED GUIDED VEHICLES (AGVs)

Walking back and forth to deliver important items like medications, supplies and bedding used to account for 13 per cent of a nurse's shift, until Humber implemented AGVs. Now, these self-driving robots make nearly 75 per cent of the hospital's routine deliveries, independently opening doors, calling elevators and navigating hospital hallways. ♣

PHOTOGRAPHY: SHLOMI AMIGA; FOOTPRINT: ISTOCKPHOTO.COM



Hard-won lessons from the COVID-19 pandemic led to innovation and better patient care for Humber.

Stronger After the Storm

By Dave Yasvinski

Global News reporter Caryn Lieberman remembers the anxiety of walking the halls of Humber River Health in April 2020. The World Health Organization had recently declared COVID-19 a pandemic, and most hospitals were limiting visitors and non-essential personnel.

During this uncertainty, Humber cautiously opened its doors to the media. “It was a pivotal moment because so much was unknown,” says Lieberman, who visited Humber more than 10 times during the crisis. “The hospital authorized us to come in and gave us safe access to see what was happening. We were able to show viewers the true story of the pandemic. It felt like a critical step for journalism at the time.”

That transparency, Lieberman says, helped her and her audience understand the mysterious virus, especially during its earliest days. It was one strategy the hospital implemented to keep the community informed and up to date with the latest COVID-19 information, ensuring people knew as much as they did during a time that was so restrictive to visitors. This approach became the catalyst for lasting change and innovative improvements in clinical protocols, staffing models and community partnerships.

FROM SAFE DESIGN TO SAFER CARE

As one of the most technologically advanced hospitals in North America, Humber could provide this media access to its facility during the pandemic,

These ICU registered nurses started as students during the pandemic (l-r): Nicholas Iwanow, Riikka-Vineta Savoia, Lexi Xinwei Li and Madison Dias.

PHOTOGRAPHY: SHILOMI AMIGA

partly because of its infrastructure. The Wilson site was specifically designed to mitigate virus spread, using learnings from Ontario's encounter with severe acute respiratory syndrome (SARS) in 2003.

For example, the hospital's air-exchange system replaces old air with fresh air, rather than recirculating it, and 80 per cent of inpatient rooms are single rooms. Design elements like these provided a safer space for media, hospital staff and physicians, who were eager to help the public understand what was happening. "Our teams wanted to share what they were seeing, how they were treating patients and what people could do to keep themselves safe," says Intensive Care Unit (ICU) Manager Ronak Gandhi.

The focus on transparency flowed from the top down, as President and CEO Barb Collins hosted weekly town halls to keep staff and physicians updated on the rapidly shifting situation.

Open communication with the community and internally between leadership and staff continues to be a core value for the hospital.

Collaboration between teams allows Humber to evolve and improve, from morning huddles that give leadership the chance to connect with their colleagues to a policy that encourages staff to discuss any issues they may be facing.

SECURING THE FRONT LINE

As with many organizations, the pandemic revealed systemic operational opportunities at Humber, particularly during a large-scale emergency. The hospital used the experience to identify shortcomings and implement strategies to strengthen readiness in the event of a future crisis.

Government directives were all kept, considered and used as guidelines for planning. Priority areas such as infection prevention and control (IPAC) guidelines, staffing plans, surge protocols, supply management and communication strategies were all reviewed, tested and ready to go if needed.

Beyond refining protocols, the crisis helped cultivate a cohesive front-line team. The abnormally high patient-to-staff ratios during the height of the pandemic made it difficult to deliver the necessary care without leaving staff emotionally fatigued. "Our teamwork, as a result of this, became much more productive," Gandhi says. "There was a lot more checking in on one another and on one another's workload."

TURNING STUDENTS INTO STAFF

The hospital's student pipeline, created in partnership with nearby universities and colleges, supported a high volume of students at Humber before transitioning them into permanent positions. This relationship only grew stronger once COVID-19 arrived.



A volunteer dressed as a Disney princess comforts a waiting child at one of Humber's vaccination clinics.



Ronak Gandhi
ICU Manager



Carol Hatcher
Executive Vice President,
Chief Nursing Executive and
Chief of Clinical Programs

"Many organizations restricted access to students in an effort to minimize risk of exposure and increased spread of illness," explains Carol Hatcher, Executive Vice President, Chief Nursing Executive and Chief of Clinical Programs. "Humber took a different approach, matching the skill set with the work that needed to be done. Our students were instrumental in helping us through some of the busiest and most chaotic times that many of us had not experienced before."

ANSWERING THE CALL

For all its devastation, the pandemic was the catalyst that helped Humber strengthen its ties with the community. The hospital's catchment includes many essential workers and multi-generational households, where staying home was not an option. Humber recognized the need to meet people where they lived by establishing hyper-local clinics in apartment buildings and places of worship.

The hospital's most visible community lifelines were its northwest Toronto vaccination centres, which delivered close to 400,000 shots to vulnerable residents. Many lessons were learned, and at times Humber paused, listened and rebuilt the clinic model in collaboration with community voices when early outreach revealed

a historically rooted mistrust among some community residents.

"It was a powerful moment that allowed us to build something bigger and better," Hatcher says. "It really helped strengthen our ties to the community."

That same community-first spirit guided Humber when the province asked it to support struggling long-term care homes. "Working with these facilities to strengthen their infection prevention protocols helped make the hospital a true partner in care," Hatcher says. "It helped us forge stronger relationships that endure to this day."

A LASTING TRIBUTE

That spirit of partnership is woven into the fabric of Humber's culture. This was evident in July 2023, when the hospital unveiled its COVID Wall of Fame. This permanent installation, donated by Terry and Mary Jo Leon, honours the work of staff, physicians and volunteers throughout the crisis.

Lieberman, who covered those efforts from the start, was invited to speak at the unveiling ceremony. "Witnessing that wall and being part of the ceremony were wonderful, and I'm grateful they included me," she says. ✦

PHOTOGRAPHY: SHLOMI AMIGA (HATCHER AND GANDHI)

PHOTOGRAPHY: SHLOMI AMIGA (CASTILLO TAMAYO); THE CANADIAN PRESS/COLE BURSTON (ABOVE)

FAMILY ADVISOR

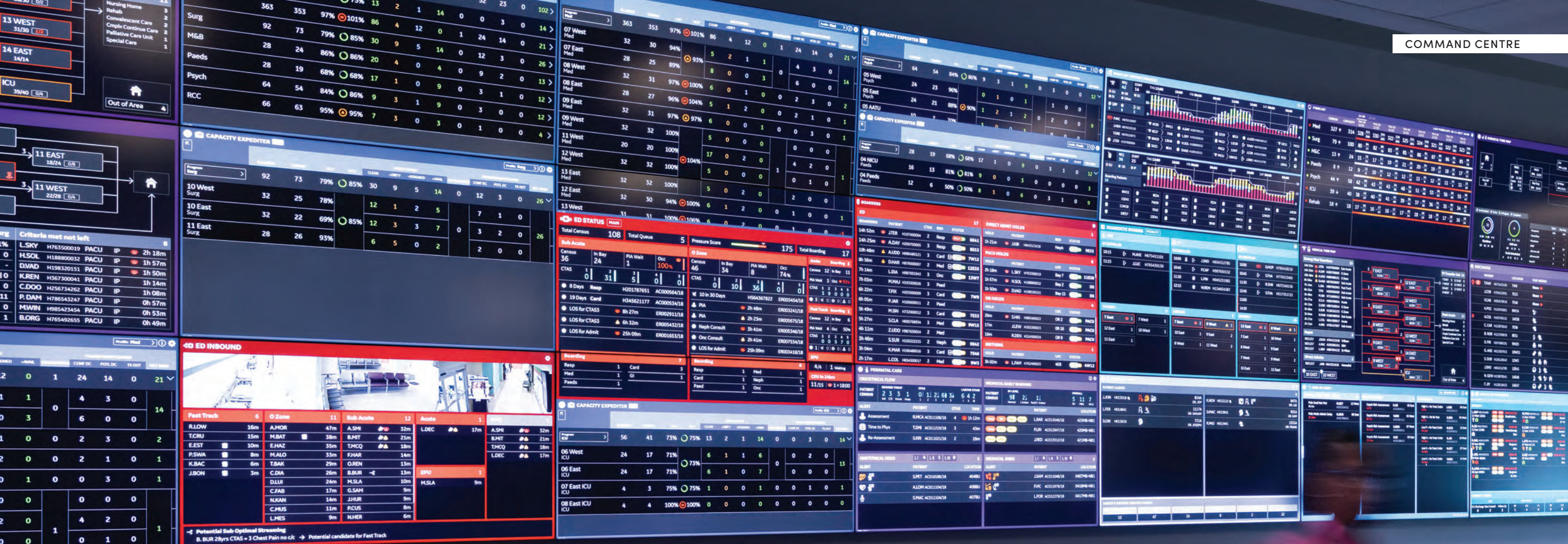
From patient to partner

IN MARCH 2020, Mario Castillo Tamayo (pictured below) was lying face down and sedated, while Humber's ICU team fought to keep him alive. As the hospital's first COVID-positive patient to require full life support, he still vividly recalls the nurse who delivered his diagnosis, while covered head to toe in protective gear. "She looked like an astronaut," he says now. "Everything came crashing down, because I didn't really understand what was happening. I started to think I could die from this."

Now, more than five years later, Castillo Tamayo is healthy and serving as one of the ICU's first Patient-Family Advisors, a role designed to give patients a voice in improving hospital services. These advisors participate in accreditation surveys – external quality checks that determine whether care meets national standards – and flag any gaps from the patient's point of view. They also make sure brochures and instructions are easy to follow and test out proposed bedside tools (such as the suction toothbrush, now standard for ventilated patients). According to Gandhi, Castillo Tamayo was also the inspiration for the hospital's "Move-to-Improve" project – a colour-coded mobility report card that hangs in every ICU patient's room, to track their daily progress.

Castillo Tamayo says he's more than happy to give a little back, after everything Humber did for him. "Everyone there was amazing," he says. "After I recovered, I told my wife I had to go back and thank all the doctors and nurses for everything. I'm still here because of them."





TAKING COMMAND

HOW HUMBER BUILT THE SOLUTION TO A PROBLEM PLAGUING HOSPITALS ACROSS ONTARIO.

By Glynis Ratcliffe

Humber's Command Centre resembles NASA's mission control.

AT HUMBER RIVER HEALTH,

you'll find the usual sights of a modern hospital – gleaming equipment, innovative tools and knowledgeable staff. But look closer, and you'll notice something missing: patients aren't being treated in the Apotex emergency department (ED) waiting room, or lying on gurneys in the hallways, waiting for a bed.

This type of "hallway healthcare," as it's often called, is an issue that's been plaguing many hospitals across Ontario for nearly a decade. In 2024, provincial government data revealed that more than 1,800 hospital patients a day were being cared for in "unconventional spaces" – areas other than an actual bed. Not a single one of them was from Humber. In fact, despite having the busiest ED in Ontario, Humber has consistently treated zero patients in unconventional spaces since early 2022.

According to Dr. Peter Voros, Vice President of Clinical Programs and Corporate Support Services, the reason for that accomplishment is twofold. First, there's been a hospital-wide focus on improving patient flow from admission to discharge. Second, there's the tool every employee relies on to maintain that flow – the Command Centre.

"You can't take care of a patient if you can't get them in a bed. To get them in a bed, we've got to keep things moving," Dr. Voros says. "The Command Centre assists us to do just that."

COMMAND CENTRAL

The Command Centre is in a large, semi-darkened room on the third floor, dominated by a wall of monitors called "tiles." In front of that wall sit 22 desks, each equipped with a phone and monitors for the dedicated staff who support different departments of the hospital, from ED patient flow to bed allocation to diagnostic imaging wait times.

GE HealthCare built the state-of-the-art system that powers the Command Centre to Humber's specifications. It collects and analyzes critical hospital and patient data to offer broad and granular views of hospital activity. The first order of business? Safely caring for patients more efficiently by improving capacity and flow.

Launched in November 2017, the first generation of tiles displayed data about each patient's movement in the hospital, including length of stay and barriers preventing a patient's discharge, like waiting for an X-ray.

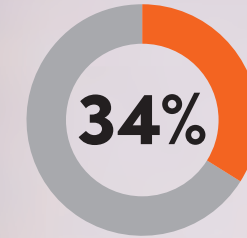
For Dr. Susan Tory, Humber's Chief of Medicine and the Command Centre's Medical Director, improving capacity and flow meant examining where and why delays occurred.

It didn't take long to identify the areas causing the holdups: medical imaging, portering (moving

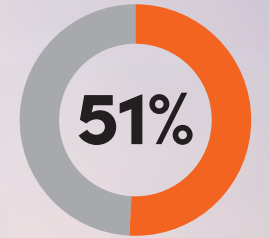


Dr. Peter Voros oversees flow throughout the entire hospital.

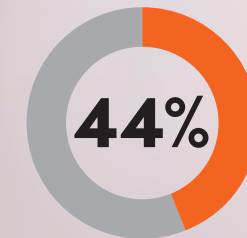
THE COMMAND CENTRE: BY THE NUMBERS



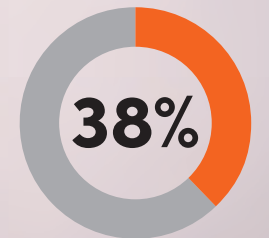
reduction in ED patient wait time for a bed



reduction in hospital bed cleaning time



reduction in code blues (cardiac arrests)



reduction in wait times for diagnostic tests

Every 4 minutes
how often patient data is updated

4,500 square feet
size of the Command Centre room



Dr. Susan Tory
Chief of Medicine and the Command Centre's Medical Director

patients from one part of the hospital to another) and housekeeping. Sometimes, for example, the delay was due to an imbalance of staffing, and other times, it was just difficult to reach the right person at the right time.

"The goal was to allow care providers to focus on patients rather than on making 12 different phone calls to try to expedite a CT scan," Dr. Tory explains.

ACCESS TO INFORMATION

One of the most important solutions to these problems was increasing transparency while maintaining patient privacy. At Humber, every staff member – from porters to the CEO – can go to any computer terminal, nursing station or hospital-issued smartphone to instantly access pertinent information displayed on the Command Centre tiles.

For example, now an ED nurse doesn't have to wonder why a patient hasn't moved in an hour. They can simply access the Command Centre tiles to see that there's a delay with an ultrasound and call the patient flow manager for help.

The other important solution, says Dr. Voros, was seating appropriate hospital staff together in the Command Centre. "These roles exist in every hospital, but they don't all sit together in the same room," he explains, noting that the patient flow coordinator and portering supervisors are often in different areas and locating them can sometimes require multiple phone calls. "Here, they just turn and talk to each other."

Drs. Tory and Voros agree that this arrangement has fostered a level of teamwork that is stronger than anything they've witnessed at other hospitals. The results from the first six months spoke for themselves: ED patients' wait times for placement in a bed dropped by 34 per cent, and hospital bed cleaning time fell by 51 per cent.

PREDICTING AND PREVENTING HARM

The second generation of Command Centre tiles, introduced in 2019, had a focus that had never been tried anywhere in the world.

With input from Humber leadership and staff from every clinical team, these new tiles were developed to improve patient safety. They track

key patient metrics, particularly for vulnerable populations like seniors, and mothers and babies during the birthing process.

By monitoring patient data, which updates in real time every four minutes, and alerting staff to predetermined signs of deterioration and other critical clinical changes, the Command Centre has helped maintain a remarkably low harm rate.

"We're able to provide intervention," notes Dr. Tory, "rather than be reactive."

Since 2019, the rate of patients who've experienced an unintended adverse effect during a hospital stay, such as bed sores or a hospital-acquired infection, has been about three times lower than the average across Canada. The hospital has also seen a 44 per cent decrease in cardiac arrests.

These metrics are a source of pride and motivation for every member of Humber's team, but they're also a reminder that technology is at its best when it helps people.

"Plenty of hospitals have all of this information, but if you're not using it, you won't see the outcomes," says Dr. Voros. "It's the combination of the technology and how, as staff here, we work with it across the organization." ✦

PHOTOGRAPHY: SHLOMI AMIGA (COMMAND CENTRE); DRs. VOROS AND TORY

A History of Firsts

HUMBER RIVER HEALTH is often a leader in implementing innovations in patient care, like **Canada's first hospital Command Centre (1)**. Here are a few more ways Humber has been ahead of the curve.

Robot recruitment

The hospital was the first in Canada to welcome **Pepper (2)**, a humanoid robot that stretches, dances, and supports kids and families. Also joining the team: the first Automated Guided Vehicles used to transport supplies through hospital hallways.

Reactivating spaces

Ontario's first Reactivation Care Centres were launched at Humber's Church and Finch sites. These units support patients who are past the acute care stage but are waiting for placement in a facility like a long-term care home. The centres optimize the use of hospital beds and provide a comfortable environment for patients in transition.

Innovative surgery, faster recovery

As Canada's first community hospital to acquire a da Vinci surgical robot, Humber performed the GTA's first paediatric robot-assisted kidney surgery and North America's first gastrectomy. The hospital also achieved Ontario's first ROSA knee replacement, the GTA's first

Stryker Mako hip replacement (3) and Canada's first use of the Intellijoint HIP technology to improve surgical accuracy without X-rays. The hospital's bariatric surgery program was also the first in Canada to be accredited by the American College of Surgeons.

Pain management

A pioneer in outpatient pain management, Humber launched two programs to help patients manage pain at home. The SKiP program for knee-replacement recipients and the COIN program for shoulder and upper arm surgery patients reduce the need for opioids by using catheters to deliver targeted nerve-blocking anaesthesia.

Real-time reassurance

Humber became the first surgical program in Canada to give families peace of mind with STERIS Technology, a system that sends update texts to loved ones throughout a patient's surgical journey.

Healing hips and knees

Humber was the first in the GTA to use the **Hana Table (4)** for faster-recovering hip surgeries. The hospital also ran Canada's first Hyper-Throughput Operating Room pilot to boost surgical capacity, and launched the mymobility app, delivering pre- and post-op education and recovery

checklists directly to orthopaedic patients.

Tackling common conditions

Humber enhanced patient care by becoming the first GTA hospital to offer HoLEP, a minimally invasive laser procedure that removes enlarged prostate tissue without external incisions. It was also the first in Ontario to treat uterine fibroids using the **Acessa ProVu system (5)**, which shrinks the tissue without cutting the uterus.

Smarter triage

Humber was one of nine organizations to receive funding from SCALE AI, a national artificial intelligence initiative. The funds are being used to develop a tool to help the Apotex Emergency Department (ED) manage patient flow and ensure people receive the right care at the right time.

Advancing mental healthcare

Humber was the first community hospital in Ontario to offer rTMS (repetitive transcranial magnetic stimulation), a non-invasive depression therapy, as a stand-alone treatment without academic affiliation.

Care outside the hospital

Humber was the first in Canada to add a digital checklist to electronic records for dementia patients, helping staff provide personalized care. In local long-term care homes, Humber introduced an "early warning" system that helps staff catch health problems sooner, allowing residents to get treated at home or through an outpatient visit,

avoiding a trip to the ED. Client-centred programs like HEART@Home and Hospice@Home bring specialized hospital-level care directly to patients.

A leader in home dialysis

Humber was a North American pioneer in offering a **home dialysis program (6)** that allows patients to receive treatment overnight. Today, the hospital is a leader in this area, with 18 per cent of its dialysis patients receiving treatments at home – more than triple the Ontario average of 5.1 per cent.

Digital transformation

In another Canadian first, Humber created a fully digitized system for heart rhythm tests (ECGs). Results are now sent directly to a patient's electronic medical records, eliminating waste, reducing errors and creating a model for other hospitals.

Training the next generation

Humber partnered with Toronto Metropolitan University and Durham College to launch the Critical Care Certificate and Accelerated Critical Care Certificate Programs. The model became a blueprint for fast-tracking nurse training, especially during COVID-19.

Building supportive tools

Humber developed the Healix platform, enabling the hospital to create apps that support patient care. For example, the Cancer Care Peer-to-Peer Support Program connects patients with volunteers who listen and offer guidance. +

(1) Hospital leadership, GE HealthCare and government officials launch the Command Centre; (2) Patient Isabelle prepares for surgery with Pepper; (3) Dr. Sebastian Rodriguez-Elizalde performs surgery with the Mako; (4) The Hana Table; (5) Dr. Andre LaRoche and team performs the first Acessa surgery in Ontario; (6) Patient Kishwar receives home dialysis.



ILLUSTRATION: RYAN OLBRYSH; PHOTOGRAPHY: HUMBER RIVER HEALTH

Powered by purpose

Four stories that prove progress in healthcare starts with the people delivering it.

By Claire Sibonney

A SCRUB NURSE ADVANCING robotic surgery. A clinical manager who's improving surgical flow. A mechanic who's revived idle buildings as part of Humber River Health's transformation into an award-winning, energy-efficient healthcare system. A shipping and receiving clerk who found her calling in nurturing a strong internal workforce.

These are just a few of the thousands of remarkable people making a difference at Humber. Four staff members reflect on their experiences as the hospital marks 10 years since opening its Wilson site.

Odette Brown

REGISTERED PRACTICAL NURSE, SURGERY

I've been a scrub nurse in the operating room (OR) at Humber for 25 years, and I still love what I do. I found my calling in orthopaedics early on. The first time I stepped into an OR and saw a total knee replacement, I thought, "This is it!" It reminded me of watching my father fix bikes back home in Port Antonio, Jamaica. Except now, as a peri-operative scrub nurse, I'm helping rebuild hips and knees.

Over the years, I've helped bring in some of the most advanced surgical innovations: the ROSA robotic system for knees, the Intellijoint navigation tool for hips and the Stryker Mako robotic system for both. We've been leaders in Ontario, with surgeons from all over the world coming to observe.

In 2023, I was part of a team that implemented our Hyper-Throughput ORs and streamlined our orthopaedic surgical trays – reducing the number of trays, simplifying the instrument set and minimizing preparation time, which helped us lower operating-room turnover time by 50 per cent.

Off the clock, I volunteer on surgical missions to Ecuador and Guatemala through the Canadian Association of Medical Teams Abroad and Operation Walk Canada, a non-profit group that offers life-changing hip- and knee-replacement surgeries in the region for people who couldn't otherwise afford them. The gratitude I see on the faces of the people after they can walk and stand again brings me immense joy.

Navdeep Badwal

CLINICAL MANAGER, INPATIENT SURGERY

When I started at Humber 11 years ago, I had just completed my nursing degree while working two part-time jobs – a tough balance, but worth it. In my early days, I gained experience in multiple areas of the hospital, but gravitated towards inpatient surgery.

During my time as a bedside nurse, I began helping with nurse orientations, which sparked my interest in



PHOTOGRAPHY: SHLOMI AMIGA

Navdeep Badwal, top, Tony Pelullo, left, and Odette Brown, right, are making a difference at Humber.



Brittany Mattucci trains new leaders and runs staff recognition programs at Humber.

education. I returned to school for my master's degree and took on a clinical practice leader position with the surgical program. I now lead the inpatient surgical team.

One project I'm most proud of was developing policies and training staff for our outpatient hysteroscopy clinic, which helps women experiencing abnormal uterine bleeding get quicker access to care. This clinic allowed us to move low-risk hysteroscopies out of the OR and marked the first time that sedation was given in the surgical clinics.

A few years ago, I also teamed up with Dr. Lynn Sterling, an OBGYN physician and the colposcopy lead, to pitch for \$100,000 in our hospital's first-ever Dragons' Den event – and we won! That funding brought a CO₂ laser into our clinic to treat pre-cancers of the lower genital tract. This laser has allowed us to take better care of our community close to home. It has been another huge step in enhancing gynaecology into a full-service and comprehensive Women's Centre of Excellence at Humber.

Looking ahead, I hope to see more innovation at the hospital, more front-line leaders and care that continues to evolve with our community.

Tony Pelullo

MAINTENANCE MECHANIC LEAD HAND

I'm one of about 30 people who can say they've been at Humber for more than 40 years. I started in 1985, working in the kitchen to get my foot in the door. It was in that job where I met my wife, Rosina. We've been married 36 years. Both our daughters were born at Humber. During their stay, nurses would page me when one of our kids needed a bottle or diaper change.

Today, I'm the Maintenance Mechanic Lead Hand at Humber's Finch and Church Campuses. I co-ordinate workflow and work with trades, contractors and departments to keep everything running. Before Finch and Church became Reactivation Care Centres to provide specialized care for patients who don't require acute hospital services, these sites had been fully or partly shuttered for years. Getting them back online safely and efficiently was a big part of my work.

Aside from coming up with ways to breathe new life into buildings, the hospital also invested in reducing its climate footprint. We even earned a climate action award after upgrading our systems. We worked hard to get it done.

We've had our share of surprising moments, such as when *Designated Survivor* with Kiefer Sutherland was filmed here. We've been through tough times, too, such as COVID. That was devastating. Still, we showed up. And so did leadership. They went out of their way to make sure everyone was supported, and I'll never forget that.

Brittany Mattucci

ORGANIZATIONAL DEVELOPMENT SPECIALIST

After studying business management, I found myself driving medical supplies between hospitals for my dad's company. Over time, people at Humber noticed my work ethic and encouraged me to apply for an open position in logistics as a store clerk.

That led to a role as a program assistant at our Reactivation Care Centres for alternative level of care (ALC), which serves those waiting to transfer to another care setting and rehab patients, where I helped co-ordinate COVID vaccine rollouts through our mobile clinic. It was heartwarming and sometimes heartbreaking.

Humber is a hospital where professional development and growth are important, and I've always had leadership support me in advancing my career. When I moved into the role of Executive Assistant to the VP of Human Resources (HR), I discovered that the field was a great fit for me.

Today, I'm an Organizational Development Specialist in HR, where I focus on staff engagement and transparent communication with our teams, two values that are crucial to Humber's culture. I train new leaders and run the hospital's recognition programs, like sending thank-you cards to staff for their achievements.

I also support engagement initiatives such as our rounding programs. Each month, management meets with their staff to purposefully check in and discuss their needs, concerns or suggestions.

I've seen first-hand how the hospital has become more collaborative and open to change. In the next 10 years, I hope we keep that momentum, supporting people through learning opportunities, meaningful recognition and time to connect. ♣



Virginia Debling, Catherine Aldred and Renee Alexander (l-r) enjoy volunteering together each week at Humber.

Living the dream

For a trio of seniors called 'The Dream Team,' volunteering at Humber built a friendship for life.

By Jennifer Goldberg

IT'S A GREY AND DREARY WEDNESDAY outside Humber River Health's Wilson site; however, the mood at the information desk is anything but. Renee Alexander, Catherine Aldred and Virginia Debling have just arrived for their weekly volunteer shift, and everyone is delighted to see them.

The retirees waste no time starting their jobs as greeters, talking warmly with patients as they help them find their way in the hospital. "I'd talk to the Devil himself, my husband used to say," Virginia jokes.

Renee lets loose a knowing chuckle, the kind only a long-time friend would get away with, and chimes in, "You would, too!"

The three women have Virginia's chattiness to thank for kicking off their relationship 10 years ago. Catherine spotted her during volunteer orientation on opening day in 2015 and the two just clicked. "It was like we met knowing each other forever," Catherine recalls. Renee says she joined them soon after, having watched the site construction from her home nearby. "I thought to myself, 'When that hospital opens, I'm going to volunteer there.'"

After years of volunteering together, Virginia dubbed their group "The Dream Team" – a reflection of their volunteering and friendship. The name stuck and the women have come to exemplify volunteerism at Humber.

In 2024, 600 volunteers greeted and guided patients and visitors, supported fundraising efforts and assisted in the gift shop. Humber welcomes volunteers throughout the year and sees them as vital to the organization.

"Our volunteers are usually the first ones people meet as they come through the doors," explains Louisa Ceci, Director of Volunteer Services at Humber. "They help provide the best possible experience, so our staff can focus on providing the best possible care."

The Dream Team members agree that they, too, benefit from the positive experience of volunteering. Not only do they find joy in helping others, but they've also formed a lasting friendship. The three women are there for each other through holidays, shopping trips and health issues, far beyond their Wednesday volunteer shifts.

"We're forever friends," Catherine says, smiling. "Through thick and thin." ♣

PHOTOGRAPHY: SHLOMI AMIGA

PHOTOGRAPHY: DANIJELA GORLEY

HUMBER SETS THE STANDARD WITH ITS EFFECTIVE PATIENT ADVISORY PROGRAM.

Patient Power

By Elizabeth Chorney-Booth

WHEN STEVE SOTTILE'S ELDERLY MOTHER

was admitted to Humber River Health in 2016 with kidney issues, the professional tech expert was keen to see the then-new hospital's digital fixtures in action. While initially impressed with the bedside terminal his mother – and every patient – had, he became frustrated when trying to access some of its functions. He had trouble broadcasting the screen onto a larger TV monitor, ordering meals and changing language preferences. Hospital staff also sometimes placed the terminals out of patients' reach.

Sottile brought up his concerns with Humber staff, eager to offer feedback on how to improve the patient experience. Not only were they interested in what he had to say and willing to make some changes, but administrators also told him about Humber's Patient and Family Advisory Committee (PFAC), which aims to improve hospital services on an ongoing basis.

"I was there as my mom's caregiver," Sottile says. "But since I always had something constructive to say, they asked if I wanted to join the PFAC that advises the nephrology department." He accepted the offer, also joining the corporate group, and continues to be a vital member of Humber's growing PFAC community.

REAL CONSULTATION FROM REAL PEOPLE

The idea of having a patient advisory council is not unique to Humber. Patient consultation – particularly in the areas of nephrology and oncology – is often a funding and accreditation requirement for hospital programs. However, the



Steve Sottile
PFAC member



Jennifer Yoon
Deputy CNE and VP of Quality, Patient Safety and Risk

organization stands out for how involved its members are. In 2017, Humber reimaged its PFAC program by adding more committees, better integrating community feedback into its decision-making, and establishing patient safety and satisfaction as top priorities.

Humber currently consults about 70 active advisors, all of whom are former patients or caregivers who have had less-than-ideal to excellent hospital experiences. They participate in five different specialized PFAC groups, which include the original committee, a corporate group and specific groups addressing cancer, bariatric and nephrology care. Deputy Chief Nursing Executive and Vice President of Quality, Patient Safety and Risk Jennifer Yoon says the trick to building a productive group is to recruit people like Sottile, who aren't just looking to complain, but also genuinely want to help improve hospital care. As a result, hospital leadership and staff give their suggestions serious consideration, which is not always the case in other organizations.

"There's a foundation of mutual respect between our teams and the PFAC members," Yoon says. "We can't always say 'yes' to their recommendations, but we're always ready to engage."

LEVERAGING EXPERIENCE AND EXPERTISE

Todd Finlayson joined the corporate PFAC after hip replacement surgery in 2016, which resulted in an infection. As a successful businessman who owns 12 McDonald's franchises, Finlayson is happy to lend his expertise to Humber's corporate PFAC, where he and his fellow members, including Sottile, advise the hospital at an organizational level. During the course of his involvement, Finlayson has helped implement patient-centred COVID-19 visitation rights, protocol around managing patients who may experience mental health distress while visiting the hospital, and improved hand-washing rates among hospital staff by mandating 100 per cent compliance.

Finlayson notes that his (and other committee members') value extends beyond the patient perspective. "What we do in our professional lives informs our opinions on how the hospital might do things differently," he says. "Not only is it a patient perspective that we're providing, but we also try to keep our group quite diversified. It's always valuable whenever you can get perspectives from different walks of life."



Todd Finlayson
PFAC member

All PFAC members participate on a volunteer basis, sometimes offering 20 hours of their time each month, depending on their level of involvement. They attend regular meetings, and many are even available via text should Yoon need to get their opinions on an urgent matter – something that was particularly relevant during the pandemic. They continue, despite the hefty commitment, knowing they're in a position to make a difference.

Yoon, Sottile and Finlayson all believe the biggest thing that sets Humber's PFACs apart from other hospital advisory committees is that no one ever feels like the groups are an afterthought or just performative. Yoon says she's been involved with other hospitals in the past that were reluctant to develop such close ties to patient advisors, but Humber is committed to positioning its PFACs as a real part of the hospital team.

"Our leadership showed an openness and readiness that underscored the genuine desire for engagement," Yoon says. "It's been amazing to watch on both sides."

Sottile agrees. "All of us say that if we ever felt like we were checking a box, we wouldn't be here," he says. "But we can see our contributions and how they're being used. That's what keeps us in it." ✦

ILLUSTRATION: DREW SHANNON; PHOTOGRAPHY: SHLOMI AMIGA (SOTTILE AND YOON)

PHOTOGRAPHY: COURTESY OF HUMBER RIVER HEALTH (FINLAYSON)

HUMBER'S BLEND OF HIGH-TECH TOOLS AND SURGICAL EFFICIENCY IS SETTING THE PACE FOR THE FUTURE OF MEDICINE.

A CUT ABOVE

By Dave Yasvinski

NICK BOZZO WAS JUST 15 YEARS OLD when a motorcycle slammed into him as he was crossing the street. The force of the impact sent him flying 20 feet, and while his injuries healed, his body was never quite the same.

The now 52-year-old co-owner of Toronto's SanRemo Bakery has spent decades working through various forms of discomfort, juggling the physical strain of lower-back pain and sciatica with the demands of running a successful café. After the pandemic, though, something changed. "I started experiencing really bad hip pain," he says. "It went from zero to eight out of 10 – it was crazy."

Bozzo soon found his way to Humber River Health, where Dr. Sebastian Rodriguez-Elizalde and his team were earning recognition for their use of precision robotics, opioid-sparing anaesthesia and an ultra-efficient surgical routine. Over the past year and a half, Bozzo has had both hips replaced: the first with a traditional procedure and the second with the help of Humber's recently acquired Mako Robotic Arm Assisted Surgery System.

The difference, after both surgeries, was immediate. Bozzo was up and walking the same day, and within weeks, the pain that had ruled his life for years was gone. "It has been night and



Nick Bozzo no longer experiences pain while walking thanks to his hip replacement surgeries at Humber.

PHOTOGRAPHY: ANDREW FLEMING

day,” he says. “You can’t put a price on being able to walk without pain.”

RAISING THE BAR

In 2020, Humber advanced the standard for joint surgery in Canada when it became the first community-academic hospital in the country to adopt the ROSAKnee System. The computer-guided robotic arm captures a real-time, three-dimensional view of a patient’s knee and guides every instrument stroke down to a fraction of a millimetre. “It’s changed how we do knee replacements, because we get so much more information while operating,” Dr. Rodriguez-Elizalde explains. “That degree of detail allows us to customize surgery to the individual.”

Anaesthetic protocols are a key part of the process Humber uses in conjunction with its joint surgeries. Instead of deep general anaesthesia, specialists use fast-fading spinal and continuous nerve blocks that bathe the joint in local anaesthetic for 48 to 72 hours. This approach supports faster recovery and can dramatically reduce the need for post-op opioids – a key benefit for many patients. “We’re prescribing about 10 per cent of the provincial average for narcotics after a knee replacement,” Dr. Rodriguez-Elizalde says. “That’s huge.”

REWRITING THE SURGICAL PLAYBOOK

Roughly a year after ROSA arrived, Humber adopted Intellijoint HIP, a Canadian-made navigation tool that’s like a GPS for hip replacements. During surgery, two coin-sized trackers are temporarily fixed to the pelvis and thigh; an overhead camera reads their positions and instantly projects cup angle, rotation and leg-length data onto a monitor, letting the surgeon set the new cup and stem with extreme precision. Dr. Rodriguez-Elizalde says this increased accuracy means more-precise surgeries with fewer complications.

These robotic surgery successes set the stage for Humber’s newest arrival, the Mako System. Unlike ROSA’s real-time imaging, the Mako uses preoperative CT scans to create a 3D model the surgeon maps out during the procedure. That preplanning allows for surgeries that are tissue-sparing and even more precise.

While both of his hip surgeries were successful, Bozzo says it felt like he healed more quickly after his second, Mako-assisted procedure. “That same week, I was able to do way more,” he says. “And you can barely even see the incision. It’s incredible.”

All that cutting-edge hardware is only as good as the people who wield it, so Humber is also investing in technology that helps keep its staff sharp. This includes PrecisionOS, a virtual reality training module that lets surgeons, nurses and trainees walk through a surgery step by step to



Jhanvi Solanki
Vice President, Clinical Programs



Dr. Sebastian Rodriguez-Elizalde uses precision robotics in joint replacement surgeries.

help them practise and perfect procedures. A donor-funded simulation centre is also in the works, adding a hands-on space where the whole team can practise with real instruments before entering the operating room (OR). “It will allow us to host teams of surgeons to help them learn these new approaches for use in their own facilities,” Dr. Rodriguez-Elizalde says. “You can run six or seven different surgeries at the same time with a surgeon leading at the front.”

LESS WAITING, MORE LIVING

Humber saw an opportunity to improve efficiency and make a dent in the provincial surgical wait-list that had grown during the pandemic. According to Jhanvi Solanki, Vice President of Clinical Programs, the hospital convened a “war room” of surgeons, nurses and anaesthesiologists who timed every move in the OR, from opening instrument trays to wheeling patients into recovery.

The team managed to cut OR waste in half, shrink 15-minute set-ups to six minutes and pare down eight heavy surgical trays containing all the sterilized tools needed for a hip replacement to just three. Just as important, they decreased the

average joint-replacement run time from over an hour to around 40 minutes. All those gains feed into a two-room relay called Hyper-Throughput, where one patient is prepped while the previous patient is still in surgery. Moving back and forth between ORs, Dr. Rodriguez-Elizalde was able to perform 14 knee replacements on the inaugural Hyper-Throughput Day in September 2023. Since then, Drs. Barry Cayen and Justin Chang have also successfully adopted these workflows. Elements of this model are now embedded in day-to-day operations, with every OR adding a case to help improve the hospital’s overall flow.

Humber’s new approach has transformed what patients can expect from surgery, Solanki says. Streamlined procedures mean less time under anaesthesia, lower infection risk and earlier surgery dates – all of which help speed recovery and improve results. “Hyper-Throughput allows us to repurpose the time that’s already in the system and use it to increase our capacity,” she says.

It’s a big part of the reason Bozzo was able to have both his hips replaced much sooner than he expected. Now, he’s making travel plans with his wife. “I thought it would be a year before my first surgery,” he says. “It ended up being a few months. We’re going to Dubai in the new year.”

PHOTOGRAPHY: SHLOMI AMIGA

PHOTOGRAPHY: COURTESY OF HUMBER RIVER HEALTH

ROBOTICS

THE FIRST ROBOT IN THE ROOM

SINCE 2012, THE DA VINCI SURGICAL SYSTEM, initially used only for prostate procedures, has made minimally invasive surgery the standard of care at Humber. Fifteen Humber surgeons are now trained on the system in three subspecialties: general surgery, gynaecology and urology. Minimally invasive surgery involves smaller incisions, which can reduce blood loss, lower infection risk and improve recovery times.

Surgeons control the da Vinci’s robotic tools with their hands, moving them with incredible precision inside the body. “It has become an indispensable tool for us,” says Dr. Luke Fazio, Humber’s Medical Lead of Urology and co-chair of the Robotics & Innovation Committee.

With few hospitals investing in robotic surgery in the region, he notes the device is attracting top talent to Humber. “Surgeons are enticed to come to a place with robotic surgery. At the same time, they bring a ton of expertise unrelated to robotics,” he adds.

Dr. Fazio hopes the hospital will receive the funding to add a second da Vinci in the next two years. “The backbone of this funding is our donors and our foundation,” he says. “We wouldn’t be anywhere without them.”



Dr. Luke Fazio uses the da Vinci to perform minimally invasive surgeries at Humber.

Shaping community care

As Humber River Health's Wilson site marks 10 years as North America's first fully digital hospital, President and CEO Barb Collins and Chief of Staff Dr. S. Zaki Ahmed share future initiatives to bring innovative and equitable healthcare closer to home.

By Devon Scoble



Building a new Cardiac Catheterization Lab

In partnership with University Health Network (UHN), a new Cardiac Catheterization Lab will provide enhanced community care with 1,500 diagnostic catheterizations each year. It will also create a two-way "cardiac corridor" between Humber and UHN, reducing treatment times and transfer risks for urgent cases.

“We serve an equity-deserving community, and taking a day off work to travel downtown to be seen for a specialist appointment is difficult. We believe those services should be offered at Humber.”

– Barb Collins



Addressing the primary care gap

The Schulich Family Medicine Teaching Unit will serve more than 10,000 patients when it reaches full capacity in 2026. This training site for medical and healthcare students operates as a local clinic that helps fill critical care gaps in its historically underserved community. Funded by the Schulich Foundation, with initial financial support from the Slight Family Foundation, the unit has attached 4,000 patients to primary care physicians since it opened in July 2023.

“Our population has a high rate of individuals who can't get primary care. We're training nine new family physicians a year, most of whom will establish practices in the community where they trained.”

– Dr. S. Zaki Ahmed



Caring for seniors

The proposed Acute Behavioural Assessment and Management Unit will provide care for patients with cognitive impairments that lead to extended hospital stays and difficulties finding long-term care. The unit is expected to serve 45 patients a year with specialized care, allowing for timelier discharges and an average stay between 30 and 60 days.

“We have a group of geriatric patients that will never make it to a long-term care home and will never be able to go back to their homes. We want to be able to care for them in a kinder environment.”

– Barb Collins



Empowering staff

The proposed Humber River Health Simulation Lab will train physicians, nurses, paramedics, police and other healthcare professionals in cutting-edge procedures, eliminating the need to travel elsewhere to access new technologies.

The lab will partner with the private sector and educational institutions to ensure its approach to simulation is grounded in current and emerging best practices. This training is expected to empower Humber's healthcare workforce with new skills, reduce turnover rates and meet the growing demand for healthcare workers.

“How do we make sure our staff are learning procedures in the safest way? The Simulation Lab will allow them to learn new procedures in a safe environment and to run through dangerous scenarios without causing any harm.”

– Dr. S. Zaki Ahmed



Delivering care in the community

Leveraging a historic \$10-million gift from the Honey & Barry Sherman Legacy Foundation, Humber will create a new vision for its Finch Campus that addresses the pressing healthcare needs of northwest Toronto. The plan includes an urgent-care clinic, new diagnostic tools and six proposed hospice beds in partnership with Dorothy Ley Hospice. In collaboration with the North Western Toronto Ontario Health Team, Humber will continue to operate the HUB@2115, a community facility that provides medical care, mental health supports and social services.

“This transformation at our Finch Campus is about meeting people where they are, ensuring they can access the care they need closer to home. From urgent care to hospice services, we are building a system that supports our community at every stage of life, with a special focus on providing dignity and compassion for our seniors.”

– Barb Collins

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