Surgical Recovery: Leading Practices from the Surgical Innovation Fund

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Ontario Health

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Ontario Health

Executive Summary

Background

Ontario's hospitals faced unprecedented demands throughout the COVID-19 pandemic. Facilities coped with pressures on emergency and critical care services, while staffing and operations gaps created new challenges for surgical units and waitlists.

In response, the Ministry of Health (MOH) introduced a $30-milllion Surgical Innovation Fund (SIF) in 2021. Administered by Ontario Health, it helped hospitals pilot surgical recovery projects and processes in late 2021 and in 2022. More than 100 SIF projects kickstarted recovery in hospitals across the province, where specialized training, new hires, extended hours, new equipment, renovations, unique partnerships and surgical efficiency programs brought more patients back into operating rooms and improved flow from surgery booking to recovery.

The *Surgical Recovery: Leading Practices from the Surgical Innovation Fund (SIF*) report offers an overview of 2021-22 funded projects and their progress. It also profiles 14 specific projects, highlighting how new processes removed barriers to recovery and created a better surgical journey for patients. Although the SIF projects varied in cost and scope, common leading practices supported progress across all efforts.

Common leading practices

- **Engage surgical and support staff:** Make administrators and unit staff part of the change process to support new process adoption and ensure that changes address all needs
- **Promote mentorship:** Experienced surgical staff offer essential support to new trainees
- **Adopt change management principles:** Use leadership and subject matter experts to champion change and move process improvement forward
- **Use working groups:** Leverage facility-level working groups and committees to support project communication, implementation, tracking and risk management
- **Centralize recovery efforts:** Take a joint approach—to training efforts, equipment purchases or data efficiency projects—to extend both reach and benefits
- **Complete regular data clean-up:** Make data quality and compliance a priority and review waitlists for inaccuracies on a regular basis
- **Offer waitlist management support:** Provide direct support to surgeons' offices to ensure consistent and accurate waitlist management

Opportunities for future recovery efforts

The funding allowed hospitals to put new surgical recovery ideas into practice while system resources were largely focused on COVID-19. However, funds were just one element of success. Progress reports and ongoing recovery efforts reveal opportunities for broader support and future recovery.

- **A regional approach:** Regional support played a key role in many SIF projects, as health regions organized hospital collaborations and consulted on proposals. Ongoing recovery efforts would benefit from more regional coordination, while regional tables could review project proposals and distribute future recovery funds. Regions could also oversee joint approaches to recovery solutions by purchasing surgical equipment in bulk, establishing cross-regional training hubs with more reach, and setting up governance tables that respond to funding needs.
- **Sustained support:** The SIF's one-time funding jump-started surgical recovery for many hospitals, though the need for sustained support for longer-term success was identified. Since the SIF was one of several recovery funding programs, future support could be consolidated into a single program.
- **Centralized solutions:** Certain solutions, such as training, could also move to a larger scale with provincial-level nursing operating room certification, standardized content and a centralized application process.

The 2021-22 SIF projects represent the hospital sector's critical first steps toward recovery. As Ontario's hospitals move beyond pandemic response, the lessons drawn from SIF outcomes offer valuable templates for change and continued system transformation.

The Surgical Innovation Fund

Supporting Recovery Solutions

The COVID-19 pandemic's pressures on hospitals had a significant impact on Ontario's surgical volumes and wait lists. As provincial pandemic measures paused non-essential surgeries and redeployed surgical staff, hospitals faced a dual challenge: work toward surgical recovery while still addressing COVID-19 demands on staff, resources and space.

In 2021, the Ministry of Health launched the Surgical Innovation Fund (SIF), introducing $30 million in one-time funding for a series of surgical recovery projects. One of several funding programs, the SIF fostered targeted approaches to ramp up surgeries and get patients on the path to recovery. The funding—administered through Ontario Health—launched more than 100 pilot projects across Ontario, all supporting provincial surgical capacity and recovery priorities, while promising sustained gains. Although each hospital's project addressed specific needs, they shared overall goals: greater surgical efficiency, increased regional collaboration and improved patient outcomes.

This report shares an overview of participating hospitals' progress, drawn from the 2021-2022 program outcomes and hospital outreach. It also showcases 12 SIF-funded pilot projects and two additional data integrity initiatives, highlighting a mix of scalable practice and process changes at hospitals of all sizes. Whether a larger site put funding toward redesigned space, or a smaller one opted for extended hours or new equipment, the results show strides toward higher surgical volumes, more efficient surgical pathways, and most importantly, better patient and staff experiences.

Along with these gains, the report identifies the leading practices shaping this recovery work and highlights how data-integrity best practices can support ongoing gains. As the province moves from pandemic response into overall system improvement in 2023, these lessons can identify opportunities for change and inform ongoing surgical system transformation.

Innovation in Action

Key learnings from SIF projects

The Surgical Innovation Fund (SIF) offered Ontario hospitals much-needed support for new approaches to surgical recovery. With SIF funding, hospitals strengthened key elements of their surgical programs, hiring new staff and buying necessary equipment, and using these as springboards to new patient pathways, reimagined spaces and enhanced waitlist management systems. The projects followed six distinct themes: Recruitment & Training, Equipment Purchase & Technology, Extended Hours, Regional Partnerships & Planning, Relocation & Reallocation, and Surgical Efficiency.

A seventh theme—Data Integrity—emerged as an important factor in recovery, with accurate and timely waitlist data forming a foundation for all efforts. While many projects included overlapping themes, each one represented a key element of the wider work that's bringing more patients back into surgical suites across Ontario.

Recruitment & Training

Overview

Throughout the pandemic, staffing gaps slowed surgical recovery efforts. For many Ontario hospitals, SIF funding helped fill essential roles and hone operating room (OR) expertise. Some sites invested in core staff positions, like OR technicians and nurse educators, while others established operational roles that launched new OR or outpatient spaces. At Collingwood General & Marine Hospital, such hires made a Same-Day Discharge (SDD) pathway possible for total joint replacement (TJR) patients (see profile below.)

Both smaller, one-site training solutions and collaborative programs that reached across hospital systems or regions addressed shared staffing pressures. Hospitals used in-house “micro-certifications” to build new and existing staff skills. This allowed places like Timmins & District Hospital to solve site-specific issues with adapted Association of Perioperative Registered Nurses (AORN) training for area hospitals. Others created partnerships with local colleges so nurses could “upskill” with critical care and perioperative expertise for a broader pool of nurses.

Funding range: $15,000 to $1,783,952 (full project costs)

Overall Outcomes

- New certifications
- Permanent operating room (OR) roles and better staff retention
- Higher surgical activity levels and improved case time accuracy

Lessons Learned

- **Centralize learning opportunities**: Scale regional or virtual programs to train a greater pool of students, save costs and limit the number of trainers needed to support programs
- **Leverage partnerships:** Use existing ties between hospitals and colleges to develop specialized curriculum or training hubs
- **Emphasize mentorship**: Senior perioperative nurses and continued learning opportunities offer trainees critical support as they develop surgical expertise

- **Focus on "upskilling":** Customized or micro-training offers quick "upskilling" for surgical support staff
- **Cross-train roles:** Cross-training—for example, training a medical device reprocessing department (MDRD) technician as an OR assistant—makes the most of existing staff resources and creates more staff development opportunities

Challenges Identified

- COVID-19 measures interrupted training programs and redeployed perioperative nurse leaders
- Staffing pressures made it difficult to release nurses for full-time courses
- Tight program deadlines made recruitment challenging for smaller hospitals
- Hospitals must adapt Association of Perioperative Registered Nurses (AORN) courses to national standards
- College course structures are not always flexible enough to accommodate nursing schedules

Collingwood General & Marine Hospital (CGMH): Same-Day Discharge for Total Joint Replacement

Cost

$189,500 (covering recruitment and training, equipment, consultants, technology, and engagement)

Challenge

The hospital needed extra space in OR recovery to support same-day discharge. It planned a well-staffed pathway based on best practices for same-day discharge for total joint replacement (TJR) patients.

The goal

Hire and train staff to develop, set up and evaluate a same-day discharge pathway for TJRs. This would allow the hospital to complete 60% of elective procedures as same-day discharges while meeting best practices and enhancing the patient experience. The hospital also wanted to develop a 23-hour short-stay unit to increase capacity for other short-stay procedures.

How it worked

With funding, the hospital recruited a project lead and consultants, and invested in rehabilitation equipment and a dedicated computer workstation. It also developed a learning management system, educational material, and training.

A clinical educator, project lead, and program champions led the educational component with mandatory training for operating room, surgical unit, and pre-anesthesia check-up (PAC) staff, as well as for medical and rehab teams. Collaboration between the project lead, clinical educator, department chiefs, and unit resource leads brought all the elements together.

Outcomes

During the pilot, the hospital completed 48.7% of total joint replacements at same-day discharge and had a 0% rate of readmission within 30 days. Of the TJR patients that met the criteria, only 14.2% were same day admits.

> « Through collaborative teamwork and the support of the Surgical Innovation Fund, CGMH was able to establish a care pathway for elective [total joint replacement] based on best practices that gives North Simcoe Muskoka residents access to the care they need close to home, and to recover in the comfort and privacy of their own home. »
> Shannon Allwood, Inpatient Surgical and Rehab Manager, Project Lead, SDD Program, Collingwood General & Marine Hospital

Timmins & District Hospital: Hospital-led Operating Room Training Program for Northern Communities

Cost
$98,900 (covering training, equipment, technology, and travel)

Challenge
Develop a hospital-led, customized training program that addresses specific hospital and cultural community needs in Northern Ontario.

The goal
The program focused on building the capacity of operating-room-trained staff and filling gaps that could interrupt surgical services. It created curriculum to sustain long-term collaborative nursing training across Timmins and area communities.

How it worked
Hospital-led training supported clinical learning through simulated Association of Perioperative Registered Nurses (AORN) scenarios, including blood reaction management, difficult airway, retained surgical item retrieval and venous air embolism, among others. On-site mentorship in the district and at the Timmins & District site offered more access to more acute and specialty surgical services.

Outcomes
The program strengthened surgical and obstetrical nursing teams across Timmins and the district. It continues to build collaborative teams and shared training resources and is expanding to include the Simulation Lab. Going forward, the district will use the same model for emergency room and pediatric nursing across all sites.

> « In the North, collaborative teaching models and sharing our expert nursing educators have proven very successful. The opportunity to build increased capacity across our district benefits every community. Together we are stronger. »
> Josée Jean, Director of Surgical Services, Timmins & District Hospital

Equipment Purchases & Technology Upgrades

Overview

At Erie Shores HealthCare, surgical teams proved that even basic surgical tools can create recovery gains. The hospital's investment in surgical instrument sets (see profile below) was one of many aimed at improving surgical fundamentals with SIF-funded OR upgrades, new equipment and new technology.

For hospitals like Almonte General, specialized equipment helped boost volumes for specific procedures (see profile below), while a laparoscopic tower or diagnostic software tightened turnaround times and helped trim waitlists at other sites. Hospital investments covered even more ground with new technology that improved waitlist management systems and established process improvements.

Funding range: $321,583 to $2,137,614 (full project costs)

Overall Outcomes

- More same-day cases
- Improved turnaround time
- Higher overall volumes

Lessons Learned

- **Engage surgical and support staff:** Consultations ensure that any changes meet all surgical partner and support staff needs
- **Purchase in bulk:** Provincially coordinated or regional purchasing—especially for common equipment—can improve pricing

Challenges Identified

- Pooled purchasing may slow down the process
- Upgraded technology may not communicate with existing systems
- Short SIF program time frames made resourcing challenging

Erie Shores HealthCare: Enhancing OR Equipment and Supplies to Maximize OR Efficiencies and Increase Patient Flow

Cost
$101,600

Challenge
A limited supply of surgical instrument sets curbed the number of procedures the hospital's surgical program could complete.

The goal
Maximize OR time and increase surgical throughput.

How it worked
The hospital purchased orthopedic, laparoscopic, and other equipment that allowed for more surgeries within the same operative time. Investments in minor equipment trimmed turnaround time between procedures and increased overall throughput.

Outcomes
With more available, reusable instruments and equipment, the hospital reduced supply and sterilization-related delays.
It also eased scheduling complications stemming from limited equipment and made it easier for teams to move back and forth between operating rooms.

> By reducing turnover times, we are able to care for more patients within the same operative block. Our medical device reprocessing department (MDRD) team now has more instruments available, which reduces delays in procedure starts when instruments are still being turned over. »
>
> Kyle Shafer, Director, Outpatient Services, ESHC

Almonte General Hospital: Increasing Surgical Throughput – Improved Access to General Surgery and Gynecology Surgery

Cost
$67,380

The challenge
Instrument reprocessing turnaround time limited hospital capacity for gynecology procedures, even as the region faced a growing waitlist.

The goal
Improve access and increase surgical flow and scope of services by offering laparoscopic hysterectomy and more general surgeries to address regional waitlists.

How it worked
The funding purchased laparoscopic gynecology and cholecystectomy instruments. With new equipment, the hospital scheduled laparoscopic hysterectomies, bilateral salpingo oophorectomies (BSOs), ovarian cystectomies, and provincially prioritized procedures.

Outcomes
Operating room utilization increased to 92% compared to pre-pandemic use of 84%, and gynecology procedure volumes increased by 92%.

> « The OR Team, including Chief, Manager, VP, Surgeons and Nursing, collaborated to identify appropriate projects that would assist with regional needs during the ongoing pandemic while leveraging existing resources. The implementation challenges faced due to supply chain issues should be considered for future projects. »
>
> Hannah Larkin, Manager of Patient Flow and Surgical Services, Almonte General Hospital

Extended Hours

Overview

Staffing wasn't the only challenge to greater operating room (OR) capacity. Time was another limited resource, prompting hospitals to free up OR hours with new processes and care pathways. Hamilton Health Sciences accomplished this by looking ahead—the hospital created a pre-rehabilitation "pre-hab" program that supported total joint replacement (TJR) patient recovery at home (see profile below.)

At other sites, a combination of staff training and new equipment made extended OR hours possible. That was the case at Kingston Health Sciences Centre, where training supported longer hours for two key sites. (See profile below.)

Funding range: $186,823 to $1,156,000 (full project costs)

Overall Outcomes

- Expanded surgical hours and higher volumes

Lessons Learned

- **Think beyond daytime surgery**: After-hours or weekend surgeries add fresh surgical capacity
- **Support ORs with extra orientation positions**: Having more orientation positions than needed ensures a pool of staff in training to handle coverage gaps
- **Align hours with key partners and targets:** Extended hour planning should involve anesthesia partners and align to "long-waiter" patient cases
- **Adjust booking timelines**: In some cases, booking patients for pre-rehabilitation sessions six weeks—not two weeks—before their surgery helped identify Same Day Home (SDH) patients
- **Find volume in increments:** Shifting pre-rehabilitation sessions from one hour to 45 minutes created increased capacity and higher volume throughput

Challenges Identified

- Extended hours could lead to staff burnout
- Patients can affect new program success rates when they miss or are late for program sessions

Hamilton Health Sciences: Hip & Knee Total Joint Replacement "Prehab" Program

Cost
$186,800

Challenge
Service interruptions during the pandemic required a successful model for Same Day Home (SDH) procedures that would shorten stays and keep wait times within provincial access targets.

The goal
Establish an education program that includes physiotherapy to reduce patients' anxiety and enhance their post-surgery functional capacity.

The "prehab" program would also support patients recovering at home and increase the SDH discharge rate. As well, it would support bundled care, giving hospitals the opportunity to develop evidence-based care pathways that improve patient outcomes and experiences, efficiencies, and cost savings.

How it worked
The pilot project offered an education and exercise program for total joint replacement (TJR) patients identified as SDH or Same Day Admit (SDA). Patients attended a 45-minute 1:1 prehab session with a hospital physiotherapist that included an education session, a therapy/exercise demonstration and a "return demo" to ensure they understood the exercises and prep information. Patients also received a take-home education sheet to support continued exercises before their surgery.

Outcomes
More than half—56%—of patients met the criteria for the pilot program, while the "prehab" approach led to a shorter length of stay and an increase in SDH discharges for both hip and knee procedures, which generated a positive funding impact.

The overall patient experience was very positive, since patients had clear expectations for their post-op recovery.

Kingston Health Sciences Centre: Perioperative Services

Cost
$718,700

The challenge
Pre-COVID-19 staffing challenges meant that Kingston General Hospital (KGH) wasn't using its full, 12-operating room surgical capacity. The pandemic added to staffing pressures, curbing plans to boost capacity.

The goal
A combination of staff training and extended hours at both KGH and Hotel Dieu Hospital would allow Kingston Health Sciences Centre to open an additional OR to cover delayed surgeries at both sites. The approach would also develop a fast-track model for specialty teams.

How it worked
Training for Registered Nurses (RNs), Registered Practical Nurses (RPNs), instrument technicians and anesthesia assistants provided staffing for additional OR hours from Monday to Friday, opening up room for up to 1,500 more cases a year.

Outcomes
In April 2022, KHSC began a surgical ramp-up plan to open 11 ORs at its KGH site and seven ORs at its HDH site by fall 2023. The hospital reached 100% OR capacity in November 2022 across both OR sites. The staff training plan and orientation added more than 10 new nursing hires to the program, with plans to measure the retention rate after two years.

KHSC met over 100% of oncology, cataract surgery, and vascular surgery volumes and reduced the surgical waitlist for "long waiter" patients by 44%, which is above the 40% Ontario Health target metric. This has been critical to reducing surgical waitlists and providing time-sensitive surgery.

Regional Planning & Partnerships

Overview

Partnerships made the most of recovery opportunities, sharing gains between hospital sites and across regions. These collaborations supported better patient flow, shared OR time, and pooled specialized expertise, data and educational opportunities on different scales.

The Hospital for Sick Children started small, using SIF funding to fine-tune an in-house waitlist management solution for a broader network (see profile below.) Ontario Health West Region, however, took a group approach right away, organizing perioperative nurse training that staffed ORs at 27 sites.

Funding range: $328,300 to $3,338,691 (full project costs)

Overall Outcomes

- Reduced patient waitlists and discharge delays
- Improved staffing and higher patient satisfaction

Lessons Learned

- **Engage surgical and support staff:** Making administrators and unit staff part of the change process from the start supports improved adoption of new technology and processes
- **Incorporate basic change management principles:** Involve leadership and subject matter experts to champion change, particularly when working through historical practices
- **Take an evidence-based approach**: Use data to drive new processes and decisions and to identify common service gaps across regions
- **Develop clear communication plans:** Use internal and external communications plans to highlight change goals and benefits and respond to questions in a timely fashion

Challenges Identified

- Redeployed OR nurses made surgical staffing challenging
- Funding shortfalls and tight project timelines put added pressure on smaller hospitals

Ontario Health West Region (27 Hospitals): Perioperative Nurse Training Project

Cost
$2,664,000

Challenge
Low levels of perioperative nurses in West Region slowed surgical recovery. To fill the gap, hospital and nursing executives from 27 hospitals took a coordinated approach to perioperative nursing training.

The goal
Support perioperative training for 205 RNs and 124 RPNs across the region, allowing hospitals to use full operating room capacity.

How it worked
Each hospital used funding for site-specific training, either with an educational partner or using the Association of Perioperative Registered Nurses (AORN) e-learning courses. All hospitals had a community college program partner (including Mohawk College, George Brown College, Loyalist College and Lambton College), and most implemented the AORN program for in-house training, led by hospital educators.

Outcomes
The region trained 217 perioperative RNs and RPNs during the pilot project.

> « The SIF funding to support training for perioperative nurses was a valuable strategy to address our HHR challenges, which are critical to surgical recovery. The in-house training program allowed hospitals to invest in their own nurses . . . while providing our experienced perioperative nurses the opportunity to share their expertise and mentor their colleagues. »
>
> Leslie Gauthier, Hamilton Health Sciences (HHS)

Hospital for Sick Children (SickKids): Ontario Pediatric Timely Surgical Access Platform (OPTIMISE)

Cost
$3,338,691

Challenge
An earlier pilot had tested an advanced analytics solution to improve block scheduling and staffing. SickKids faced the next step of implementing the system and expanding it to other pediatric hospitals.

The goal
Implement the Ontario Pediatric Timely Surgical Access Platform (OPTIMISE) and develop dataset standards to enable sharing with partner sites London Health Sciences Centre, Children's Hospital of Eastern Ontario and Kingston Health Sciences Centre.

How it worked
OPTIMISE used historical data to determine the right mix and order of surgical cases, allowing for more efficient block utilization, staffing and improved surgical flow.

Outcomes
The modelling informed weekend surgery work, which supported a 5% decrease in the hospital's waitlist during the pilot and improved staff and patient satisfaction: 96% of families and 79% of staff were satisfied or very satisfied with the program.[1,2] The project also implemented an Inpatient Post-Op Status Board on all surgical units and enhanced the Epic Surgical Administrative dashboard. Together, this reduced post-anesthesia care unit (PACU) discharge delays to inpatient units by 30% compared to the previous year.

OPTIMISE also established daily inpatient bed targets for each unit based on historical data, smoothing out surgical admit variability, ensuring alignment of inpatient resources and limiting last-minute bed and staff planning and OR case cancellations.

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[1] Matava C, So J, Williams RJ, Kelley S, ORRACLE-Xtra Group. (2022). A Canadian weekend elective pediatric surgery program to reduce the COVID-19-related backlog: Operating room ramp-up after COVID-19 lockdown ends - extra lists (ORRACLE-Xtra) implementation study. JMIR Perioper Med, 5(1): e35584.

[2] Matava C, So JP, Hossain A, Kelley S. (2022). Experiences of health care professionals working extra weekends to reduce COVID-19-related surgical backlog: Cross-sectional study. JMIR Perioper Med, 5(1): e40209.

Next-phase discussions include enhancements to OR smoothing and patient flow across post-op destinations, including pediatric intensive care unit (PICU)s, surgeon schedules, case mix, types of post-op beds required, length of stay and opportunities for process improvement.

« Our institution's approach to harnessing data in novel ways has given us new insights into our surgical workflows and led to impactful changes for our patients, parents and teams. »

Clyde Matava, Perioperative Services Associate Chief of Bioinformatics,
Project Co-lead, Hospital for Sick Children

Relocation & Reallocation

Overview

Even with upgraded equipment or newly trained staff, higher surgical volumes still required space. With SIF funding, hospitals redesigned surgical suites or borrowed neighbouring ORs. An agreement between Perth & Smiths Falls District Hospital (PSFDH) and Kingston Health Sciences Centre (KHSC) took the shared approach, using spare PSFDH OR time for KHSC orthopedic surgeries (see profile below).

Renovations also increased volumes by taking minor procedures, such as cystoscopy, out of main ORs and into dedicated areas. That's how Niagara Health System rerouted simpler gynecology procedures into their own clinic, setting the stage for a similar approach to other non-acute procedures. (See profile below.) Other hospitals created new patient pathways with separate block rooms for anesthesia, or reconfigured waiting and recovery areas. Even with added space, solutions needed other dimensions, as capacity gains called for recruitment and equipment to support treatment.

Funding range: $62,000 to $357,300 (full project costs)

Overall Outcomes

- Extended OR time
- Higher outpatient surgical volumes
- Better patient flow and patient experience

Lessons Learned

- **Set clear goals and requirements:** Establish specific surgical focus and equipment needs for shared space, and clear schedules for visiting surgeons
- **Appoint project champions:** Finding a project lead and champions—for example, a gynecology nurse and OB-GYN lead—helps propel the project agenda

Challenges Identified

- Ensuring all surgical partners have the required information and equipment
- Completing even small-scale capital projects under short timelines can be difficult with building permit and safety inspection requirements
- Supply chain issues throughout the pandemic caused major delivery delays

Perth and Smiths Falls District Hospital: Orthopedic Surgical Partnership with Kingston Health Sciences Centre

Cost
$325,600 (Covering staff, training, equipment and technology).

Challenge
Operating room space constraints slowed efforts to address surgical waitlists and operating room efficiency.

The goal
Improve access to Kingston Health Sciences Centre (KHSC) orthopedic surgeries by shifting cystoscopy procedures into a separate area within Perth and Smiths Falls District Hospital (PSFDH).

How it worked
The funding supported minor renovations to relocate cystoscopies at PSFDH and freed up operating room days. As part of the orthopedic surgery ramp-up, surgeons from KHSC focused on foot and ankle surgeries, total joint replacement and spinal cases in the PSFDH operating room.

Outcomes
The agreement led to 22 additional completed spinal cases, 71 knee scopes, four total knee replacements, and 37 foot/ankle cases.

Niagara Health System: Moving Minor Gynecology Procedures Out of the OR to Increase OR Capacity

Cost
$357,300

Challenge
Limited OR capacity for major procedures.

The goal
Free up OR space and expand surgical output by moving gynecology procedures into a dedicated clinic at Niagara Health's St. Catherines site.

How it worked
Funding allowed the hospital to hire a resource RN and train clinic nurses in gynecology procedures. It also supported new equipment and technology, and an interim clinic project lead to map out a long-term plan for moving moderate sedation procedures into ambulatory care across the multi-site system.

Outcomes
The hospital created a one-day per week outpatient minor procedures clinic, which gradually progressed from one to two procedures to eight to ten per day over six months. Through the clinic, Niagara Health eliminated 218 procedures from the main OR and completed over 40 ambulatory procedures unit (APU) operating days from April 2022 to March 2023.

Surgical Efficiency

Overview

Despite different recovery approaches, all hospitals shared an underlying goal: reduced waitlists. Incomplete data was another challenge, requiring updated waitlist management processes and systems.

Brant Community Care Health System targeted waitlist accuracy at surgeons' offices, reviewing data compliance and prioritizing cases with longer wait times and higher patient risk. Others, like Markham Stouffville Hospital, improved flow by finding and clearing surgical bottlenecks. (See profiles below.)

Funding range: $36,500 to $1,761,300 (full project costs)

Overall Outcomes

- Improved prioritization and accuracy of wait lists
- Improved data compliance
- Stronger partnerships with surgeons' offices

Lessons Learned

- **Ensure that goals align:** A process that works for patients might not support surgical staff. Consultations can help meet all needs
- **Offer waitlist management support:** Direct support for office administrators ensures consistent and accurate waitlist management
- **Customize plans:** Efficiency strategies can work in a range of scenarios, but facilities need a customized plan to meet specific goals
- **Use working groups:** Facility-level working groups support communication, implementation, tracking and risk management

Challenges Identified

- Information systems in surgeons' offices may not interface with the electronic booking system
- Inconsistent waitlist management practices across surgeons' offices

Brant Community Care Healthcare System: Access to Care Wait Times Management Pilot

Cost
$36,500

Challenge
Gaps in the waitlist process meant that up to 2,000 procedures weren't captured by the Operating Room Management (ORM) System. As a result, hospitals couldn't plan surgical interventions effectively.

The goal
Enhance waitlist management accuracy, optimize Wait 1 and Wait 2 access to care and improve wait times by surgical priority.

How it worked
The system hired a Central Intake Coordinator to work with physicians' offices to ensure patients were entered into the wait times management system. The coordinator also offered training on submission compliance. Better accuracy allowed Brant Community Care Healthcare System to prioritize cases based on the highest wait times.

Outcomes
With inputting support for the new electronic booking system, waitlists were updated at all surgeons' offices. The system also allowed enhanced waitlist tracking and consistency across all offices.

Markham Stouffville Hospital: Surgical Admission and Discharge Unit (SADU) Patient Flow Project

Cost
$14,700

Challenge
An increase in same-day procedures during the pandemic put extra pressure on the hospital's Surgical Admission and Discharge Unit (SADU).

The goal
Ease gridlock and improve patient flow through the operating room, post-anesthetic care and the SADU.

How it worked
SIF-funded renovations created a separate pre-operative waiting area for patients, taking them out of a common space and allowing better flow from phase-one (post-anesthesia care unit [PACU]) to phase-two recovery in the SADU.

Outcomes
With the SADU waiting area, the surgical system—especially the surgical suites—could move patients more efficiently and seamlessly from a pre-operative to post-operative phase. Patients didn't wait in private bays for surgery, allowing for same-day cases to shift out of the PACU. This helped more joint cases to move through the surgical system and allowed same-day thyroid and tonsil and adenoid cases to be discharged from the SADU instead of transferring to an inpatient unit. Housing patients together in the common pre-operative area instead of leaving them alone created a calming effect before surgery and helped the patient experience.

> « This initiative has assisted us [in] increasing day surgery cases and created capacity within the organization to reduce inpatient volume. Additionally, this has helped to improve our patient satisfaction… [and] reduce patients' pre-operative anxiety.»
>
> Firouzeh Payami, Patient Care Manager Perioperative Services, Oak Valley Health

Data Quality & Integrity

Overview

Data quality plays a critical role in the data used for recovery. Although SIF funding didn't support specific data quality projects, ongoing work at Ontario hospitals reveals how targeted data quality and integrity efforts—ensuring reliable, valid, usable and timely data—can improve the data used to inform patient flow and lead to more accurate booking.

Overall Outcomes

- Reduced waitlists
- Improved compliance
- More accurate planning

Lessons Learned

- **Complete regular data clean-up:** Take part in Ontario Health's data quality and compliance cycle and review waitlists for inaccuracies every six months to a year
- **Have back-up reporting measures:** Staff turnover can bring work to a standstill. Ensuring continuity and a smooth workflow is essential to success
- **Offer yearly data training**: Educating and re-training staff in hospitals and surgeons' offices supports data quality at the point of data entry
- **Support data collaboration:** Hospital data coordinators rely on surgeons' office staff for accurate and timely data. Ensure that staff understand their roles in supporting coordinators and overall data integrity
- **Enlist the surgical team:** Surgical teams have a key role in ensuring accuracy
- **Keep patients updated:** Patients appreciate check-ins and confirmation of their wait times—they like to know they're not forgotten

Challenges Identified

- Smaller hospitals may not have dedicated resources for labour-intensive data clean-up

The Ottawa Hospital: Waitlist Project

Challenge
Open waitlists can be moving targets, and duplicate or outdated data can complicate targets even more.

The goal
Ensure that waitlist data captured an accurate picture of waitlisted surgical services and of patients waiting for more than one procedure.

How it worked
In August 2021, a hospital team reached out to 4,240 patients that had surgical waits in the WTIS waitlist before January 2021.

To confirm whether the patient still belonged on the waitlist, the Ottawa Hospital asked a single question: “Are you still waiting for surgery at The Ottawa Hospital?”

Outcomes
The audit found that overall, 39% of patients reached were no longer waiting for surgery and could be removed from the waitlist. Across surgical services, lists dropped by as much as 50% (urology).

> « It was a hugely successful project for both The Ottawa Hospital and our patients waiting for surgery. It helped focus attention on those patients who were truly waiting for surgery. »

Arnprior Regional Health: Enhancing Surgical Wait Times Data Accuracy and Reliability

The challenge

As a smaller, 44-bed facility, Arnprior Regional Health's (ARH) data quality management resources weren't as extensive as those in larger institutions. ARH also faced staff turnover that disrupted reporting procedures and created setbacks in June, 2022.

The goal

Establish a Local Registration Authority for the Wait Time Information System (WTIS) to improve surgical wait times reporting timeliness and accuracy.

How it worked

An Operating Room Manager and Booking Clerk joined the team in the fall of 2022 as new WTIS coordinators, appropriate training and support and new workflows came together to ensure consistent reporting. The team showed improved understanding of the reporting process, and surgeons' offices achieved compliance within a week of training.

Outcomes

With the new measures, ARH ensured that WTIS reporting operates smoothly and effectively, enabling surgeons' offices to share more accurate and timely information on surgical wait times. Within a month of the team's onboarding, data quality and completeness improved. As a next step, ARH is implementing a new booking system for surgeries and procedures that captures the data required for the WTIS reporting.

> « Our decision to invest in a new health information system is a testament to the impact of reliable and accurate surgery wait time data on determining how we can improve patient care and overall health outcomes. »
> Raeline McGrath, Vice President, Patient Services and Chief Nurse Executive,
> Arnprior Regional Health

Broader Lessons

There's no single solution for surgical recovery. The Surgical Innovation Fund (SIF) projects highlight practical steps hospitals can take toward recovery, offering improvement templates that address a range of surgical priorities and resource levels.

Though the SIF spurred progress, its work and formal hospital feedback reveal opportunities to expand recovery even further. The SIF supported one-time investments with a short-term time frame. However, participant feedback highlights that longer-term recovery relies on sustained support. Any future program could also extend its reach by bringing all recovery support, such as the SIF, into a single program.

Approaching certain solutions, such as training, on a provincial scale, would also support broader recovery through provincial-level nursing operating room certification, standardized content and a centralized application process as possible next steps.

Ontario's health regions played a key role in the program, working with hospitals on project proposals and organizing collaborations. The hospital SIF teams point to further opportunities for regions to coordinate recovery funding, review proposals and distribute funds based on area priorities. Regions could also have direct involvement in recovery solutions by overseeing joint approaches to purchasing surgical equipment, establishing cross-regional training hubs with more reach, and establishing governance tables that respond to funding needs.

As recovery continues at Ontario hospitals, surgical priorities and leading practices may change. However, as the system moves into broader transformation, the 2021-22 SIF projects show the possibilities for sustained success for enhanced surgical programs and patient experience.

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