

BC Quality Awards - 2024 Submission  
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Submission ID: 1151

## Nomination

*Select your nomination category  
from the drop-down list.:*

Everyday Champion Award

## Everyday Champion

*Please provide a summary of the individual's work and how they have made a  
difference in improving quality of care in BC.  
(This may be used by HQBC for promotional purposes):*

In 2018, Dr. John Hwang, a general surgeon, implemented an innovative multidisciplinary wound care model at the Fraser Health (FH) Complex Wound Centre (CWC), leading to a 60% reduction in chronic wound healing time for high-risk patients, and cost avoidance of \$47,500 per patient. John subsequently spread this transformative care model to 13 FH home health wound care clinics, established a new regional wound care advisory committee, and introduced monthly regional multidisciplinary complex wound rounds. John has shared his learnings at the 2019 Institute for Healthcare Improvement (IHI) Forum, the 2022 Wounds Canada Conference, and at the University of Western Ontario's Master of Clinical Science program, as well as published on his experience in BMJ Open Quality [1].

John has also assumed leadership roles to enhance quality in surgery. He served as the National Surgical Quality Improvement Program (NSQIP) Surgeon Champion for Royal Columbian Hospital (RCH) from 2011 to 2022. He was responsible for RCH's achievement of the coveted "NSQIP Meritorious Hospital" designation in 2021, a distinction awarded to only 90 hospitals in North America. John was also the regional lead for the Enhanced Recovery after Surgery (ERAS) initiative, the Comprehensive Unit-Based Safety Program (CUSP), and the Surgical Site Infection (SSI) Reduction initiative. He was a pivotal contributor to the Surgical Quality Action Network (SQAN) and the Surgical Pre-operative Optimization Collaborative (SPOC).

John's commitment to QI extends beyond the surgical realm. He is the visionary behind the Annual RCH QI Day, an event launched in 2015 to bring together patients, frontline staff, and health authority leaders to showcase site QI projects, foster knowledge sharing, and collaboratively build a culture of continuous improvement. The most recent gathering, held in May 2023, attracted over 150 attendees. Dialogues stemming from these events have led to the creation of robust, frontline-driven QI programs, such as the RCH QI League. In September 2022, in partnership with the RCH Foundation, John was named the QI Lead for the Advancing Innovation in Medicine (AIM) Institute, which strives to push the boundaries of QI and innovation at RCH. Recognizing his unwavering dedication to frontline engagement and QI, John received the FH Above and Beyond Innovator Award in 2016, and was honored as an RCH Foundation Champion of Philanthropy in 2022.

John has also been a long-time faculty member of FH's Physician Quality Improvement (PQI) program, and served as its Physician Advisor from 2018 to 2021. Under his guidance, the program expanded its educational offerings, recruited new faculty members, and successfully transitioned its curriculum to a virtual format during the COVID-19 pandemic. For the first time in the program's history, two virtual cohorts were conducted concurrently. John has taught QI to hundreds of frontline staff and physicians, and has mentored numerous providers in their QI endeavours and coached a myriad of improvement projects.

In the words of Darlene Mackinnon, past RCH Executive Director, John is "an exemplary leader who goes above and beyond in his strides to engage employees and physicians in quality improvement initiatives for enhancing patient care."

*How did the person show a passion and commitment for improving health and quality?:*

One of John's improvement projects entails early identification and treatment of high-risk patients at the multidisciplinary FH Complex Wound Centre (CWC). It is a fitting illustration of how John has fostered all aspects of quality in his

improvement endeavours.

**Respect:** An integral component of the initiative is the patient voice, captured by patient experience surveys. As Barbara Drake, past Interim Director of Clinical Operations at RCH, notes, “What I really admire about John is that he never loses sight of the fact that there is always a patient at the center of this work, and he really likes to see that we move forward in improving the patient experience and the patient outcomes.”

**Safety:** The initiative has led to patients with chronic wounds reporting less pain, improved function, and decreased complications including infection, sepsis, and amputation. It has also enhanced their psychological well-being as wounds heal more fully and quickly, reducing the emotional toll and social stigma often experienced by this patient population.

**Effectiveness:** Patients have more complete and expedited healing because the multidisciplinary team provides treatment not only for the wounds, but also addresses the underlying comorbidities which impair healing. In addition, the newly formed regional wound care advisory committee ensures best practices are reviewed with a systematic approach, and if deemed appropriate for the FH context, implemented. The introduction of regional multidisciplinary complex wound rounds provides clinicians across the health authority an opportunity to stay up to date with the latest developments, and to share complex cases with colleagues for peer learning and recommendations.

**Efficiency:** The initiative has improved chronic wound healing time by 60%, and decreased average home care visits by 66%, translating to average cost avoidances of 87%, or \$47,500 per patient. Further, John has redesigned the workflow at CWC to triple physician consultations without additional resources.

**Accessibility:** Although the initial model of care was developed at a single center, it has since been spread to all 13 FH home health wound care clinics, improving access to wound care for patients across our geographically disparate health region. In addition, CWC now offers virtual consultations to community specialty wound services, increasing access to patients unattached to family doctors.

John has presented on this improvement initiative at various conferences, and has published his experience in BMJ Open Quality. This sharing of knowledge equips those around the world to trial this innovative model and improve outcomes in their local communities.

**Equity:** John has developed standardized clinical pathways for commonly encountered wound entities to ensure consistent, high-value, and equitable care across FH. He has also worked with the Ministry of Health, Pharmacare, and other affected groups to fund offloading orthotics for patients with diabetic foot ulcers. The program, launched in January 2023, is the first of its kind in BC [2].

**Appropriateness:** Patients are receiving more appropriate care as they are being seen in a more timely manner, are treated according to standardized clinical pathways developed by wound care experts, and have increased access to essential supplies such as offloading orthotics.

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### *How does this person inspire you and/or their team members?:*

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John inspires those around him with his infectious passion for continuous QI, and his personal philosophy of leading by example. He is affectionately referred to as “the QI guy” by patient partners, colleagues, frontline staff, and executive leadership throughout FH, and has been the de facto QI lead at RCH for over a decade. The reason is simple: in all his work settings, whether as a general surgeon, a wound care physician, a surgical assist for cardiac surgery, or as the Physician QI Lead for RCH, John has brought together individuals from different backgrounds to create QI teams and tackle system problems.

John recognizes that improvement work must be frontline-driven and patient-centric, and in 2015 set out to make these the pillars of QI at RCH. He started in the surgical department and developed frontline capacity by delivering regular QI education workshops, convincing the RCH Foundation to offer grants to surgical teams for work on QI projects, and increasing access to surgical outcome data for providers. John also places a strong focus on patient experience as a catalyst for change. As an example, in 2017, vascular surgery patients at RCH had prolonged admissions lasting weeks (as compared to the national standard of 3-5 days), and often returned post-discharge with infections or complications. From bedside conversations about what could facilitate post-surgery recovery, John learned that patients did not feel confident in their ability to recuperate adequately at home. John and the team thus initiated the #Sendmehome project, and created an educational discharge package, complete with hand sanitizers, emergency contact numbers, and nurse follow-up check-ins. These changes contributed to a reduction in the average length of stay for vascular patients from a high of 20 days to 4.5 days, with results apparent six months after the initiative’s onset. Barb Sutherland, then Clinical Director for Surgery at RCH, remarked that “John has changed the culture on my surgical units and has inspired my managers and frontline employees to make quality improvement a part of their daily work.”

More recently, John became cognizant of the unprecedented high rates of provider burnout following the COVID-19

pandemic. Never one to sit idly on his hands, John has assembled a team of frontline QI enthusiasts and leaders from various RCH departments to apply the Joy in Work framework using a gamification approach. Starting this fall, the team plans to engage staff site-wide in *What Matters to You* conversations, identify and address local impediments to fulfilling work using QI methodologies, and commit to making provider experience a shared responsibility, with the goal of building a more resilient organizational culture.

Beyond his contributions to FH, John also extends his QI expertise to organizations outside of British Columbia. He has generously shared his fondness, knowledge, and experience of QI with the Wounds Canada Institute and the University of Western Ontario's Master of Clinical Science (Wound Care) program, further amplifying his positive impact within the broader community.

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*How did this person make an impact for clients, families, and/or communities or the people they work with? What were the results?:*

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Chronic wounds are an enormous burden for patients, families, caregivers and healthcare institutions. Wounds cause pain, suffering, loss of function, and psychological distress; they can also be complicated by infection, sepsis, amputation, and even death. In addition to being a huge cost to the medical system, chronic wounds impose a heavy physical toll, and may lead to social stigma and erosion of personal identity. Patients with chronic wounds often have multiple comorbid states, such as vascular disease or diabetes, which contribute to impaired healing. Treatment of these conditions can require referral to multiple specialists or services, which leads to delays in diagnosis and treatment. At each additional medical encounter, new or different treatment modalities may be added; this can be both confusing and frustrating for patients and their care partners. As such, the very nature of chronic wounds lends itself to protracted care and negative patient experience.

And yet, wound chronicity is, in many circumstances, avoidable. John's improvement project centered on the concept that "time is tissue", and involved working with home health nurses to identify early and expedite referrals of high-risk patients to the FH Complex Wound Centre (CWC). Patients were prescribed a comprehensive, multi-disciplinary care plan which included treatment for conditions contributing to wound non-healing. This innovative approach significantly improved the patient experience, reducing complications and slashing average healing times by 60%. Simultaneously, it enhanced healthcare system efficiency and reduced costs, as the average number of required home care visits dropped by 66%, resulting in an average cost reduction of 87% per patient (equivalent to \$47,500). These positive outcomes have been sustained since 2018.

To extend these benefits to a broader patient population, in 2021, John expanded this care model to all 13 FH home health wound care clinics. He also developed standardized clinical pathways to ensure consistent, high-value, and equitable care across the health region. By concurrently developing the underlying infrastructure, collaborating with multidisciplinary groups, and garnering support from senior leadership, John ensured improvement gains were sustained: a new regional wound care advisory committee was formed, monthly regional multidisciplinary complex wound rounds were instituted, and optimal levels of wound care clinician staffing were defined. John had shared his experience and insights at the 2019 Institute for Healthcare Improvement (IHI) Forum, the 2022 Wounds Canada Conference, and with the University of Western Ontario's Master of Clinical Science (Wound Care) program. He had also published his findings in BMJ Open Quality. Currently, John is focused on integrating this care model into long-term and residential care, and streamlining the pathway to ensure the right treatment is delivered by the right provider at the right time, regardless of diagnosis, location, service, or status.

In addition to his work in wound care, John has been a leader in various surgical improvement initiatives. Notably, he served as the National Surgical Quality Improvement Program (NSQIP) Surgeon Champion for RCH from 2011 to 2021. Under NSQIP, all 11 surgical hospitals in FH track the outcomes of inpatient and outpatient surgical procedures. The Surgeon Champion at each site uses this data to drive QI efforts. In 2021, RCH earned international recognition as an "NSQIP Meritorious Hospital", one of only three in British Columbia and 90 in North America out of 607 eligible hospitals. RCH was commended in the "all cases" and "high risk" categories for outstanding quality outcomes in areas such as mortality, cardiac care, pneumonia, unplanned intubation, prolonged ventilator use, renal failure, surgical site infection, and urinary tract infection. John played a pivotal role in RCH achieving this distinction, with Dr. Dave Williams, FH's Executive Medical Director of Quality and Safety, acknowledging that "achieving NSQIP recognition during the pandemic when hospitals globally have reduced surgeries is a testament to strong, focused leadership and a commitment to excellence."

John has been instrumental in fostering a culture of QI at RCH. In 2015, he collaborated with frontline staff and site leadership to organize a QI Day for surgical services at RCH. At the time, there was limited awareness of QI activities, and this event served as an opportunity to educate participants on the importance of frontline engagement and celebrate the achievements of unit-based QI teams. Building on the success of the inaugural QI Day, the team developed engagement workshops with two primary goals: to instill in frontline providers the understanding that continuous QI is a part of everyone's responsibility; and that small changes within their scope of practice can collectively yield significant improvements in patient care. The following year, quality measures that had remained stagnant for a decade began to show marked improvements across various areas, including surgical site and urinary tract infections, as well as pneumonia. Buoyed by these successes, the QI team, now known as the RCH QI League,

expanded their efforts hospital-wide, leading to the establishment of the Annual RCH QI Day. This event brings together physicians, frontline staff, and administration from all clinical services and departments to contribute ideas and learn how to translate them into action. Participation has steadily grown year after year, with over 150 attendees at the most recent QI Day in May 2023. Results are diligently measured, and annual improvements are not only acknowledged but also shared across departments. As John emphasizes, "The remarkable results we witnessed in the first year were not due to a single factor but were a result of our focus on culture. Therefore, I view this ongoing effort not merely as a QI Day but as a culture day — a day to recognize that every member of the team bears the responsibility to examine their individual scope and enhance care as they can."

John's deep interest in and commitment to a QI culture has led him to author a provincial report on this subject at the request of the Specialist Services Committee [3]. Additionally, he was invited to be a founding member of the Institute for Healthcare Culture Innovation, an organization dedicated to studying how an organization's culture influences its ability to realize its vision.

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*Attach your appendices such as charts, reports, etc. here.*

*You must combine your appendices into one single document (Word or PDF) that is no more than three pages total.:*

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## References

1. Hwang JM. Time is tissue. Want to save millions in wound care? Start early: a QI project to expedite referral of high-risk wound care patients to specialised care. BMJ Open Qual 2023;12:e002206. <https://bmjopenquality.bmj.com/content/bmjgir/12/1/e002206.full.pdf>
2. B.C. takes a step to treat diabetic foot ulcers and reduce the risk of lower limb amputations. February 10, 2023. Diabetes Canada. <https://www.diabetes.ca/media-room/news/b.c.-takes-a-step-to-treat-diabetic-foot-ulcers-and-reduce-the-risk-of-lower-limb-amputations->
3. Hwang J. Physician Quality Improvement (PQI) Culture. [https://drive.google.com/file/d/1gBVWkhEMUr3r1tWU2\\_zlIt8ics3MLG37/view?usp=sharing](https://drive.google.com/file/d/1gBVWkhEMUr3r1tWU2_zlIt8ics3MLG37/view?usp=sharing)