Schulich
MEDICINE & DENTISTRY

Western
The Centre for Quality, Innovation and Safety

# 2021-2022 The Centre for Quality, Innovation and Safety (CQuInS) 2nd ANNUAL REPORT

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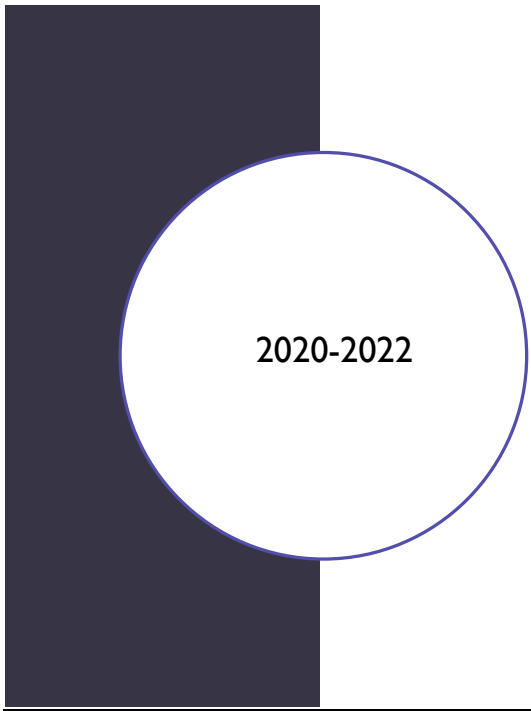
# Foreword

Modern healthcare systems are complex, with many professionals with different roles and backgrounds having to come together to work as a team to provide safe, high-quality care. Moreover, many patients seeking healthcare also have complex medical and social needs. Because of this complexity, without understanding, awareness and effective teamwork, there is the potential for things to go wrong or quality to be wanting, impacting on lives of those who are recipients and providers of that healthcare. Therefore, the need to develop a hub for all healthcare professionals to access education, support and community in this relatively new area of inquiry was vital.

In the creation of the Centre for Quality, Innovation and Safety (CQuInS) in 2020, our initial Vision was to become a national leader in healthcare quality for our patients, through the pursuit of healthcare excellence. This would be done through the empowerment of practitioners to change the world of healthcare through education, creating a supportive community (coaching and mentorship) and discovery (through research and QI project discovery). As we move through these initial couple of years, develop our community and finalize our strategic plan, we will be reviewing this initial Vision and Mission to ensure that they align with our strategic priorities and effectively convey where we are going.

## Our Vision and Mission 2020-22




### Vision:

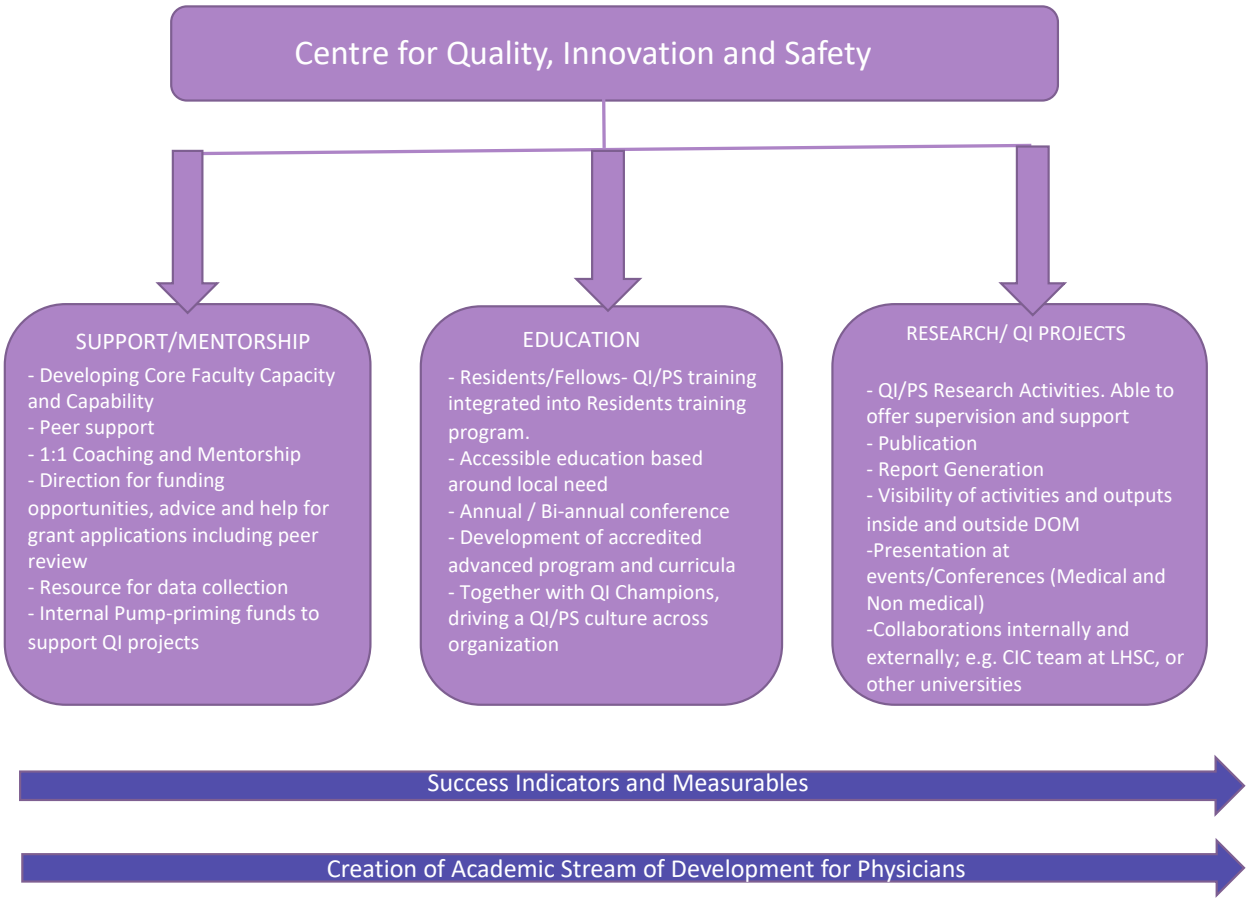
- To become a national leader in health care quality through the continuous pursuit of excellence in all we do for our patients.

### Mission:

- To empower and support our healthcare faculty as they continually improve the standards of the quality of the patient-focused care they provide based on the highest proficiency of collaboration and innovation.

## Centre Functions:

The Centre is built around 3 main functions; all ultimately aimed at improving the Quality and Safety of patient care. These were derived from a needs' analysis completed while proposing the creation of the Centre. These 3 functions have been a driving force in our initial priorities in these first couple of years as we have developed our strategic plan over the course of 2021-22. Initial developments relating to these 3 functions were found in our inaugural report in 2020-21 and progress will be explored further in the main body of this report.



# Director's Message

Welcome to our second annual report. Our first year was born at the beginning of the COVID-19 pandemic, bringing with it, challenges, but also opportunities for our community to start to come together and move forward our mission. As the pandemic went into its second year, our community of members has grown to include people from different clinical departments within Schulich and SJHC and LHSC staff, with plans to expand this going forward to include people from beyond Western and our local hospitals.

Within this last year, our Centre has established new curricula for Quality Improvement and improved existing ones to reflect the growing needs of our community and our monthly Mastermind series continues to be popular and well attended. In September 2021, the Quality Improvement in Healthcare Certificate was launched, and our first graduates finished in May 2022, with impressive projects being exhibited at the end of their journey. In October 2021, the newly revamped Schulich Ivey Quality in Healthcare Consultancy course commenced. This innovative course saw students from Ivey Business School learn and work alongside hospital staff learners, to work in teams on clinical quality improvement projects. Again, at the Capstone presentations, the team of judges from Schulich, St Josephs Health Care, London Healthcare Sciences Centre and Industry were all impressed by the quality of the projects presented. These are covered in more detail in the education section of this report. As well as these two courses, other courses relating to QI education for residents and fellows have also been updated, with feedback from all being extremely positive. A new course relating to QI that can be taken online by anyone, will also be offered from the fall of 2022, allowing people to access affordable education in quality improvement, at a pace that can be incorporated into people's busy lives. I would like to say particular thanks to our Director of Education, Dr Alan Gob and our education curriculum specialist, Joan Binnendyk and Dr Mayur Brahmania for their extensive commitment to the QI education mission, in being able to develop and deliver these high-quality curricula, on behalf of CQuInS.

As well as the projects being undertaken during the studies mentioned above and other projects also underway by individuals in their clinical areas, members of our community continue to strive to improve the quality and safety of the care given to our patients. In our strategic support of projects, we have tried

to align these with priorities of our partners. We are moving forward with improving the timeliness of discharge summaries across the hospital, we are learning about the effectiveness of innovative strategies in discharging patients with complicated medical conditions and supporting them once home to help reduce re-admission, and as our remote urgent covid-clinic came to an end at the end of March, it is time to understand what can be learnt and use this to help plan for the future. CQuInS resources have also been supporting projects that go across clinical departments, addressing some key quality and safety issues for patients requiring surgery, with key medical conditions.

Our community are becoming successful with grant funding, with three members gaining significant funding support through the recent LHSC Academic realignment awards, and others through AMOSO and other sources. Our plans are for our members to be able to seek support for such funding opportunities from the Centre in the future, developing structures to discuss and develop proposals and provide support all along the project pathway.

As mentioned in the inaugural report, in the last year we have been working with all our stakeholders to develop our strategic plan for the next 3 years and this will also be introduced in more detail further in this report. However, as I prepare to retire from my Departmental roles as Chair and Medical Director for CQuInS in 2023, one of the most crucial things to be done over these coming months, will be to identify a new Director, leading the transition from an emerging endeavour in innovation, to a leader in healthcare quality education and research.

Dr James E. Calvin MD, MBA
Director CQuInS
Richard Ivey Chair of Medicine and
Chair Chief Department of Medicine,
Schulich School of Medicine and Dentistry
Western University

# Who we are

| CQuInS Members | | | |
|---|---|---|---|
| **Name** | **CQuInS Position** | **Dept** | **Division** |
| James Calvin | Director | Medicine | Cardiology |
| Louise Moist | Associate Director | Medicine | Nephrology |
| Alan Gob | Clinical Lead | Medicine | Hematology |
| Natasha McIntyre | Operations Lead | Medicine | CQUINS |
| Joan Binnendyk | Educ Curric Specialist | Medicine | CQUINS |
| Joseph Carson | QI Consultant | Medicine | CQUINS |
| Kaylee Tung | QI Co-ordinator | Medicine | CQUINS |
| Andrew Appleton | Member | Medicine | GIM |
| Arvand Barghi | Member | Medicine | Hematology |
| Lise Bondy | Member | Medicine | Infectious Diseases |
| Mayur Brahmania | Member | Medicine | Gastroenterology |
| Mike Chiu | Member | Medicine | Nephrology |
| Mason Curtis | Member | Medicine | Emergency Medicine |
| Kristin Clemens | Member | Medicine | Endocrinology |
| Uday Deotare | Member | Medicine | Hematology |
| Inderdeep Dhaliwal | Member | Medicine | Respirology |
| Sameer Elsayed | Member | Medicine | Infectious Diseases |
| Mark Goldszmidt | Member | Medicine | GIM |
| Karen Geukers | Member | Medicine | GIM |
| Ashlay Huitema | Member | Medicine | Medicine |
| Khaled Lotfy | Member | Medicine | Nephrology |
| Kara Robertson | Member | Medicine | CI &Allergy |
| Erin Spicer | Member | Medicine | GIM |
| Margaret Taabazuing | Member | Medicine | Geriatric Medicine |
| Jenny Thain | Member | Medicine | Geriatric Medicine |
| Saira Zafar | Member | Medicine | GIM |

| CQuInS Associate Members | | | | | |
|---|---|---|---|---|---|
| **Name** | **CQuInS Position** | **Dept** | **Name** | **CQuInS Position** | **Dept** |
| Farah Abdulsatar | Associate | Paediatrics | Scott McKay | Associate | Family Medicine |
| Ali Bateman | Associate | PMR | Brianna McKelvie | Associate | CCM |
| Andrew Caddell | Associate | Medicine | Brad Moffatt | Associate | GenSx |
| Catalina Casas-Lopez | Associate | Anaesthesia | Sarah Muto | Associate | Quality & Performance |
| Melissa Chin | Associate | Anaesthesia | Ruediger Noppens | Associate | Anaesthesia |
| Ian Chin-Yee | Associate | Laboratory | Sonja Payne | Associate | Anaesthesia |
| Patrick Colquhoun | Associate | GenSx | Kayley Perfetto | Associate | Quality & Pt Safety |
| Sherry Coulson | Associate | Paediatrics | Raju Poolacherla | Associate | Anaesthesia |
| Nadia Facca | Associate | Quality & Performance | Vasavi Poolacherla | Associate | Psychiatry |
| Anita Florendo Cumbermac | Associate | Neurology | Hussein Sadkhan | Associate | Anaesthesia |
| Tamara Glavinovic | Associate | Medicine | Ziad Solh | Associate | Path & Lab Serv. |
| Johanna Halabi | Associate | Periop. Services | Paul Stewart | Associate | Oncology |
| Dave Hudson | Associate | GI | Julie Strychowsky | Associate | Otolaryngology |
| Mike Kadour | Associate | Pathology | SepidehTaheri | Associate | Paediatrics |
| Niveditha Karuppiah | Associate | Anaesthesia | David Ure | Associate | Periop. Services |
| Ryan Katchky | Associate | Orthopaedics | Jennifer Vergel de Dios | Associate | Anaesthesia |
| Steve Lee | Associate | Medicine | Deepti Vissa | Associate | Anaesthesia |
| Heather Mackenzie | Associate | PMR | Charles Weijer | Associate | Medicine - Epi & Bio - Philosophy |
| Shiraz Malik | Associate | Family Medicine | Maurice Williams | Associate | Quality & Performance |
| Zachariah Mansour | Associate | Kingston | Terry Zweip | Associate | GenSx |
| Mary-Anne McIlvena | Associate | Nursing | | | |

# Governance and Structure

In our inaugural report (2020-21) we reported the appointment and convening of the Governing Board had been delayed, due to the COVID-19 pandemic and changes in leadership of both London Health Sciences Centre and St Joseph's Healthcare. This board has now been convened with membership from major funding partners: Schulich School of Medicine and Dentistry, St Joseph's Health Care, London Health Sciences Centre and The Department of Medicine.
Terms of reference have been agreed and the Boards' role will be to review, advise and monitor the activities carried out by the subcommittees of CQuInS and support CQuInS in the strategic planning cycle. The Governing Board will ensure that risks identified by the Board or committees are actioned appropriately to ensure the right assurances are met.

2021-2022 CQuInS Governing Board Membership:

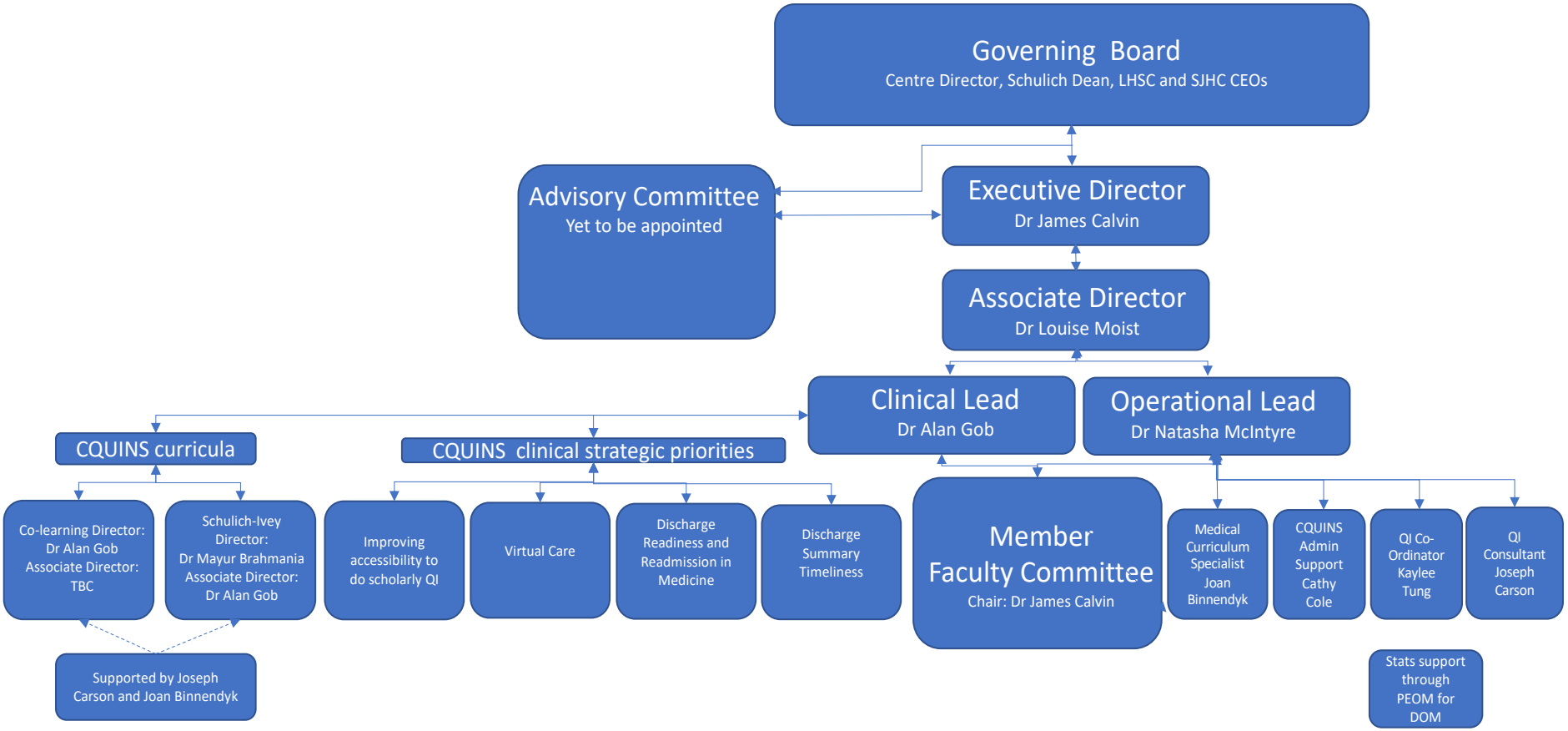
Chairman: Dr James Calvin, Chair-Chief of the Dept of Medicine
Vice Chair: Dr John Yoo, Dean of SSMD
CQuInS Director: Currently, Dr James Calvin
Dr Jackie Shleifer-Taylor CEO LHSC
Dr Roy Butler President/CEO SJHC
Pt Representative- yet to be identified

An Advisory Committee will also be put in place, with a role to advise the Governing Board and Director and provide more direct support for the ongoing development and support of the Centre. It is planned that the formation, role and membership be discussed during consultation as part of the strategic planning cycle and will likely be a Year 3-4 development. It is envisioned that the membership for this Committee will come from a variety of healthcare professions and backgrounds.

In these initial years, mentorship/support for our members, education for our community, and research/QI activities will be planned, monitored and reported through the Faculty Members Committee, but as activity grows and Centre membership increases, it may be required that sub-committees form to oversee such areas (e.g. separate education and research committees). At present the Faculty Members Committee meets every other month and all minutes are recorded.

Terms of Reference have been drafted for all committees - actual and proposed for the future. As highlighted in the original Centre proposal, no corporation is sought.

The Governance and Structure of CQuInS 2021-22



# Strategic Planning and Priorities

Towards the end of 2021 and the early months of 2022, our draft strategic plan was developed. The focus over the next months will be to develop our short, medium, and long-term roadmap in agreement with our key partners and stakeholders.
The strategic plan was developed after months of engagement through interviews, meetings, and surveys, with stakeholders from across the city.

Objectives and key results have been developed for the coming years, with financial planning and planning for new leadership being key priorities for 2022-23. Following ratification of the strategic plan and identification of financial support, the search for a new Director to take the Centre forward will need to begin in early 2023. Workstreams will be convened to take forward and deliver the strategic plan. Some of this work, especially within the education section, is already underway, in order to help develop the educational curricula offered to our community and beyond.

As we highlighted in the first report, it had been identified that our early focus would be on the:

- Development and delivery of education,
- Engaging and supporting staff and changing culture
- Identifying the improvement and research priorities that will effect real change for the benefit of our patients and staff.

Our first 5 years (with the Centre currently going into year 3) will aim to focus on building capacity to develop the core faculty to drive the QI/PS education and research agenda and building capacity for knowledge acquisition and translation. A large part of this will be done through education and building engagement with our community across both academic and clinical care organizations.

Another key priority that was highlighted was the need to work with academic partners to formalize and recognize that Quality Improvement and Patient Safety is a rigourous academic endeavour by introducing an academic pathway to the promotion for Clinicians in Quality Improvement and Innovation, a pathway currently recognized by other universities in Canada.

These initial priorities and others, have been also highlighted within our stakeholder engagement and feature within the draft strategic plan, that spans the next 3 years

The Draft plan as of July 2022 is found on the following page:

## CENTRE FOR QUALITY, INNOVATION AND SAFETY (CQuInS)
## DESTINATION IMPACT
## STRATEGIC MAP, 2022 - 2027

Thus, achieving our VISION.

And create VALUE

So, we can operate with EXCELLENCE

To build a STRONG AND PREPARED TEAM,

We allocate and use our RESOURCES wisely,

Guided by our VALUES

### OUR VISION
**An innovative, inter-disciplinary community, where members learn, connect and collaborate to improve healthcare quality and patient safety.**

### OUR COLLECTIVE IMPACT

#### THRIVING LEARNERS
- Learners gain competencies and proficiency in quality improvement (QI), patient safety (PS) science, and innovation.
- CQuInS graduates are prepared to integrate QI/PS into their clinical work and research activities in a meaningful and rigorous manner.
- Learners experience a QI/PS curriculum that is aligned to the evolving needs and priority challenges of the healthcare system
- Learners participate in an engaging, inclusive, and experiential QI/PS learning environment.

#### TRANSFORMATIVE RESEARCH
- QI/PS research positively impacts patient and population health outcomes.
- Study findings are translated into clinical and operational practices and processes.
- QI/PS scholarly themes are aligned to the Quadruple Aim, through an equity lens.
- Scholarly knowledge is disseminated and celebrated locally, nationally and around the world.
- The voices of patients and caregivers are embedded in QI/PS projects, when possible.
- QI/PS research is appropriately funded and resourced.

#### THRIVING HEALTHCARE SYSTEM
- Our diverse community of practitioners work collaboratively to address shared QI/PS priorities.
- Integrated healthcare processes and systems are improved.
- Quality improvement silos across the system are reduced.
- Healthcare resources are utilized more efficiently and effectively.

### ENABLING OUR IMPACT

#### ENRICHING SYSTEM-WIDE PRACTICE
- Actively engage and cooperate with community, hospital and academic partners to advance scholarship and education in QI/PS.
- Establish CQuInS as an integrated virtual and physical hub, where learners, practitioners, and healthcare professionals from across the system can connect and collaborate.
- Connect with and inspire healthcare professionals and partners to engage with CQuInS and build a quality improvement ecosystem.
- Promote patient involvement to give patients and caregivers a voice in shaping healthcare improvements.

#### STIMULATING RESEARCH AND INNOVATION
- Support the design and advancement of QI/PS projects, using a scientific, evidence-informed approach.
- Create a QI/PS promotion pathway for early faculty.
- Cultivate opportunities for inter-disciplinary members to collaborate on improvement projects of mutual interest.
- Partner to build and provide access to a library of QI/PS tools, templates, and resources.
- Champion access to robust data and supporting rigorous data-collection and analytical methods.
- Elevate the dissemination and translation of QI / PS research into clinical and operational practice.
- Actively support QI/PS project teams to access funding.

#### BUILDING OUR QI, INNOVATION AND PS CAPACITY
- Cultivate opportunities for inter-disciplinary members to collaborate on improvement projects of mutual interest.
- Partner to build and provide access to a library of QI/PS tools, templates, and resources.
- Champion access to robust data and supporting rigorous data-collection and analytical methods.
- Elevate the dissemination and translation of QI / PS research into clinical and operational practice.
- Actively support QI/PS project teams to access funding.
- Design and deliver a relevant and innovative QI/PS curriculum, reflecting the needs of our partners and members.
- Facilitate the inter-disciplinary exchange of current and emerging QI/PS knowledge and best practices.
- Connect learners to QI/PS mentors and coaches.
- Prepare and inspire practitioners to be future QI/PS leaders.
- Link learners to a range of high-quality immersive project opportunities

### SUSTAINING OUR IMPACT

#### HIGH-PERFORMANCE CULTURE AND TEAM
- Build a CQuInS culture of interdisciplinary learning, inclusion, collaboration, and discovery.
- Embed appreciation, respect and support for diversity and equity across CQuInS.
- Tap into and share QI / PS expertise and talents across the system.
- Leverage early wins and positive results to build pride in and support for CQuInS.
- Cultivate and recruit the next generation of CQuInS leaders, practitioners and staff through empowerment, mentorship, and training.
- Attract national and international experts to participate in QI/PS projects.

#### EXCELLENT TECHNOLOGY AND INFRASTRUCTURE
- Create a CQuInS hub, which encompasses physical and virtual spaces, to enable inter-disciplinary teamwork, communication, teaching and research.
- Invest in technology-enabled learning and innovation tools.
- Integrate Decision Support and IT resources into CQuInS.
- Partner to provide our practitioners with QI and biostatistical support, grant preparation assistance and publishing guidance.
- Develop a centralized information portal for QI resources and toolkits.

### ADVANCING OUR IMPACT

#### HEALTHY FUNDING
- Develop an earned revenue generation model, centred around memberships and learning programs and events.
- Expand revenues from research grants, partner investments, and philanthropy.
- Demonstrate value and return-on-investment to members and partners.

#### DATA-INFORMED GOVERNANCE
- Develop, implement, and ensure the effectiveness of a governance framework that incorporates representation from hospital and academic partners.
- Establish a system-wide, inter / multi-disciplinary Advisory Committee to advance the implementation of CQuInS' strategic plan.

#### ACCOUNTABILITY
- Rapidly adapt and respond to changes in the internal and external environment.
- Develop performance indicators to track and measure CQuInS performance and progress.
- Establish awards to enable and honour QI/PS innovation and scholarship.

#### ROBUST ADVOCACY AND PROMOTION
- Cultivate the CQuInS brand and positioning in the QI/PS field.
- Communicate and demonstrate CQuInS' value proposition through QI rounds, QI research days, social media, and other forums.
- Advocate for support and funding from partners.

**HUMILITY** | **COURAGE** | **RESILIENCE** | **TRUST** | **SELFLESSNESS**

# Priorities

## 1. EDUCATION

### BOOTCAMP IN SAFETY AND QUALITY (BISQ): RESIDENT CURRICULUM

**Overview**

The Bootcamp in Safety and Quality (BISQ) provides group training in the fundamentals of quality improvement methodology to trainees. Guided by divisional/departmental Faculty Leads and experienced QI Coaches, the groups simultaneously learn QI methodology through asynchronous learning modules and apply their learning to a longitudinal QI project.

The 2021-2022 academic year was the eighth year of operation, and the second year the curriculum was delivered completely online. Seven clinical divisions/departments completed eight quality improvement projects this year.

| |
|---|
| **General Internal Medicine**:<br>*Fractured Management: Appropriate Pharmacological Prescribing for New Fragility Fractures* |
| **Endocrinology**<br>*Improving Blood Work Availability Ahead of Post-Op ENT Clinics* |
| **Gastroenterology**<br>*Improving Bowel Preparation for Inpatient Colonoscopies* |
| **Gastroenterology**<br>*Inpatient Endoscopy Throughput: A Quality Improvement Initiative* |
| **Nephrology**<br>*Obesity and GLP-1 Use in Multicare Kidney Clinics* |
| **Clinical Pharmacology and Toxicology**<br>*Improving INR Control Amongst Patients in a Specialized Warfarin Clinic* |
| **Physical Medicine and Rehabilitation**<br>*Promoting Smoking Cessation in Patients with Non-traumatic Lower Limb Amputations* |
| **Respirology**<br>*Inpatient Initiative of Pharmacotherapy for Smoking Cessation* |

**Program evaluation**

Data was obtained through individual module evaluations and one-on-one interviews after the course concluded. This year the questions focused on the value of the coaching team, key learning takeaways, attitudinal shifts, and challenges that impacted the residents' ability to progress through the course,

The following themes were extracted from the evaluation data.

Coaching Team Feedback (Dr. Alan Gob & Joe Carson)

a. The combination of a clinician and non-clinician, both trained and experienced in quality improvement methodology, was viewed favourably by the residents. The coaching team were considered extremely helpful, particularly in the first few modules to get the project off the ground. Residents indicated that a clinician coach brings contextual knowledge of how things work on the ground and a non-clinician coach provides an outside perspective.

Key Learning Takeaways

a. Importance and influence of proper topic selection at the beginning of the project
b. Value of choosing a project for which data is accessible
c. Necessity of stakeholder engagement
d. Role of small interventions leading to bigger impact
e. Need to step back and take time to see the bigger picture before driving ahead

Attitude Shift (resident quotes)

a. "I now see the power of QI in changing clinical practice."
b. "I wish I had been exposed to QI earlier in my training."
c. "I valued QI before but now I appreciate it more. I intrinsically understand its value."
d. "Before this course, I thought that QI was easier than basic science research, but it is actually very difficult. You're trying to integrate changes into a massive system."
e. "I learned that you can systematically look at a problem instead of just accepting that something isn't optimal and just leaving it be or trying to fix it on your own."
f. "A lot of times through my training I have thought 'this doesn't work' or 'that doesn't work' but I didn't know how to go about systematically fixing that issue. This course teaches you that even as a resident you can take steps to solve problems."

Challenges experienced by the residents:

| Challenge | Future Strategy |
|---|---|
| Time to learn content and meet with their group | Greater engagement with divisional Program Directors to negotiate protected time such as during Academic Half Days; Involvement of divisional Program Administrator to facilitate scheduled meetings. |
| Direction from the Faculty Lead | Formalization of a Faculty Lead Terms of Reference document to make explicit the expectations of the role; Investigation into applying hours toward the Department of Medicine teaching requirements. |
| Time to complete PDSA cycles | Revision of course delivery to front-load content earlier allowing more time in the second half for multiple PDSA cycles |
| Varied involvement of team members | Accept only PGY4 residents, if possible, to allow PGY5s to focus more so on Royal College exams and finish QI project details from the year before; Reduce the size of resident teams to a maximum of 3-4 people. |

| | |
|---|---|
| Unclear course outcome | Post final team QI project posters on the CQUINS website as examples for future cohorts. |

## CERTIFICATE IN QUALITY IMPROVEMENT IN HEALTHCARE

**Overview**

The 2021-2022 academic year was the inaugural year that CQUINS offered the *Certificate in Quality Improvement in Healthcare*, the Centre's flagship course. With core content drawn from BISQ, the Certificate course adds advanced content, contextualization through real-life examples, and monthly one-one-one coaching to foster academic and project success. The course ran from September 2021 to May 2022 and accepted 8 healthcare professionals in this pilot year with introductory tuition set at $1999 per person. Four physician participants were associated with London Health Sciences Centre (LHSC), three physicians from St. Joseph's Health Care London, and one physician from Kingston Health Sciences Centre.

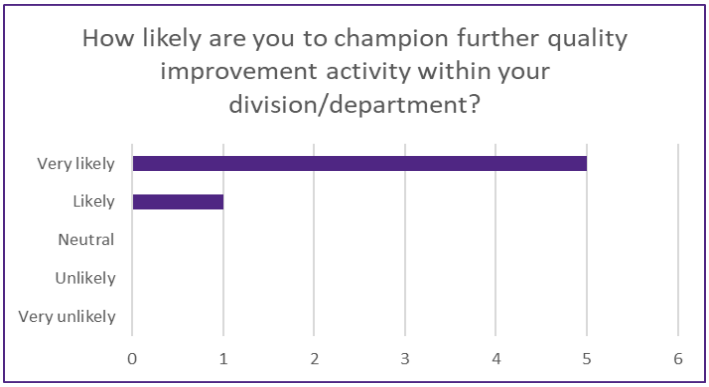
The following projects were completed:

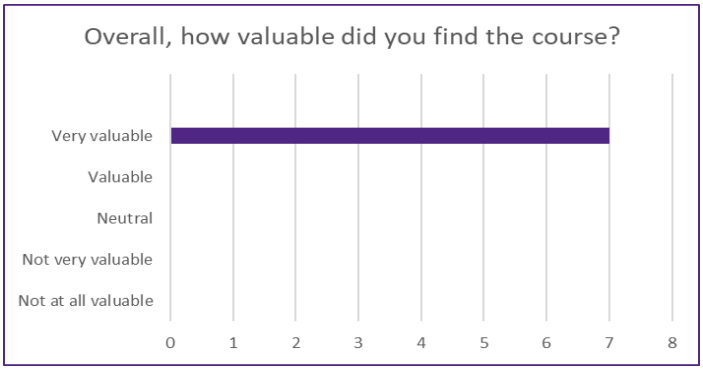
a. Inpatient Endoscopy Throughput
b. Decreasing Wait Times in the Allergy Clinic
c. Reducing Unnecessary CD4 Counts in the HIV Clinic
d. Massive Hemorrhage Protocol in Traumatically Injured Patients
e. Optimizing Treatment for CKD Patients with Type 2 Diabetes and Obesity
f. Reducing Physical Restraint Use on the ACE Service
g. Reducing Waste: Laboratory Testing on CRRT Patients
h. Nerve Blocks for Hip Fractures in the ER (not complete yet)

A formal assessment strategy included pre and post-tests, module-specific quizzes, and the completion of a quality improvement project presented during the capstone event in May.

**Program Evaluation**

Program evaluation included module-specific evaluation surveys and one-on-one interviews after course conclusion. Overall, participants indicated a strong intent to continue quality improvement work in their clinical work setting and unanimously found the course a valuable experience.






Evaluation questions focused on the ability of participants to apply learning to a real-life application (the QI project) within an online, asynchronous course, the impact and quality of the coaching received monthly, key learnings and impact on clinical practice, and any challenges experienced throughout the course. The following themes were extracted from the evaluation data:

Asynchronous Aspect

a. Online modules provided small, digestible learning snippets. The videos broke down complex concepts into easy-to-understand lessons. The learning management system (Thinkific) was user-friendly, well-organized, and provided useful additional reading resources.
b. The assignments allowed the opportunity for participants to not only practice concepts taught in the modules but also make concrete steps forward in their quality improvement project. Suggested deadlines encouraged regular progress but provided flexibility for busy months. Coaching calls were an opportunity to review results of submitted assignments.
c. "I enjoyed the asynchronous component. I could do the modules on my own time, but I had the assignments due every month and the coaching call to keep me on track and accountable."

Coaching (Dr. Alan Gob)

a. One-on-one coaching was viewed as the great strength of the course. Participants commented on the concrete advice, powerful encouragement to overcome obstacles, and strong communication skills. "Alan Gob embodies what a good teacher is."
b. Most felt that it was possible for a QI coach to be a non-clinician but that it would be helpful if the individual had knowledge of the healthcare setting context. E.g. another healthcare professional with some clinical experience

Key Learning Takeaways

a. Automated data collection is a necessity.
b. A larger working group can prolong a project but is important to sustainability.
c. Much work labeled QI, is not really QI.
d. Measurement is important to determine if real change has occurred.
e. Small changes cumulatively can have the biggest impact.
f. To have people buy in, they have to weigh in.

Clinical Practice Change

a. "I can now examine clinical bedside challenges and explore methods to apply concepts learned to build strategies to improve provision of care."
b. "Instead of jumping immediately to the solution generating phase when I identify a clinical problem, I will do a careful root cause analysis, obtain baseline data, and conduct stakeholder interviews."
c. "I now think of QI initiatives that can be done within my specialty and will engage others to participate."
d. "Engaging the key stakeholders in my project showed me the importance of open communication with everyone on the healthcare team, not just related to QI projects, but for overall patient care."
e. "I will look for opportunities for QI interventions and implementations during daily clinical duties."

Challenges experienced by the participants:

| Challenge | Future Strategy |
|---|---|
| Lack of time to choose project | Incorporate a Course Preparation section that prompts participants to begin brainstorming project ideas prior to the course start. |
| Inadequate time to complete PDSA cycles | Revision of course delivery to front-load content earlier allowing more time in the second half for multiple PDSA cycles |
| Unclear course outcome | Post final QI project posters on the CQUINS website as examples for future cohorts. |
| Temporary access to QI Macros | Provide a free license to QI Macros to each participant at the beginning of the course. |
| Motivation to continue/conclude the QI project after the course | Create a "how to revive a project when momentum is lost" video to add to the final module. Plan and execute an on-going communication strategy with participants to feel supported after the conclusion of the course. E.g. community of practice |

The 2021-22 (inaugural) cycle was considered a development cycle, and as such warranted a reduced tuition fee of $1995 per person. Starting with the 2022-23 cycle, tuition will be increased to the full value of $4995 per person.

## SCHULICH-IVEY QUALITY IN HEALTHCARE CONSULTANCY

**Overview**

The Schulich-Ivey Quality in Healthcare Consultancy pairs Honours Business Administration (HBA) students from the Ivey School of Business with healthcare professionals as they conjointly study quality improvement methodology and apply their learning to a clinical care gap.

The 2021-2022 was the fourth year of operation, training a total of 24 students and 6 clinicians. Held fully remote, bi-weekly course lectures by industry and healthcare experts supplemented and contextualized educational videos and resources posted in the online learning management system (Thinkific). The six-month course began in October 2021 and culminated in a capstone presentation of their quality improvement projects in a competition held at the end of March 2022. Projects were assessed by a panel of judges and small monetary prizes awarded to first, second, and third place winners.

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|---|
| **Team led by Dr. Farah Abdulsatar (Pediatrics)**<br>*Improving the Rates of Completed Medication Reconciliation in Pediatric Patients Admitted to Hospital* |
| **Team led by Dr. Andrew Arfin (Radiation Oncology)**<br>*Decreasing Wait Times for Radiation Therapy by Improving CT Simulation Access* |
| **Team led by Dr. Jon Park (Pediatric Rheumatology)**<br>*Increasing the Rate of Pneumococcal Vaccination for Immunocompromised Rheumatology Patients* |
| **Team led by Dr. Nelson Gonzalez (Anesthesiology)** Second Prize<br>*Increasing the Rate of Fast Track Recovery in Post-Liver Transplant Recipients* |
| **Team led by Dr. Rishi Ganesan (Pediatrics)** First Prize<br>*Increasing the Rate of Nurse-led Monitoring for Non-convulsive Seizures in Encephalopathic Critically Ill Children* |
| **Team led by Dr. Robert Dinniwell (Radiation Oncology)** Third Prize<br>*Increasing Access to MRI for Radiotherapy Treatment Planning at a Large Tertiary Cancer Centre* |

Capstone Presentation Judges

- Dr. John Yoo - Dean, Schulich School of Medicine & Dentistry
- Darren Meister - Assoc Dean, Ivey School of Business
- Jodi Younger - VP Patient Care & Quality, St. Joseph's Health Care London
- Dr. James Calvin - Chair/Chief Department of Medicine, Schulich School of Medicine & Dentistry
- Lisa Citton-Battel - Director, 3M
- Viral Patel - Senior Consultant, IQVIA

**Program Evaluation**

Program evaluation included module-specific evaluation surveys and one-on-one interviews with clinicians after course conclusion. Questions focused on the value of collaborating with the Ivey

students, attitudinal shifts, key learnings, and any challenges experienced throughout the course. The following themes were extracted from the evaluation data:

Collaboration with Ivey Students

a. Clinician participants unanimously expressed appreciation for the creativity and fresh perspective brought by the Ivey students and discovered the need to consider the clinical problem from a non-medicine lens. "As clinicians, we are often blinded by our own biases."
b. The students were energetic and committed to making a positive contribution to the projects, while bringing their natural teamwork skills to bear.
c. Clinicians found the business skills and strategies brought to the team by the students to be incredibly helpful as they are drastically different from what has been learned during medical training.

Attitude Shift (clinician quotes)

a. "This course gave me the perspective that I will be more of a collaborator in the future. We need to look outside of medicine when faced with quality issues."
b. "The Consultancy really sparked my interest in QI methodology, and I am now registered for a Masters in QI course."
c. "I learned that QI has a really robust, formally structured methodology that can do some really good work and I absolutely saw that. It has really opened my eyes."

Key Learning Takeaways

a. A successful QI project requires more than just a passion for solving the problem. It requires engaging stakeholders, exploring solutions, and planning interventions.
b. Patients are the best allies and change catalysts.
c. Knowledge translation is critically important.
d. It's a missed opportunity not to be collaborating with fields outside medicine such as business.
e. It's important for a team to properly analyze a problem but this requires support, time, and resources that are not easy to find.

Challenges experienced by the participants:

| Challenge | Future Strategy |
|---|---|
| Inadequate time to complete PDSA cycles | Revision of course delivery to front-load content earlier allowing more time in the second half for multiple PDSA cycles |
| Unclear course outcome | Post final QI project posters on the CQUINS website as examples for future cohorts. |

## 2. SUPPORT AND DEVELOPMENT OF OUR COMMUNITY

As highlighted in the last year's report (2020-21), as well as looking to engage Divisions and Departments to develop roles within their local areas for QI champions, one group of focus are those faculty who have become new mentors. After their first year's mentoring, we have successfully obtained funding through a CPD research grant, to conduct a needs analysis to better understand their experiences and possible concerns. In doing so, we hope to better understand their perspective, and this will inform areas for improvement to facilitate and support the development of new mentors effectively.

To date interviews are ongoing and analysis will happen later in 2022.

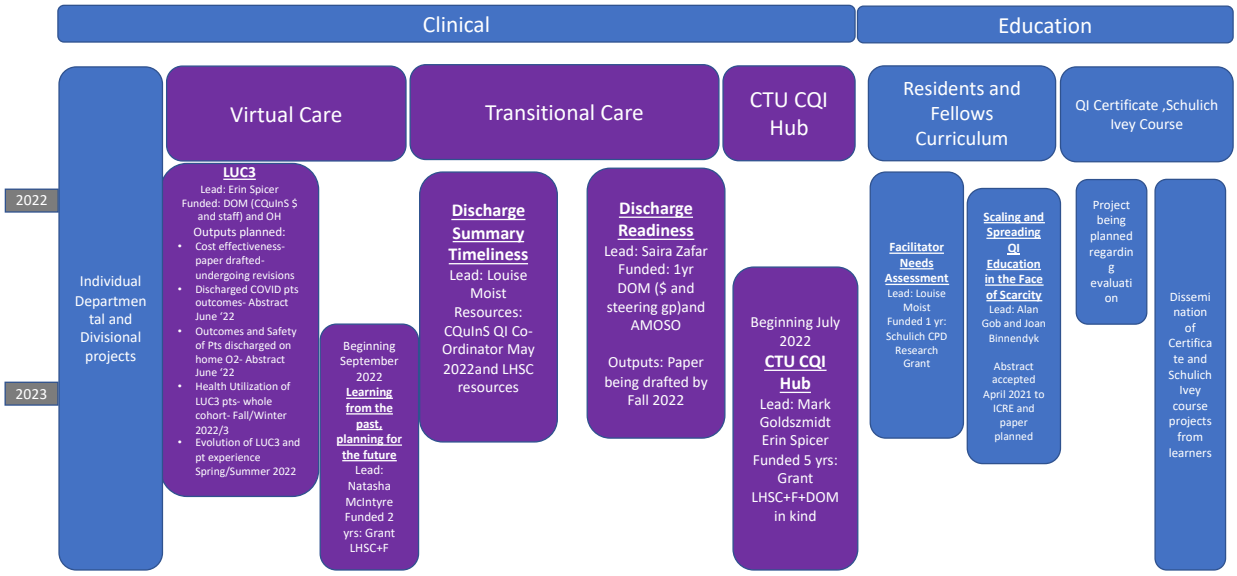
## 3. DEVELOPMENT OF KEY QI/ RESEARCH ACTIVITY

In 2022, there has been consultation with key stakeholders, especially with our hospital quality partners, to support and develop strategic areas of focus, aligned to their priorities, as well as QI projects that are going on in individual departments and clinical areas. The clinical strategic areas of focus are shown on the figure below, in purple, namely in the areas of:

- Virtual Care
    - Further discovery from the LUC3 project and how this may apply to other models of care (see further for an update)
    - In September 2022, a research project to understand the perspective of using virtual care from clinicians from different clinical areas and disciplines, applying the findings to develop innovative quality improvements for the future.
- Transitional Care
    - Discharge Summary Timeliness - building on the work completed in the last year looking to reduce the waiting time for discharge summaries to be sent out to primary care physicians (see further for an update)
    - Improving Discharge Readiness to reduce readmission and improve outcome (see further for an update)
- CTU Improvement Hub to identify QI priorities and improve care for patients in a medical CTU environment

Other areas of QI/Research planned are around analysis of educational programs delivered and also to better understand the needs of new faculty members to identify what can be done to improve their experience, confidence, and effectiveness as mentors for the future (already highlighted above).

# CQuInS QI/Research Activity




## IMPROVING THE TIMELINESS OF DISCHARGE SUMMARIES

Timely distribution of discharge summaries (within 48h of discharge) is associated with a reduction in return to the emergency department and with hospital readmissions. In 2020 LHSC and SJHC Board of Directors and the MAC prioritized timely discharge summary distribution as one of five key quality improvement indicators. The CMPA has mandated this from the physicians' regulatory perspective. CQuInS has led this improvement strategy, in collaboration with the hospital leadership, to realize a 200% improvement in the time to summary distribution. In the last year the time to distribution decreased from 103 hours to 50 hours. Multiple improvement strategies have been integrated into the hospital policy and process, all driven by data, reducing variation, and targeting 65% of summaries distributed with 48 hours.

During 2022, there has been collaborative work going on with CQuInS and hospital staff to generate required and timely data to key clinicians, interviewing over 20 of the top performers and those who struggle to meet targets, to understand the problems in more depth and learn successful strategies from those who meet the targets. Using the themes from this Root Cause Analysis work, we have been able to identify areas for improvement not previously identified and are currently working with clinicians on different ways to tackle the problem.

This is an excellent example of engaging physicians and QI champions with the hospitals leadership to create a culture of quality while improving care to our patients.

## USING VIRTUAL CARE TO IMPROVE PATIENT SAFETY, OUTCOMES AND EXPERIENCE- LUC3

In 2020, an interdisciplinary team consisting of medical faculty, nurses, administrators, research staff and hospital leaders developed a new model of care for an accessible virtual clinic, intended to support those in the community who had a COVID-19 diagnosis – the LHSC Urgent COVID-19 Care Clinic (LUC3). The clinic also aimed to support those discharged home, following a COVID-19 related inpatient admission. Patients were referred from the Middlesex London Health Unit, local family physicians, discharging LHSC hospital physicians or emergency department physicians and many were at risk of deterioration and needing rapid medical attention.

LUC3 was founded with support from the Centre for Quality, Innovation and Safety (CQuInS) and a provincial grant. It became a central component of the local COVID-19 care pathway, providing a powerful example of rapidly initiated and effective quality improvement implementation; conceived and delivered in the face of an escalating and unknown threat with the potential to cause widespread collapse of the healthcare system.

The program provided daily weekday virtual clinics, with follow up over the weekend. Patients had their first virtual appointment within two days of a referral being received and were assessed to see if they required at home blood oxygen monitoring. If determined to be required, a pulse-oximeter and an easy-to-use algorithm were delivered to their home. Given the rapidly progressive nature of the disease in some patients, care was augmented with access to a dedicated on-call physician if needed, and further supported by a novel direct admission pathway to a COVID-19 in-patient bed.

The clinic provided a comprehensive package of care for both escalation and de-escalation of therapy. This integrated pathway increased patient safety, reduced patient anxiety and mitigated the risk of exposure for other patients and care providers within the hospital setting. This accrued additional benefits such as minimizing the number of in-person encounters, even if requiring direct admission, and significantly reducing personal protective equipment consumption.

As LUC3 referrals surged, the LUC3 team partnered with CQuInS to study and improve the impact of the clinic. The clinical and fiscal benefits of LUC3 along with the patients' experience of the clinic, were studied. Data were collected and analyzed at regular intervals, with improvement cycles implemented based on these data. Ongoing iterative patient-centred changes provided a direct organic response to real time data collection and analysis. Initial findings suggested that LUC3 supported a diverse and often isolated population who have limited access to other forms of healthcare; this led to direct outreach by our physician members to support vulnerable populations including individuals who identified as Indigenous and unhoused individuals residing in group settings. During its two years of operation, LUC3 cared for 2558 patients; the work now continues to review the wealth of collected data to understand the clinic's impact and how these lessons can be applied to future planning and other patient populations and clinical settings.

Initial qualitative assessment has shown that the virtual care provided by LUC3 was particularly well received by patients and their care givers. Patient feedback was extremely positive, with patients feeling well supported, less anxious and grateful not to feel alone in the course of their illness.

Data analysis has shown that LUC3 provided key support to other parts of the healthcare system by **facilitating earlier discharge** from hospital – even patients still requiring oxygen or close monitoring at home – thus creating inpatient capacity. In the 13 months between 1st January 2021 to the end of February 2022, 371 were followed up by the clinic after discharge from hospital, with 56% of these patients still on oxygen at discharge and remotely monitored by the clinics' doctors and nurses. The clinic also played a key role in **preventing admissions and readmissions** by managing patients' care virtually. This prevented many unnecessary emergency department visits, while many others who did attend the ED were discharged and followed by LUC3. Patients sent home on oxygen showed no differences in readmission or mortality, when compared to those sent home that did not require home oxygen. These patients also reported that the clinic significantly reduced their levels of anxiety after being discharged, knowing that they would be followed up with by LUC3.

As well as improving the safety, quality of care, and experience for these patients, a significant **cost saving** was achieved. During the first four months of LUC3 $25,495 was saved by preventing 25 unnecessary ED visits (all adjudicated by none-LUC3 physicians) and replacing 228 in-person appointments with telephone assessments. The net savings after accounting for LUC3 operational costs, intentional ED visits and admissions was $11,756. These numbers are likely an underestimate, and the cost savings impact of the clinic was likely amplified during the surge of patients and increase in disease severity during later waves.

LUC3 provided equitable and accessible care to those who needed it, across the whole of the London Middlesex region and beyond. With the support of CQuInS, LUC3 was able to be responsive and implement change rapidly to provide safe and efficient care in the ever-evolving pandemic environment. With data analysis currently in progress, it is expected that lessons learned from LUC3's operation will contribute to innovative models of care in other populations that may benefit from remote monitoring.

Based on the data collected with the support of CQuInS, there have been 5 conference abstracts and 1 clinical peer reviewed paper accepted for publication, with 3 manuscripts in process.

## REDUCING READMISSIONS

The hospital discharge process can be a stressful experience for patients with life-long disease who often have complex health care needs. This study is led by principal investigator Dr. Saira Zafar and research coordinator/transitional coach Claudia Jarosz (MKin). Funding has been acquired through the Academic Medical Organization of Southwestern Ontario (AMOSO) and supplemented by CQuIns. The study is also supported by steering committee members Dr Natasha McIntyre, Dr. Alan Gob and Krista Delmage from CQuInS. It aims to improve patient education, discharge planning, and outpatient follow up with the goal of reducing hospital readmissions on a medical clinical teaching unit. It evaluates a patient-centered intervention that uses a "Transitional Coach" and a standard checklist to enhance patients' capacity to self-care for a safer transition to home. This project is designed to employ Quality Improvement methods to test the intervention in rapid, small cycles while collecting and analyzing data on various quality indicators to make changes to the intervention and adapt it for sustainability.

Patients' post-hospital self-care preparedness is obtained using a CTM-3 scoring tool following patients discharge from hospital. Patients also scored as high risk for readmission (using a validated screening tool) are followed up by telephone following discharge by the Transitional Coach. Patients are also provided with a pager number to contact the Transitional Coach with questions and concerns. This study is important to educate and guide patients, improve patient outcomes, and achieve significant savings to the health care system by reducing readmissions.

A two-week pilot study was completed in July 2021 to better delineate the role of the Transitional Coach and identify barriers to the intervention implementation. After recruiting the Transitional Coach, data collection began in October 2021 and is ongoing. As of the end of June 2022, 300 patients have been recruited into the study. Data shows a reduction in 30-day readmission rates to 17% in comparison to 29% from October 2020 to December 2020. Patients' post-hospital self-care preparedness (CTM-3 score) is 82% with a response rate of 55%. Patient satisfaction, obtained during the follow-up telephone calls through direct patient feedback, highlights key areas of improvement around staff communication and the discharge process. In addition, the transitional coach role has been acknowledged through an LHSC "Celebrating Our Values" e-mail as a patient submitted the following: "I understand you have introduced a new role known as the Transition Coach. Cheers to that! Patients are certainly nervous and perhaps frightened; so knowledge is king. My Coach (Claudia) really provided insight and info that anyone would like to have. Nurses and doctors are busy and I am sure struggle to communicate updates to worried patients and families. This role seems to broker this. Claudia was very helpful, detailed and prompt – it was truly an unexpected positive surprise (imagine that when you are ill)."

## IMPROVING ACCESSIBILITY TO DO SCHOLARLY QUALITY IMPROVEMENT

In our inaugural year we described the work completed with the research ethics Board to create a pathway to expedite the process for Quality Improvement submissions, which is readily available on both the CQuInS and Western Research Ethics Board websites.

We plan over the coming years initiatives to develop support for scholarly quality improvement. One of these would be convening a grant appraisal committee to help strengthen funding grants and improve success rates. We also hope to provide some support for members writing for publication, who may require it.

One area that has been developed over the last year is to test a model for the allocation of our co-ordinator resources. The role of quality improvement co-ordinator is to support the QI activities and ensure the movement forward of projects, engaging with key stakeholders. It is also hoped that as they are trained (each co-ordinator will complete the QI Certificate if not already QI trained), they will become experts in different areas of QI to support clinicians in the field more proactively.
However, to date we have only one, so we need to be mindful of using the resource wisely and effectively. As well as supporting strategic priorities, co-ordinator time can also be allocated on a fee for service basis, with members with grant funding able to buy co-ordinator time thus reducing the burden of clinicians wanting to do QI with funds, having to recruit and train a QI co-ordinator. It is hoped that over time using this model and recouping some costs for their time, that this will create some sustainability and growth for this resource, whilst supporting better quality and success in how projects are conducted.

To date this year, our QI-co-ordinator has been supporting two QI projects that straddle both surgery and medicine, with cost for the resource paid from academic grant funds.

# Publications, Grants, Awards and Accepted Abstracts

## Quality Improvement- related published papers, from CQuInS members 2019-2022

**2022**

**Clemens KK**, **Brahmania M**, Weernink C, **Lotfy K**, Rjoob H, Berberich A, **Gob A**. Reducing hyperglycaemia post-kidney and liver transplant: a quality improvement initiative. BMJ Open Quality 2022;**11**:e001796. doi:10.1136/ bmjoq-2021-001796

D'Cruz J, **McIntyre N**, Devlin M, Nicholson JM, Mrkobrada M, Lau S, **Spicer E.** Is it Virtually Worth It? Cost−analysis of telehealth monitoring for community-based COVID-19 positive patients. *Can J Int Med*. 2022 (in print)

Lee SH, Ramondino S, Gallo K, **Moist LM**. A Quantitative and Qualitative Study on Patient and Physician Perceptions of Nephrology Telephone Consultation During COVID-19. *Can J Kidney Health and Disease.* 2022 Jan 5;9. doi: 10.1177/20543581211066720.

DeKraker C, Kemp AJ, Simon A, Rey C, Cheng H, Kiani Z, Fulford A, Nugent S, Singh D, **Deotare U**. Quality improvement initiative to improve revaccination rates after autologous stem cell transplantation. BMJ Open Qual. 2022 Jun;11(2):e001802. doi: 10.1136/bmjoq-2021-001802. PMID: 35768170; PMCID: PMC9244670.

**2021**

**Deotare U**, Fulford A, Xenocostas A, Nugent S, Reiger S, Mussio M, Caldwell D, Halley C, **Gob A.** Increasing Capacity for Autologous STEM Cell Transplants by Outpatient Conditioning Therapy: A Quality Improvement Study. *Transplantation and Cellular Therapy*. 2021 Mar;(23): S93-S94

**2020**

**Carson J**, **Taabazuing M**, Sider C*, et al.* 6 Reducing unnecessary patient isolation on general medicine units. *BMJ Open Quality* 2020;9**:** doi: 10.1136/bmjoq-2020-IHI.6

**Carson J**, Gottheil S. Rheum Service: improving virtual care during COVID-19. *BMJ Open Quality*, 2020; 9 (Suppl 1), A12.

Tai F, Chin-Yee I, **Gob A**, et al. Reducing overutilisation of serum vitamin D testing at a tertiary care centre. *BMJ Open Quality.* 2020;9:e000929–938.

Sachedina AK, Mota S, Lorenzin J, Allegretti M, Leyser M, **Gob A**, McKelvie R. Effect of a formalised discharge process which includes electronic delivery of prescriptions to pharmacies on the incidence of delayed prescription retrieval. *BMJ Open Quality* 2020; **9:** e000849. doi: 10.1136/bmjoq-2019-000849

Lok C, Huber TS, Lee T, Shenoy S, Yeyzlin AS, Abreo K, Allon M, Asif A, Astor BC, Glickman MH, Graham J, **Moist LM**, Rajan DK, Roberts C, Vachharajani TJ, Valentini RP. KDOQI Clinical Practice Guideline for Vascular Access: 2019 Update *Am J Kidney Dis* . 2020 Apr;75(4 Suppl 2):S1-S164.

Suri R, Antonsen JE, Banks CA, Clark D, Davison SN, Frenette CH, Kappel JE, MacRae JM, Mac-Way F, Mathew A, **Moist LM**, Qirjazi E, Tennankore KK, Vorster H. Management of Outpatient Hemodialysis During the COVID-19 Pandemic: Recommendations from the Canadian Society of Nephrology COVID-19 Rapid Response Team. *Can J Kidney Health Dis*. 2020 Sep 11;7

**2019**

**Brahmania M**, Renner EL, Coffin CS, Yoshida EM, Wong P, Zeman M, Shah H. Choosing Wisely Canada-Top Five List in Hepatology: Official Position Statement of the Canadian Association for the Study of the Liver (CASL) and Choosing Wisely Canada (CWC). Ann Hepatol. 2019 Jan-Feb;18(1):165-171. doi: 10.5604/01.3001.0012.7908. PMID: 31113586.

**Carson J**, Gottheil S, Dyck B, Rice T. Paging the right residents the first time on General Internal Medicine: A quality improvement project. *The Joint Commission Journal on Quality and Patient Safety*, 2019; 45(10): 711-716. https://doi.org/10.1016/j.jcjq.2019.08.001.

**Carson J**, Gottheil S, Lawson S, Rice T. London Transfer Project: Reducing medication incidents after discharge from hospital to long-term care. *Journal of the American Medical Directors Association*, 2019; 20(4): 481-486. https://doi.org/10.1016/j.jamda.2018.09.037.

Jalbert R, **Gob A**, Chin-Yee I. Decreasing daily blood work in hospitals: What works and what doesn't. *Int J Lab Hematol*. 2019; **41**(Suppl 1): 151- 161.

**Gob A,** Bhalla A, Aseltine L, Chin-Yee I. Reducing two-unit red cell transfusions on the oncology ward: a choosing wisely initiative. *BMJ Open Qual* 2019; 8: e000521. doi:10.1136/bmjoq-2018-000521
Ismail O, Chin-Yee I, **Gob A**, et al. Reducing red blood cell folate testing: a case study in utilisation management. *BMJ Open Qual.* 2019; 8(1): e000531.

**Bateman EA**, **Gob A**, Chin-Yee I, et al. Reducing waste: a guidelines-based approach to reducing inappropriate vitamin D and TSH testing in the inpatient rehabilitation setting. *BMJ Open Quality* 2019; 8:e000674.

Muanda FT, Weir MA, Bathini L, Blake PG, Chauvin K, Dixon SN, McArthur E, Sontrop JM, **Moist L**, Garg AX. Association of Baclofen With Encephalopathy in Patients With Chronic Kidney Disease JAMA. 2019 Nov 9;322(20):1987-1995

## QI related Grants Awarded 2020-22

**2022**
**Dr. Mark Goldszmidt, in conjunction with Dr. E. Spicer:** Limited Term Chair award. Inpatient Medicine Continuous Quality Improvement. LHSC and LHSC Foundation. 2022-2027

**Dr. Natasha McIntyre**: Clinician Scientist award. Virtual Care: Learning from the past, planning for the future. LHSC and LHSC Foundation. 2022-2024

**2021**
**Dr. Mark Goldszmidt**: Development and Validation of a Resuscitation Preferences Video Decision Aid at the London Health Sciences Center (LHSC). Academic Medical Organization of Southwestern Ontario (AMOSO) Innovation fund, $144,263, 2021-2023

**Dr. Saira Zafar**: Reducing Readmissions to a Clinical Teaching Unit. Academic Medical Organization of Southwestern Ontario (AMOSO) Innovation fund, $25,000, 2021-2023

**Dr. Louise Moist**: Needs Assessment among Medicine Faculty supervising Quality Improvement interactive teaching modules. Western CPD Research and Innovation Award. $9984. CQuInS Project team: L. Moist, A.Gob, M Goldszmidt, J.Carson, J. Binnendyk, N. McIntyre

## QI related Awards 2020-22

*Schulich Department of Medicine Innovation Award of Excellence* awarded to **Drs Erin Spicer and Marko Mrkobrada** for the development of the LHSC Urgent Covid Care Clinic (LUC3) awarded December 2020.

*Canadian Association of Gastroenterology Young Scholar in Quality Innovation award,* awarded to **Dr. Mayur Brahmania** (announced in December 2020 and awarded March 2021).

## QI Accepted Conference Abstracts 2020-2022

**2022**

**Binnendyk J, Gob A.** Scaling and Spreading Quality Improvement Education in the Face of Scarcity: Doing More with Less. 2022. International Conference on Residency Education (ICRE) and also The Association for Medical Education in Europe (AMEE)

**Binnendyk J, Brahmania, M, Gob A.** Collaborative Quality Improvement Education: Partnering business students with healthcare professionals. 2022.The Association for Medical Education in Europe (AMEE)

**Deotare U,** Fulford A, Xenocostas A, Nugent S, Reiger S, Mussio M, Caldwell D, Halley C, **Gob A.** Increasing Capacity for Autologous Stem Cell Transplants at LHSC. 2022. Transplantation and Cellular Therapy (TCT) conference

**Deotare U,** Fulford A, Xenocostas A, Nugent S, Reiger S, Mussio M, Caldwell D, Halley C, **Gob A.** Increasing Capacity for Autologous Stem Cell Transplants at LHSC. 2022. Cellular Therapy and Transplant Canada (CTTC) Conference

DeKraker C, Kemp A, Simon A, Rey C, Chang H, Kiani Z, Fulford A, Nugent S, Singh D, **Deotare U.** Quality improvement initiative to improve re-vaccination rates after Autologous Stem cell Transplantation. 2022. Cellular Therapy and Transplant Canada (CTTC) Conference **Best Oral Abstract Award-Laboratory/ Quality**

P. Gujral, S. Gottheil, **J. Carson**. Implementing the EIA Detection Tool to improve triage accuracy and reduce wait times: A quality improvement project. 2022 CRA &AHPA Annual Scientific Meeting.

Aniol S, Reycraft J, **McIntyre NJ**, Nicholson JM, Devlin M, Mrkobrada M, Kwon YH, Dafel A, **Calvin JE**, **Spicer E**
A telemedicine bundle to support early discharge of hypoxic COVID-19 patients with supplemental oxygen from an acute care setting as a safe and acceptable model for preserving hospital capacity.2022 CSIM Annual Meeting

Cooper M, **McIntyre NJ**, Nicholson JM, Devlin M, Mrkobrada M, Kwon YH, Dafel A, **Calvin JE**, **Spicer E** Discharging COVID positive patients to a daily telemedicine monitoring program is a timely, safe, and patient-centered means of creating inpatient capacity. 2022 CSIM Annual Meeting

**2021**

**Deotare U.** Increasing Capacity for Autologous Stem Cell Transplants for Lymphomas: A Quality Improvement Study. 2021. IHI Scientific Symposium.

**Deotare U.** Quality improvement initiative to improve re-vaccination rates after autologous stem cell transplantation. 2021. IHI Scientific Symposium.

**Deotare U.** Timely delivery of discharge summary of hemato-oncology inpatients to primary-care providers: A quality improvement study. 2021. IHI Scientific Symposium.

**McIntyre NJ, Calvin JE,** Nicholson JM, Devlin M, Mrkobrada M, Kwon YH, Dafel, A, **Spicer E.** Evolving an efficacious, patient centred COVID-19 telemedicine clinic to accommodate early discharge from hospital to maximize inpatient capacity. 2021. IHI Scientific Symposium.

**2020**

**Carson J,** Gottheil S. Rheum Service: improving virtual care during COVID-19. (2020). IHI Scientific Symposium.

Gottheil S. **Carson J**. Rheum Service: improving virtual care during COVID-19. (2020). American College of Rheumatology Convergence Conference.

**Carson J, Taabazuing M,** Sider C, et al. Reducing unnecessary isolations on general medicine at London Health Sciences Centre. 2020. Choosing Wisely Canada National Meeting.

**Deotare U**. Increasing capacity for autologous stem cell transplants by outpatient conditioning therapy: A Quality Improvement Study. (2020). IHI Scientific Symposium.

D'Cruz J, Mrkobrada M, Nicholson M, Devlin M, **Spicer E.** Is it worth the cost? Cost-analysis of a QI Initiative via telehealth monitoring at LHSC Urgent COVID care clinic (LUC3). (2020). IHI Scientific Symposium.