# PHYSICIAN QUALITY IMPROVEMENT COHORT 7

## PROJECT SUMMARIES

2022 - 2023



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# Overview

The Physician Quality Improvement (PQI) program is a collaboration between Island Health and the Specialist Services Committee of Doctors of BC. PQI offers a range of training and education opportunities that all work to build medical staff capacity to participate in and lead quality improvement.

The PQI Program is led by the PQI Joint Steering Committee, which consists of four major key partner (stakeholder) groups: clinically active physicians, patient partners, Island Health representatives and Specialist Services Committee representatives. This committee is responsible for setting and supervising the strategic direction of the PQI Program.

PQI Cohort training is a one-year program in which QI skills are developed through learning action projects. The application process is competitive and guided by the Island Health PQI Steering Committee. Medical staff accepted to the program work closely with the PQI team, which consists of two Physician Advisors, three Physician Faculty members, a Manager and six support staff.

Cohort 7 began the program in September 2022. In October 2023, 20 medical staff graduated from Island Health PQI Cohort 7. This is a summary of their achievements.

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## Project Summary

| Name & Specialty | Location | Project Aim |
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| **Dr. Nicole Baur**<br>Rheumatology<br>Project Link | Nanaimo | To increase referrals for osteoporosis management by 50%, for female patients over 65 years old, presenting at Nanaimo Regional General Hospital (NRGH) Cast Clinic with a recent fracture by June 2023 |
| **Dr. Ava Butler**<br>Emergency Medicine<br>Project Link | Duncan | To decrease time to obtain equipment needed for difficult airway management by Nurses, Respiratory Therapists, and Physicians in the Cowichan Emergency Department to less than 90 seconds by May 2023 |
| **Dr. Kelly Cox**<br>Pediatrics<br>Project Link | Nanaimo | To increase percent of individuals at NRGH offered immediate skin-to-skin as defined by the Baby-Friendly Initiative (BFI) global standard at Caesarean section in a low risk delivery by 50% by June 2023 |
| **Dr. Savannah Forrester**<br>Emergency Medicine<br>Project Link | Victoria | To increase completion rate of Confusion Assessment Method (CAM) assessments documented by nursing staff in the Emergency Department at Victoria General Hospital for patients over the age of 65 to 75% by May 2023 |
| **Dr. Oona Hayes**<br>Family Practice<br>Project Link | Victoria | To increase documented 'What Matters to You' discussions to at least 30% of patient charts for Long Term Opioid Treatment (LTOT) High Complexity Care Team (HCCT) patients by June 2023 |
| **Dr. Phillippa Houghton**<br>Family Practice<br>Project Link | Comox | To improve patient satisfaction with a Virtual Postpartum Preparedness group medical visit series by June 2023 |
| **Dr. Abhinav Joshi**<br>Addictions Medicine<br>Project Link | Victoria | To increase to 90% the percent of smokers discharged from Victoria Medical Detox who receive comprehensive smoking cessation advice during their stay by June 2023 |
| **Dr. Jennifer Kask**<br>Family Practice/ Maternity<br>Project Link | Campbell River | To increase the identification of individuals with pregnancy related Cardiovascular Diseases (CVD) risk factors at the Campbell River Maternity Clinic to 100% at discharge from care by June 2023 |
| **Dr. Kelsey Kozoriz**<br>Family Practice<br>Project Link | Duncan | To increase to 100% the number of health care referrals to the Island Health Outpatient COVID Therapeutics Clinic (OCTC) that are confirmed to the referring clinician within 24 hours of receipt, by March 1, 2023 |
| **Dr. Nimrod Levy**<br>Orthopaedic Surgery<br>Project Link | Duncan | To increase by 50% the number of Cowichan Valley Orthopaedics patients that are available to fill short notice Cowichan District Hospital operating room (OR) cancellations by June 2023 |

## Project Summary

| Name & Specialty | Location | Project Aim |
|---|---|---|
| **Dr. Alyson Osborne**<br>Geriatric Medicine<br>Project Link | Victoria | To reduce length of stay in the Royal Jubilee Hospital Emergency Department (ED) for patients admitted to hospital who are referred to the Geriatric Evaluation and Management (GEM) team from the ED by 30% by May 2023 |
| **Dr. Zoe Pullan &**<br>**Dr. Mark Sanders**<br>Family Practice<br>Project Link | Duncan | To increase Primary Care Provider satisfaction and Joy in Work for Ingram Family Physicians working at Cowichan District Hospital by 50% by June 2023 |
| **Dr. Jane Ryan**<br>Pediatric Psychiatry<br>Project Link | Victoria | To increase occupational resiliency in the Nurturing Connections team by 25% using composite team scores on the Mini Z 2.0 Burnout survey overall score by June 2023 |
| **Dr. Bennet Schwartzentruber**<br>Internal Medicine<br>Project Link | Victoria | To increase the number of patients seen in the Deep Vein Thrombosis (DVT) clinic at Royal Jubilee Hospital by 25% by June 2023 |
| **Dr. Sylvie Tellier &**<br>**Dr. Tania Wall**<br>Family Practice<br>Project Link | Victoria | To increase documentation and identification of 6 key social determinants of health ICD-9 codes within our existing patient panels at the Westshore Community Health Centre by 25% by the October 2023 |
| **Dr. Tim Troughton**<br>Family Practice<br>Project Link | Victoria | To increase percent of Dr. Troughton's patients who contact Cook St Medical Clinic with an urgent clinical request and receive a response by the team within 24 hours to 100% by June 2023 |
| **Dr. Christian Turner**<br>Emergency Medicine<br>Project Link | Victoria | To reduce Metered Dose Inhaler (MDI) administration in Royal Jubilee Hospital Emergency Department by 25%, as measured by pharmacy dispensations per total patient seen each week, within 8 months |
| **Dr. Kristy Williams**<br>Family Practice<br>Project Link | Nanaimo | To improve the Nanaimo's Primary Care Outreach (PCO) team's cohesion by increasing the average intent of team members to stay within the team by 20% at the one year mark by September 2023 |

# Identification & Therapy of Osteoporosis at Nanaimo Regional Hospital Cast Clinic

**Physician Lead: Nicole Baur**

Location: Nanaimo

Specialty: Rheumatology

**Background:**

The risk of a major osteoporotic fracture after a first fracture is increased. The risk of major osteoporotic fracture within 1 year is 2.7 fold higher than the population risk. Fractures are associated with a significant degree of morbidity and mortality. Fracture liaison services have been established in several centres to help identify people with risk factors for osteoporosis and initiation of treatment.

**Problem:**

At the Nanaimo Regional Hospital Cast Clinic females over 50 years old with a new fragility fracture are not always recognized as having an increased risk of osteoporosis. Some of these patients do not have a primary care provider and the focus is on immediate management of fracture.

**Aim of Project:**

By June 2023, increase assessment for osteoporosis management by 50% for female patients over 50 years of age who present with fragility fractures at the Nanaimo Regional Hospital Cast Clinic.

**Patient Voice:**

Patient partner assisted in the creation of the identification survey/questionnaire.

**Actions Taken:**

- Developed single page screening/referral form for use at orthopaedic clinic
- Updated criteria to include female patients over 50yrs old with recent fracture deemed as a fragility fracture by Dr. Yeoh (orthopaedic surgeon)
- Started accepting referrals at West Coast Rheumatology (Dr. Baur) for Dr. Yeoh's patients would benefit from osteoporosis risk assessment



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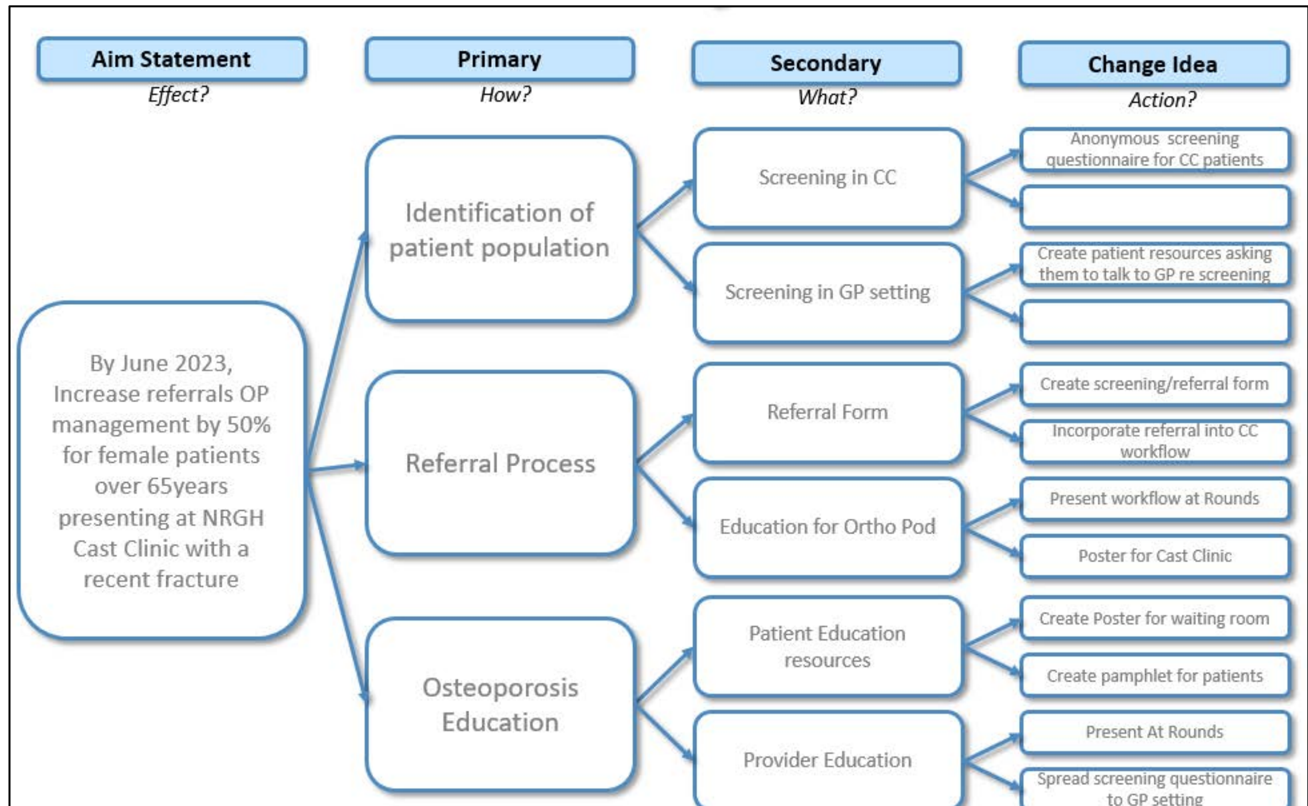
## Driver Diagram:




## Lessons Learned & Next Steps:

- Celebrate the small successes:
  - Achieved endorsement from the Nanaimo Orthopaedics group
  - Testing orthopaedic surgeon continues to use referral form
  - 4 patients have had in-office assessments at Nanaimo Rheumatology Clinic

- Present results to the Orthopaedics group for further update of the referral form
- Create educational resources for patients accessing the Nanaimo Regional Hospital Cast Clinic waiting room



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# Cowichan District Hospital Emergency Department Difficult Airway Quality Improvement Project

## Physician Lead: Dr. Ava Butler

Location: Duncan
Specialty: Emergency Medicine

## Background:

Management of the adult difficult airway in the Emergency Department (ED) is one of the most stressful and time-critical procedures in Emergency Medicine. When initial intubation is not successful, there are a series of interventions a team can undertake to ventilate and intubate the patient. If this is not successful, surgical airway is the final step in managing the Can't Intubate/Can't Oxygenate clinical scenario (CICO). A high performing team must work together in an appropriately arranged environment to manage this high-acuity, low occurrence problem in the ED. Normally, this team includes physicians, nurses and a respiratory therapist (RT). While the Cowichan District Hospital (CDH) is scheduled to have 24/7 respiratory therapist coverage, human resource limitations mean that in some cases, a RT is not available to assist with the management of a difficult airway in the ED.

## Problem:

Nurses and physicians at Cowichan District Hospital Emergency Department were not comfortable with obtaining the equipment for difficult airway management, especially if no RT was available. It took an average of 319 seconds (5.5 minutes) to just obtain the equipment for a procedure that needs to be completed within a maximum of 4 minutes, and ideally faster.

## Aim of Project:

To decrease the time to obtain the equipment needed for adult difficult airway management by nurses and physicians in the Cowichan District Hospital Emergency Department to less than 90 seconds by May 2023.

## Patient Voice:

A B.C. patient with lived experience receiving critical care was identified via the Patient Voice Network (PVN). Though the patient did not have experience with intubation specifically, she had experience receiving critical care in the ED. The need for quality improvement in critical care was pivotal for both patient safety and experience in her opinion.

*"For any (patient) who is even slightly coherent to have people run around to get the equipment to help them to breathe is unbelievable. This will help so that patients will not suffer more. Not just the patients, but also the doctors and health care workers."*



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## Actions taken:

- **Shared Mental Model** - best practice for airway management
  - ✓ A flowsheet was created and attached to the airway equipment in the trauma room and used as the basis for simulations and airway practice
- **Airway cart –** recommend layout based on literature review
  - ✓ An unused cart from the hospital was repurposed to stock labeled drawers with equipment corresponding to the developed airway flowsheet
- **Translational simulation**
  - ✓ A total of four simulation sessions were undertaken to familiarize teams with the shared mental model and airway cart. This exercise was invaluable for adjusting the cart to the correct equipment

## Data Analysis:

- Following test of change, time taken by providers to obtain equipment showed a shift from 326 seconds at baseline to 64 seconds by the end of fourth simulation exercise (Figure 1)
- Qualitative feedback in form of staff level of comfort with using equipment, tracked as process measure, showed increase in confidence with respect to both airway equipment and airway process (Figure 2). The balancing measure, which was the percentage of active nursing staff who attended educational events was measured before and during the project. There was no significant decrease in attendance at educational events between September 2022 (pre-project) and the educational events during the project (February-April 2023)

Figure 1

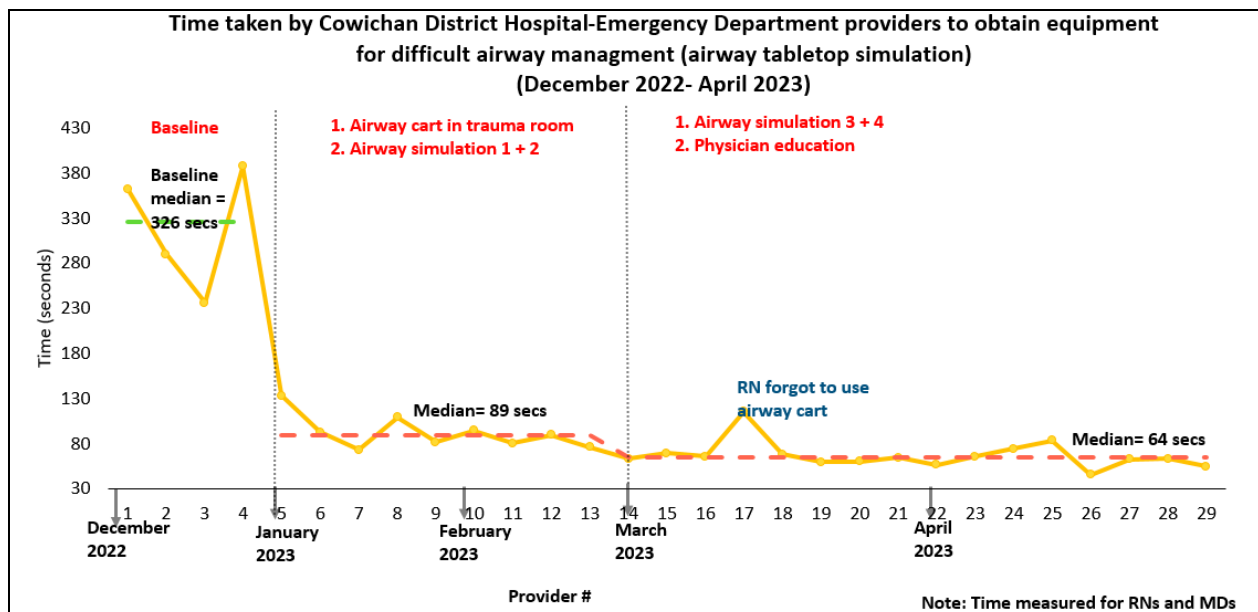
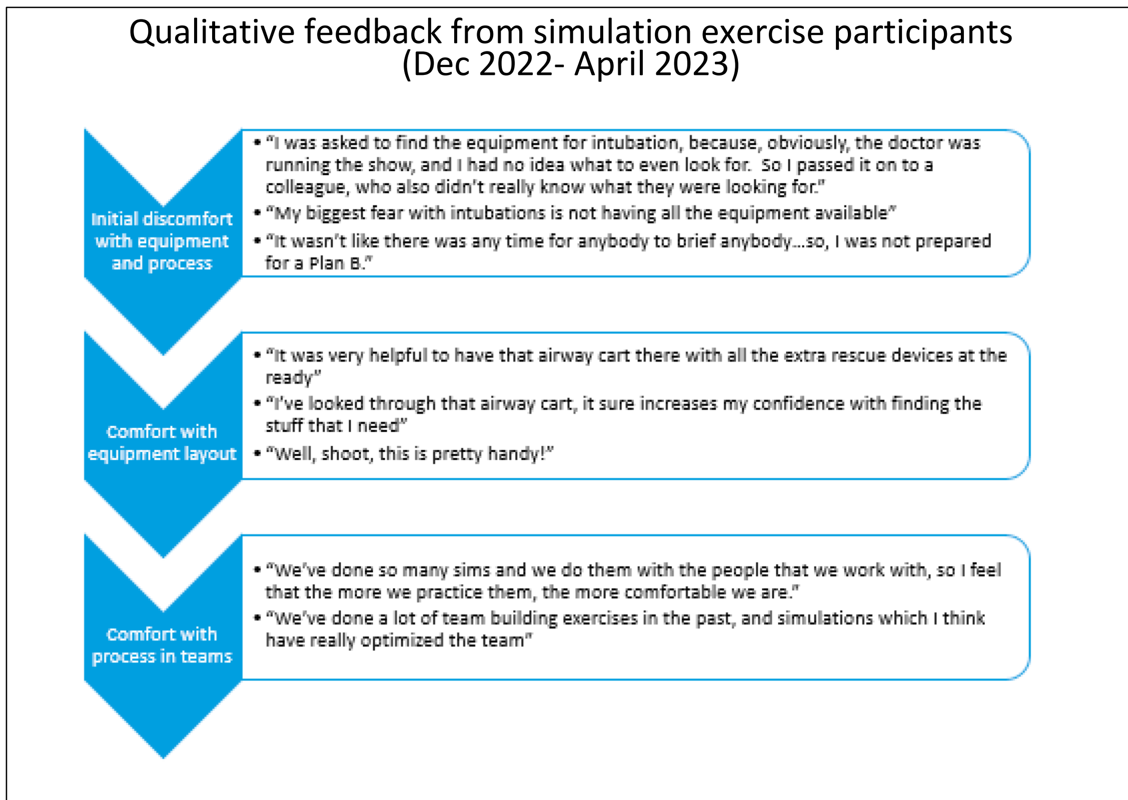


Figure 2




## Lessons Learned & Next Steps:

- Implementing a shared mental model, using an airway cart, and applying translational simulation was a successful model for quality improvement in this community hospital emergency room
- Translational simulation was achievable within current finances, did not require extra time away from work for staff, and did not require any new equipment to be purchase
- Develop change package to spread project
- This project only dealt with adult airway management, but increasing the scope to include pediatric airways would be beneficial in our community hospital

This project was also done as part of a bigger vision in the CDH ED in which teamwork and systems are optimized to help improve cultural safety. Our team is currently engaged with University of British Columbia (UBC) Continuing Professional Development (CPD) with a plan to offer cultural safety simulations for CDH ED physicians and nurses by spring of 2024.



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# Improving Skin to Skin Post Caesarean Section at Nanaimo Regional General Hospital

**Physician Lead: Dr. Kelly Cox**

Location: Nanaimo
Specialty: Pediatrics

## Background:

There are significant benefits to both parent and baby with immediate skin to skin, including regulation of baby's vital signs, improved transition, temperature regulation and promotion of breastfeeding. Parents who deliver by Caesarean section (C-section) miss the opportunity for the benefit of immediate skin to skin. In 2015, the World Health Organization listed immediate skin to skin after delivery as one of the steps to successful breastfeeding (human milk feeding).

## Problem:

Babies born by at Nanaimo Regional Hospital (NRGH) via C-section are taken directly to the radiant warmer, whereas babies born by vaginal delivery go skin to skin with their parent immediately after birth. Many birth parents want their baby skin to skin. On average there is a 20 minute delay for skin to skin with only 20% of babies getting skin to skin at less than 5 minutes.

## Aim of Project:

At Nanaimo Regional Hospital, increase percentage of parent-baby dyads offered immediate skin to skin (within 5 minutes of birth) at elective C-section by 50% by June 2023.

## Patient Voice:

We spoke to two birthing dyads to discuss their impression of skin to skin after C-section, the importance to them, and how we could improve the process from their perspective.

*"Having had two C-sections (belly births) I can not emphasize how important skin to skin was for us. I was so worried about not having those first moments with babe like I did with previous vaginal births. Having skin to skin right away felt like we got to be part of the process, much like a vaginal birth. We were the ones who got to connect with baby first and spend those first moments together. Those first moments are so raw and special and warm and cozy and I think not having that would have made me feel really removed from the birth process. That connection with baby also had me so immersed that it alleviated the waiting of being stitched up"*

## Actions Taken:

- Anesthesia moves IV and BP cuff
- Education to Obstetricians
- Education to Pediatricians



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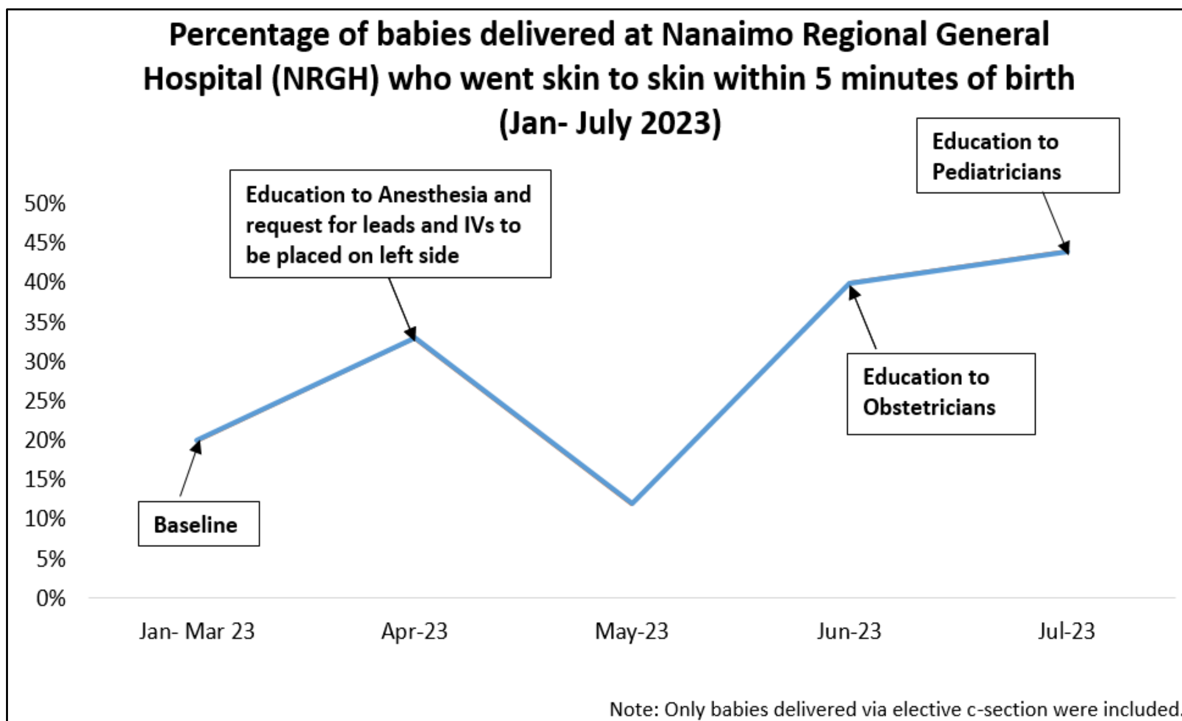
## Data Analysis:

- By July 2023, percentage of babies who went skin to skin increased to 45% (Figure 1)

Figure 1




## Lessons Learned & Next Steps:

- It takes time to build a team
  - Key players felt overworked
  - Non physicians have little or no QI training or experience

- Data is fun and it motivates people
  - Need data to show change, validate change to workflow and motivate team members

- Quality Improvement is a burnout antidote
  - QI gives a framework for making changes to the system when feeling overwhelmed

- The next steps include:
  - Nursing education to increase nurses' awareness of the value of entering the skin to skin time in the Electronic Health Records
  - Skin to skin educational handout to birthing parents at their pre-operative appointment

# Delirium Identification in the Emergency Department at Victoria General Hospital

**Physician Lead: Dr. Savannah Forrester**

Location: Victoria

Specialty: Emergency Medicine

**Background:**

Approximately 30% of patients seen in the Emergency Department (ED) in Victoria are age greater or equal to 65 years and this number will only continue to increase. Of this population, 30% are admitted to hospital and spend an average of 18.7 hrs in the ED before being transferred to an inpatient bed. In hospitalized older patients, delirium is the most common hospital-acquired harm, with an approximate prevalence of 27%. Patients admitted to hospital with delirium have associated in-hospital mortality rates of between 25-33%. Additionally, patients with delirium have prolonged length of stay in hospital, on average 4 days longer than patients without delirium, and have increased rates of long-term cognitive and functional decline.

**Problem:**

Rates of delirium recognition in Victoria General Hospital Emergency Department (VGH ED) have been dismally low. When polled, the majority of VGH ED nurses were not completing or documenting Confusion Assessment Method (CAM) assessments and thus were not performing any formalized screening for delirium. Delirium is considered a medical emergency and lack of recognition impacts the quality of care patients receive across the spectrum of acute care, with downstream effects that include increased patient mortality and hospital acquired harms, prolonged hospital length of stay, and increased number of patients discharged to an already overburdened LTC system.

**Aim of Project:**

By June 2023, increase nursing staff identification of delirium in the Emergency Department at Victoria General Hospital by 75% for patients over the age of 65 years old.

**Patient Voice:**

*"I recalled that my sister said my mother had to be restrained and medicated when she was admitted because of her behaviour. After reading this handout, it's obvious she was in delirium. I don't understand why the word delirium has never been conveyed to us by a healthcare professional."*

*"I returned to the hospital two days after first bringing my mother to the ED…I didn't want to be in the way of the doctors."*

-Family member of an older patient with two admissions to hospital for delirium within 2 months



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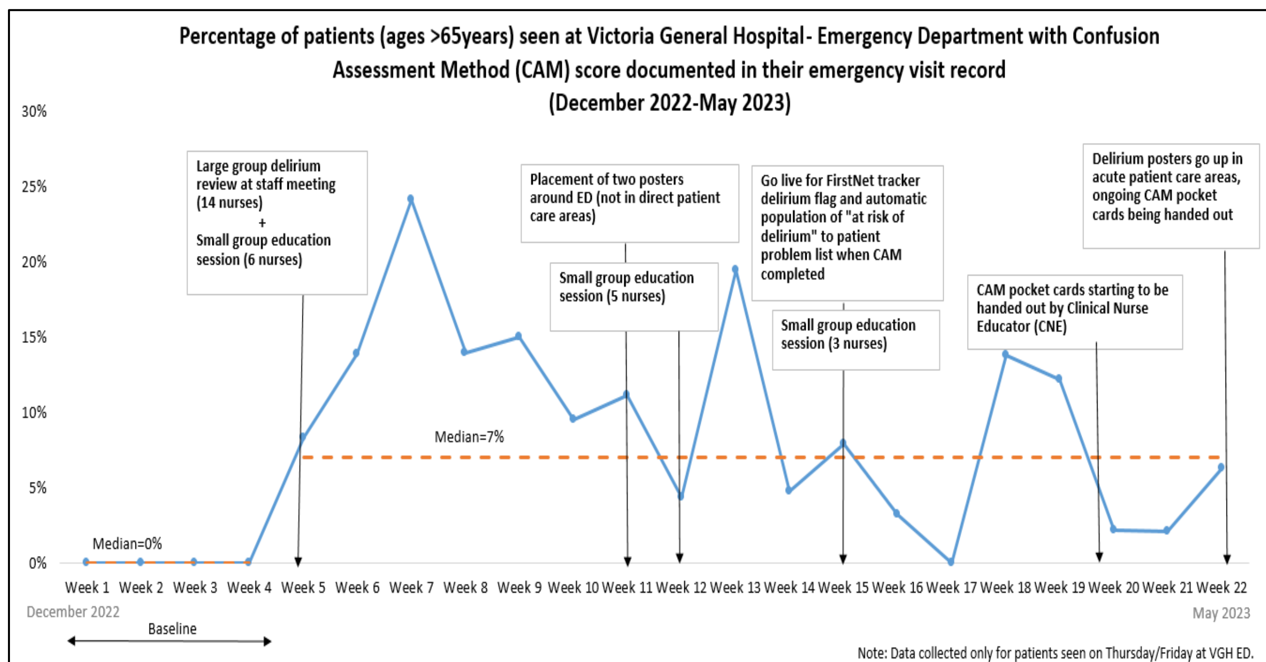
## Actions Taken:

- Formal education sessions – preliminary presentation was given during staff meeting; 4 subsequent small group interactive learning sessions were carried out, using a newly created online delirium module for acute care nursing staff
- Delirium posters created and placed in VGH ED work spaces and patient care areas to remind nursing staff to complete CAM assessments, prioritize higher risk patients for delirium screening
- Creation of workflow to include delirium flag on ED tracker and automatic addition to problem list if CAM completed on the Electronic Medical Record
- CAM pocket cards created and handed out to nursing staff on shift by Clinical Nurse Educator (CNE) and physician lead as reminder to complete delirium screening
- Meeting with hospital executive to prioritize the transfer to inpatient beds of patients identified with delirium

## Data Analysis:

- Nursing education and awareness sessions showed increase in CAM documentation compliance (Figure 1)

Figure 1




## Lessons Learned:

- Difficult to make change in an unstable environment such as the ED
- Non-standard documentation process in ED contributes to CAM completion rate accuracy

## Next Steps:

- Formalize regular nursing delirium education
- Make changes to location of CAM documentation to promote ease of documenting
- Consider delirium care pathway including delirium reminders and clinical order set
- Formalize delirium handout for caregivers and patients
- Continue to work with executive to expedite admission for patients diagnosed or at risk of delirium

# First Do No Harm: Managing Legacy Opioid Prescriptions

**Physician Lead: Dr. Oona Hayes**
Location: Victoria
Specialty: Family Practice

## Background:

The High Complexity Care Team (HCCT) is a group of primary care providers and allied health professionals who provide longitudinal primary care for patients in Victoria's Western Communities. A previous lack of access to reliable, longitudinal health care wrapped around the patient's needs can lead to a lack of trust in providers and the "system" and disengagement with services, especially for patients on long term opioids. In addition, accessing health care can be stressful for many patients, let alone those with illness. The team endeavors to create safer healthcare experiences where these patients are known as more than their illnesses and are treated as experts in their own experience.

The HCCT has many patients on long-term opioid therapy (LTOT) for chronic non-cancer pain (CNCP). Most patients were on these prescriptions for long periods before becoming team patients. The College of Physicians and Surgeons of British Columbia Standard for Opioids outlines a rigorous approach to evaluating, managing and documenting care for patients on LTOT. HCCT providers are committed to providing person-centered, trauma-informed care.

## Problem:

While the standard for LTOT patients calls for individualized, patient-centered care, it also emphasizes that the potential benefit of LTOT is "modest and the risk significant." The HCCT providers use an Electronic Medical Record (EMR) and realized there was no uniform documentation proving the standards of care for LTOT. In addition, meeting the standards of care for every patient would take a significant amount of time, both with the patient and in documenting the work. Finally, most patients have other active issues that need attention.

As knowledge of the dangers of prescription opioid use has increased, many patients have experienced changes in their treatment from professionals and abrupt changes in their ability to access medications. Patients may be sensitive to discussions about opioid risks and benefits and may worry about medication discontinuation.

## Aim of Project:

Increase the number of documented opioid benefit discussions with patients on long-term opioids between May 10, 2023 and August 10, 2023 from 0 to 75% of the patients seen.

Operational definition of "patient seen": patient who has an appointment with an HCCT team member, either virtually or in person. Patients on LTOT are recalled to the clinic every three months, at a minimum, for renewal of prescriptions.

Operational definition of "opioid benefit discussion": asking the patient how they believe the opioid medication benefits them, including what functional gains they perceive on the drug, not simply what pain relief they experience. The instruction was to quote the patient in the chart.



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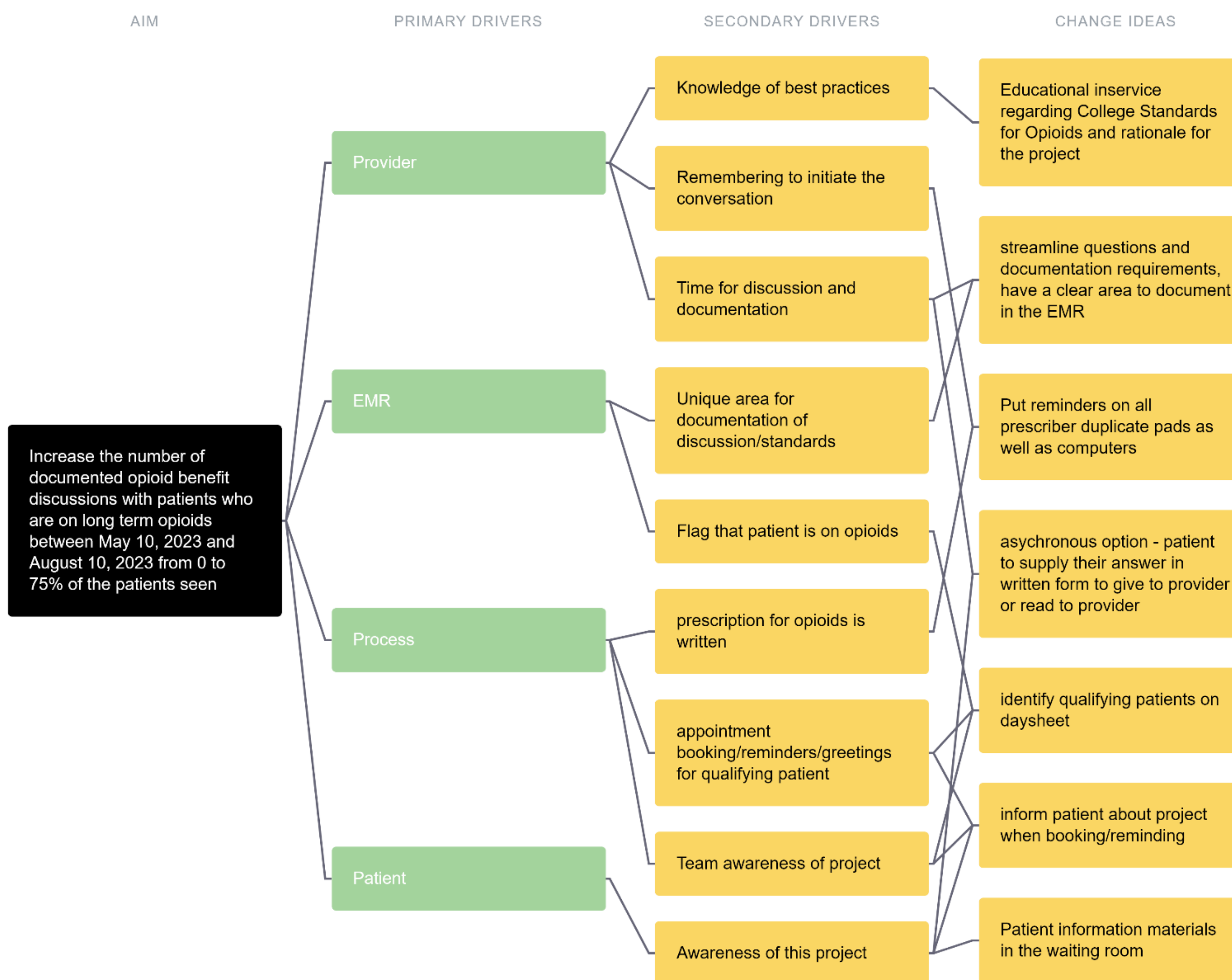
## Patient Voice:

The PQI staff connected me with a woman with lived experience of managing chronic pain from fibromyalgia and osteoarthritis with opioids and without them. She spoke of the inherent power imbalance patients feel when they see their prescriber and the importance of patients feeling that their concerns (e.g. how they experience pain and how this affects their life) are heard and actioned. She has experience accessing self-management support and believes it's essential that people learn about their condition and how they can self-manage.

It was beneficial to hear the patient's experience with care and her advice on engaging with patients.

## Actions Taken:




- Physicians were to ask the patient about their perceived benefit of the opioid prescription (Rx), and document this in the "Opioid Tool" form in the patient's EMR. Also they were asked to answer two questions at the end of the day for each patient on LTOT. The questions were "Was the discussion patient-centered?" And "Was I satisfied with the visit?"



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- Paper questionnaires were placed at every staff computer. The questionnaire asked for staff to enter information for each patient on LTOT manually - date seen; was there a discussion about patient-perceived benefit at that visit (Y/N/Not Applicable); Was the discussion patient-centered (Y/N/Not Applicable); Were you satisfied with the encounter (Y/N)

### Data Analysis:

The data collected during the project was not expansive, mainly due to reported difficulties in staff remembering to record the intervention or by way of them not carrying out the intervention as requested. Despite strong engagement with the team and a formal commitment on their behalf to test interventions and track measures, neither of these ended up playing out according to plan as the project evolved. Ultimately, the sample size recorded during the project was not sufficient to confidently assert that interventions were or were not having their intended impacts.

### Lessons Learned & Next Steps:

In retrospect, I did not engage with the team early enough and in total. The team was agreeable to doing a QI project in theory, but we needed dedicated team time to discuss the project. Earlier team engagement may have increased the completed data collection. This was compounded by exceptional staffing challenges during this project timeline. In retrospect, these challenges greatly affected the provider workflow as we struggled to ensure patient access and care did not suffer.

Secondly, I recognize that this project asked me and my colleagues to do more without taking away current work and learned that QI projects are more likely to be sustainable if there is a redistribution of work to enable the new activities.

Thirdly, while the project sought to ensure an easy, reliable way to document and retrieve information in the EMR, providers were divided about where this information should sit in the chart. Through this process, we learned that the EMR already has other tools for opioid prescribing, but these were more suited to assessing and documenting risk upon opioid initiation and not for ongoing prescriptions. In addition, these tools did not pull data from other parts of the chart and relied on provider data entry.

Finally, there was concern that patients on LTOT might feel threatened by introducing questions about their opioid use. The patient partner for this project noted that while there is a power imbalance between prescriber and patient, patients recognize that we must ensure our actions do not harm them. This lesson reinforced the importance of focusing on the patient's perceived opioid benefit during these clinical encounters.

# Improving Patient Satisfaction with Group Medical Visits Using a Six Part Postpartum Education Series

**Lead: Dr. Phillippa "Pip" Houghton**
Location: Comox
Specialty: Family Practice

## Background/Rationale:

I was a resident when I had my first baby and I was completely shocked by the postpartum experience. This was despite medical training, including both medical school and residency level obstetrics/maternity rotations. In the first few months of motherhood, I frequently wondered to myself: why didn't I know to expect this? I had spent so much time learning about birth, but almost no time learning about the weeks and months spent after birth, recovering physically and emotionally as well as adjusting to all the changes that come with the new role as parent.

It was after my second was born, early in the 2020 pandemic, that I realised we need to provide more for patients, and with the advent of virtual healthcare, I realised that I could create an educational program and facilitate community amongst new parents. I partnered with Shared Care to create a group program called *Preparing for Postpartum*. With their support, I was able to work with other professionals in the field to develop a six week virtual series, with the fifth cohort now about to launch.

The common theme that emerged was new parents, including some physician parents, all indicated that they had felt ill-prepared for the stressors of postpartum. Many patients noted they felt postpartum visits largely focused on baby and they received very little counselling support, or in some cases attention, when they came in for their regular well-baby visits. Some common sources of distress identified in the survey included infant feeding, physical recovery, emotional and mental health, partnership stressors and identity stressors. Using the themes identified, I was able to refine the group content to better meet the needs of patients.

## Problem:

Postpartum people are feeling unprepared for their transition to parenthood. This population has indicated that both structured and more casual prenatal education is largely focused on birth and newborn care and very little attention is paid to anticipatory guidance for the early parenting season. For some postpartum people, the added stressors, uncertainty and overwhelm with little access to support is contributing to feelings of anxiety and low mood.

## Aim of Project:

Improve patient satisfaction with Perinatal Education Series from 3.5 to 4.5 by June 2023.

## Patient Voice:

I had previous experience with a patient partner from past projects and carried that into this project. The partner shared with great vulnerability the experience of dealing with profound anger as she attempted to mother a toddler and infant during the COVID-19 pandemic. Her voice helped to direct some of my teaching, in particular around recognizing and addressing anger as a symptom of mood and anxiety disorders; as well as her thoughts around reducing shame and stigma in accessing help.

## Actions Taken:

The change ideas considered all came from patient feedback. Every week we reviewed the comments and rankings and implemented small changes with the goal of improving the satisfaction score for the patients. The intent was to make *each* visit the best it could be. The change ideas considered were:

- Increase time for Q&A
- Reduce time spent in check-in
- Adjust content/teaching based on patient feedback/questions
- Make skill based teaching clear, sign post before offering
- Finish with a top 5 tips or action steps

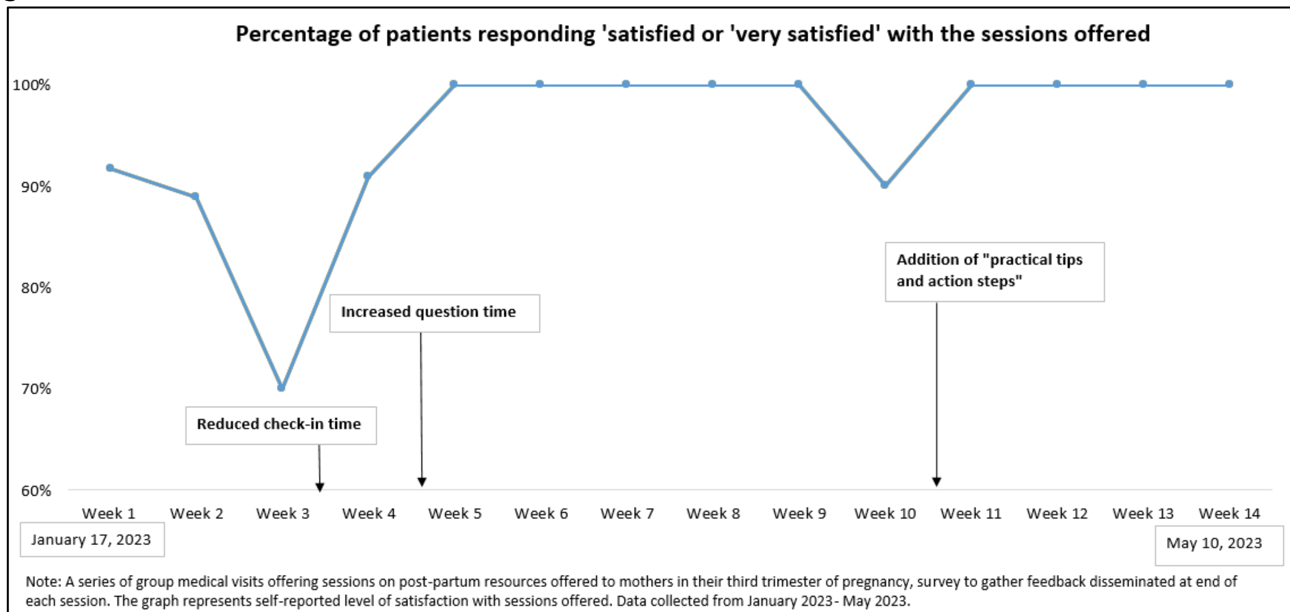
PDSA Cycles Tested:

- Facilitators limited their response to patient check-in, offered summary statement at the end of check-in and also reminded patients of time limit before check-in started
- Question time was added before the midway break and additional time was added at the end
- A practical take-away slide was added at the end with top 5 tips

## Data Analysis:

- Self-reported patient level of satisfaction, with respect to sessions offered, measured for 48 patients whom engaged with the program across four cohorts showed positive results (Figure 1)
- Qualitative feedback obtained via messages and emails corroborated quantitative findings from the survey:
  - ✓ *"The course was very well put together…I appreciate the first hand experience from Dr. Pip in addition to the actual information and facts provided."*
  - ✓ *"This was a great course, well put together and I never found the content or teacher boring. It was just enough information not to stress or freak us out."*
  - ✓ *"I appreciated connecting with other parents in the group and enjoyed learning about the weekly topics."*

Figure 1




## Conclusions:

The Group Medical Visit (GMV) is an efficient way to provide care and education to patients with a shared care need. Visits need to be well planned and structured to optimize patient satisfaction and provider workflow. Postpartum education and support is an area of medicine that requires ongoing attention, as patients have indicated that this is a time in their lives that can be exceptionally stressful when access to information and resources is limited.

In addition to educational benefits, the group format provided peer connection for patients who were otherwise not accessing this support in their own communities.

## Next Steps:

- Based on patient requests have created a spin-off version of this program for fourth trimester participants (everyone has already had their baby)
- This new program had excellent attendance (typically 90% of attendees/session) and very positive feedback. Some members have elected to take the entire course over again because they felt it was so beneficial
- Would like to continue to use lessons learned about optimizing GMV to enhance access to care and resources for patients in a variety of domains. There is space to support other physicians in developing their own visions for group care as part of the spread vision for this project
- Also exploring Shared Care Committee funding, with application to determine if we can expand the services provided through group visits on a more robust platform with better administrative support
- Participants requested similar programming for after birth. Based on this, a new program entitled "Managing Stress and Overwhelm in the Fourth Trimester" was created. It covers similar content but offers more time for peer discussion and skill based teaching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# Breath of Fresh Air: Smoke-Free at Victoria Medical Detox


## Physician Lead: Dr. Abhinav Joshi

Location: Victoria

Specialty: Addictions Medicine


## Background:

- 18% of Canadians have nicotine use disorder
- Victoria Medical Detox is a 22 bed facility with an average treatment stay of 7 days
- Contrary to typically held beliefs, those with concurrent substance use disorders benefit most from targeting them concurrently rather than separately
- Medications and psychosocial combined support can increase the likelihood of a successful smoking quit attempt by 4-5 fold
- Overall, each smoker costs the health care system $2928 more per year than non-smokers due to associated co-morbidities

## Problem:

Patients that are admitted to Victoria Medical Detox are required to have abstinence from smoking during their 7-day stay. We do a poor job of capitalizing on this success and providing ongoing support to maintain early abstinence from smoking since this is never the primary reason for admission. Currently we have about 20 admissions per week with about 65% of individuals being smokers. There is currently no formalized smoking cessation education provided.

## Aim of Project:

90% of smokers discharged from Victoria Medical Detox will receive comprehensive smoking cessation advice during their stay by June 2023.

## Patient Voice:

Umbrella Society is a Victoria based peer run organization that provides mental health and substance use supports. It provides services such as outreach, counselling, groups, harm reduction, and education. These services are provided by employees that have prior lived experience with substance use themselves and now are in recovery supporting others. This is similar to the concept of Alcoholics Anonymous sponsors.

For the purposes of our project, we took advice from an Umbrella support worker who has prior history of alcohol, cocaine and nicotine use disorder. He attends detox weekly to support patients in similar circumstances to what he was in few years ago. Prior to the start of the project and during the process of designing the PDSA he had some insight to share on what information was most helpful to his recovery. In particular, he was a strong proponent of frequent, brief check-ins with patients, since patients can often feel isolated in addiction. Their brief nature helps it be quick and non-invasive while still showing that we care. To help automate some of these check-ins post detox, text reminders from the Quit Now program were helpful to incorporate.

## Actions Taken (PDSA):

1. **Standardize admission history:** Improve documentation and screening of nicotine use on physician intake forms and during initial patient encounters.

2. **Patient education pamphlets**: Created effective handouts that physicians can provide to patients to educate regarding pharmacotherapy options for smoking cessation.

3. **Pre-printed prescriptions**: Allows patients to access to medications they may want to use for nicotine use disorder post detox. Change ideas implemented included: Nicotine Replacement Therapy (NRT) discharge prescription order sets, pre-printed Varenicline/Wellbutrin orders, and Medication coverage forms (Plan G).

## Data Analysis:

- Retroactive chart reviews were conducted to establish baseline data (weeks 1 & 2). Percentage of patients receiving comprehensive smoking cessation advice showed an increase from baseline (Figure 1)
- Time spent by MD/RN was very difficult to track exactly since it was impractical to have a stop watch during patient interactions. Ultimately, we decided that an estimation of time spent by the MD and an average of 3 most consistent RNs would be used. This meant the data collected was relying on "perception of time spent" via retroactive estimation (Figures 2 and 3)

Figure 1

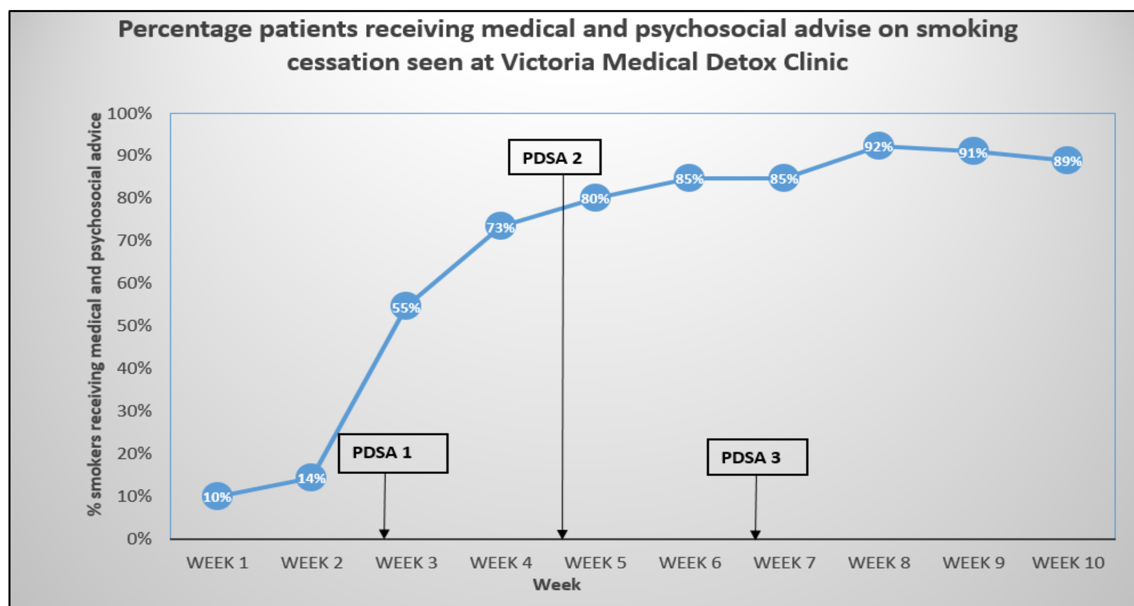


Figure 2

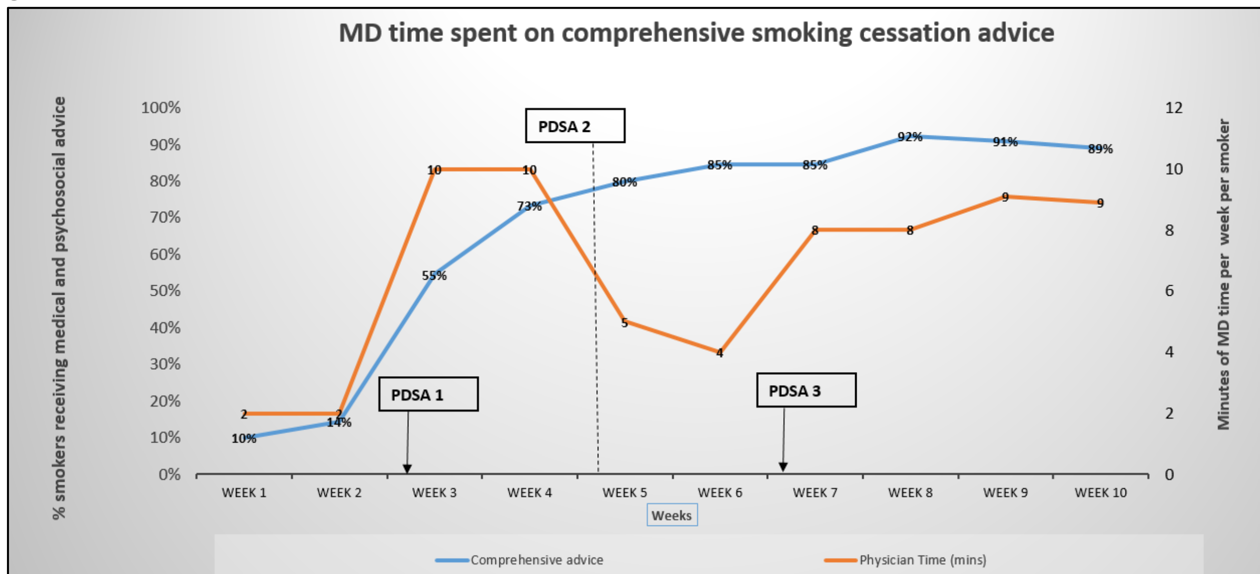
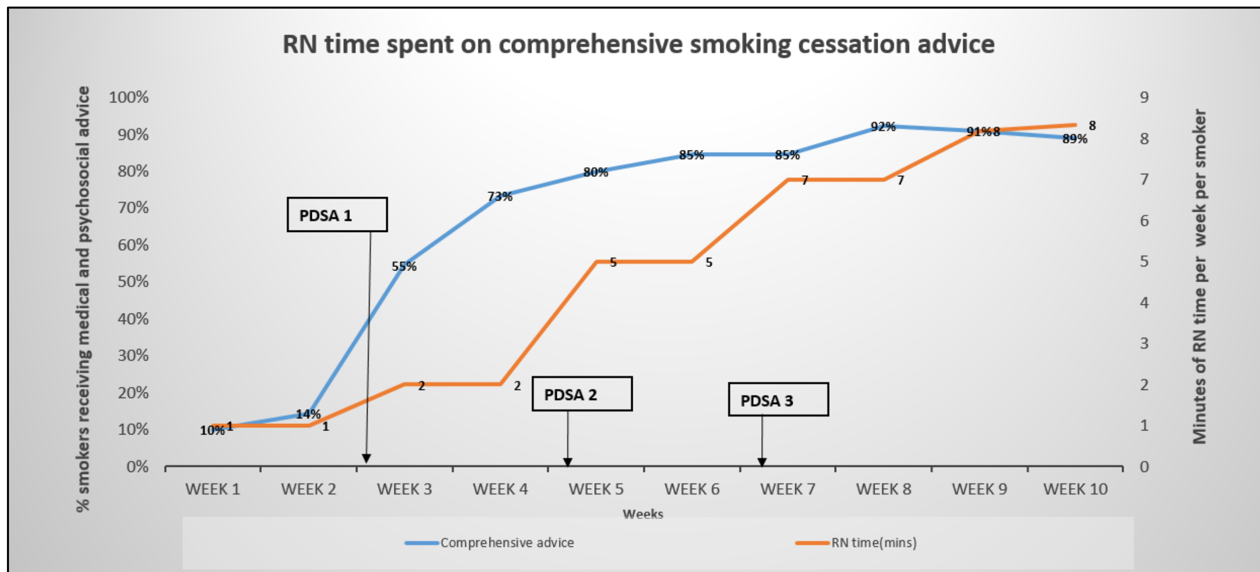



Figure 3




## Lessons Learned & Next Steps:

1. Simple changes to admission history taking can improve rates at which we are able to engage people in smoking cessation advice.
2. Taking advantage of pre-existing patient education templates from provincial agencies (Quit Now) can reduce MD time spent on patient education.
3. Cost of medications outside of detox is not a factor that meaningfully changes likelihood of patient wiling to engage in comprehensive smoking cessation advice.
4. Moving forward, we need to continue to seek longitudinal patient feedback to improve quit rates post detox.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# Pregnancy is a Stress Test: Identification of Pregnancy Related Cardiovascular Disease Risk Factors in Campbell River

**Physician Lead: Jennifer Kask**
Location: Campbell River
Specialty: Family Practice

## Background:

In Island Health, 27% of pregnancies are complicated by at least one of the following:

- Hypertensive Disorders of Pregnancy (gestational hypertension, pre-eclampsia, eclampsia, HELLP (Hemolysis, Elevated Liver enzymes and Low Platelets))
- Gestational Diabetes
- Intrauterine Growth Restriction (baby less than 2.5kg at term)
- Preterm birth
- Placental Abruption

These complications are characterized by inflammation, vasculopathy, altered angiogenesis, thrombosis, and insulin resistance, pathologic processes common to metabolic syndrome, diabetes, coronary artery disease, and stroke.

If patients are identified in their pregnancy journey as having an adverse pregnancy outcome associated with cardiovascular disease (CVD) risk, this information can be flagged and communicated to their primary care provider at time of discharge from the maternity clinic, so plans can be made for ongoing follow up. This can result in subsequent pregnancies risk reduction being offered and cardiovascular health can be prioritized over their lifetime.

The Campbell River Maternity Clinic (CRMat) is a Family Medicine led clinic within the Wellness Centre at North Island Hospital, Campbell River site (CRG.) The clinic provides antenatal, postpartum and newborn care for patients from Campbell River, communities in north and west Vancouver Island, and the Northern Discovery Islands. All adult patients presenting for Family Medicine care to the clinic are considered within the scope of the project.

References

Graves M, Howse K, Pudwell J, Smith GN; Pregnancy-related Cardiovascular Risk Indicators – Primary care approach to postpartum management and prevention of future disease. Can Fam Physician. 2019 Dec; 65(12):883-889 https://www.cfp.ca/content/cfp/65/12/883.full.pdf

Adverse Pregnancy Outcomes and Cardiovascular Disease Risk: Unique Opportunities for Cardiovascular Disease Prevention in Women A Scientific Statement From the American Heart Association. Circulation. 2021; 143:e902–e916. DOI: 10.1161/CIR.0000000000000961

Nerenberg KA, Cooke C, Smith GN, Davidge ST; Optimising Women's Cardiovascular Health After Hypertensive Disorders of Pregnancy: A Translational Approach to Cardiovascular Disease Prevention. Canadian Journal of Cardiology 37 (2021) 2056e2066

Effectiveness-Based Guidelines for the Prevention of Cardiovascular Disease in Women—2011 Update: A Guideline from the American Heart Association. Journal of the American College of Cardiology. Vol. 57, No. 12, 2011. doi:10.1016/j.jacc.2011.02.005



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Ray JG, Vermeulen MJ, Schull MJ, Redelmeier DA; Cardiovascular health after maternal placental syndromes (CHAMPS): population-based retrospective cohort study. Lancet 2005; 366: 1797–803

Duckitt K, Harrington D; Risk factors for pre-eclampsia at antenatal booking: systematic review of controlled studies. BMJ 2005;330:565 doi: https://doi.org/10.1136/bmj.38380.674340.E0

### Problem:

There was variation in the format and content of the discharge summaries from the Campbell River Maternity Clinic and they did not reliably identify complications of pregnancy with significant implications for subsequent pregnancies and life-long CVD risk. In addition, 40% of patients are "unattached" and with no longitudinal care provider follow-up, it meant that discharge summaries were not being created.

### Aim of Project:

The Campbell River Maternity Clinic will increase the identification of individuals with pregnancy related Cardiovascular Disease risk factors to 100% at discharge from clinic care by June 2023.

### Patient Voice:

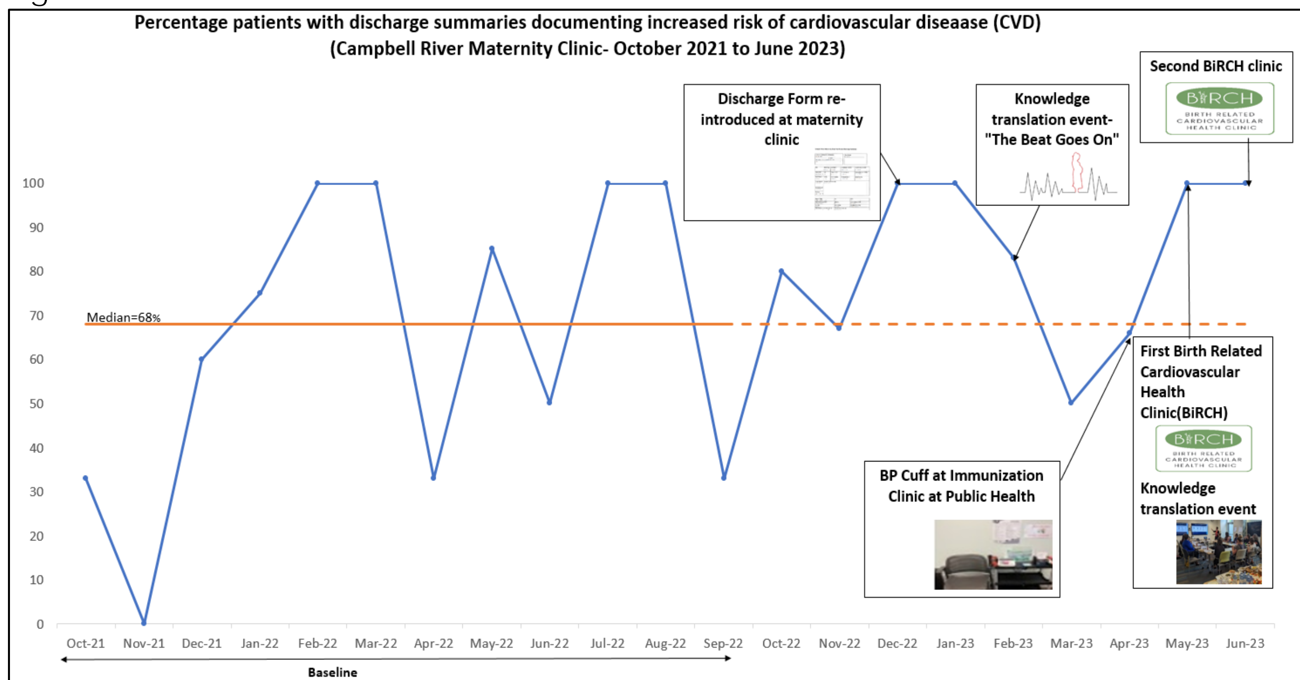
*"I am so incredibly grateful for this opportunity to learn more about my health. I would have had no idea the correlation between my preemie and my possible future cardiovascular risk. Thank you for helping me be further proactive in my own healthcare. I learned a lot from this clinic."* - BiRCH Clinic Patient

### Actions Taken:

- Development of a *CRMat Clinic Discharge Template* with specific boxes highlighting hypertensive disorders and gestational diabetes and narrative box for other risk factors
- Multiple Knowledge Translation Events for all Campbell River clinicians, "The Beat Goes On"
- Poster, BP cuff and "Pregnancy: A stress test for your heart" brochure at Public Health Immunization Clinic waiting room
- Patient brochure, "Pregnancy: A stress test for your heart", made available in CRMat and on the CRG Maternity Ward April 1, 2023
- One line "flag CVD risk" for delivery summary written on whiteboard in dictation space on Maternity Ward June 2023
- Development of a Birth Related Cardiovascular Health (BiRCH) Clinic for follow up at 6 months post birth
- Referral pathway, forms, and patient information sheet available on Maternity ward and in clinician offices

## Data Analysis:

Figure 1




## Lessons Learned & Next Steps:

- The CRMat Clinic Discharge Template will continue to be used to communicate risk factors to longitudinal care providers as it was shown to reduce variation in discharge information
- Finding ways to inform stakeholders about your project can increase engagement
- Having a diverse group of team members brought a richness to the project
- A BiRCH Clinic referral form is now available:
    - On the maternity ward for completion at the time of birth
    - In electronic form in the EMR of CRMat
    - The OBGYN and Midwifery Clinic
- There is now often the message "BiRCH Clinic Referral" in the reminders section of the CRMat Clinic EMR, even before a patient has delivered
- The BiRCH Clinic referral has been shared with other providers:
    - Registered Midwives (RM), OBGYNs and Family Practice OBs
    - Referrals have come in from RMs as well as OBs already in July
- There is interest from Shared Care to support the ongoing evaluation of the BiRCH Clinic and to support spread
- Nurse from Diabetes Education Centre in NRGH reached out for more information; potential spread opportunity

LEARN MORE ABOUT Birth Related CV Risk with this Pregnancy for Professionals podcast:
Hypertension in Pregnancy (pregnancyforprofessionals.com)

# Island Health Outpatient COVID Therapeutic Clinic: Teamwork Makes the Dream Work

### Physician Lead: Dr. Kelsey Kozoriz

Location: Duncan
Specialty: Family Practice

### Background:

The current Island Health Outpatient COVID Therapeutic Clinic (OCTC) opened in January 2022. In its first year, over 1200 patients were assessed by a physician and 800 received a prescribed therapy across our health region. The clinic is staffed by a multi-disciplinary team to deliver timely treatment (Sotrovimab, Remdesivir, or Paxlovid) to COVID positive patients at highest risk for severe illness.

The clinic endeavored to achieve the Quintuple Aim:

- **Enhanced patient experience** via delivery of high quality, team-based virtual care with provision for in-person assessment as needed
- Low barrier, low burden access to therapy at distributed sites for **health equity**
- **Cost effective**: virtual (tele) nursing support during acute phase to reduce unnecessary urgent care and Emergency Department visits, avoidance of over-treatment with close nursing follow up option, and clinical service delivered by family physicians
- **Improved patient outcomes** with monitoring 1 month outcomes data to ensure no signal of harm with emerging therapies and close monitoring of guideline changes, resources, and emerging therapies
- Utilized team-based care to allow each health professional to work at top of scope and quarterly Continuing Medical Education (CME)/case reviews to support **improved work quality of life of the OCTC team**

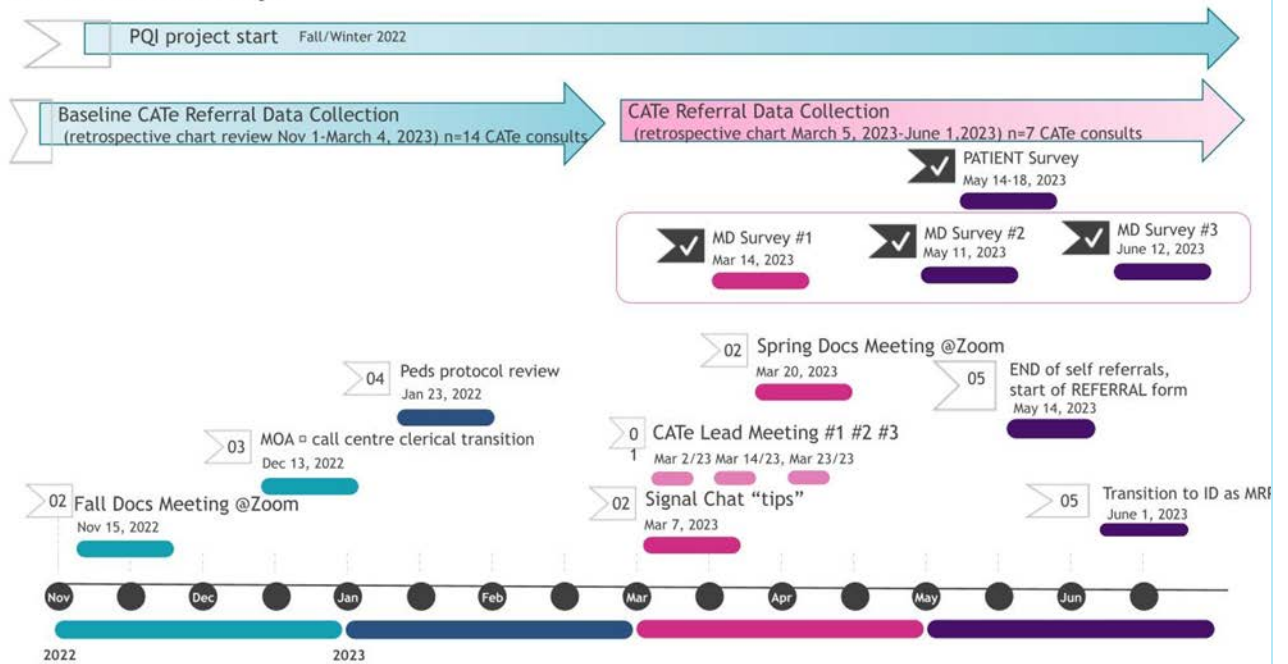
### Problem:

The current referral work flow process at the OCTC is complex. This can lead to receipt of incomplete referrals causing delayed or missed treatments. It can also contribute to reduced satisfaction for referring clinicians, patients and OCTC team members.

### Aim of Project:

By June 2023, increase the percentage of completed and uploaded COVID Antiviral Therapeutics e-team (CATe) referrals at the centralized Island Health Outpatient COVID Therapeutic Clinic (OCTC) by 50%.

## Actions Taken:




- The OCTC CNL now verifies completeness and upload for each COVID Assessment and Treatment (CATe) referral
- The OCTC proceeded to implement a standardized referral form June 1, 2023
- Positive "Good News Stories" were circulated to all staff and celebrated

## Data Analysis:

- A subset of patients from summer 2023 provided feedback on their clinic experience and satisfaction was high (94% satisfied or very satisfied) (Figure 1& 2)
- Physicians were surveyed at 3 intervals (March, May, & June 2023) regarding job satisfaction and a group education feedback session was held (March 2023). Work satisfaction was high both before and after the intervention: 100% of docs were satisfied or very satisfied with the OCTC work on all three surveys
- There was a substantial increase the percentage of uploaded CATe referrals at time of MD consult at the centralized Island Health OCTC (36% to 86%) after intervention (CNL uploading referrals and consults to Electronic Medical Record)

Figure 1

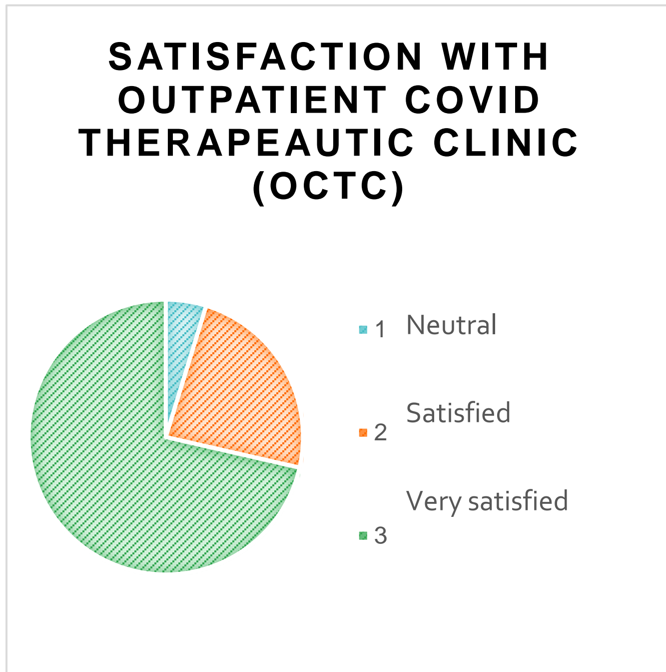



Figure 2

## Lessons Learned & Next Steps:

- Team-based care allowed each healthcare professional to work at top of scope; there was some "scope slip" that occurred due to CareConnect access limiting clerks ability to download consults and that responsibility ended up moving to our Clinical Nurse Leader

- Next steps: introduce standardized referral form & transition medical services to Infectious Disease physicians

# Improving Orthopaedic Patients Readiness to Fill Short Notice Operating Room Cancellation at Cowichan Valley Orthopaedics

**Physician Lead: Dr. Nimrod Levy**
Location: Duncan
Specialty: Orthopaedic Surgery

**Background:**

Patients on long Arthroplasty waitlists suffer from rapid deconditioning and pain. This often affects every aspect of their lives and of the lives of those around them.

Unfilled Operating Room (OR) time due to late cancellations remains a major issue at Cowichan District Hospital. These cancellations are often avoidable and happen due to poor interdepartmental communications and a lack of established practices and clear protocols.

**Problem:**

Patients from Cowichan Valley Orthopaedics experience a high percentage of short notice arthroplasty case cancellation which prolongs patient suffering and results in unnecessary delays to having their surgery.

**Aim of Project:**

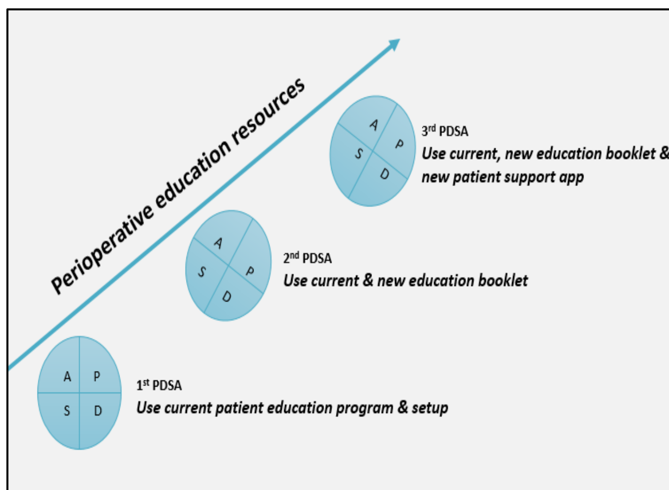
By August 2023, decrease by 50%, the number of Dr. Levy's Arthroplasty Operating Room cancellations at Cowichan District Hospital, that are due to lack of patient readiness.

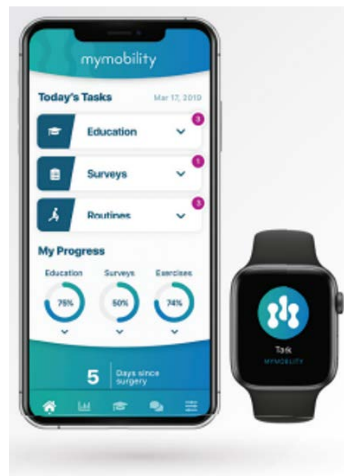
**Patient Voice:**

Former patient provided input during the design phase of the project. Surveys were provided to all patients to get feedback on the changes being tested.

**Actions Taken:**

- Educational resources were improved to increase preparedness
- 23 patients were involved in testing 3 PDSA cycles which were done concurrently due to time constraints of the project




PDSA Ramp

Mymobility

## Data Analysis:

- Surveys were given to patients 1 week pre-op and then 30-45 days post-op for the first two PDSAs of using current education resources and new comprehensive education booklet. Due to the nature of the third PDSA, the pre-op survey was given 30 days prior to surgery. The quantitative data from the surveys did not indicate a significant improvement in the education resources, but the use of the mobile application resulted in 2 patients asking to use the app for the next scheduled surgery

- Through the app, we were also able detect an infection at 110 days post op. The patient was seen in person within 48 hours of contacting staff for concerns through app and admitted to hospital 4 days later in preparation for surgery. We also were alerted to issues with the antibiotics post operatively as an inpatient through the app

- Feedback requests were sent to the 8 family doctors of the 8 completed participants regarding the app specifically. Five responses returned, all positive responses, and supportive of continuing further use of the app

## Lessons Learned & Next Steps:

- When there is instability such as staff turnover, it's difficult to keep momentum to test "low hanging fruit" changes

- Based on patient feedback, will continue to offer the patient support app called Mymobility as an educational resource to patients at Cowichan Valley Orthopaedic

- The positive responses from Family Physicians regarding the app indicate that expansion of use will be supported in the community and should be considered

# Improving Care for Frail Older Adults in the Emergency Department

Reducing Length of Stay for Patients Referred to the Geriatric Evaluation & Management (GEM) Team at Royal Jubilee Hospital Emergency Department

## Physician Lead: Alyson Osborne

Location: Victoria

Specialty: Geriatric Medicine

## Background:

Patients over the age of 70 make up more than half the inpatients of Victoria General Hospital (VGH) and Royal Jubilee Hospital (RJH) at any given time. Many of these patients have significant frailty, cognitive impairment and complex care needs that are challenging to meet in the Emergency Department (ED). The Geriatric Evaluation and Management (GEM) teams have identified a decline in the quality of care provided to older adult patients in our hospitals as acuity, bed and staffing shortages increase and recognize a growing need to optimize our specialized service to improve the quality of care older adults receive. Based on broad stakeholder feedback, the GEM teams attended a workshop to complete a service review and identify priorities for change in April 2022. One of those priorities was promptly identifying vulnerable/frail patients in the ED and expediting their movement out of ED to prevent hospital acquired physical and behavioral deterioration.

## Problem:

Many older, frail adults at RJH who require admission are spending a lot of time in the ED awaiting transfer to an inpatient bed. The GEM teams have noted that frail patients referred to the GEM team who spend more time in the ED are at risk of becoming more confused, requiring restraints (physical and chemical), and becoming deconditioned. This can lead to distress on behalf of the patient/caregiver and possibly worse patient outcomes. Prior to this project, some older patients were being prioritized in the ED for movement to the ward but their identification was not consistent. A brief review of 5 patients referred to the GEM team at RJH in October 2022 showed an average wait time of almost 24 hours in the ED.

## Aim of Project:

Reduce length of stay in the Royal Jubilee Hospital Emergency Department for patients admitted to hospital who are referred by the Emergency Department to the Geriatric Evaluation and Management (GEM) team by 30% by end of June 2023.

## Patient Voice:

Patient partner had her own experience waiting in the ED and also the experience of someone she cares for.

- Noted the ED felt chaotic and understaffed
- "The person I help has Parkinson's with paranoia and mild dementia. It was all I could do to keep him calm. The longer we were there, the more hysterical he got."
- "I feel it is important to move frail older patients to a quieter environment as soon as possible to help them from becoming more afraid, panicked, and confused."



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## Actions Taken:

- Worked with ED Clinical Nurse Leaders (CNL) to help better identify frail older adults for expedited transfer to the ward
  - Patients were being identified as Category D for priority to transfer to ward but there were no objective criteria for this/was often based on delirium screening but little was documented
  - Wanted an objective way to identify these patients so found and adapted a tool from Geri-ED web site- Triage Risk Screening Tool (TRST)
  - Trialed using TRST with ED CNLs in February and found it was way too broad so adapted the tool
  - ED CNL started using Version 2 of screener based on feedback we received in early April
  - Feedback from ED CNL noted the new screener has been working better, had been able to get assistance from clerks for data collection without adding to their workload, felt was identifying correct patients

- Worked with Hospitalists to help better identify frail older adults on admission for expedited transfer to the ward
  - Frailty wasn't being identified – thought it would be beneficial to have Hospitalists add Frailty to the Problem List on PowerChart (Electronic Health Record) on admission - frailty identified if patient scored 5 or above on the Clinical Frailty Scale (CFS)
  - Also asked that, if they identify frailty, to write an order in the ED to expedite transfer to the ward
  - I presented at the Hospitalist division meeting April 4 asking them to do just this and then had posters made up and placed in the ED and other Hospitalist areas via Dr. Lobsinger

## Data Analysis:

- Mean Length of stay (LOS) tracked as an outcome measure decreased by 12%, however, no signals for special-cause variation could be identified (Figure 1)

- Percentage of patients with documented frailty increased, however, it was still not documented for ~70-80% patients/week (Figure 2)

- In comparison to frailty, CFS scores were documented for ~40-60% patients/week (Figure 2)

- Hospitalist feedback as a balancing measure was gathered via surveys disseminated June 5-10, 2023, n=12. Provider documentation of frailty changed from never/rarely to mostly/often for most survey takers following project presentation at divisions meeting. Additionally, none of the hospitalists found documenting frailty as time consuming

- Following tests of change, number of referrals to the GEM team showed no significant change (Figure 3)

Figure 1:

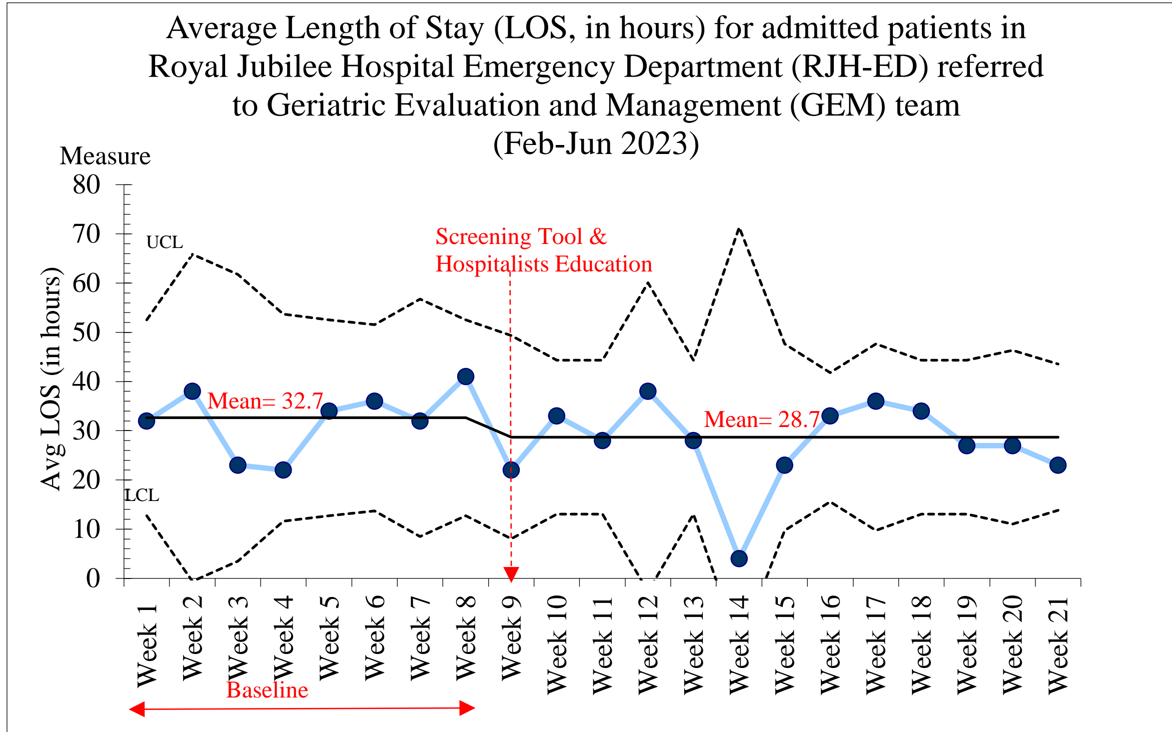


Figure 2:

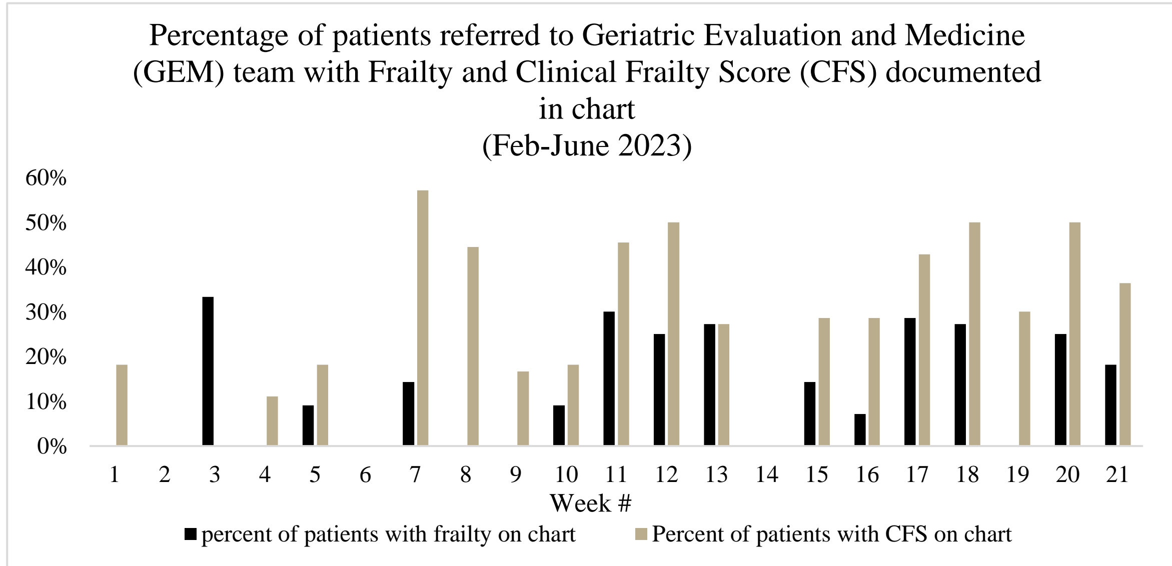




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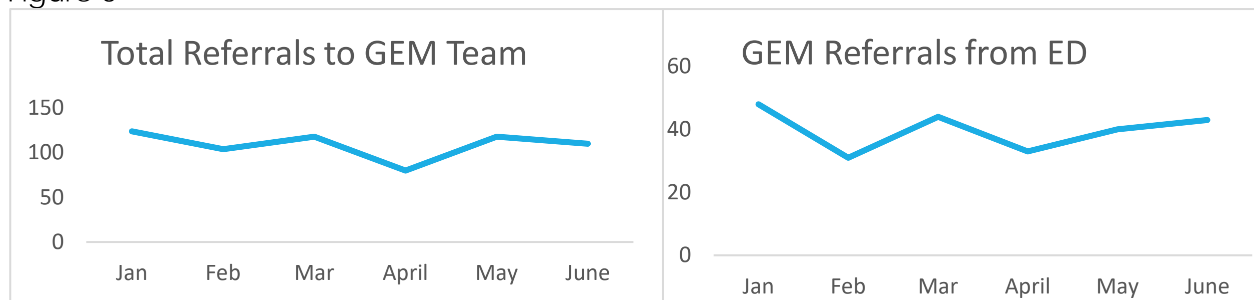
Figure 3




## Lessons Learned & Next Steps:

- Frail patients are spending on average 30 hours in the ED waiting for an inpatient bed, which is far more than the 10 hour benchmark identified by Island Health
- We need to consider an enhanced care protocol for frail/high risk patients in ED awaiting inpatient beds as that there are so many factors at play with regards to bed movement
- Consider adopting the Triage Risk Screening Tool developed in the ED more broadly - ED CNL involved in this project is still using the screener
- Hope to work with ED colleagues in the future to pilot order sets for older adults with delirium/frailty and to advocate for additional resources in the ED for these patients



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# Bring Back the Joy! A PQI Project Looking at Ways to Improve Joy in Work for Family Physicians Doing Inpatient Care at Cowichan District Hospital


**Physician Leads: Dr. Zoe Pullan & Dr. Mark Sanders**

Location: Duncan
Specialty: Family Practice


## Background:

Family Physicians are leaving inpatient work at Cowichan District Hospital (CDH). The current model of care and working environment has been named as deterrents to many new recruits to the community. Increased number of unattached patients is increasing workload and leading to burnout and reduced joy in work for the remaining primary care providers working in the hospital.

## Problem:

Results of a Cowichan Valley Family Physician survey from August 2022 were very concerning. 66% of Family Physicians providing longitudinal care in the community indicated significant burnout and 98% were worried about the future of primary care in the region. 24% of doctors surveyed who were providing inpatient care at the time were planning on giving up hospital privileges within 6 months. Over 50% of Family Physicians surveyed were experiencing joy and/or happiness in their work less than 50% of the time.

## Aim of Project:

To demonstrate increased primary care provider satisfaction and Joy in Work for Family Physicians working at Cowichan District Hospital by 50% by June 2023.

## Patient Voice:

Patients can help remind us why it's important to address joy in work and burnout. Burnout is fueled by empathy distress. Empathy distress and moral injury can accumulate when compassion and joy in work are low.

As noted by a patient partner, *"Be honest and forthcoming when asked questions by a patient. Share a joke, a smile, a laugh, and ask about their life prior to being admitted."*

## Action Taken:

- New Inpatient Care Plan developed for Ingram Family Physicians
- Cap was set on number of unattached inpatients Ingram Family Physicians would take



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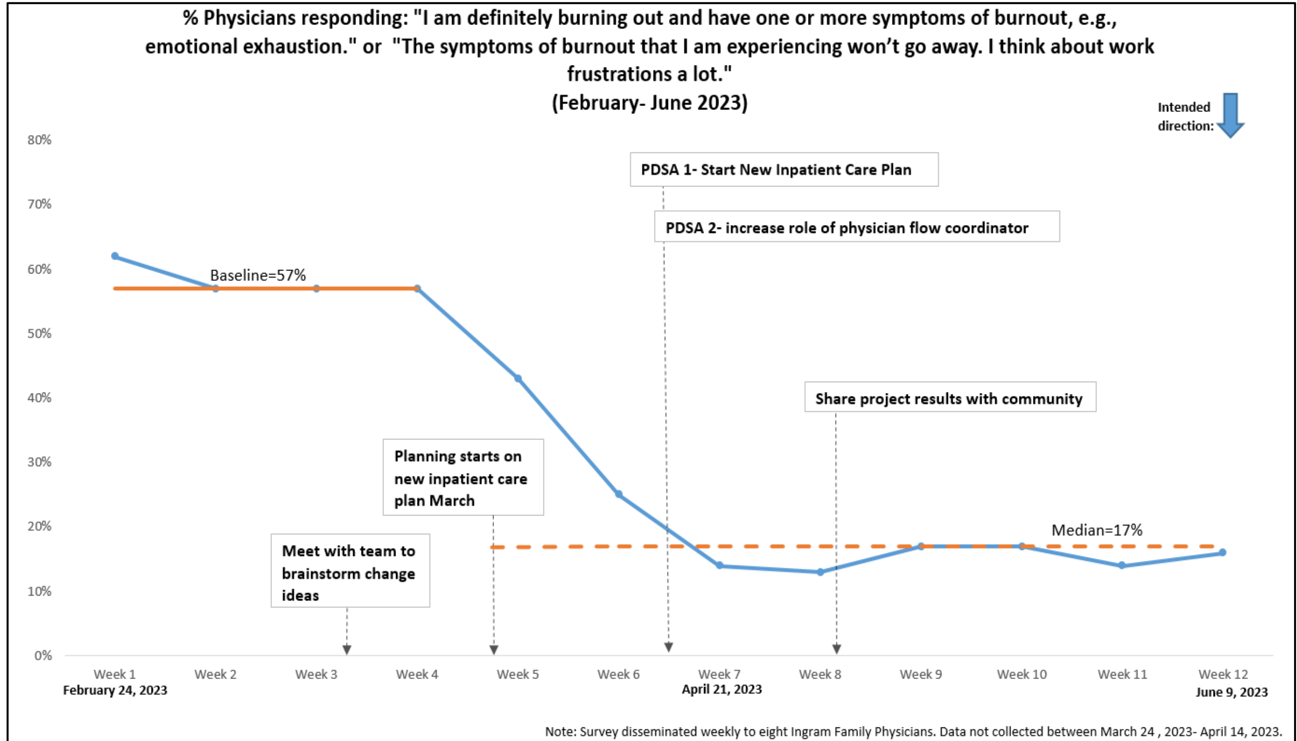
## Data Analysis:

- Data was collected via survey to 8 Ingram Clinic physicians on a weekly basis
- Analysis was done on a weekly basis (surveys which included adapted Mini Z burnout survey). As evident in Figure 1, just the idea of setting boundaries & taking control improves Joy in Work and reduces feelings of burnout

Figure 1




## Lessons Learned & Next Steps:

- Burnout and stress are strongly related to a sensed lack of control over one's work volume
- Taking control of work volume is positively related to reduced stress and improved Joy in Work
- Providing autonomy in structuring how a team manages its own work empowers that team and can reduce burnout and attrition
- The inpatient care crisis at CDH could possibly be alleviated by organized primary care physician cohorts that are able to place limits on their volume of work
- Based on data shared with physicians in the community, three other call groups and two Unattached Inpatient Care Teams (UNIT) have adopted similar capacity limits indicating immediate spread of a successful model of care



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# Fostering Zero-Burnout in Victoria's Infant & Early Years Mental Health Program

**Lead: Dr. Jane Ryan**

Location: Victoria

Specialty: Pediatric Psychiatry

## Background:

In the delivery of mental health services, the quality of the therapeutic relationship is a key factor in patient outcomes. The way we "show up" to interactions with patients/clients affects the development of the therapeutic relationship. There is ongoing focus on the importance of providing trauma-informed care in our delivery of service to patients and their family members across the health care system. Caregivers who are struggling in establishing the attachment bond with their infants are at a particularly vulnerable time in their lives where it can be difficult to establish trust and align with a health care provider.

2022 B.C. Ombudsperson's report identified that patient complaints about the health care services had reached a 10 year high. Since the COVID-19 pandemic, demand for mental health care has increased, leading to health care system overload (where demand exceeds delivery capacity) and resulting in empathy fatigue and clinician burnout.

Health care systems that are seeking to reduce burnout can align with published organizational evidence-based and promising practices for improving clinician well-being and embrace organizational approaches that "focus on fixing the workplace, rather than fixing the worker" (see reference 1) by matching job demands with job resources and creating a culture of connection, transparency and improvement. These three cultural factors are also championed by the Institute for Healthcare Improvement (IHI) and PQI programs, as necessary components for successful quality improvement initiatives. Clinician burnout is defined as an occupational syndrome driven by the work environment.

The quality of the therapeutic relationship can be conceptualized as either a job demand (worsening "moral distress" if clinicians are experiencing empathy fatigue or cynicism) or a job resource (if the sense of mastery and meaning to this inter-dynamic relationship sustains a sense of purpose and enjoyment in our work). In honouring the importance of sustaining our capacity as clinicians to enter into a therapeutic relationship with our patients/clients, we implicitly communicate a safer therapeutic space from which parent/caregiver can receive support in their goal of nurturing their relationship with their own child.

## Problem:

By pro-actively committing to the creation of a culture of occupational resiliency and well-being within our team's workplace environment, we are consciously attending to the "way we show up" in interactions with the families accessing the Nurturing Connections Program's services.

## Aim of Project:

To increase staff reported joy at work and occupational resiliency (measured using a validated burnout scale called the Mini Z survey 2.0 that measures three outcomes: burnout, stress and job satisfaction) in Victoria's Infant and Early Years Mental Health Program clinical team by 25% by June 2023.

## Patient Voice:

*"YESSSS!!!! That sounds amazing!"*

Quote from patient when offered the choice of meeting outdoors (during the "adapt and adopt" phase of change idea #1 PDSA cycle).

See Next steps section for further plans to include patient voice.

## PDSA Cycle and Change ideas:

All change ideas were collaboratively generated during team-building practices to identify what the team valued in a supportive work environment, and a collaborative decision process selected the top three change ideas to implement:

- Autonomous choice of location (outdoors) and method (walking) for scheduled meetings when possible (administrative or process discussions without patient sensitive info)
- Weekly Team gratitude journal to express gratitude/appreciation for each other's work and/or the client interactions
- "Care for the Carers" in-service (15min contemplative compassion practice) as a well-being offering to create a culture of self-valuation; offered voluntarily according to each team members interests

## Data Analysis:

Measures

1. Outcome: Team composite score on the Mini Z 2.0 Burnout survey subscale (score >=20 indicative of a supportive work environment).
2. Process: Team composite score on four self-compassion questions from the Stanford Professional Fulfillment Index.
3. Balancing: Forced choice survey question measuring potential survey fatigue and cynicism from participating in project.

The original primary outcome measure chosen was the team composite score on the Mini Z 2.0, where a total score of >= 40 from all 10 questions is indicative of a joyful work environment. The lack of variation within the original primary outcome measure resulted in a decision to change the primary outcome measure to the Mini Z 2.0 subscale 1 (questions 1-5 only), where a total subscale 1 score >= 20 is indicative of a supportive work environment (see Graph 1).

The Mini Z 2.0 question #2 (a validated measure) for rating the level of burnout did not show any variation in team composite score across all survey time points (see Graph 3). Process measures of self-compassion from the Stanford Professional Fulfillment Index showed more variation (and a pattern towards the intended direction on graph in data analysis) than the outcome measures chosen. While the data did not show any impact on team composite score for the self-rated definition of burnout (see Graph 3 – question #2 of the Mini Z 2.0), the primary outcome measure (see Graph 1 – Mini Z 2.0 subscale 1 team composite score) and team composite score on the job satisfaction question of the Mini Z 2.0 survey (see Graph 2) showed movement in the opposite direction than intended for this PQI study.

Figure 1

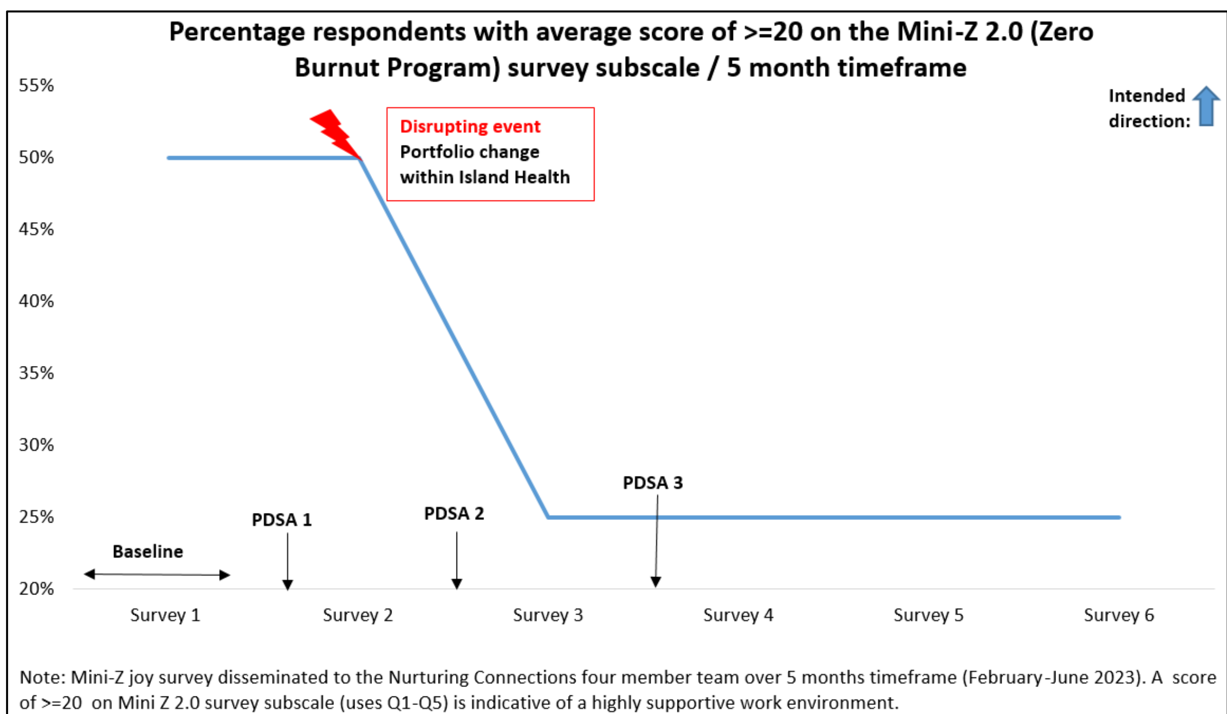


Figure 2

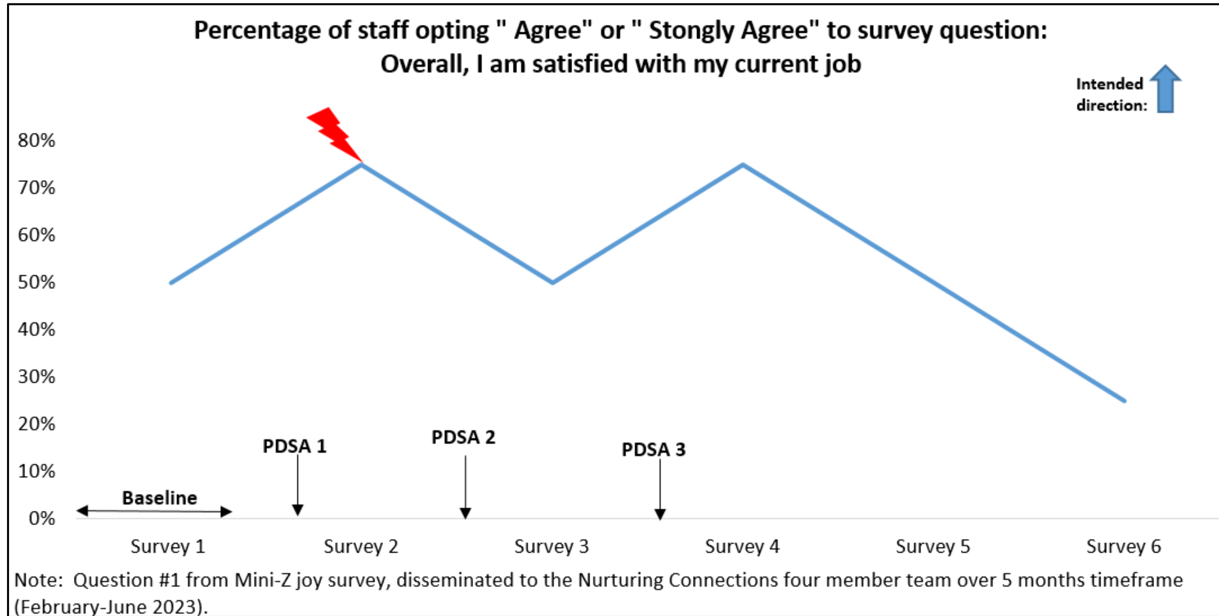
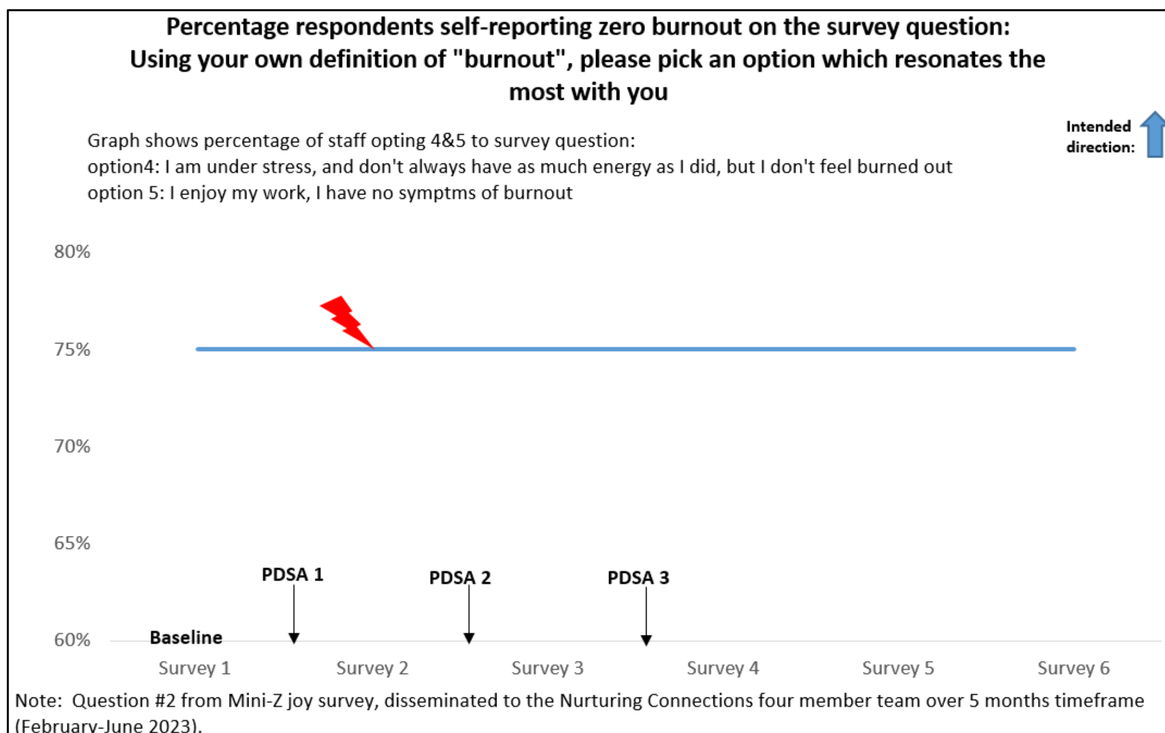



Figure 3



## Conclusions:

1. While not enough data points were gathered to demonstrate a statistically significant trend, the graphs showing the outcome measures suggest that burnout, job satisfaction, and a supportive work environment are not interchangeable measures of the same construct.
2. The easiest to implement change idea brought choice (where/how) into an already occurring task (not adding or removing anything from a team member workload.
3. Fostering a team culture that openly discusses occupational resiliency and explicitly collects quantitative survey data on burnout levels was seen as a "good use of my time and helpful in encouraging my wellbeing and overall job satisfaction".
4. Qualitatively, the team members who were respondents to the survey data expressed the value from being active participants in this study, and voiced by comments emailed during the study timeframe to project lead:

**"Thank you for asking these burnout questions!"**

**"I very much appreciated the "Care for the Carers" in-service yesterday."**

## Next Steps:

- Retroactively compare outcome measures to clinic's patient satisfaction data and number of patients served by clinic collected during same timeline

- Use patient satisfaction survey data to ensure that QI projects that focus on measuring and improving occupational resiliency do not improve clinician's work satisfaction at the expense of patient satisfaction with service delivery

- Use monthly count of patients serviced by clinic to monitor effect of job demands versus job resources

- Since project work was halted due to the unanticipated decision to switch the portfolio of the Nurturing Connections program, plan to debrief with team around their intentions to implement changes tested or to continue with measures ongoing

# Victoria Deep Vein Thrombosis (DVT) Pathway: Improving Patient Access to DVT Clinic

**Physician Lead: Ben Schwartzentruber**

Location: Victoria
Specialty: Internal Medicine

## Background:

Deep Vein Thrombosis (DVT) is a common diagnosis in the outpatient setting. It requires acute management, patient education, and longer term follow-up for recurrence and bleeding risks. Specialist input is often beneficial in deciding whether screening for malignancy or thrombophilia is necessary and regarding choice of anticoagulant for individual patients.

## Problem:

Using the Emergency Department (ED) for management of DVT contributes to long wait times and excess cost. Patients who presented to the ED with symptoms may have *2* ED visits (one for the test, one for the results), and patients from the community may be directed from Ultrasound in Medical Imaging to the ED. Due to its busy nature, the ED is also not the ideal place for education on this diagnosis, and is not able to follow it up.

## Aim of Project:

To increase patient visits to the Victoria Deep Vein Thrombosis Clinic by 25% by June 2023.

## Patient Voice:

Three interviews with patients carried out by patient partner highlighted the importance of ongoing follow-up due to information overload at the first visit, as well as the need to continue streamlining the process leading up to clinic, and information/handouts provided in clinic. This feedback will be used to develop a patient survey to ensure patient experience remains central.

## Actions Taken:

- Expand referrals to include positive studies from Royal Jubilee Hospital, Victoria General Hospital and Island Diagnostic Centre
- Have patients from community connected to DVT clinic if they can be seen same day
- Ask medical imaging to book DVT studies in the morning on weekdays
- Reduce burden on ultrasound technologists by streamlining referral form and clarifying responsibilities between Emergency, Medical Imaging, and DVT Clinic



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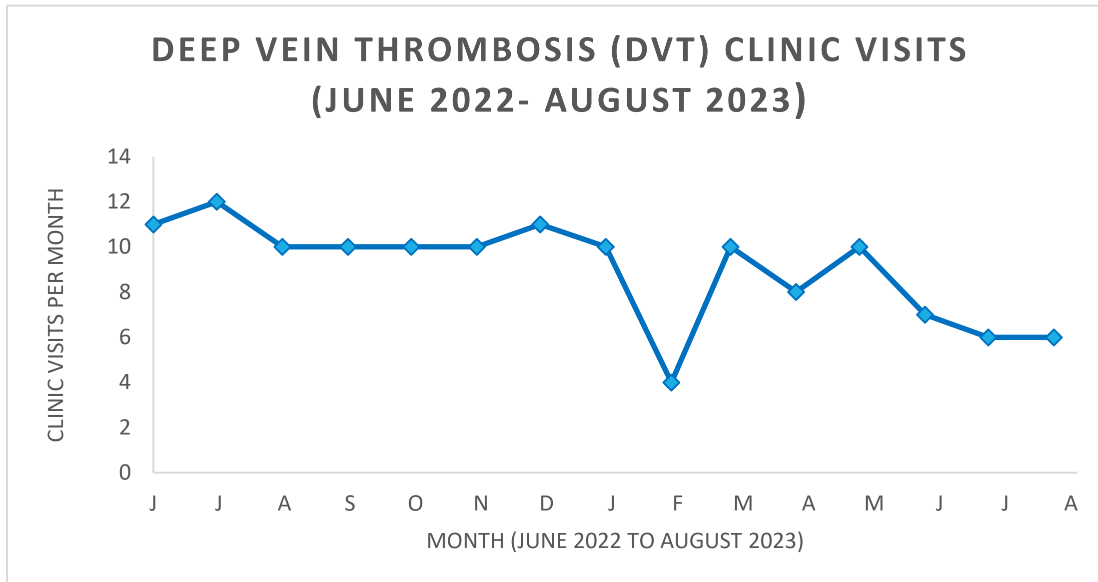
## Data Analysis:




## Lessons Learned & Next Steps:

- Inconsistency in data collection made it difficult to confirm if changes led to an improvement
- Important to keep key stakeholders engaged throughout the project
- "Making a change" and the change actually being implemented are not the same thing, especially when working on change outside your direct sphere of control
- Continue this work by directly connecting Emergency, Medical Imaging, and Urgent Medical Assessment Clinic (UMAC) leads to work on the logistics of the pathway:
  - Highlight the potential benefits of booking DVT studies in the morning so patient can be seen same-day in clinic rather than sent to ED
  - Communicate back to emergency department the opportunity to decrease time spent in ED by discharging patients to ultrasound rather than staying in ED for results

# Increasing Awareness and Documentation of Social Determinants of Health in a Community Based Practice

**Physician Leads: Dr. Sylvie Tellier & Dr. Tania Wall**

Location: Victoria

Specialty: Family Practice

## Background:

Social Determinants of Health (SDoH) are well known factors affecting patient health. Increasing awareness of SDoH in our patient population will allow providers and allied health to provide patient-centered care by improving patient health and reducing inequities.

## Problem:

The Westshore Community Health Center does not have a system to collect and standardize the reporting of SDoH in our patient panels. As a result, we don't have a way of identifying those patients who have barriers to accessing health care. This lack of information may lead to inappropriate care plans and missed opportunities in providing the right intervention to the right patient.

## Aim of Project:

We would like to increase documentation and identification of 6 key social determinants of health ICD-9 codes within our existing patient panels by 25% by the end of October 2023 to improve patient centred care. [Poverty (V60.2), Unemployed (V62.0), Unstable housing (V60.1), Food insecurity (V62.8), Lack of transportation (V63), Social Isolation (V60.3)].

## Patient Voice:

A patient partner was involved in our project by going through the patient journey and providing feedback about our workflow and wording in our document.

Clinic patients that had their visit with the registered nurse were interviewed one month following their visit to debrief and provide feedback on the process.

> *"I strongly believe that it's all connected."*
>
> *"Everyone having the same information is helpful."*
>
> *"It's one piece of a puzzle."*



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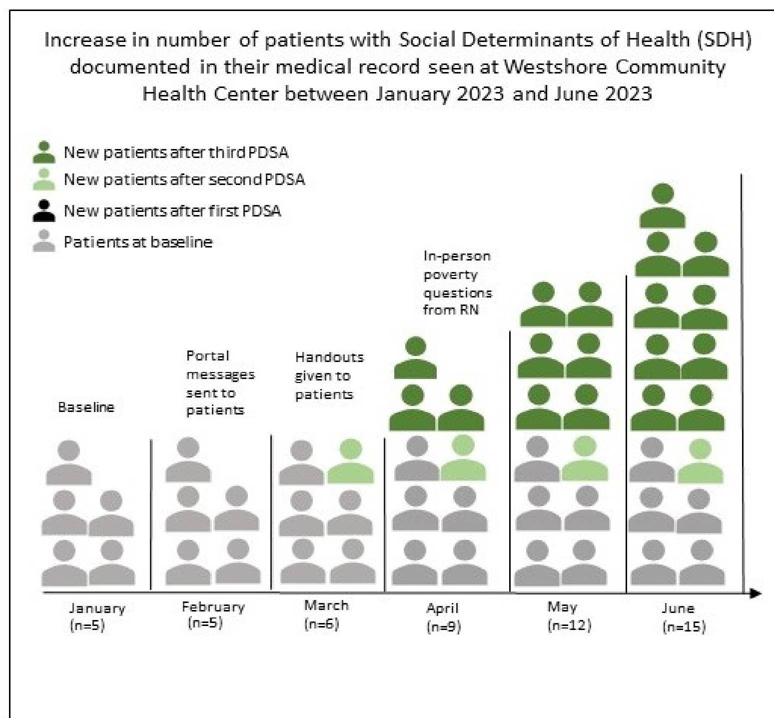
## Actions Taken:

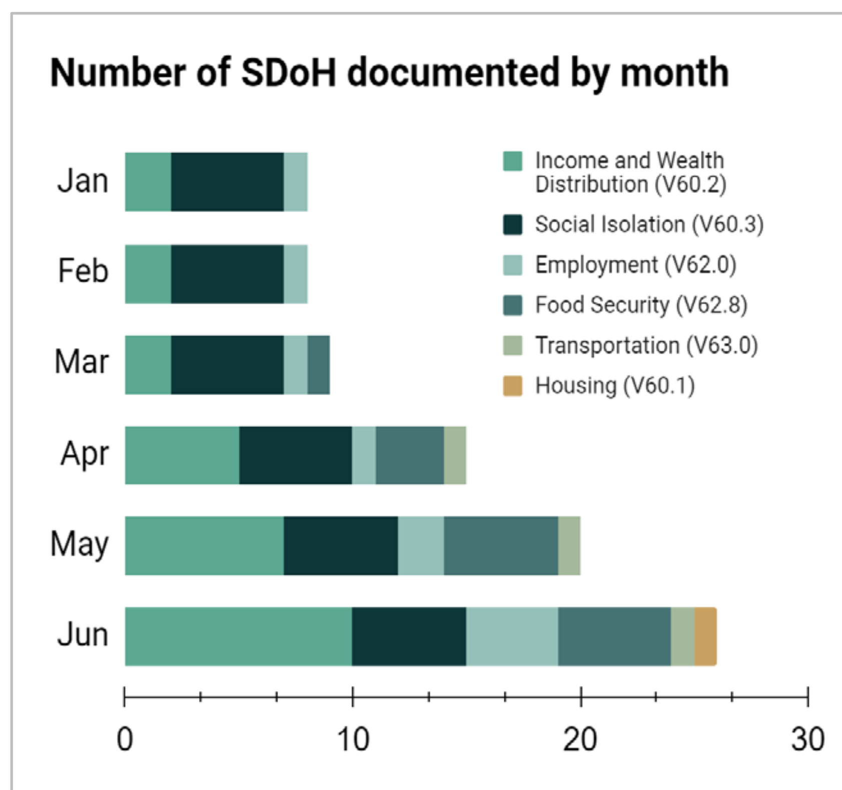
Utilizing the Poverty Screening Question "Do you ever have trouble making ends meet at the end of the month?" Patients were invited to self identify and attend a follow-up appointment with the team RN (Emily Dunkley) where they could discuss resources and also screen for Unemployed, Unstable Housing, Food Insecurity, Lack of Transportation, and Social Isolation. Positive screens were added to the patient files with their consent.

PDSA cycles to determine how best to contact patients for screening which included:

- EMR generated portal message
- In-person handout at the end of physician encounters
- In-person screening question opportunistically at the end of RN appointments

## Data Analysis:






## Lessons Learned & Next Steps:

- Screening for these social determinants of health was generally well accepted by patients
- Physicians are working at maximum capacity, making additional workflows surrounding SDoH unsustainable to easily implement within patient visits on top of pre-existing demands
- In-person screening of patients is the most effective way to engage patients
- A team based approach is necessary to engage patients in discussions around social determinants of health
- Many of these conversations were challenging for providers to both participate in and to generate helpful resources. Team based case discussions and debriefs could be essential to maintain a sustainable and effective workflow

# MOATS – PC: Medical Office Assistant Triage System in Primary Care

### Physician Lead: Dr. Tim Troughton

Location: Victoria
Specialty: Family Practice
Senior Medical Office Assistants: Brenda Quan, Jennifer Campbell

### Background:

Existential experience demonstrates inefficiencies & risk with the current model of care:

- Patients are anxious about their symptoms
- Medical Office Assistants (MOAs) experience stress working outside of their scope
- Potentially excessive upstream system costs engaging ER, 811 or unfamiliar Walk-In-Clinic
- Some measure of medico-legal risk to provider

### Problem:

Patients contact our office with new issues of varying urgency and our MOAs, who are not clinically trained, attempt to triage these requests which leads to challenges in addressing them in a timely and appropriate manner. This delay and uncertainty can lead to additional stress for both patients and staff.

### Aim of Project:

By June 2023, 100% of Dr. Troughton's patients who contact Cook St Medical Clinic with urgent clinical needs will receive an appropriate and timely response within 90 minutes.

### Patient Voice:

Quotation from patient who received urgent care:

> *"Your MOA was super super super professional."*

### Actions Taken:

- Created same day/next day appointment blocks to institute a formal advanced access system, calculated average current demand to supply ratio over 3 weeks of testing

- Clinical protocols triage tool developed based on highest frequency of urgent symptoms reported by patients for example chest pain, shortness of breath, new rash, urinary symptoms, ankle swelling, stroke symptoms, diarrhea

- More meaningful use of Electronic Medical Record (EMR) intra-office message system to enable MOA to physician communication via two intra-office secure EMR message tools, and text messages to a secure cell phone

## Data Analysis:

- Patient-initiated urgent requests (via telephone, in person or email) were in scope while scheduling/rescheduling requests were out of scope. Baseline data was collected proactively by questionnaire and retrospectively via EMR chart review
- Patients' urgent symptoms were categorized into several major medical systems (Figure 1)
- Having six protected timeslots (per week) for urgent appointments ensured 100% patients calling with urgent care needs receive an appropriate and timely response within 90 minutes of contact (Figure 2). All these patients were seen either on the same day or next day
- A noted balancing measure was the increase in staff time needed to employ clinical protocols, however a reduction in staff stress & increase in joy was found

Figure 1

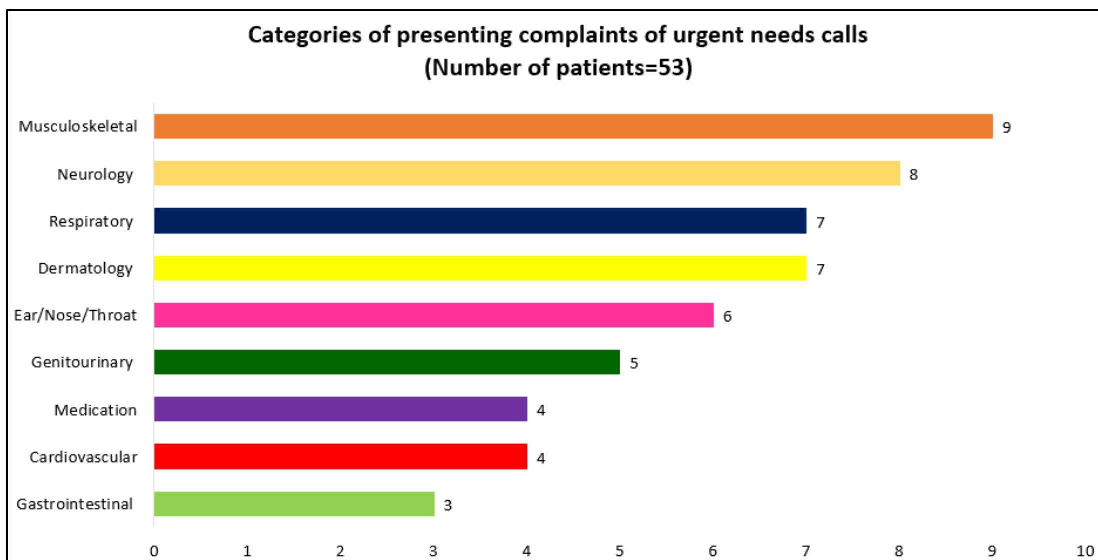
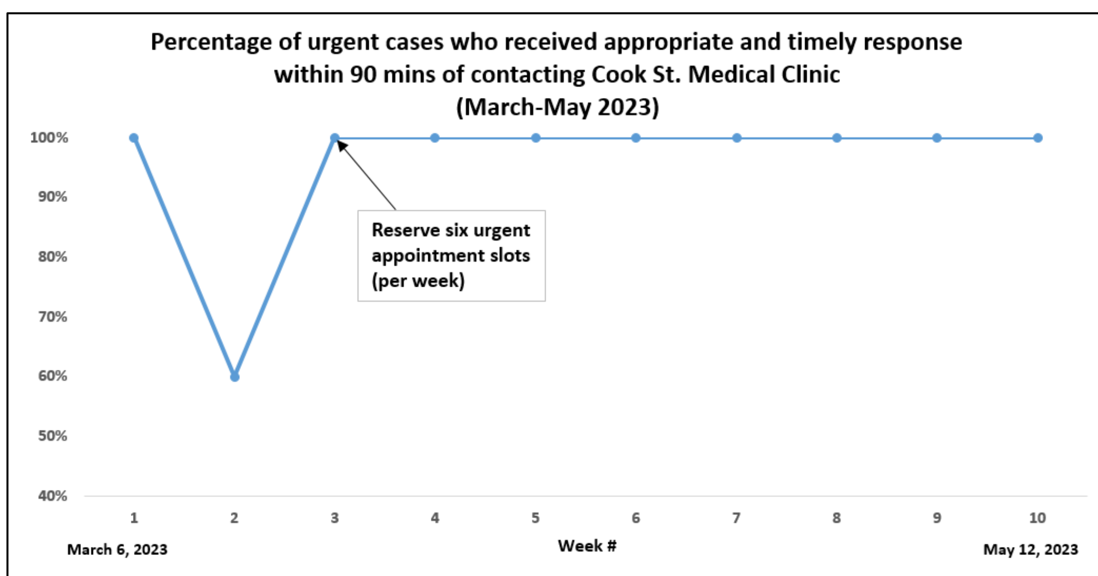



Figure 2



### Lessons Learned & Next Steps:

- Designing Clinical Protocols that are user friendly and increase efficiency is challenging
- Develop questionnaire to determine patient experience
- Consideration of macros embedded in EMR to assist MOA staff, or central website with clinical protocols
- Explore Emergency Department (ED) diversion – does assessing patients urgently help divert them from an unnecessary and costly ED visit
- Explore ED facilitation – where a clinically necessary ED visit is deemed appropriate, does urgent assessment by the family physician assist in streamlining this process for example to reduce wait times by performing a Canadian Triage and Acuity Scale (CTAS) assessment, providing an up to date letter with a contemporaneous clinical summary, full past medical, surgical & social history, with current medications and allergies
- Consider publication of the project for a wider audience
- Explore potential as a spread project

# Inhaler Revolution to Save the Planet

### Physician Lead: Dr. Christian Turner

Location: Victoria
Specialty: Emergency Medicine

### Background:

As global warming intensifies, the healthcare industry faces the mounting need to treat climate related illness like insect borne diseases and extreme heat and smoke exposure, such as were seen in the unprecedented and fatal B.C. heat dome of 2021. We are now also increasingly aware that we need to scrutinize our contribution to greenhouse gas emissions, which is purported to be ~5% in Canada, surpassing even the much maligned aviation industry.

The British Columbia Health Authority Pharmacy and Therapeutics committee review of terbutaline (a low carbon Dry Powder Inhaler (DPI) alternative) notes "terbutaline is an effective short-acting beta-agonist when used to relieve asthma symptoms. No study or outcome measure found terbutaline to be less effective or safe compared to salbutamol. One study found that terbutaline improved Peak Expiratory Flow compared to salbutamol."

In order to limit unnecessary prescribing of these medications, Choosing Wisely Canada and The Canadian Thoracic Society have recommended: Do not initiate medications for suspected asthma until confirmatory testing has been completed. Further, a 2014 meta-analysis of 23 studies found equivalent effectiveness of low carbon footprint DPIs to the environmentally detrimental Metered dose inhalers (MDIs). (*Selroos, O. 2014. Dry-powder inhalers in acute asthma. Therapeutic delivery, 5(1), 69-81.)*

MDI medications for reactive airways diseases (RAD = asthma, emphysema and chronic bronchitis) constitute a substantial portion of healthcare greenhouse gas emissions, up to 13% of primary care emissions when studied in the U.K. MDIs are over prescribed, frequently unlabelled then lost in the Emergency Department (ED), then re-prescribed when on the wards. There are low-carbon alternatives (such as DPIs) with equivalent cost and efficacy readily available in the community, and increasingly in hospital. Our current practice is ecologically unsustainable, financially wasteful and inefficient for nursing staff.

### Problem:

All Royal Jubilee Hospital (RJH) Emergency Department providers polled informally prior to this project were unaware of the carbon footprint of MDIs or safe alternatives. Appropriate tests are rarely ordered from our ED, and typically following commencement of MDI rather than prior.

In addition to failing to prescribe more carbon neutral alternatives, our previous process mapping project in the RJH ED revealed that patient labels were rarely applied to MDIs dispensed in ED or by Emergency Medical Services (EMS), then lost when patients changed location, moving up to the ward or home. This results in disposal of a 200 dose medication after only a few actuations.



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Moreover, much confusion existed amongst nursing staff and doctors regarding proper disposal (pharmacy return bin and reuse or incineration), and MDIs were thrown in regular trash or sharps containers which increases emission of the greenhouse gas into the atmosphere.

### Aim of Project:

Reduce MDI administration in RJH ED by 25% (as measured by pharmacy dispensations per total patient seen each month) within 8 months.

### Patient Voice:

A patient voice was not sought formally, however the medical student on the project and numerous nurses and doctors with experience with RAD and these medications, gave valuable feedback to the investigators during the PDSA rounds and in person on shift education sessions.

The main points received included a substantial lack of awareness in the asthmatic and Chronic Obstructive Pulmonary Disease (COPD) communities regarding the carbon footprint of MDIs, and awareness of alternatives. Other points made included the variable taste of DPIs vs MDIs of which patients should be made aware when transitioning among medications, as well as ease of carriage in clothing of some flat DPIs vs the oblong and thicker MDIs and aero chambers that accompany them.

### Actions Taken:

1. Passive education
    - We began by attempting to broadly update the ED staff on the issue of heavy carbon MDI prescribing, frequent loss and inappropriate disposal with:
        - Email summaries
        - Post card sized summaries attached to work-stations in ED
        - Posters in the ED, staff washrooms, and consultant work stations
        - Presentation at department meetings
2. Active education
    - Once we felt a baseline level of awareness had been created by above measures, we began approaching physicians individually for brief on shift education sessions, these included:
        - Talking points
            - Inhalers prescribed in ED are often re-prescribed in the community *ad nauseam*, so consequences of inhaler choice amplify over time
            - Direction of attention to posters, and location of PFT requisitions, summaries of medication options, and patient information handouts
            - Interest of patients in being involved in these discussions and offered options with reduced greenhouse gas emissions
        - Hands on walk through www.bcinhalers.ca
            - We navigated a useful resource online together with a simulated patient to mimic on shift decision making
        - We sought feedback as outlined in the PDSA cycles and answered questions


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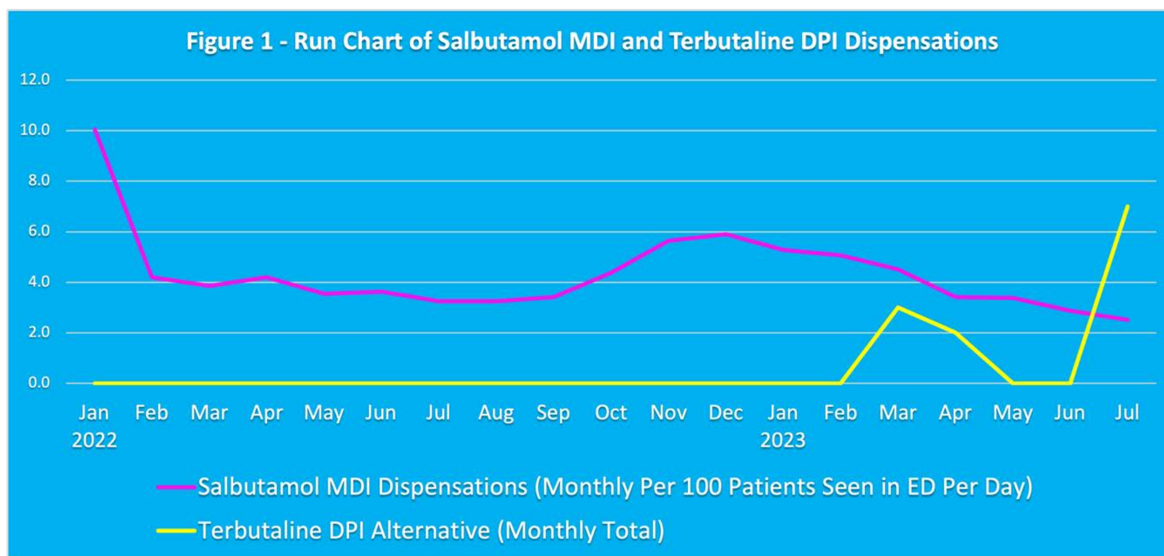
## Data Analysis:

PDSA cycles were oriented around direct feedback from nursing and physician staff while working on shift in the ED, sought by Dr. Turner and Liam King, the medical student working on the projects

- Passive education through the use of emails, posters, and cards were implemented with mixed results, some finding it helpful while others responded negatively ("cluttering workstations")
- Active education was very well received by staff who found it helpful to have brief, on-shift education provided on prescribing alternatives
- Staff found patients to be overall extremely receptive to discussion low carbon alternatives to their current medications
- No staff had noted bounce back of patients prescribed DPIs alternatives to MDIs

We used a run chart to visualize the number of salbutamol MDIs dispensed at the RJH ED (Figure 1). Due to predicable seasonal variation with respiratory illnesses, comparisons were made with the prior year. A reduction of 45 MDIs per month since our interventions began was seen relative to the year prior.




We obtained baseline survey measures of physician and nurse knowledge of MDI greenhouse gas emissions, knowledge of alternatives and recent prescribing practices over time, which are summarized in Figure 2. These findings indicate a rapid increase in the knowledge of the issue, with a lag to change in prescribing, which is echoed by the delay to uptick in terbutaline dispensations noted in Figure 1. This phenomenon known as "Practice Lag" is well documented, and in fact our study finds a more rapid change than often seen in prior work where physicians may take years to change practice after new evidence surfaces that should disrupt current practice.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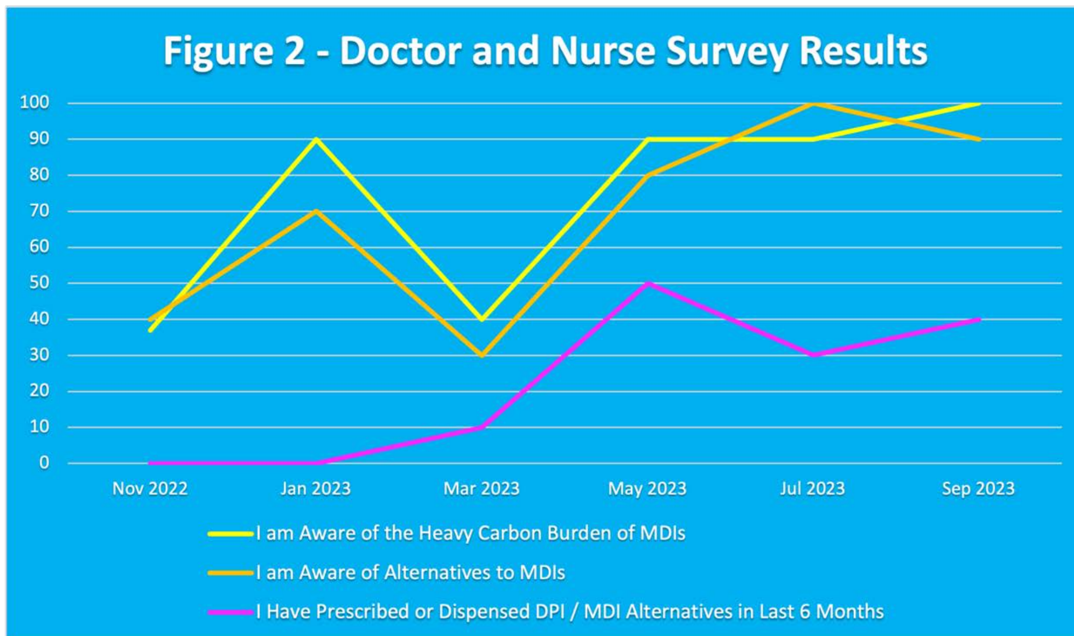
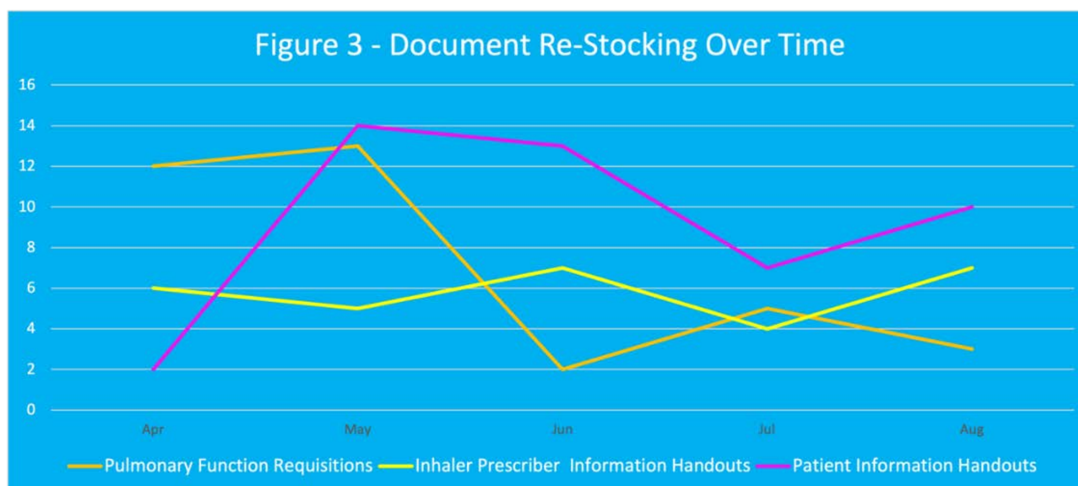



We tracked the number of informational documents taken by staff over time, as a process measure of engagement in the topic, including pulmonary function test (PFT) requisitions and information handouts for patients and prescribers. These did not show a clear trend over time, except that ongoing use of the handouts seems clear, and the decrease through spring maybe consistent with expected declines in respiratory illness as the cold and flu season ends.



## Lessons Learned:

- We achieved a rapid and sustained reduction in MDI dispensations through a combination of passive and active education techniques (~19% in first 6 months). As we continue our campaign through the coming flu season, we will have a better sense of whether practice regresses or progresses toward sustainability
- Overburdened ED staff remain open to practice change toward environment sustainability
- Feedback from patients informally via staff was very positive for transitioning to sustainable medications
- The predictable lag between learning of a therapeutic change and implementing it into practice for physicians should be anticipated in future work
- In-person very brief education sessions and online simple summary (www.bcinhalers.ca) were most valued by staff

## Next Steps:

- Continue in-person education campaign to reach remaining ED physicians, then Hospitalists who are responsible for much of the MDI dispensations in ED
- Find champions at other EDs in Island Health, and expand project within the region
- Expand the patient education initiative in conjunction with Choosing Wisely
- Continue to monitor changes at the drug development and provincial level to keep prescribers up to date on therapeutic options as this dynamic area of medicine progresses in months and years to come

Our hope is that success in this project will motivate healthcare workers to factor sustainability into treatment choices in all areas of medicine, and to demand the same from their health authorities.

# Collecting and Documenting Relevant Past Medical Histories for Clients in a Supportive Housing Site

### Lead: Dr. Kristina Williams

Location: Snuneymuxw Territories, also known as Nanaimo

Specialty: Family Practice

Team members: Karly Fennell (Primary Care Outreach [PCO] Supervisor and Mental Health and Substance Use [MHSU] Manager), Deenar Dhanji (Island Health Home Care Manager), Manager and staff at supportive housing site

### Background:

It has been well documented and advocated that the social determinants of health impact health care, including housing. This project aims to support clients in a new supportive housing site to gain their insight and perspective on their own relevant past medical histories to support safe, appropriate, and effective health care delivery from Nanaimo's Primary Care Outreach (PCO) team and other providers and teams.

The PCO team provides team-based, low barrier, client-centered and trauma/violence-informed practice care. We aim to support individuals experiencing homelessness or significant barriers and in supportive housing using a harm reduction approach, to promote health and wellness, and provide appropriate and quality primary care in populations for whom traditional primary care has been difficult or impossible, due to barriers. The team includes a composition of nurses, physicians, peer support workers, a social worker and support workers. The team travels by way of a mobile van to designated locations, sometimes in parking lots and sometimes at supportive housing sites. We work in conjunction with other supportive service providers as well as other Island Health teams.

### Problem:

Many of our clients in a newly created supportive housing site do not have clear or comprehensive past medical histories documented due to lack of previous consistent care engagement, a history of experiencing homelessness, and/or biopsychosocial/cultural challenges such as addictions and barriers to health literacy. The PCO team is attempting to engage with and provide quality primary care to this population, and without knowledge of clients' histories, it's difficult to provide optimal care, for example leading to incomplete assessment of health status, greater risk of errors, more likely that health care needs may go unmet, duplication of history-taking, time consuming consultations, and ultimately negative impact of trust in relationship.



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The care that clients receive is often emergent, crisis-related, not person-centered, and often isn't acceptable to clients (i.e. discrimination against identity and drug use). It is difficult for clients to share their relevant past medical histories in the emergency department, for example, when they arrive in crisis, with major injuries and/or substance-affected.

### Aim of Project:

To increase the number of unattached clients with a documented relevant problem list*, and "what matters to me" discussion, documented on Cerner at a supportive housing site supported by the PCO team, by May 31, 2023 to 50%.

(*Operational definition of a 'relevant problem list' is to attempt to illicit information both from our client as well as from previous available documentation on Cerner)

### Patient Voice:

A Patient Voice was not included in this study, though it was sought out. Feedback from a potential patient partner was such that the lived experience of the clients in this study was very different from their own and thus difficult to relate, given the extent of barriers our clients typically have. It would be very helpful to have patient voices available from various socioeconomic and cultural backgrounds, and having the ability for compensation for such individuals arguably would increase equity, diversity and inclusion, and thus add to the richness of voices and perspectives informing such quality improvement efforts.

### Actions Taken:

1. Dropping off 3 question paper surveys at clients' doors/homes for them to fill out.
   Performed on a weekly basis from January 30th, 2023 to March 13th, 2023.
   Clients' doors were knocked on and if they were home, the paper survey was given to them by myself and I briefly described the project and the voluntariness of their involvement. If the clients were not home, the survey was either placed under their door or on their side tables, the latter for clients with whom we had a more established relationship.

2. Pulling relevant past medical histories collected by Home Care Manager for select clients and displaying it meaningfully on Cerner EMR.
   PCO learned that the Home Care team was using a Resident Assessment Instrument (RAI) to formally document the history and needs of the clients in their caseload. This enabled the PCO to trial using the medical history collected in the RAI in lieu of other medical history missing in the patient's chart. Information collected from the RAI was documented in CERNER by the PCO team as an alternative to the PCO team collecting history from the patients themselves.

3. Engaging with housing facility's staff members' existing relationship to collect relevant past medical histories.
   Some of the clients have longstanding histories of being supported and cared for by the Island Crisis Care Society (ICCS) whose staff were enthusiastic to leverage existing relationships with clients to support completion of the survey.



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## Data Analysis:

Engagement was initiated with18 clients on a designated floor of the supportive housing sites to collect relevant past medical histories. PDSAs were conducted over 14 weeks. 6 (33%) past medical histories were documented on Cerner at project completion.

Multiple challenges to collect information from clients were identified, including individuals did not see this as a priority, forgot about the task, were not home on repeated engagement attempts, were challenged by literacy and/or substance-affected on multiple visit attempts.. 1 client was supported by her Home Care team having specifically asked for help to fill it out.

The true value of the project was in uncovering how the Island Health Home Care team was involved with PCO clients. There was enthusiasm to use existing relationships with clients and staff across teams to support the collection of past medical histories. With bridges built between care teams, staff reviewed the data and current state, opting to refocus efforts on how best to enable the collection of relevant past medical histories and "what matters" conversations with new clients on intake, rather than with existing clients since the data revealed that many of these clients already had histories in their chart.

## Lessons Learned & Next Steps:

- Increasing collaboration between health care services and housing facilities is essential in promoting health and wellness for clients who have faced innumerable challenges, including experiencing homelessness, addiction, trauma and the sequelae which leads to such outcomes
- Engaging with clients to inform their past medical histories is important for client-centered care, as well as health care providers, and efforts to do so at clients' homes rather than in emergent situations is likely more appropriate and affective
- There are barriers to collection of information, such as substance-affects and clients preference to not engage, and thus a creative collaborative approach is required, as well as competing demands of the key partners in the project
- Learning about the various stakeholders and carers that are supporting our most complex clients within this housing site was highly valuable. The connection and relationship-building is of tremendous value in supporting clients and our efforts in delivering quality care via the Primary Care Outreach team
- Under current development is a Complex Care Housing model to support many of the clients involved in this PQI project

# PQI Team Members 2022/23

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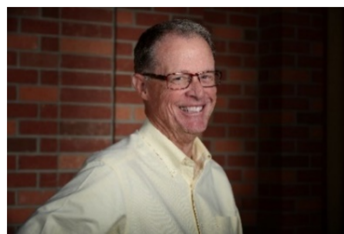
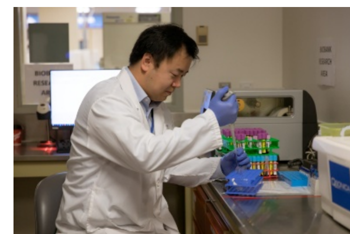
|---|---|---|
| <br>**Jennie Aitken**<br>Director, PQI/SQI | <br>**Dr. Alan Buckley**<br>Physician Faculty, PQI | <br>**Dr. Michael Chen**<br>Physician Faculty, PQI |
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| <br>**Karen Phenix**<br>Manager, PQI/SQI | <br>**Julia Porter**<br>Coordinator, PQI | <br>**Bastian Weitzel**<br>Program Associate, SQI |