

PHYSICIAN QUALITY IMPROVEMENT COHORT 9

Project Summaries

2024 - 2025

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 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 of physician faculty and support staff.

Cohort 9 began the program in September 2024. In October 2025, 13 medical staff graduated from Island Health PQI Cohort 9. This is a summary of their achievements.

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Summary of Projects

Name & Specialty	Location	Project Aim
Dr. Marie-Claude Gregoire Pediatrics Project Link	Victoria	By July 31 2025, 70% of eligible infants admitted to the Neonatal Intensive Care Unit (NICU) at Victoria General Hospital (VGH) will have more than one connection to paediatric palliative care services at Canuck Place Children's Hospice (CPCH).
Dr. Al Hayashi & Dr. Jacques Smit General Surgery & Anaesthesiology Project Link	Victoria	By May 31, 2025, we aim to increase the proportion of OR team members reporting a "Great Day in the OR" (GDitOR) during elective general surgery slates by 50% above baseline.
Dr. Chris Harper & Dr. Barbara Leij Garolla DiBard Pediatrics Project Link	Victoria	By June 2025, we will improve timely access to developmental care by reducing unnecessary referral delays by 50% for children with suspected neurodevelopmental conditions referred to Breakwater Pediatrics.
Dr. Adam Hoverman Family Practice Project Link	Nanaimo	By 31 July 2025, 50 Wellington Medical Clinic patients (from panel) will have self-reflected, completed & returned a community-obtained What Matters to Me workbook with "What does a good day look like?" answered.
Dr. Vamshi Kotha Interventional Radiology Project Link	Victoria	To reduce the average outpatient wait-time for liver biopsies to 2 weeks from the initial referral receipt for newly suspected malignancy In South Island by the end of the year 2025.
Dr. Kalen Leech-Porter Emergency Medicine Project Link	Duncan	Reduce Confusion Assessment Methods (CAM) Scores for admitted patients in the Cowichan District Hospital Emergency Department by 33.3 % by June 2025.
Dr. Jennifer Rajala Cardiology Project Link	Victoria	By July 31, 2025, we aim to have 75% of referrals who are triaged with an urgent cardiac issue seen within 2 weeks of their referral date to Pulse Complete Cardiac Care.
Mikaela Robertson, NP Cardiology Medicine Project Link	Victoria	By June 30, 2025, 90% of patients who have had Coronary Artery Bypass Graft (CABG) surgery on 3NW at Royal Jubilee Hospital (RJH) and are discharged through the Post-Cardiac Surgery NP Clinic (in-person or virtually) will be screened for anxiety and depression using validated screening tools within 30 days of discharge.
Dr. Trish Snozyk Family Practice Project Link	Victoria	By July 31, 2025, we will increase the percentage of patients who register for CBT Skills Foundations within 30 days of referral by 10%.

Summary of Projects

Name & Specialty	Location	Project Aim
Dr. Michelle Tousignant Emergency Medicine Project Link	Victoria	By April 20 2025, time to effective simulated defibrillation will be decreased to 5 minutes or less in a simulated school cardiac arrest with a grade 6/7 class responding at Royal Oak Middle School.
Dr. Jake Wilkins Emergency Medicine Project Link	Victoria	By June 2025, reduce total number of "NPO days" by 50% for trauma inpatients admitted to Trauma Services at Victoria General Hospital who have planned surgery in hospital beyond the first 12 hours of their hospital stay.

Baby Steps: Raising Awareness of Neonatal Palliative Care Services in the Victoria General Hospital (VGH) Neonatal Intensive Care Unit (NICU)

Physician Lead:	Dr. Marie-Claude Gregoire
Location:	Victoria, BC
Specialty:	Pediatrics

Background:

Parents with a newborn admitted to a neonatal intensive care unit (NICU) face significant stress (Peat *et al.*, 2025). When a child is diagnosed with a life-limiting or life-threatening condition, families must cope with fear, uncertainty, and grief alongside medical complexity. Evidence shows that a paediatric palliative care approach can reduce symptom burden, improve quality of life, and decrease trauma for parents (Lin *et al.*, 2025).

In British Columbia, Canuck Place Children's Hospice (CPCH) provides specialized paediatric palliative care services across the province, but until recently, in-person access for clinical teams and families in Victoria was limited.

- Lin M, Horner C, Butler K, Bosworth O, Kiernan T, Nelson J, Pierce K, Dore D, Eison D, Kazmi S, Zawistowski C. Impact of palliative care on psychosocial and spiritual outcomes in the neonatal intensive care unit. *J Pain Symptom Manage*. 2025 Aug; 5:S0085-3924(25). doi:10.1016/j.jpainsymman.2025.07.028. PMID: 40754016
- Peat G, McLorie EM, Barrett L, Weatherly H, Hinde S, Walker GL, Noyes J, Oddie S, Vasudevan C, Feltbower R, Phillips B, Hewitt CE, Hain R, Subramanian G, Haynes A, Fraser L, Murtagh F, Hackett J. Parents' experiences of pediatric end-of-life care in the UK: a multisite qualitative study. *BMJ Support Palliat Care*. 2025 Aug; 15(5): 681-692. doi: 10.1136/spcare-2025-005427. PMID: 40701785.

Problem:

While virtual access to the CPCH team has been in place for years, the Victoria General Hospital (VGH) NICU team identified a persistent gap in on-site paediatric palliative care expertise, particularly for goals-of-care conversations, symptom management, and collaborative care planning. They have also reported a lack of confidence in how to access supports. Families of infants with serious or life-limiting conditions are at risk of not being connected to CPCH resources.

Patient Engagement:

From the very early phase of this project, CPCH patient and family engagement advisors were consulted. They reviewed the project, supported it and were kept updated of its progress. More information about Sara Rodrigues and Dana Warburton can be found here: <https://www.canuckplace.org/wp-content/uploads/2024/06/2024-Clinical-FEA-Rackcard-V10-AX.pdf>

The family of one lovely patient, Ezra, shared their story as their journey intertwined with the development of this project.

Aim of Project:

By July 31 2025, 70% of eligible infants admitted to the Neonatal Intensive Care Unit (NICU) at Victoria General Hospital (VGH) will have more than one connection to paediatric palliative care services at Canuck Place Children's Hospice (CPCH).

Measures:

Outcome Measure

- Number of connections made between NICU care teams and CPCH care teams for eligible infants receiving palliative care at VGH.

Process Measure(s)

- NICU staff knowledge and confidence in accessing CPCH services (RN survey).

Balancing Measure(s)

- Staff workload/satisfaction.

Action Taken:

The success (and feasibility) of this project was contingent on building stronger coalitions and collaboration between Island Health, CPCH and NICU. Beginning in the fall of 2024, with new funding and local advocacy, opportunities for direct, in-person engagement between NICU staff, families, and the CPCH team began. All actions taken were based on relationship building through onsite presence at NICU, intentional conversations about the services available through CPCH, pediatric palliative care pathways, and communication pathways between NICU and CPCH.

- **September – November 2024:** CPCH physician (project lead) established Island Health privileges at VGH (allowing for onsite care).
- **February – March 2025:** Onsite visits to NICU to meet with neonatologists, nursing and unit staff.
- **February – May 2025:** Nursing staff survey period (paper and electronic).
 - The survey was designed using questions derived from a previously published survey by Stenekes *et al.* (2019).
- Stenekes S, Penner JL, Harlos M, Proulx MC, Shepherd E, Liben S, Thompson G, MacConnell G, Grégoire MC, Siden HH. Development and Implementation of a Survey to Assess Health-Care Provider's Competency, Attitudes, and Knowledge About Perinatal Palliative Care. *J Palliat Care*. 2019 Jul;34(3):151-159. doi: 10.1177/0825859718790627. PMID: 30060727.

Data Analysis:

Note: The limited number of eligible infants during the project timeframe reduced the number of data points available, making it challenging to demonstrate measurable improvement trends over time.

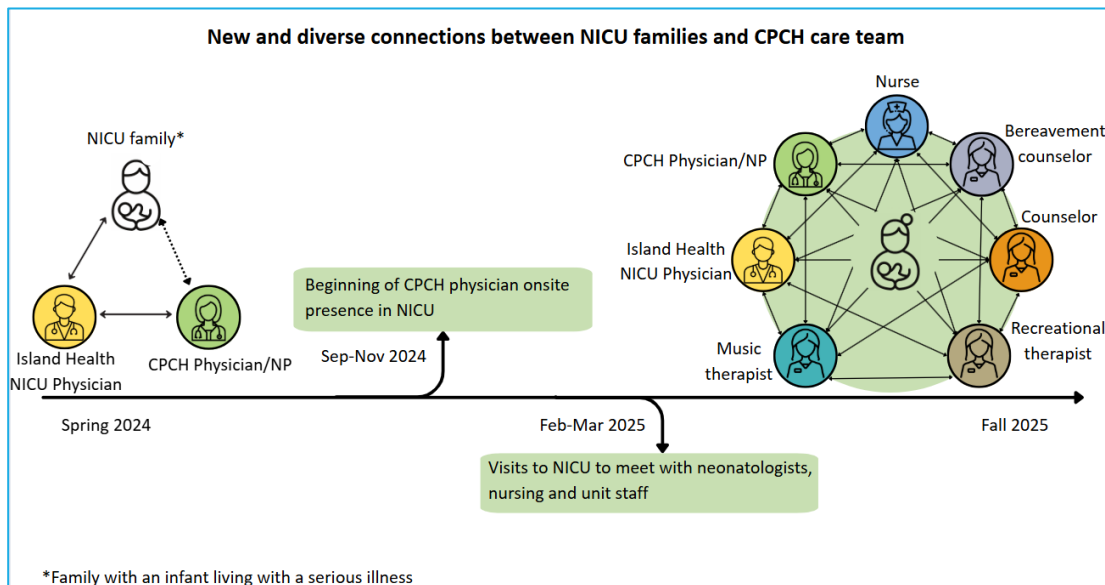
Nursing staff survey feedback showed that while some NICU staff were aware of palliative care services, most lacked confidence in engaging with, or consulting with, community paediatric palliative care services. Staff workload and satisfaction with the increased knowledge and connections did not appear to be negatively impacted, based on conversations with staff at NICU and CPCH.

Data was collected on all infants admitted to VGH NICU who were referred to CPCH that included the total number of contact points between CPCH and NICU per infant. These points of contact include:

- Physician to physician consult.
- Referral to CPCH program services.
- Nursing staff to nursing staff consult.
- Family to CPCH clinical staff and program services (e.g., counselling, bereavement).
- Infant to CPCH program services (e.g., recreation therapy, music therapy, respite services, hospice care).

Over the course of the project, an increase in the number of connections was observed, as well as the diversity of those connections (see Figure 1).

Figure 1:



Lessons Learned:

- **Local presence matters:** Virtual access alone was insufficient; in-person presence builds trust and awareness.
- **Staff knowledge is variable:** Many nurses and physicians benefit from structured education and referral prompts.
- **Change takes time:** Sustained advocacy, coalition-building, and integration into clinical workflows are essential.
- **Partnership is key:** Collaboration between Island Health, PHSA, CPCH, and local NICU teams has already improved awareness and early connections for families.

Next Steps:

- Another opportunity for referring to CPCH is during discharge planning from NICU. There is work underway for integrating the steps for referring infants eligible for CPCH services into the NICU Discharge Checklist.
- Adding CPCH referral form into PathwaysBC.
- Explore electronic health record prompts to support timely connection with the CPCH team when a child part of CPCH program is readmitted to VGH.

Great Day in the Operating Room Project: Enhancing Communication, Team Building, Learning and Joy

Physician Lead:	Dr. Al Hayashi & Dr. Jacques Smit
Location:	Victoria, BC
Specialty:	General Surgery & Anaesthesiology

Background:

The modern Operating Room (OR) is a high-stakes, high-intensity environment where multidisciplinary teams carry out complex, time-sensitive procedures. Sustained “Joy” among healthcare providers has been shown to improve morale, productivity, patient safety, and outcomes while reducing burnout and absenteeism.

Yet, increasing surgical complexity, variable staffing, post-pandemic strain, and the loss of experienced personnel have amplified dysfunction, disorganization, and communication failures in the OR. These conditions compromise psychological safety, erode team cohesion, and diminish joy in the workplace—ultimately threatening both staff well-being and patient safety. The downstream effects to staff are significant, including increased staff burnout, absenteeism, and disengagement.

Research demonstrates that structured interventions—such as the Structured Surgical Huddle, already in place at several leading North American centres—can enhance collaboration, situational awareness, and team morale.

Problem:

In a multidisciplinary survey of the elective general surgery teams at the Victoria General Hospital (VGH), including surgeons, anesthesiologists, nurses, and learners, four key drivers of a positive operating room experience were identified:

- Workplace culture
- Operational efficiency
- Opportunities for learning in a psychologically safe environment
- Personal health and wellness

Despite these shared values, teams reported frequent challenges related to ineffective communication, poor resource utilization and operational inefficiencies. These issues often led to frustration, incivility, and breakdowns in team dynamics.

Patient Engagement:

Partnering with a surgical patient revealed the absence of a structured pathway for patients to provide feedback directly to the OR team. Together, we co-developed a simple mechanism to capture timely postoperative feedback—affirming, constructive, and accessible. This process informed project design, reinforced a culture of empathy and continuous learning, and centered the patient voice in strengthening surgical teamwork.

Aim of Project:

By May 31, 2025, we aim to increase the proportion of OR team members reporting a "Great Day in the OR" (GDitOR) during elective general surgery slates by 50% above baseline.

Measures:

Outcome Measure

- Percentage (%) of OR staff responding "Great" or "Very Great" to: "How great was your day?".

Process Measure(s)

- Workflow efficiency: time difference between scheduled start and first patient entry (minutes).
- Percentage (%) of staff adequately informed about the day's requirements.
- Frequency and effectiveness of task delegation during Huddles.
- Percentage (%) of staff reporting interruptions due to issues not addressed in Huddles.

Team Culture & Learning

- Psychological Safety Score (validated survey tool).
- Combined score of teaching, learning achieved, and sense of agency.

Balancing Measure(s)

- Did Huddles delay first case starts (>07:50)?
- Impact of start time (07:35 vs 07:45) on surgeon participation and timeliness.

Action Taken:

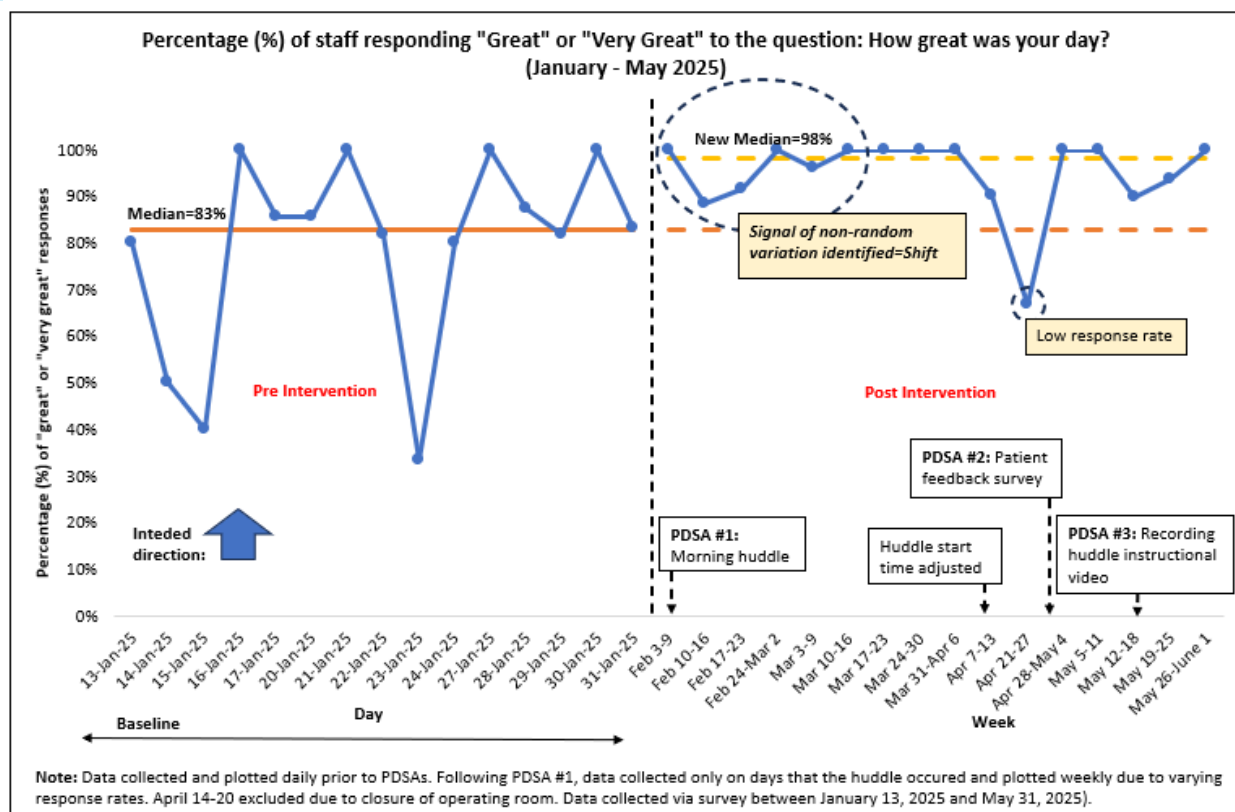
On February 25, 2025 an OR team dinner was hosted to launch the GDitOR project, review aim and driver diagram, and generate change ideas using 25/10 Liberating Structure. Based on group vote and feasibility, the following change ideas were carried out:

- **PDSA #1:** Implemented Structured Huddle, adjusting start time to 07:45 to align with workflow.
- **PDSA #2:** Collaborated with patient partner to design postoperative patient feedback survey.
- **PDSA #3:** Developed storyboard and began filming a training video on the huddle for learners.

Engaged OR managers, nursing leadership, and physician leaders in round-table discussions addressing bullying, civility, and barriers to cultural change.

Data Analysis:

End of shift daily surveys were completed by elective surgical staff, who rated their OR experiences on a 1–5 likert scale ("4" and "5" = "Great"/"Very Great").



Lessons Learned:

- **Lesson #1:** Implementing change in multidisciplinary OR teams requires sustained coordination, trust, and simplicity in design.
- **Lesson #2:** Real-time discussions proved more effective than asynchronous communication.
- **Lesson #3:** Daily survey scoring capped at 5 limited measurement sensitivity ("topping out" effect).
- **Lesson #4:** Survey fatigue reduced response rates over time.
- **Lesson #5:** Progress updates and visible feedback loops were crucial to maintaining engagement.
- **Lesson #6:** Lack of nursing leadership participation limited impact on frontline engagement.
- **Lesson #7:** Interventions gained traction when seen as practical, respectful of workflow, and achievable (e.g., huddle time adjustment, patient feedback survey).

Next Steps:

- **Next Step #1:** Continue patient feedback pilot and finalize training video.
- **Next Step #2:** Expand dissemination of huddle practice across surgical divisions.
- **Next Step #3:** Draft and submit abstract to the North Pacific Surgical Association annual meeting.
- **Next Step #4:** Identify opportunities for broader institutional adoption of structured teamwork interventions.

Cutting Double Waitlists: Improving Resource Access for Children with Developmental Needs Awaiting Pediatric Developmental Care

Physician Lead:	Dr. Chris Harper & Dr. Barbara Leij Garolla Di Bard
Location:	Victoria, BC
Specialty:	Pediatrics

Background:

In Victoria, children referred for behavioural/developmental concerns typically wait up to 12 months to be seen by a pediatrician. While diagnostic assessment and psychoeducation are provided, consulting pediatricians do not provide non-pharmacological therapeutic interventions for ADHD, autism, or anxiety. Timely intervention for these concerns is critical in the early developmental period.

Referral for publicly available services can be initiated by *any* primary care clinician, but it became clear to us that most children were not being referred to needed services when the problem was identified. Despite prior attempts to create educational pathways, or case-manage referrals individually, a median of 82% of children experienced unnecessary delays. In the busiest consulting pediatrics clinic in the South Island, it was clear a systemic intervention was required to ensure children no longer experienced a 'double-wait-list' to access the care they need.

There are several resources for non-pharmacological therapeutic intervention or diagnostic services in the community that can be initiated by referring physicians so children can start accessing resources while they wait to be seen by pediatrics.

Problem:

There is a significant limitation in the capacity for consultative pediatricians. It is unfortunate when children and families face successive wait lists for appropriate therapists, when these services are free, publicly available, and access referrals from all primary care providers. We identified the following four situations in which children frequently miss opportunities for care:

- ADHD: prior to age six, the first line recommendation is Parent Behaviour Training (PBT), provided provincially by the Canadian Mental Health Association (CMHA) Confident Parents Thriving Kids (CPTK) program
- Anxiety: cognitive behaviour therapy (CBT) is the first-line non-pharmacologic intervention. CMHA provides training for parent-led CBT prior to age 12 through CPTK, and their Bounceback program provides this directly for those 12+.
- Autism: applied behavioural analysis with speech and occupational therapy, referral for psychology-led assessment, and audiogram screening are all necessary for pre-school aged children
- Isolated speech delay: publicly available speech therapy and hearing testing is completed through referral to public health

Patient Engagement:

We surveyed parents in our offices to hear about their experiences in the system prior to our intervention. Feedback obtained from parents:

- *"It is really frustrating to wait to have a pediatrician appointment for months to then have to wait another year or two for the second part of the getting my child a formal diagnosis of autism"*
- *"I wish I could have done the Confident Parent Thriving Kids course months ago when I was first referred to you, so I could have used some of the techniques while I was waiting for our first appointment"*

Aim of Project:

By June 2025, we will improve timely access to developmental care by reducing unnecessary referral delays by 50% for children with suspected neurodevelopmental conditions referred to Breakwater Pediatrics.

Measures:

Outcome Measure

- Percentage of unnecessary delays for children with suspected autism spectrum disorder, ADHD, anxiety and/or speech delay

Process Measure

- Percentage of referrals completed with new referral form

Balancing Measure

- Number of referrals received each month. Our goal is to ensure that referrals did not decrease in light of the additional administrative work requested from referring clinicians

Action Taken:

- We created a central intake in our clinic with a new referral form was implemented for our office.
- The referral form includes a force-function so referrals were rejected until the referring doctor complete appropriate referral to services that we deemed missed opportunity
- Our form was uploaded to our clinic website as well as Pathways BC and a pathways message/notification was added on the website
- Initially many physicians did not know about the changes. In the initial period, our medical office assistant was instructed to reply to each referring physician who had not included the form with a reply that included our form and a request to resubmit a complete referral
- We had several meetings with our MOA staff to discuss ongoing flow of referral in our clinic.

Please fax this form and relevant reports/investigations to: **250-984-0504**

This form is required for all referrals. Should you perceive concern as medically urgent, the referring provider must speak directly with our office (778-247-1175) or the pediatrician on call at Victoria General. Our office will confirm the referral has been received and/or accepted within a timely manner, and provide appointment details once arranged with the family.

REFERRAL DATE: _____

SECTION A: REFERRING PROVIDER ACKNOWLEDGES ALL OF THE FOLLOWING REQUIRED

- ☐ I understand this office pools referrals. If requesting a particular MD (accommodated only if possible), please specify in Section D.
The legal guardian is aware of referral. If not, referral will be declined.
The patient is not currently under the care of another general pediatrician (or if a mental health concern, a child psychiatrist).
I acknowledge referrals are only accepted for patients up to their 17th birthday.

SECTION B: PATIENT DEMOGRAPHICS REQUIRED

Surname _____ Given Name _____ Middle Name(s) _____ Gender _____
 PRN (or IPIP #) _____ Date of Birth (mm/yyyy) _____
 Phone 1 _____ Phone 2 _____ Email _____
 Address _____ City _____ Postal Code _____
 Referring provider name and MSP# _____ Primary care provider (if different from referring) and MSP# _____
 Fax _____ Phone _____ Fax _____ Phone _____
☐ Patient identifies as Indigenous ☐ Patient is in care of MCFD ☐ Requires translator in _____
 * Please send referral even if forms below not able to be completed

SECTION C: REASON FOR REFERRAL REQUIRED

Reason for referral (ONE per referral) Referring providers **MUST** complete all of the following, or the consultation request will be declined

☐ ADHD or behavior concern

☐ 1. I have verified the child is not currently being followed by a child psychiatrist
☐ 2. I have attached [SNAP-IV scores from both school and home](#)
☐ 3. I have attached feedback from the school, consider this [CPS School assessment](#)
☐ 4. I have directed family to [Strategy with ADHD](#) modules, to complete pending assessment
☐ 5. If behavior challenge 3-12y, I have referred to [Confident Parents Training](#) (no cost)

☐ Autism (Pre-school)

☐ 1. I have referred to the [Dr. Autism Assessment Network at the Queen Alexandra Centre](#)
☐ 2. I have referred the child to the [Early Intervention Program](#) at the Queen Alexandra Centre
☐ 3. I have referred the child for [publicly available assessment](#) through Public Health
☐ 4. I have attached a completed [ALCARS](#) (for children 18-30 months). Score of _____

☐ Autism (School-aged)

☐ 1. I have referred to the [Dr. Autism Assessment Network at the Queen Alexandra Centre](#)
☐ 2. I have referred the child for [publicly available assessment](#) through Public Health (or privately)
☐ 3. I have attached a completed [CAST assessment form](#). Score of _____

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☐ Language delay (Pre-school)

☐ 1. I have referred the family to [Public Health for speech language therapy](#) (or to [speech@breakwater.ca](#) if referred to private options)
☐ 2. I have referred the child for [audiology assessment](#) through Public Health
☐ 3. I have attached a completed [ALCARS](#) (for children 18-30 months). Score of _____

☐ Anxiety (<13 yrs)

☐ 1. I have verified the child is not currently being followed by a child psychiatrist
☐ 2. I have attached completed [SCARED Parent and Child forms](#)
☐ 3. I have referred family to the [Confident Parents Training Kids Anxiety Program](#) (no cost)
☐ 4. I have recommended family self-refer to local [Child & Youth Mental Health](#) office (no cost)

☐ Anxiety (13+ yrs)

☐ 1. I have verified the child is not currently being followed by a child psychiatrist
☐ 2. I have attached a completed [GAD-7](#). Score of _____
☐ 3. I have referred to the [CMHA Resource \(Cognitive Based Therapy\)](#) (no cost)

☐ Depression

☐ 1. I have verified the child is not currently being followed by a child psychiatrist
☐ 2. I have attached a completed [PHQ-9 \(For Adolescents\)](#) for 11-17 yrs. Score of _____
☐ 3. I have advised the family to self-refer to local [Child & Youth Mental Health](#) office (no cost)

☐ Gender affirming care

☐ 1. I have attached the following: CBC, LH, FSH, estradiol or total testosterone (based upon sex assigned at birth), Vitamin D level, ECG. If <12 years, baseline DEXA scan requested
☐ 2. I have attached [ALCARS chart](#)

☐ Obesity

☐ 1. I have attached [ALCARS chart](#) and blood pressure

☐ Disordered eating

☐ 1. I have attached height, weight, orthostatic blood pressure and heart rate (all 2 minute intervals)
☐ 2. I have attached CBC, extended electrolytes, glucose, Cr, BUN, ECG
☐ 3. I have referred the patient to the [South Island Eating Disorders Program \(SI-EDP\)](#)

☐ Asthmatic cough

☐ 1. I have requested a pulmonary function test (PFT) if 6 years or older

☐ Infant growth/feeding concern

☐ 1. I have attached [ALCARS chart](#) including head circumference

☐ Other concern

☐ 1. I have attached [ALCARS chart](#)
☐ 2. I have attached documentation of physical exam

SECTION D: CONDITION DETAILS REQUIRED

Please detail your question/concern here (or attach separately). Include medications, allergies, diagnoses, relevant exam findings

Please direct your patient to [breakwaterpediatrics.ca/resources](#) for resources while awaiting consultation

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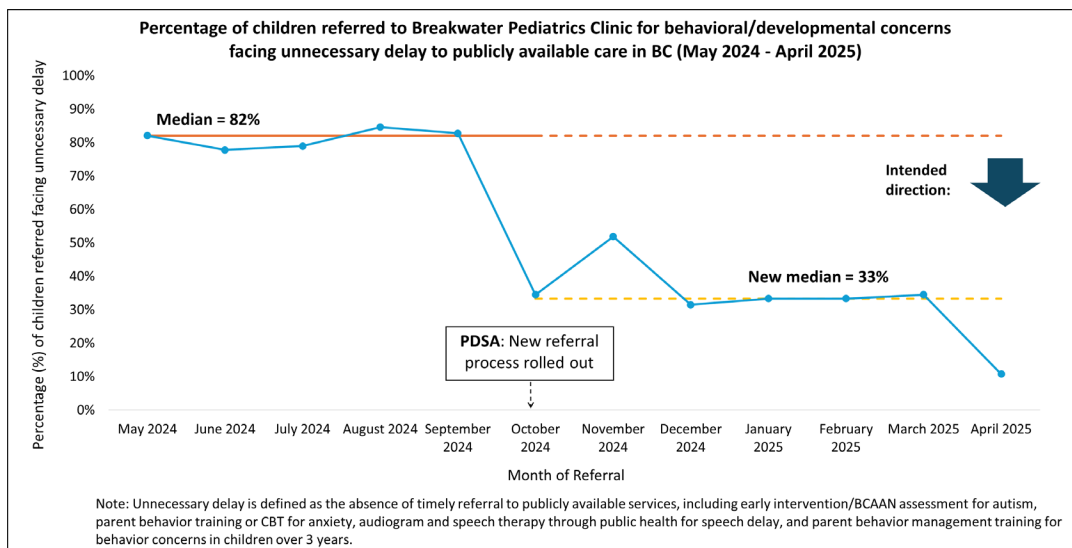
Data Analysis:

By June 2025, through introducing a new referral form and process, we successfully reduced the number of unnecessary developmental referral delays by 60%.

Two consulting pediatricians reviewed all referrals to identify cases where the intervention required was not clear at the time of referral. Cases were excluded from analysis where (1) the intervention required was not freely available, (2) the complexity/treatment required the expertise of the consulting pediatrician, (3) the child was transferred to Breakwater Pediatrics, and (4) private assessment/consult was requested by parents.

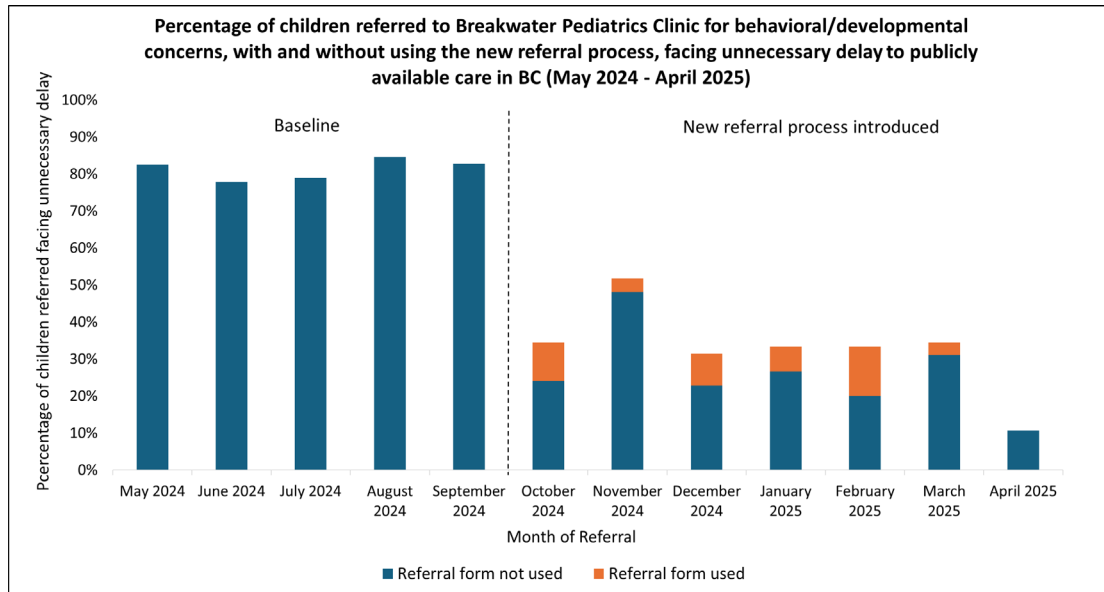
After changing our referral process, the median rate of unnecessary delays decreased from 82% to 33% (Figure 1).

Figure 1:



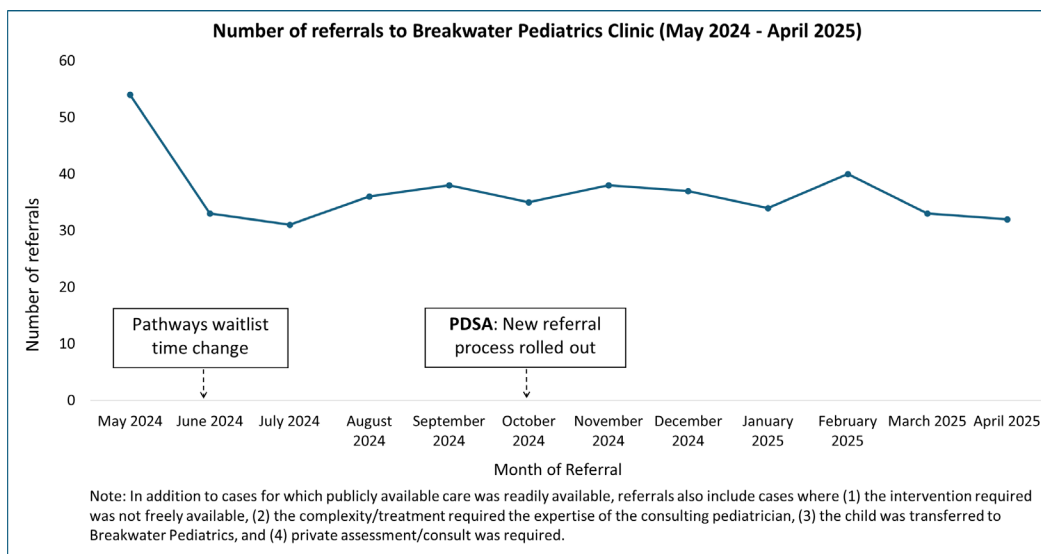
To ensure equitable care for patients, particularly Indigenous patients, those with medical complexity, new to Canada, and in the care of the Ministry of Child & Family Development (MCFD), incomplete referrals were accepted in these situations to avoid vulnerable patients being lost to follow-up. Figure 2 represents the percentage of individuals referred to Breakwater Pediatrics who faced unnecessary delays each month. The stacked-bar graph shows where the new referral form was used versus not. Since October 2024, most cases of unnecessary delay (4 out of 5 monthly average) occurred when the child was not referred using the new referral process.

Figure 2:



As a balancing measure, we monitored the number of referrals received each month to ensure these additional referral requirements did not lead to children simply going elsewhere (or not being referred at all). Fortunately, our referral volume remained consistent: from June to September 2024 we received an average of 38 referrals monthly; after intervention was implemented this rate remained steady at 36 per month (Figure 3).

Figure 3:



Lessons Learned:

- Families access behavioural and developmental care for their children from many different types of providers. While each want to provide excellent care, not all are aware of available resources to help their patients. Providing consolidated and clear instructions on how to support children was appreciated by our colleagues.
- Creating a systemic 'force function' was more effective in creating change than past attempts at providing education, suggestions, or individual case management. This is consistent with the Institute for Healthcare Improvement's Hierarchy of Intervention Effectiveness. Now that our pathways are established in the community, we feel confident in the sustainability of the intervention's benefits.
- We prioritize ensuring equitable care for patients who often have challenges accessing care and obtaining referrals. Further interventions, such as the implementation of a system navigator, will be needed to achieve our goal of eliminating delays to developmental care without creating insurmountable barrier to care.

Next Steps:

We are actively 'spreading' our intervention to other pediatric offices. Dr. L'Ecuyer is opening the first pediatric office in Sooke and she used our referral form as a template to create her own, with the same 'force function' referral criteria. This will create further efficiency in our community pediatric system.

Central Vancouver Island What Matters to You Project

Physician Lead:	Dr. Adam Hoverman
Location:	Nanaimo, BC
Specialty:	Pediatrics

Background:

In response to decades-long calls to better support social well-being within health care, social prescribing has emerged as a person-centred approach to addressing non-medical determinants of health. Rooted in the question “What Matters to You?”, it recognizes the universal human need for connection and purpose. Literature shows that social prescribing can improve mood, reduce loneliness, enhance care experiences, and lower health system costs (Garcia et al., 2025; Mulligan et al., 2024). As evidence grows around the health impacts of isolation, especially among older adults, social prescribing is increasingly seen as a vital component of holistic care.

Effective implementation depends on identifying local needs and leveraging community resources. While tools like the What Matters to Me (WMTM) workbook, developed by Ariadne Labs and the Institute for Healthcare Improvement, have supported these conversations in clinical settings, their use in community-based care remains limited (Fromme et al., 2022). International models, such as Australia's PALS program, demonstrate the potential for pharmacists to play a key role in identifying and responding to social needs. Pharmacists often have longitudinal relationships with patients and are well-positioned to support social prescribing through frequent, trusted interactions (Hussein et al., 2024).

Problem:

In Nanaimo, BC, rising rates of social isolation among older adults present a growing concern for health and community services. Many of these individuals have limited contact with primary care providers but frequent interactions with community pharmacists. Despite their accessibility, pharmacists are not routinely engaged in social prescribing efforts. This gap contributes to missed opportunities for identifying and addressing social needs in a timely, person-centred way.

Patient Engagement:

Patient partners were actively involved from the beginning of the project, contributing valuable insights on implementation strategies, local context, anticipated challenges for workbook completion, interview planning, and data analysis from an end-user perspective.

- “You know, working in the pharmacy we see a lot of loneliness, and it's heartbreaking to see that.” -Wellington Medical Clinic Patient, What Matters to Me workbook recipient, and participating pharmacy staff member.
- “I know what matters to me, my doctors and care team should too...” --Wellington Medical Clinic Patient.

Aim of Project:

By 31 July 2025, 50 Wellington Medical Clinic patients (from panel) will have self-reflected, completed & returned a community-obtained What Matters to Me workbook with “What does a good day look like?” answered.

Measures:

Outcome Measure

- Total number (#) of WMTM workbooks returned with “Good Day” responses completed.

Process Measure(s)

- Number (#) of WMTM workbooks distributed to community pharmacies.
- Number (#) of WMTM workbooks collected by patients.

Balancing Measure(s)

- Percentage (%) of patients aware/unaware & pleased/displeased with WMTM workbook.

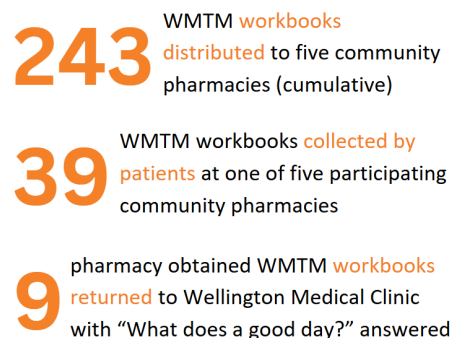
Action Taken:

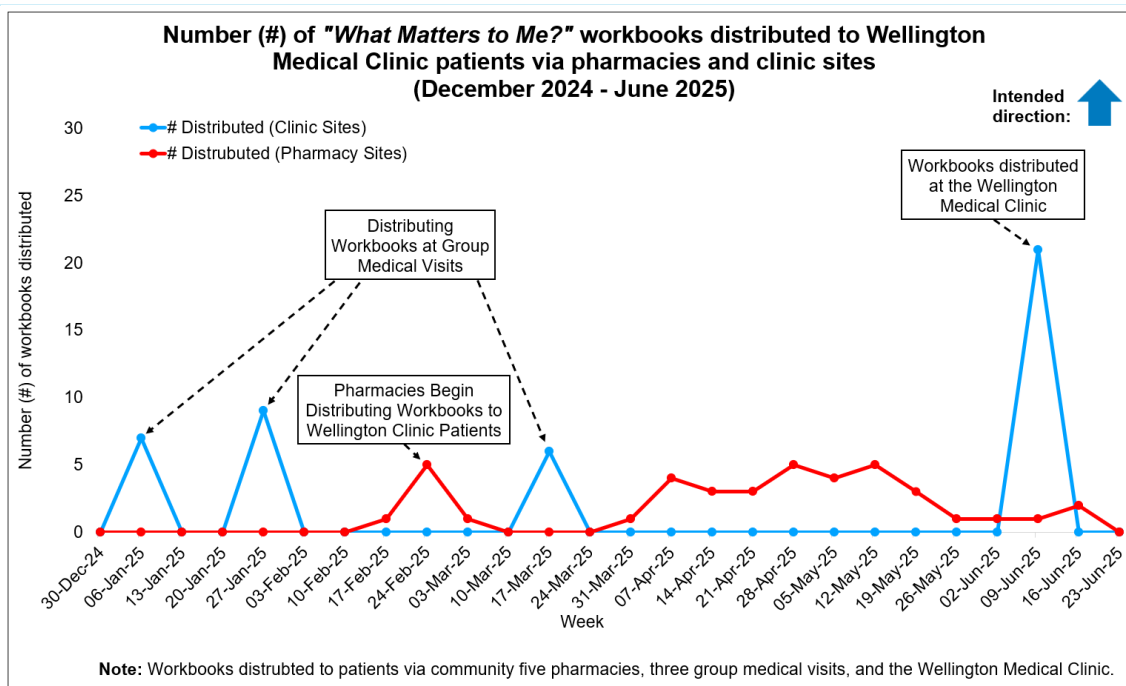
Community consultations were conducted using the WMTM workbook across a range of settings, including pharmacies, group medical visits, and primary care, to encourage completion and submission. Feedback from community members was used to help local health providers better understand what matters most to Nanaimo residents to support more meaningful connections to community resources.

Distribution Activities:

- WMTM workbooks distributed during group medical visits.
- Initial distribution of WMTM workbooks at Save-On-Foods Country Club.
- Expanded distribution of WMTM workbooks to four additional community pharmacies (Save-On-Foods Woodgrove, London Drugs Port Place, Pharmasave Westhill, Rexall Bowen & Dufferin).
- Distribution of WMTM workbooks at Wellington Medical Clinic front desk.

Data Analysis:





Of the 31 patients contacted by the clinic MOA to confirm receipt of their pharmacy-obtained WMTM workbook, **39% were aware**, and **23% were pleased** with having received it.

Lessons Learned:

- **Lesson #1:** Pharmacists and pharmacy technicians are key messengers for physicians, with frequent patient contact that often outpaces the baseline rate of clinical interactions.
- **Lesson #2:** Improving real-time communication & collaboration between clinical teams and community pharmacists without standing technology use (e.g. email, telephone), is difficult to achieve.
- **Lesson #3:** Motivating patient interest & engagement in the co-production of health & social care, is also difficult to achieve.
- **Lesson #4:** When pharmacy staff are also social prescribing advocates, project champions emerge.

Next Steps:

- **Next Step #1:** Integration of patient, pharmacy, and MOA champions into local & provincial social prescribing and Patient Voices Network efforts.
- **Next Step #2:** Continue collaborating with City of Nanaimo Social Planning Department for the distribution of the WMTM workbook in libraries and community centres.
- **Next Step #3:** Collaborate with First Nations Health Centers & Child/Family Services, Friendship Centers, Vancouver Island University elders and DoFP Indigenous liaisons to request input, feedback, and guidance on further community-based implementation efforts for social prescribing and the WMTM workbook.

Reduction of Wait Times for Tissue Diagnosis in Incidentally Detected Cancer

Physician Lead:	Dr. Vamshi Kotha
Location:	Victoria, BC
Specialty:	Interventional Radiology

Background:

An aging population and increased screening awareness have led to higher demand for timely cancer diagnostics, straining resources and resulting in significant biopsy wait-times. Each 4-week delay in cancer treatment increases all-cause mortality by 6–14%. While expedited pathways exist for some cancers, liver biopsies largely remain outside these programs. Core needle biopsies—which provide better diagnostic accuracy—are delayed in favor of less effective fine needle aspiration (FNA), compounding negative outcomes.

Problem:

Of 138 patients referred for core liver biopsy in 2024, 52% were outpatients. Due to excessive wait-times and limited recovery beds only 32% of the outpatients referred underwent core biopsy, with the remainder receiving FNA. This led to a high rate of repeat biopsies and average wait time of 144 days to diagnosis for affected patients. Baseline data showed an average wait time of 46 days for outpatient core biopsies, with just 16% performed within two weeks—well outside provincial targets for timely cancer diagnosis.

Patient Engagement:

When I met Mr BD, it had been one year since his cancer was first detected on imaging, and he was still awaiting a discussion on potential treatments. Of the total one-year interval from diagnosis to treatment, a whole 71 days were spent waiting for a liver biopsy. Among the many insights he shared, his words about his experience waiting were particularly memorable, “... *I do not understand why the Canadian healthcare system is so slow. If I were in Mexico, I could go get treated within days. This is the first time I am wondering why I live in Canada...*”. This conversation, representative of countless patient experiences, had a profound impact on me. It brought back memories of my mother being diagnosed with a tumour back in India: she received a biopsy within 2 days and underwent definitive surgical resection within 1 week. We can, and we must, do better.

Aim of Project:

To reduce the average outpatient wait-time for liver biopsies to 2 weeks from the initial referral receipt for newly suspected malignancy In South Island by the end of the year 2025.

Measures:

Outcome Measure

- Average time from receipt of referral booking of outpatient liver biopsies (days).

Process Measure(s)

- Number of patients booked for core biopsy within two weeks of referral receipt.
- Proportion of biopsies performed as FNA.

Balancing Measure(s)

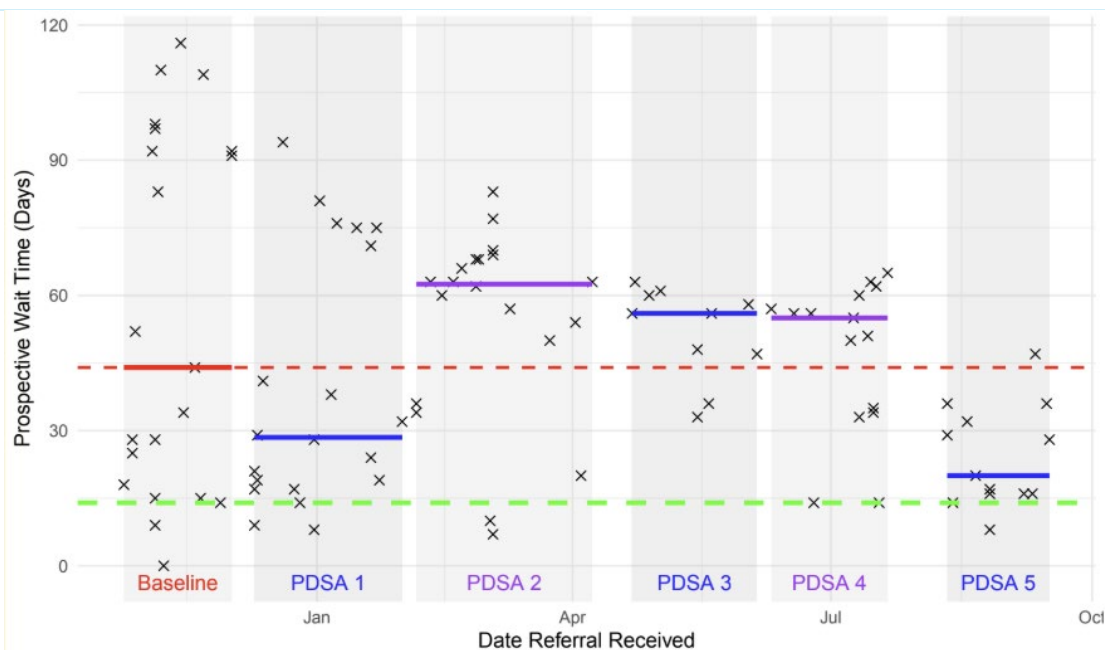
- Number of repeat biopsy procedures.
- Time to BC Cancer's triage after biopsy.
- Nursing full time equivalent (FTE) utilization.
- Utilization of Angiography beds for urgent biopsies.

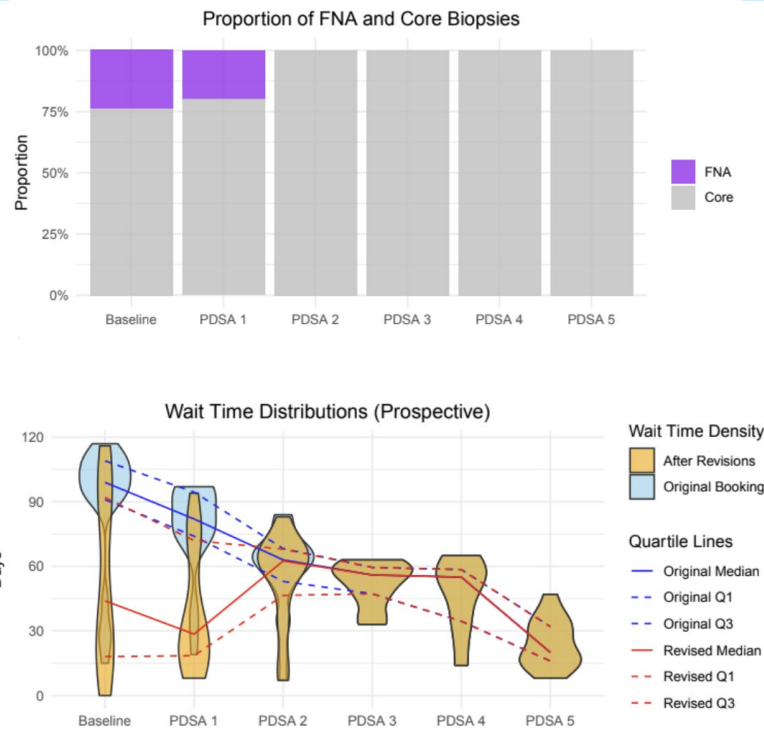
Action Taken:

- **PDSA #1:** Created a central booking team to book all core biopsies.
- **PDSA #2:** Utilized excess nursing capacity to book some extra biopsies.
- **PDSA #3:** Created a dedicated procedural workflow at RJH.
- **PDSA #4:** Increased technologist teaching/support.
- **PDSA #5:** Utilized newly freed up ultrasound and nursing capacity.

Data Analysis:

By the completion of PDSA cycle 5, we observed three major improvements compared with baseline. First, the average wait time from receipt of referral to scheduled biopsy decreased from 58.8 days to 19.1 days (Figure 1), accompanied by a reduction in maximum wait time from 116 days to 36 days (Figure 2A). Second, booking efficiency improved substantially, with rescheduling rates falling from 40.9% to 0% of cases (Figure 2A). Finally, we eliminated reliance on inferior (though expedient) FNA biopsies, reducing their use from 27.3% of cases at baseline to 0% by the end of the project (Figure 2B).





Lessons Learned:

- **Lesson #1 (PDSA #1):** Having all bookings done by a dedicated booking team streamlined the process, improved data collection, and reduced variability. Staff morale also improved.
- **Lesson #2 (PDSA #2):** While a spare CT nurse was to be utilized to allow for extra biopsy bookings, the department unfortunately lost a couple of nurses due to illness. This stretched the existing nursing pool, limiting the availability of the spare CT nurse for these extra biopsies.
- **Lesson #3 (PDSA #3):** The reorganization of procedural work in the department required significant effort across scheduling, resource allocation, and education. Despite cultural challenges, the process clarified key barriers and set the stage for more sustainable change.

Next Steps:

- **Next Step #1:** Continuing data collection and ensuring sustainability of changes made so far.
- **Next Step #2:** Further improvement in booking templates and patient education.
- **Next Step #3:** Introducing electronic patient reminders.

Improving Elderly Care in the Emergency Department

Physician Lead: Dr. Kalen Leech-Porter

Location: Duncan, BC

Specialty: Emergency Medicine

Background:

Delirium is a common and serious complication among hospitalized elderly patients, particularly those admitted through emergency departments (EDs). Long waits for inpatient transfer often leave patients in noisy, overstimulating environments with limited privacy, comfort, or access to meaningful engagement. These conditions, combined with unmet basic needs such as toileting, mobility, nutrition, hydration, and social interaction, significantly increase the risk of delirium.

Emergency departments are typically not designed to support prolonged stays, and many lack the staffing, space, and equipment needed to provide comprehensive care for vulnerable patients. Volunteers, who can offer companionship and engagement, are often absent in these settings.

Research has shown that hospital-acquired delirium is a strong independent risk factor for increased mortality within 12 months of hospitalization. Despite this, delirium is frequently managed with antipsychotic medications rather than preventive care. This practice not only fails to address underlying causes but also increases mortality risk in elderly populations.

Reducing delirium in the ED is a critical opportunity to improve patient outcomes, preserve dignity, and reduce the use of potentially harmful interventions. The Confusion Assessment Method (CAM), widely used screening tool, helps identify delirium by assessing features such as acute onset, inattention, disorganized thinking, and altered consciousness.

Problem:

At the ED at Cowichan District Hospital (CDH), elderly patients admitted to hospital are at elevated risk of developing delirium due to unmet basic needs during prolonged stays in the ED. The ED environment lacks sufficient staffing, space, equipment, and volunteer support to provide essential care such as toileting, mobility assistance, nutrition, hydration, and meaningful engagement.

Patient Engagement:

Patient partner highlighted role for proactive staff to ask patients about unmet needs (i.e., a checklist to routinely go through with patients if possible).

- *"As a patient you feel like you are bothering staff when you see how busy they are. It would also be great to have phones for patients."*

—JB, patient partner

Aim of Project:

Reduce Confusion Assessment Methods (CAM) Scores for admitted patients in the Cowichan District Hospital Emergency Department by 33.3 % by June 2025.

Measures:

Outcome Measure

- Percentage (%) of inpatients over the age of 65 who are positive for delirium using the CAM screening score.

Process Measure(s)

- Number (#) of times the wellness cart was used.

Balancing Measure(s)

- ED nurse satisfaction when providing care for elderly patients with cognitive impairment/dementia.
- ED nurse time spent providing non-pharmacologic care for elderly patients with cognitive impairment/dementia.

Action Taken:

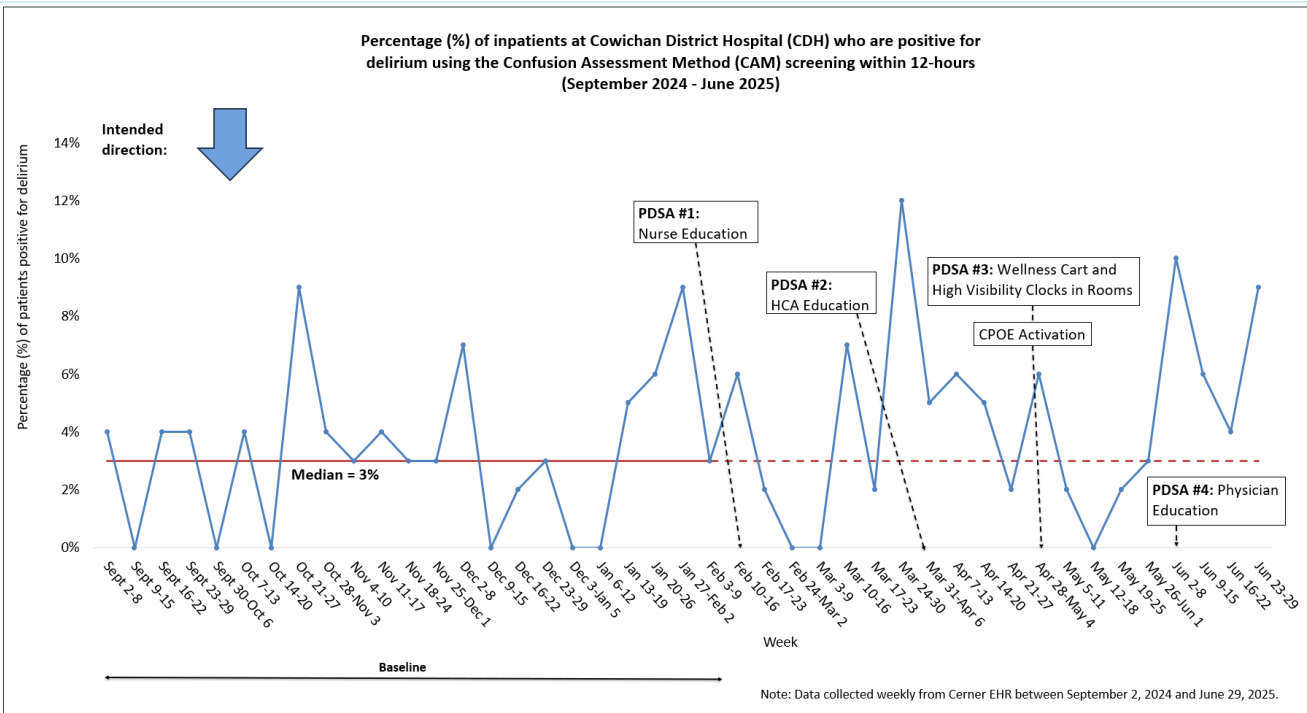
The CDH ED is a busy emergency department with about 100 daily patient encounters with a catchment area of about 90,000 people. Participants were patients admitted to the hospital over the age of 65.

- **Nurse education (PDSA #1)**
 - Poster reminders on optimising care for elderly.
- **PDSA #2: Healthcare Aide (HCA) education (PDSA #2)**
 - Offload LPNs/RNs by shifting non-pharmaceutical care to underutilized and very capable HCAs.
 - Structured list of activities/duties for HCAs to provide care for elderly patients.
- **Creation of a 'wellness cart' (PDSA #3)**
 - Stocked with ear plugs, sleep masks for sleeping, toothbrushes/toothpaste, pocket readers, crayons, sudokus, mp3 players, tablets with entertainment.
- **High Visibility Clocks with date and time introduced into rooms 3 and 5 (PDSA #3)**
- **Physician education (PDSA #4)**
 - Reminders to use delirium order sets for patients at risk.
 - Reminders to avoid invasive testing (telemetry, vitals, labs) overnight that are sleep intrusive unless necessary.

Data Analysis:

- CAM scores were measured within 12 hours of admission to hospital. Baseline positive CAM scores were low at 3% with high variability, which persisted throughout the project. There was no demonstrable reduction in rates of delirium based on the CAM scores at 12 hours after several PDSA cycles. Primary outcome was not achieved.
- CPOE (electronic ordering) was introduced during the project initiation, significantly decreasing ER team bandwidth to take on changes.
- Pre and post project nurse surveys demonstrated a notable improvement in nurse satisfaction in providing care for elderly patients and perceived patient experience in the ED following actions taken.
- Nurse comments in the surveys were consistently clear that physical space constraints and insufficient staffing remained major hurdles to providing adequate and

appropriate care. The ED remains an inappropriate place for admitted patients and elderly patients need to be prioritized for transfer to the floors which are quieter and more appropriate.



Lessons Learned:

- **Lesson Learned #1:** Nursing roles have evolved. They provide complex care for patients in the ED, monitoring patient health and providing complex medication regimes. In a time of nursing shortages, we need to adapt and make full use of all staff available. HCAs and other staff can provide an excellent complement to help assist with non-pharmaceutical interventions. Assigning patient load and check lists to HCAs can help improve quality of care for patients.
- **Lesson Learned #2:** Team member support and buy in is critical for success – CPOE introduction is not an ideal time for introducing other change to departments.
- **Lesson Learned #3:** It can sometimes be difficult to identify the right measures for all the things that matter. Not everything that is valuable to patients or staff is easily quantifiable, and sometimes the most meaningful changes require creative or indirect approaches to measurement.

Next Steps:

In an effort to continue to support elderly patients admitted to the ED and prevent the onset of delirium, the following steps are being considered:

- **Next Step #1:** Assign wellness cart 'owner' for ongoing management.
- **Next Step #2:** Add whiteboards to rooms 3 and 5 to provide key information, such as date and time, to help orient patients.

Racing to the Heart of the Matter

Physician Lead:	Dr. Jennifer Rajala
Location:	Victoria, BC
Specialty:	Cardiology

Background:

Patients with an urgent cardiac issue face significant morbidity and mortality. In Victoria BC, there are over 3000 new patients on the Cardiology waitlist. There are multiple system delays in seeing these patients, including a shortage of Cardiologists, an overall older population demographic on Vancouver Island, delays in uploading data and being able to triage the referrals, and booking delays. The problem is further complicated in that a large number of patients labelled as "urgent" by their referring physician are not a truly urgent referral. Truly urgent patients are at high risk of morbidity and mortality and put added strain on our Emergency Departments.

Problem:

Following the consolidation of Cardiologists in Victoria into Pulse Complete Cardiac Care, excluding Echocardiography, only 10% of patients triaged as having an urgent cardiac issue were seen within two weeks of referral between July 1 until December 31, 2024. During this period, many referrals were labelled as urgent despite not meeting clinical urgency criteria, which made accurate triaging more difficult and further strained system capacity.

Patient Engagement:

- "Not knowing is the worst part, not knowing if there is something really wrong or if the office even has the referral."
 - "The most important thing is for patients to have information."
- JB, Patient Partner

Aim of Project:

By July 31, 2025, we aim to have 75% of referrals who are triaged with an urgent cardiac issue seen within 2 weeks of their referral date to Pulse Complete Cardiac Care.

Measures:

Outcome Measure

- Percentage (%) of appointments seen within 2 weeks of the referral date.

Process Measure(s)

- Percentage (%) of inappropriate urgent cardiology referrals.
- Number of urgent appointments booked each week.

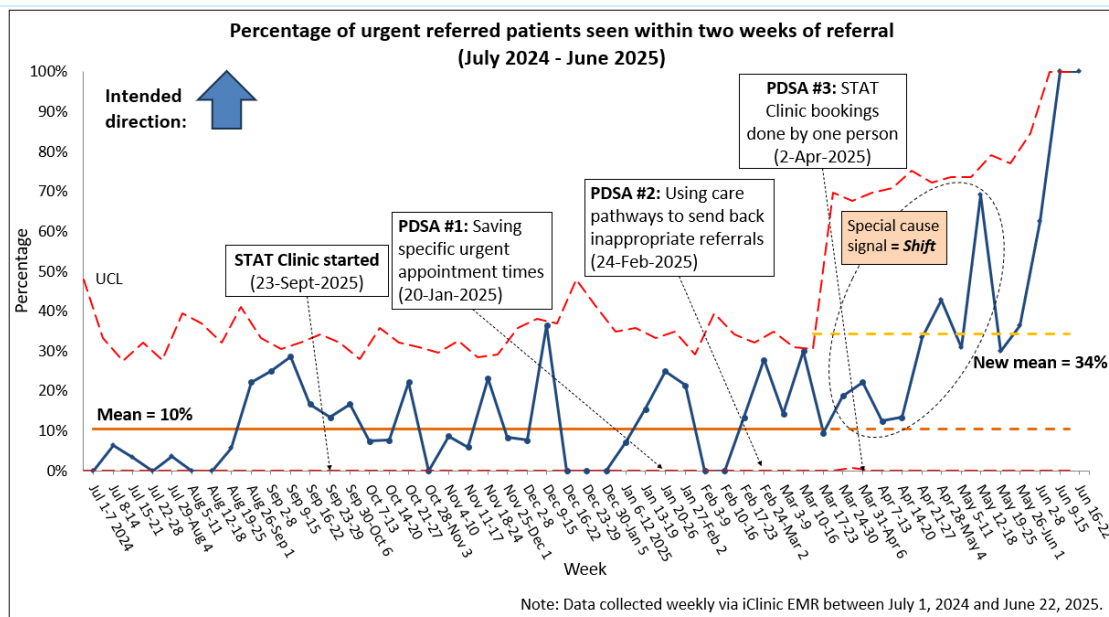
Balancing Measure(s)

- Cardiologist satisfaction.
- Percentage (%) of urgent referred patients with adverse events.

Action Taken:

- **PDSA #1** – Jan 20, 2025, physicians keeping at least 2 urgent spots for patients per week. There was highly variable booking practice, and now there is the STAT clinic that provides 12 spots for urgent patients per week that doesn't get booked until the week before the clinic.
- **PDSA #2** – Feb 24, 2025, Care pathways being used to send back inappropriate referrals from Pulse, uploaded to Pathways website in April 2025.
- **PDSA #3** – April 3, 2025, change in booking model for the STAT clinic, now all urgent patients on the FFAST-GC (First Available Appropriate Specialist Triage – General Cardiology) are booked by one booking person.

Data Analysis:



Lessons Learned:

- **Lesson #1** – Delays were not just due to the number of available appointments. There was no difference in booking time when the STAT clinic was started, nor by trying to keep at least 2 urgent spots available for each physician.
- **Lesson #2** – Each physician has a widely varying booking practice and there is not a specific booking template, which made standardizing when and how urgent patients were booked into clinic difficult.
- **Lesson #3** – Our largest improvement in wait times was when a single booking person took over booking urgent patients into the STAT clinic.

Next Steps:

- **Next Step #1** – We are advertising to get a second triaging MOA.
- **Next Step #2** – We are using a computer program to help sort the incoming faxes and determine which are referrals and which are labelled as "urgent" referrals.

The Heart-Mind Connection: Highlighting Mental Health After Cardiac Surgery

Physician Lead: Mikaela Robertson, NP

Location: Victoria, BC

Specialty: Cardiology Medicine

Background:

Depression and anxiety can significantly affect the recovery after coronary artery bypass graft (CABG) surgery (Tully and Baker, 2012), contributing to a higher risk of cardiovascular complications, elevated heart rate and poor blood pressure control – both of which increase cardiac workload, as well as poor adherence to medical therapy, reduced motivation to participate in rehabilitation, and a diminished quality of life. Depression post-CABG is also associated with a two-to-four-fold increased risk in mortality, independently impacting recovery and survival post operatively. Therefore, early screening and intervention are vital for supporting an optimal recovery.

- Tully PJ, Baker RA. Depression, anxiety, and cardiac morbidity outcomes after coronary artery bypass surgery: a contemporary and practical review. *J Geriatr Cardiol.* 2012 Jun;9(2):197-208. doi: 10.3724/SP.J.1263.2011.12221. PMID: 22916068; PMCID: PMC3418911.

Problem:

There is no formal system in place to screen post-CABG patients for anxiety or depression during follow-up visits at the Post-Cardiac Surgery Nurse Practitioner (NP) Clinic at the Royal Jubilee Hospital (RJH). As a result, patients - many of whom lack primary care follow-up - may have undetected psychological health concerns, missing opportunities for early intervention that could support both their mental and physical recovery. In 2023, 350 CABG surgeries were performed. This is a significant number of patients who may not have received timely mental health support after discharge.

Patient Engagement:

Throughout the duration of the project, two patient partners were involved in multiple stages of decision making. They came to every project meeting and discussion. The team collaborated via email, virtually, and during in-person team sessions. Together, we co-designed the project materials (e.g., patient education materials, unit informational poster), made decisions on what changes to test to improve screening, and the most efficient timing of the changes.

The patient partners shared their experience of being a project team member:

- "The professionals in our group were so accepting that we always felt we could contribute anything, anytime, and thereby be an integral part of the process..."
- "The commitment to the PQI project by the [entire team], was paramount in addressing the mental health needs of cardiac patients after surgery."

Aim of Project:

By June 30, 2025, 90% of patients who have had Coronary Artery Bypass Graft (CABG) surgery on 3NW at Royal Jubilee Hospital (RJH) and are discharged through the Post-Cardiac Surgery NP Clinic (in-person or virtually) will be screened for anxiety and depression using validated screening tools within 30 days of discharge.

Measures:

Outcome Measure

- Percentage of patients screened with validated mental health assessments.

Process Measure(s)

- Percentage of patients who decline screening.

Balancing Measure(s)

- Number of referrals to psychiatry.
- Number of referrals to Cognito.

Action Taken:

PDSA #1 – Updated communication to all discharged patients

- Invitation letters (printed patient handouts) were handed out at the time of discharge as well as verbal reminders by NP and nursing staff that the screening process would be offered during post-operative check-in appointments.

PDSA #2 – Hard-copy self-assessment screening tools at discharge

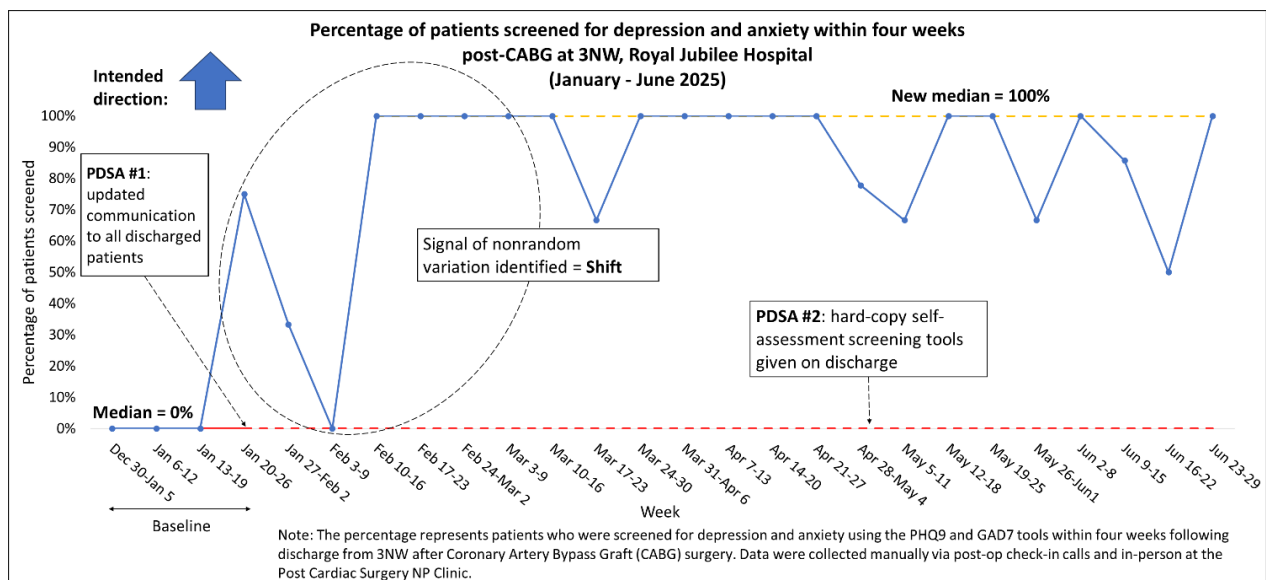
- Patients were provided with printed handouts of the Patient Health Questionnaire-9 (PHQ9) and the Generalized Anxiety Disorder-7 (GAD7) questionnaire with instructions to pre-complete prior to their post-operative check-in appointment. At the same time, a poster was posted in the unit (3NW) that highlighted the mental health supports and the PHQ9 and GAD7 screening tools.

Data Analysis:

Note: Patients excluded from the project include those transferred to another facility or unit prior to discharge, those already followed by the inpatient psychiatry team and those who developed major post-operative delirium.

By mid-March 2025 we saw a shift that indicated we were starting to meet our aim of screening 90% of patients (see Figure 1). The only patients not screened were those excluded from the project or those who declined the screening process.

The second PDSA cycle was not successful, very few patients (<5) completed the mental health screening tools prior to their post-operative check-in appointments.



As a result of screening patients, patients were offered clinical interventions:

- 10% of those screened had moderate or higher depression/anxiety scores and were followed by the clinic (PHQ9 score 10 or higher).
- Two patients with no primary care provider and severe scores were urgently referred to psychiatry and started on bridging medical therapy.
- Patients screened for mild to moderate depression or anxiety were offered referrals to Cognito (no does not require patients have a primary care provider).

Lessons Learned:

- Adding screening for depression and anxiety to our standard post-operative care was valuable - we identified patients who were suffering from mental health issues which we may have missed without the screening tools.
- Adding PHQ9/GAD7 to our standard post-op check-in calls was subjectively very time consuming, in retrospect capturing data on length of time spent making phone calls would have been a valuable balancing measure.
- It can be challenging to distinguish between expected post-operative recovery symptoms – such as poor appetite, insomnia, or low energy - and true depression, suggesting the need to consider a screening tool tailored to our patient population.
- A chart audit to verify patient receipt of the invitation letters, combined with the addition of screening questionnaires from our second PDSA cycle, could strengthen both the success and sustainability of the project.

Next Steps:

- Expand mental health screening to all post-cardiac surgery patients discharged from 3NW.
- Formalize referral process for all patients who screen positive.

Increasing Access to Mental Health Support for Patients in British Columbia

Physician Lead:	Dr. Trish Snozyk
Location:	Victoria, BC
Specialty:	Family Practice

Background:

Mental health is a major public health concern, with nearly half of individuals expected to experience a mental health disorder in their lifetime (Lancet Psychiatry, 2023). In British Columbia, about 1 in 5 patients seen by primary care physicians receive care for mental health issues, according to administrative billing data. While access to mental health care can significantly reduce the risk of serious sequelae, in Canada, access to care is limited and cost is a critical issue. Two in three Canadians aren't getting the mental health support they need (Statistics Canada, 2023); one in four who desired therapy can't afford it (Ipsos, 2021).

In British Columbia, Mind Space (MS) is a non-profit organization offering publicly funded mental health programs using group medical visits which improve access, promote shared expertise among providers, and support patient self-management. Since its inception in 2015, over 9000 patients have received services with a mean trend toward symptom improvement for mild to moderate anxiety and depression. Referrals to Mind Space's flagship Cognitive Behavioural Therapy (CBT) Skills Foundations program has seen a 40% increase over the last year (average 750/month in Q1, 2024 to 1050/month in Q1, 2025).

- McGrath JJ, Al-Hamzawi A, Alonso J, Altwaijri Y, Andrade LH, Bromet EJ, Bruffert R, Almeida JM, Chardoul S, Chiu WT, Degenhardt L, Demlar OV, Ferry F, Gureje O, Haro JM, Karam EG, Karam G, Khaled SM, Kovess-Masfety V, Magno M, Medina-Moro E, Moskalewicz J, Navarro-Mateu F, Nishi D, Plana-Ripoll O, Posada-Villa J, Rapsey C, Sampson NA, Stagnaro JC, Stein DJ, Have Mt, Torrese Y, Vladescu C, Woodruff PW, Zarkov Z, Kessler RC. Age of onset and cumulative risk of mental disorders: a cross-national analysis of population surveys from 29 countries. *Lancet*. 2023 Sept; 10(9): P668-681. doi: 10.1016/S2215-0366(23)00193-1
- <https://www150.statcan.gc.ca/n1/pub/12-581-x/2023001/sec8-eng.htm>
- https://www.ipsos.com/sites/default/files/ct/news/documents/2021-03/sun_life_factum_march_3_2021.pdf

Problem:

Despite evidence that timely access to group-based mental health education improves outcomes, In BC, 30% of patients referred to the CBT Skills Foundations course never register. Patients who register within 30 days are significantly more likely to complete the 8-week program, whereas late registrants (over 90 days post-referral) often attend partially or not at all.

Patient Engagement:

Engaging patient partners offered valuable, fresh perspectives that highlighted key opportunities to improve communication and support timely patient registration. Feedback revealed that long emails with multiple links were difficult to access—especially when they landed in junk mail folders—resulting in missed registration opportunities. The registration

process itself was described as overly complex, with confusing abbreviations and too many options, pointing to a need for a simpler, more streamlined approach.

One patient partner (CH) shared her experience: several weeks after being referred for mental health concerns, she expressed disappointment at not yet accessing MS services. Together, we checked her inbox—no messages from MS were visible—until we looked in her junk folder and found the welcome email sent the week her referral was accepted. By then, she no longer felt urgency to engage with MS, saying she would “look into it later.”

These insights underscored the importance of delivering timely, concise and clear registration instructions and ensuring that critical emails are promptly visible to patients.

Aim of Project:

By July 31, 2025, we will increase the percentage of patients who register for CBT Skills Foundations within 30 days of referral by 10%.

Measures:

Outcome Measure

- % of referred patients who register within 30 days of an accepted referral.

Process Measure(s)

- % of referred patients who open emails from MS
- % of registered patients who registered within 30 days

Balancing Measure(s)

- Self-reported change in workload from MS administration support team
- Class fill rates/availability

Action Taken:

Based on conversations with the MS team, the project team tested three changes ideas to increase the number of referred patients who register within 30 days. These ideas focused on improving communication between MS, the referrer and the patient being referred:

- **PDSA #1, Cycle #1** (February 2025): Education for referring providers: Faxed content
 - *Hypothesis:* Does informing each individual referring provider on how to educate their patient about the CBT Skills Foundations referral process increase the number of patients signing up for a class within 30 days of their referral?
 - *Action:* We distributed a broadcast fax to all referring physicians outlining how MS would be contacting their patients (primarily via email) about registering for CBT Skills Foundations. The fax emphasized the importance of advising patients to check their email—including junk or spam folders—for registration instructions from MS.
-
- **PDSA #1, Cycle #2** (March 2025): Education for referring providers: Newsletters
 - *Hypothesis:* Does using a different communication method (Divisions Newsletter) to inform referring providers how to educate their patient about how they will be able to register for CBT Skills Foundations increase the number of patients signing up for a class within 30 days of their referral?

- *Action:* We enlisted Family Practice Divisions to include information in their newsletters which are seen by the MS Programs' referring physicians across the province. We offered clear information about our communication process, including that registration instructions would be sent via email. We specifically encouraged referring physicians to advise patients to check their junk or spam folders for emails from MS, to see registration instructions.
- **PDSA #2, Cycle #1** (May 2025): Improved MS Email Delivery: Welcome Email
 - *Hypothesis:* Does ensuring the emails we send get opened by potential participants increase patient registration? Will a plain text "Welcome Email" that is opened increase the number of email servers that recognize MS as a trusted email sender?
 - *Action:* At the time, approximately 70% of patients were not opening or seeing their MS welcome email, likely because many email providers were flagging it as junk or spam. To address this, we implemented a change in May 2025: sending a simplified plain text "Welcome Email" that contained no links or attachments. This email informed patients that their referral had been accepted and that a follow-up message with registration instructions would soon follow.
- **PDSA #2, Cycle #2** (July 2025): Improved MS Email Delivery: Email reminder at 7 days
 - *Hypothesis:* Will a 7-day follow-up email reminder improve the registration rate?
 - *Action:* We set-up a personalized, automated reminder to be sent out 7 days after the first email offering registration (2 days after the initial Welcome Email). This email was sent to all new referred patients.

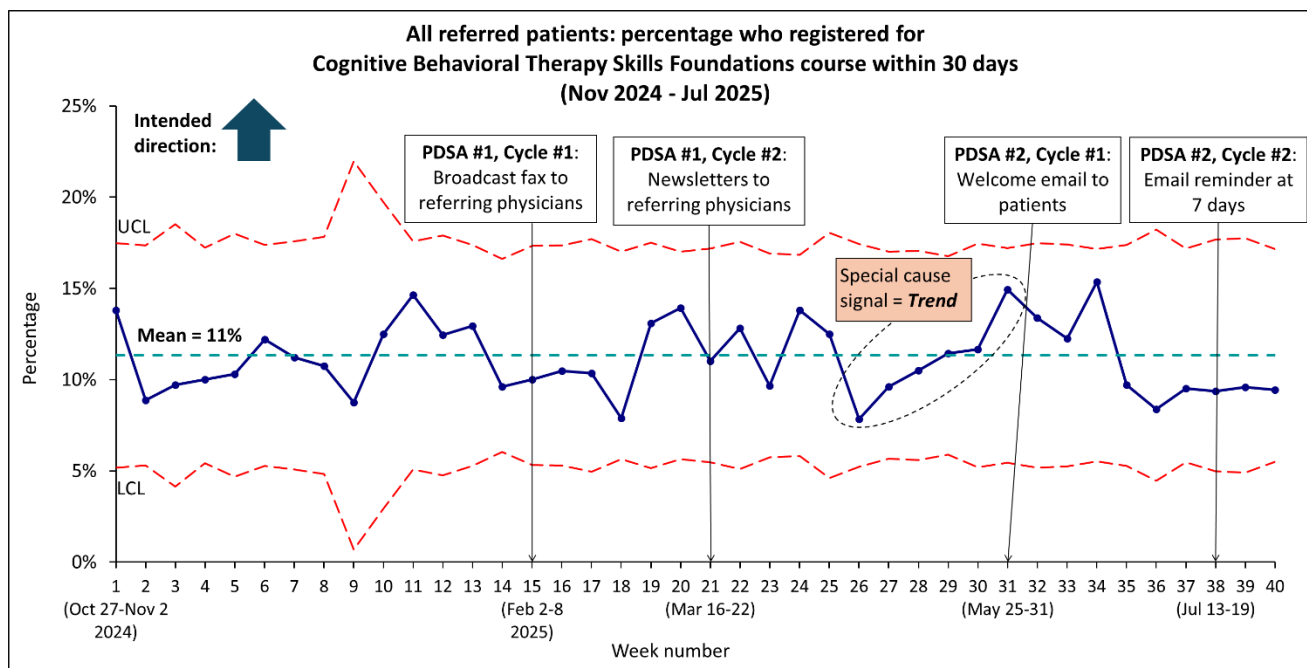
Data Analysis:

Between February and August 2025, registration data was collected by MS for every patient referred to CBT Skills Foundations. Data was provided up until August 31, 2025 and analysis includes patients who were referred by July 31, 2025 (i.e., allowing 30 days for individuals to register). This data is grouped and presented by the week of referral.

The open rate for emails sent to newly referred patients was 33% (in April 2025 with 22% of those opening the email clicking on a link), and is now 73% (with 32% of people clicking on a link in July 2025).

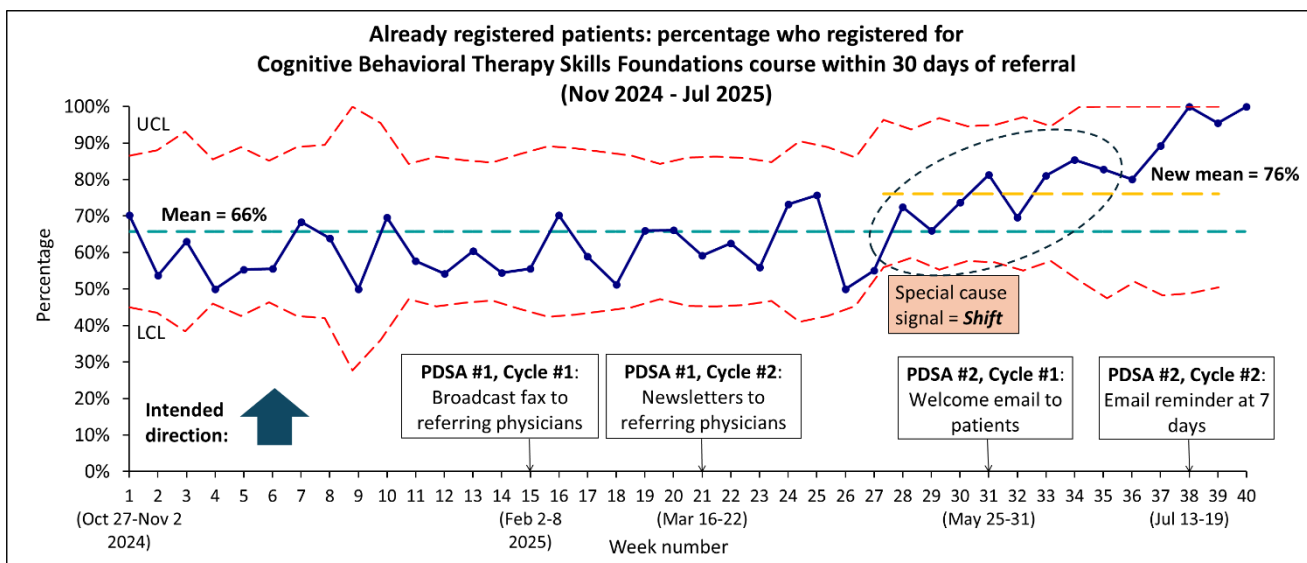
The first change idea, educating referring physicians, resulted in an upward trend in registration within 30 days of referral. This trend was present from week 26 to 31 (late April to late May, 2025). Following the testing of the second change idea (improving email delivery) in week 31, registration rate remained above average for three more weeks before falling starting from week 35 (the end of June and into July). See Figure 1.

Figure 1:



Prior to this project, only 66% of the patients who registered for CBT Skills Foundations did so within 30 days of being referred. As of July 31, 2025 that number has increased to 76% (i.e., more people who register are registering within 30 days). See Figure 2.

Figure 2:



Lessons Learned:

- **Lesson #1** – Improving the process for registering may not be the most significant driver for why newly referred patients are not registering within 30 days. More investigation from the patient perspective is needed here.

- **Lesson #2** – Collaborating with the whole team (including sponsors, admin staff and colleagues) in creating the project scope and focus was invaluable and encouraged participation and investment in the project.
- **Lesson #3** – Co-investigating the MS email delivery processes with administration staff and a patient (sender and receiver of information) was the key to finding out where potentially significant gaps could be improved - and the workload and experience on both sides also improved!
- **Lesson #4** - Improving seemingly small details can decrease administrative workload through having fewer “back and forth” email communications with referred patients.
- **Lesson #5** – There is a predictable and seasonal pattern to registration behaviour in MS programs.

Next Steps:

- Continue to pull referral and registration data up until October 31, 2025 and transition data visualization and analysis to the Operational Sponsors at MS.
- Investigate potential areas for improving registration rates with newly referred patients who never register for MS programs.

Saving Seconds, Saving Lives: Using a Quality Improvement Framework to Engage Cardiac Arrest Preparedness in a Middle School Setting

Physician Lead: Dr. Michelle Tousignant

Location: Victoria, BC

Specialty: Emergency Medicine

Background:

Sudden cardiac arrest (SCA) in youth is rare but devastating, with survival after out-of-hospital pediatric events ranging from only 6–9%, depending on region and age. Delays in recognizing SCA, activating emergency medical services (EMS), and initiating cardiopulmonary resuscitation (CPR) are common, and these factors contribute to SCA being the leading cause of death in young athletes. Early intervention makes a major difference: survival can increase by up to 74% with rapid defibrillation, while every minute without CPR or AED use decreases survival by about 10%.

Worldwide, as many as 1 in 250–300 youth carry an inherited cardiac condition that can predispose them to sudden death, yet most are unaware of their risk until a family member is diagnosed or, tragically, a life-threatening event occurs.

In response, many regions, including British Columbia, have introduced legislation to include CPR and automated external defibrillator (AED) training in high schools. While promising, outcomes have been inconsistent. The barrier is not students' ability to learn, but teacher confidence—many report feeling unqualified and unsupported. Addressing this gap is essential to ensure students are ready to act when seconds matter.

Importantly, middle school students are not included in BC's mandated CPR and AED training, and access is often limited to families who can afford external programs. Introducing this training earlier can close equity gaps, equip students with skills, build confidence, and foster a culture of preparedness—ultimately improving survival outcomes when seconds matter.

Problem:

At Royal Oak Middle School, emergency preparedness for sudden cardiac arrest (SCA) was limited. Before fall 2024, AEDs were not available on site, and simulated classroom SCA scenarios revealed initial response times exceeding 10 minutes—corresponding to survival rates under 10%. Many students also reported feeling unsure how to act.

Patient Engagement:

Patient and family partners were at the heart of this project. Their lived experiences with SCA informed decisions, including equipment choices and emergency action planning. One parent, whose child tragically died from SCA, generously contributed training equipment and shared expertise on creating Heart Safe Schools. Another, whose child survived SCA thanks to prompt bystander action, provided critical insights on real-world response.

Youth contributors helped test and refine training activities, while teachers, students, and volunteers co-designed early interventions. Their input ensured the project was grounded in lived experience, enhancing both safety and confidence for students, staff, and families.

Ultimately, the goal is not only to empower students and teachers to be lifesavers, but to ensure all children and families—especially those facing a scary medical diagnosis—feel confident that school is a safe place.

Aim of Project:

By April 20 2025, time to effective simulated defibrillation will be decreased to 5 minutes or less in a simulated school cardiac arrest with a grade 6/7 class responding at Royal Oak Middle School.

Measures:

Outcome Measure

- Time to first shock: The number of minutes it takes a group of Grade 6/7 students to recognize cardiac arrest, call 911 (Call), start CPR (Push), retrieve and correctly apply AED pads, and deliver a shock when prompted (Shock).

Process Measure(s)

- Number of appropriate resuscitation steps completed.
- Time to 911 call: Time in minutes from recognition of cardiac arrest to placing 911 call.
- Time to initiation of CPR: Time in minutes from recognition of cardiac arrest to initiating CPR.

Balancing Measure(s)

- Disruption to classroom time.
- Teacher workload.

Action Taken:

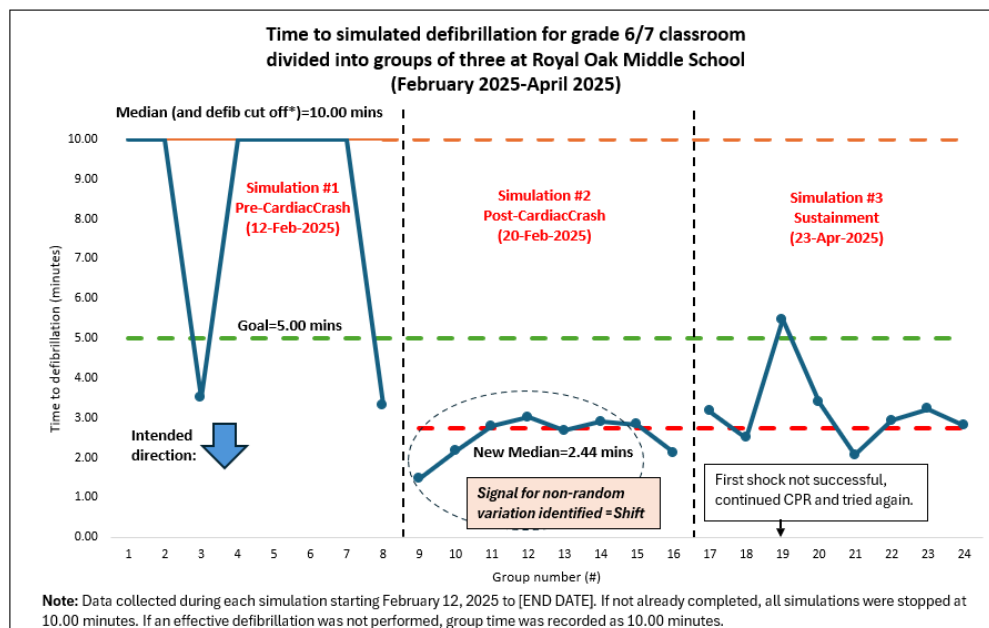
Setting & Participants: Grade 6/7 classroom at Royal Oak Middle School; teacher champion and school leadership engaged; students divided into 8 small groups for simulations.

- Baseline time to defibrillation was assessed using simulation with classroom (February 12, 2025).
- PDSA #1 involved introducing classroom to *CardiacCrash* program –a 50 minute-interactive CPR/AED session using gamified video, mannequins, and AED trainers (February 12, 2025).
- Impact of PDSA #1 measured by conducting a second simulation with classroom (February 20, 2025)

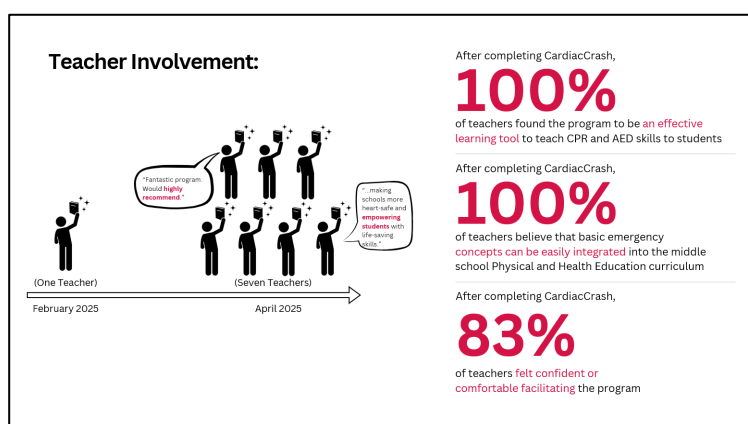
- Retention of benefits from PDSA #1 examined two months post training (April 23, 2025).

Results of the three simulations were shared with teachers and staff, resulting in an introduction to *CardiacCrash* and AED/CPR refresher session. Other classrooms also signed up for *CardiacCrash*, with 300 middle school students trained.

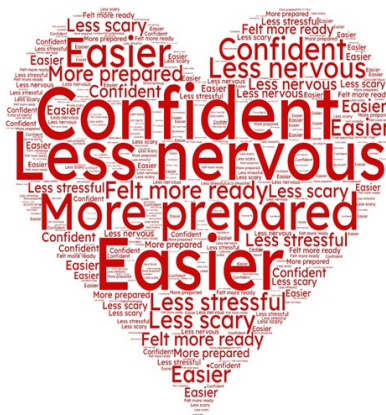
Data Analysis:



Following *CardiacCrash*, 75% of student groups were effectively completing all appropriate resuscitation steps (911 called, CPR initiated and defibrillation). A majority of the groups also initiated CPR within 30 seconds of simulation start and called 911 within 1-minute.



Student responses to survey question: "How did the [simulation] feel [post CardiacCrash]? Did you feel more prepared or less nervous?" (n=21)
(February 2025)



Lessons Learned:

1. **Simulation as a Catalyst:** CardiacCrash's success was closely tied to simulations which boosted student confidence and engagement.
2. **Team-Based Learning Builds Confidence:** Shifting the focus from individual CPR scores to team performance fostered peer coaching and collaboration. This approach normalized giving and receiving feedback—an essential skill in high-stress emergencies.
3. **CPR is Teachable Without Clinicians:** After two sessions, trained lay educators—teachers or first-year medical students—felt ready to lead without clinicians. Students were eager to share CardiacCrash with peers.
4. **Empowerment Over Perfection:** Students don't need perfect technique—just courage to act. Calling 911, starting CPR, and using AED can save lives.
5. **Curriculum Alone Isn't Enough:** Some educators may still feel uncomfortable delivering CPR/AED training; alternative delivery models are needed.
6. **Local Context Shaped Delivery:** Strong relationships with staff and patient partners helped tailor delivery and foster buy-in.
7. **Gamification Boosted Engagement:** Team-based competition kept students focused and motivated during the 50-minute session.
8. **Peer Observation Strengthens Spread:** Observing sessions firsthand was consistently the most helpful part of facilitator training, highlighting the value of mentorship.

Next Steps:

1. **Build for Sustainability:** Create a change package to support long-term implementation at Royal Oak Middle school and beyond.
2. **Support & Train:** Offer CPR/AED refreshers and guidance for CardiacCrash facilitation.
3. **Mentor & Scale:** Empower a few teachers at each school to mentor student facilitators using a train-the-trainer model.

From “NPO at midnight” to “Sip-Til-Send”: Improving Preoperative Nutrition in Trauma Patients

Physician Lead:	Dr. Jake Wilkins
Location:	Victoria, BC
Specialty:	Emergency Medicine

Background:

Many trauma inpatients are subjected to prolonged and unnecessary pre-operative fasting while awaiting surgery. Over recent years, wait times for procedures scheduled on the “add board” or “slates” have steadily increased, particularly during busy trauma seasons. This complex and multifactorial issue often results in patients waiting several days on the ward and frequently being “bumped” from the operating schedule. The longstanding practice of designating patients as “NPO at midnight” in anticipation of possible surgery the following day has become increasingly problematic, often leading to repeated and extended fasting periods. This outdated approach is causing avoidable harm and suffering for patients. Multi-injured trauma patients are particularly vulnerable due to their catabolic state, immobility, and high risk for malnutrition and deconditioning. These factors are associated with increased rates of delirium, surgical complications, prolonged hospital stays, and even mortality.

Modern anesthesiology guidelines recommend fasting from solid food for only six hours and encourage clear fluid intake up to two hours before surgery. International examples, such as the UK’s successful implementation of the Sip-Til-Send protocol, demonstrate that more flexible fasting practices can help mitigate scheduling challenges. Addressing pre-operative fasting practices is a critical step toward improving patient outcomes and aligning care with current evidence-based standards.

Problem:

At the Victoria General Hospital, trauma inpatients who have planned surgery in hospital beyond the first 12 hours of their hospital stay are often exposed to prolonged and unnecessary periods of pre-operative fasting. Patients find this uncomfortable and distressing, and this is likely harmful to their overall recovery and well-being.

Patient Engagement:

- Our patient partner had lived experience on our trauma ward. He was subject to a prolonged pre-operative fasting over the course of many days. He lost over 10 lbs in 2 weeks and told me that he still hasn’t put it back on since his trauma.
- In addition to informing what that experience was like, he had recommendations about change ideas such as focusing on improving communication with the OR and having food available for folks who are cancelled after dinner is served.

Aim of Project:

By June 2025, reduce total number of "NPO days" by 50% for trauma inpatients admitted to Trauma Services at Victoria General Hospital who have planned surgery in hospital beyond the first 12 hours of their hospital stay.

Measures:

Outcome Measure

- NPO time per surgery (cumulative hrs).
- NPO days per surgery (each day that a patient was NPO at some point in the day).

Process Measure(s)

- Percentage of patients put on Sip-til-Send order based on CPOE orders.

Balancing Measure(s)

- Case delays or cancellation.
- Aspiration events during surgery or airway management.

Action Taken:

PDSA #1: Introduction of Sip-Til-Send protocol

In collaboration with Dr. Jo Bleackley, QI Anesthesiology lead in Victoria, we gained approval for "Sip-til-Send" protocol after presenting to Anesthesia Quality Council, Surgical CARE network, and SISPAC (surgical services).

The Sip-til-Send protocol replaced the more conservative pre-operative fasting protocol "NPO at midnight" and was implemented on the trauma ward starting March 1, 2025.

- This work is ongoing – the protocol is was adapted to include VIHA IHealth to allow for "sip-til-send" order on trauma admission order sets and ongoing data collection. This was implemented Sep 10, 2025.

PDSA #2: Nursing education

Multiple small group sessions as well as poster education around the ward to inform of practice changes, encourage communication with OR and food services.

- This was adopted and refined.

PDSA #3: Patient education

Introduced patient information sheets with pre-operative diary. This was to serve as a reminder of the protocol to care team but also to engage and empower patients.

- Adapted as very poor compliance.

PDSA #4: OR Communication

Through collaboration with Jolene Milkowsky, trauma CNL, and Dawn Maroney, OR Manager, we tested improvements in communication with the OR to reduce unnecessary fasting if the schedule changes.

- Jolene was given access to the OR tracker app with information on how to interpret coding.
- Adopted.

Data Analysis:

Data was collected after CPOE implementation with clearly documented OR times and NPO orders. The majority of NPO orders are put in by Nurses at a time when "NPO at midnight" practice was ubiquitous. We calculated the number of hours fasted based on the very conservative assumption of NPO at midnight (24:00). We also calculated the number of

days that a patient had an NPO order per surgery. We intend on following these measures until "Sip-til-Send" is fully adopted.

Figure 1:

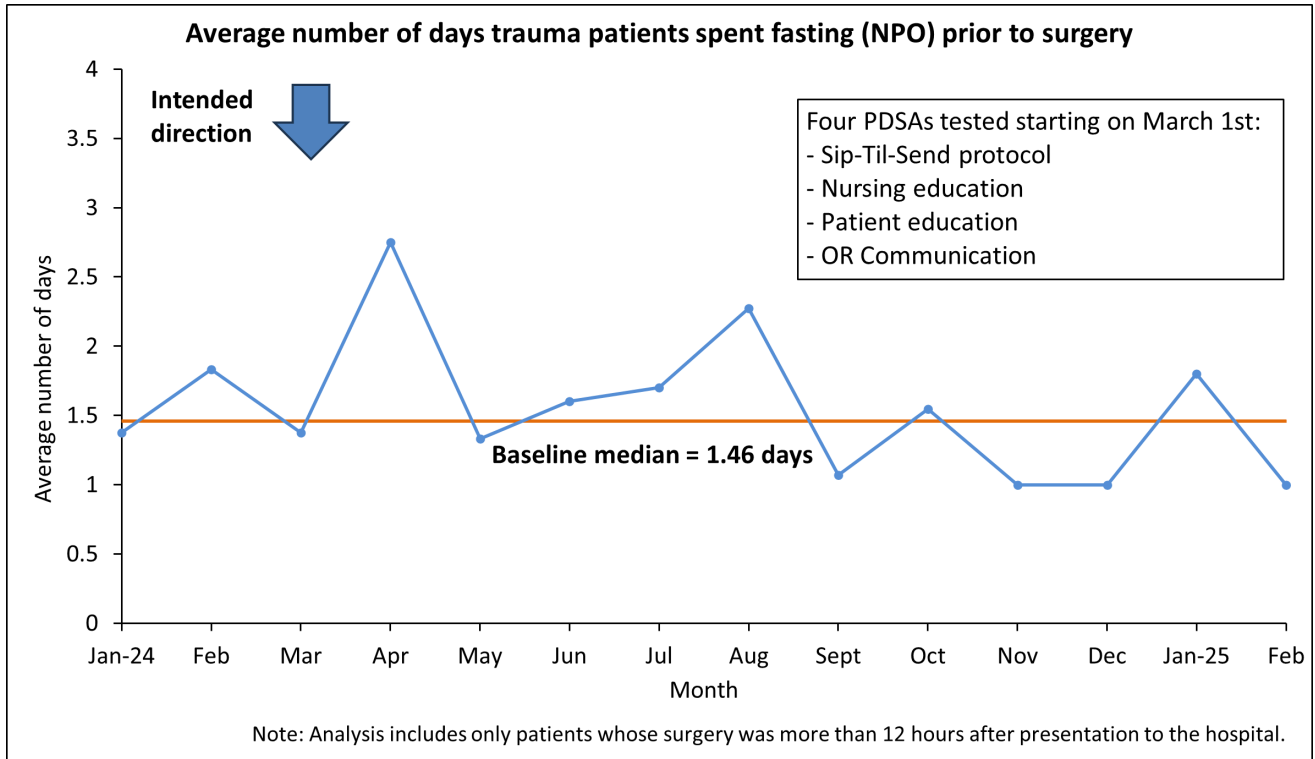
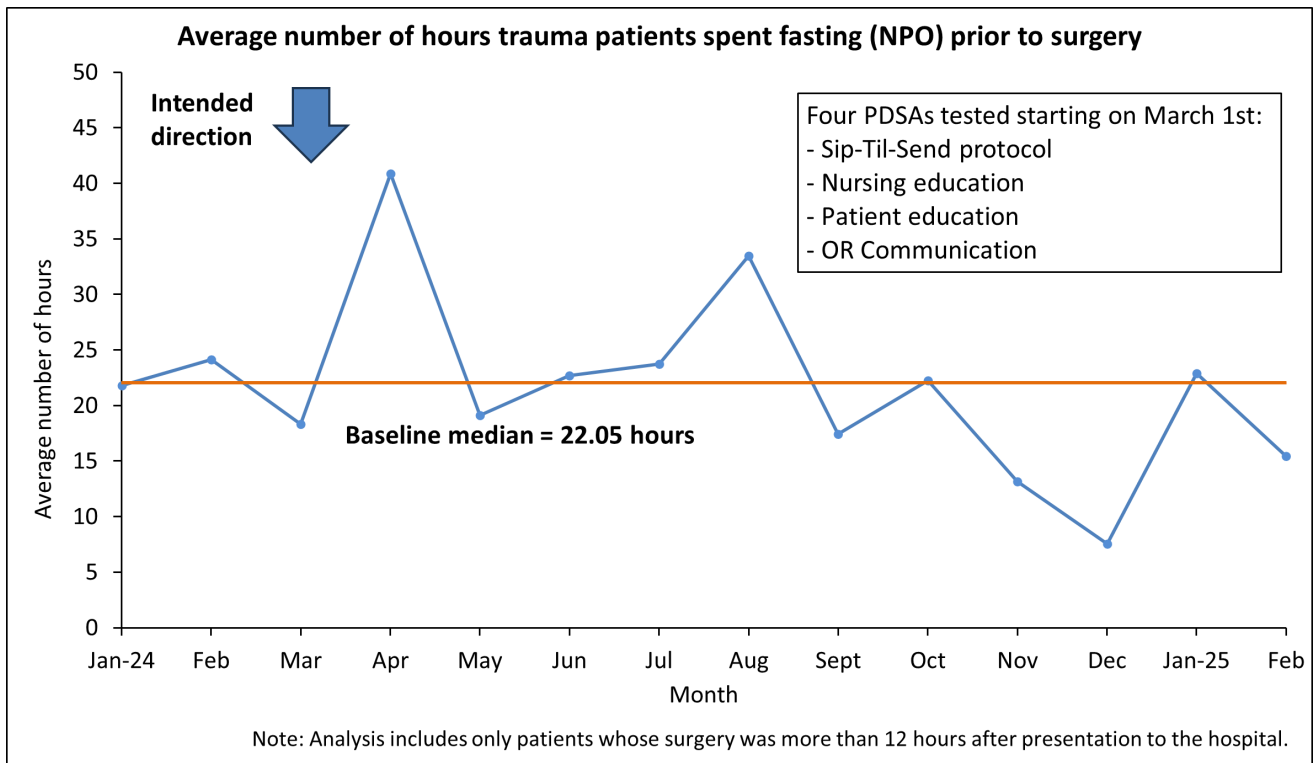


Figure 2:



Lessons Learned:

- **Lesson #1:** Sustained Engagement Is Essential - Implementation of major changes, such as Sip-Til-Send, requires ongoing oversight and team involvement. Limited uptake following launch highlighted the need for regular check-ins and PDSA cycles, which were impacted by a temporary absence from the project.
- **Lesson #2:** Anticipate Data Collection Challenges - Data collection can be a significant barrier. Early planning and support from the PQI team, along with contributions from a dedicated medical student, were critical to overcoming this hurdle.
- **Lesson #3:** Project Champions Drive Change - Engaging key sponsors and project champions is vital. Approval for Sip-Til-Send was made possible through collaboration with Dr. Jo Bleakley, whose leadership within Anesthesiology helped challenge long-standing practices.
- **Lesson #4:** Change Takes Time - This project extends beyond the typical PQI timeline. Despite early setbacks, the work remains valuable and will continue to evolve over time.

Next Steps:

- Approval was recently obtained from the Surgical CARE network and with support of VIHA IHealth team we implemented CPOE order "Sip-til-Send" specifically for trauma patients. Go-live was September 10, 2025. Data collection will be ongoing with IHealth support.
- After a trial period this order will be made available to other wards and surgical services. This will require significant physician and nurse education prior to spread.

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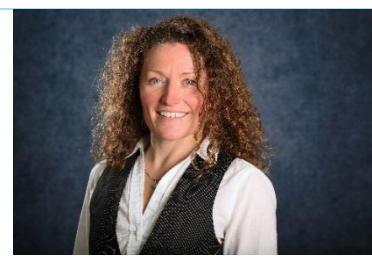
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Congratulations Cohort 9!

