PHYSICIAN QUALITY IMPROVEMENT COHORT 4

PROJECT SUMMARIES

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 options 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 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, a Manager and five support staff.

Cohort 4 began the program in September 2019. As world events due to the COVID-19 pandemic unfolded, the participants and staff adapted. Some projects were temporarily paused, others changed completely. In March 2021, 13 medical staff graduated from Island Health PQI Cohort 4. This is a summary of their achievements.

Project Summary

Name & Specialty	Location	Project Aim
Dr. Mina Aziz Internal Medicine	Nanaimo	Decrease the wait time to RJH Catheter Lab for NRGH NSTEMI inpatients by 25% by September 2020.
Dr. Rachelle Bouffard Pediatric Psychiatry	Victoria	To improve discharge planning for youth (16 and under) presenting with suicide and self-harm and seen by the Mental Health Crisis team at Victoria General Hospital by 60% by March 2021.
Dr. Alan Buckley Gastroenterology	Victoria	90% adoption of a REDCap database for scheduling emergent, semi-urgent and urgent ERCPs at Victoria General Hospital by December 2020.
Dr. Joanna Cheek Psychiatry	Victoria	To increase the number of participant slots available for reflective parenting groups by 50% within 6 months.
Dr. Dieter De Bruin General Practice	Campbell River	Reduce response time from CHS on initial receipt of faxed referrals to less than 48 hours by September 2020.
Dr. Albert Houlgrave Emergency Medicine	Comox	To improve cardiac arrest management on general medical/surgical wards at Comox Valley Hospital to current, standardized guidelines and targets by 100% by December 31st, 2020.
Dr. Erika Kellerhals Addictions Medicine	Campbell River	A 20% reduction in CRH ED encounters by cohort of patients accessing the services of the Physician Outreach Team by Dec 31st 2020.
Dr. Nadia Mousa Internal Medicine	Nanaimo	Improve process so that 100 % of appointment times are used to assess appropriate patients at the RCA Clinic within 6 months.
Dr. Anne Nguyen Addictions Medicine	Victoria	By May 31, 2020, 40% of patients with Alcohol Use Disorder who are admitted to the Royal Jubilee Hospital Rapid Access and Discharge Unit and eligible for the anti-craving medication Naltrexone will be offered a prescription for Naltrexone.
Dr. Alicia Power General Practice	Victoria	Improve perinatal screening for depression and anxiety in women in their first trimester at Grow Health clinic by 95% in 6 months.
Dr. Janelle Schneider Emergency Medicine	Port Alberni	By March 2021, improve comfort and preparedness with participating in intubation and cardiac arrest of COVID-suspect patients for WCGH nurses and physicians by 80%.
Wakako Tokoro – NP Cardiac Surgery	Victoria	To implement a support call to a post-operative cardiac patient within a week of discharge, with a goal of reaching 80% by December 2020.
Dr. Marie-Noelle Trottier-Boucher Pediatrics	Victoria	Decrease 20% length of stay in VGH NICU for babies exposed to opiates in utero between September 2019 and June 2020.

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Optimizing Time to Revascularization for Nanaimo Regional General Non-ST-Elevation Myocardial Infarction Inpatients

Physician Lead: Dr Mina Aziz

Location: Nanaimo Regional General
Specialty: Internal Medicine

Background:

- According to the American College of Cardiology/American Heart Association (ACC/AHA) guidelines, patients admitted with Non-ST-elevation myocardial infarction (NSTEMI) should ideally have assessment with angiography and revascularization within 48-72 hours.
- Currently, these procedures are done at the Royal Jubilee Hospital (RJH) Cardiac Catheterization Laboratory which is located in Victoria and is responsible for servicing the needs of all of Vancouver Island. This means inpatients must be transported to RJH from NRGH so there may be many factors impacting the time taken for these assessments.

Problem:

It is believed that NSTEMI patients admitted to Nanaimo Regional General Hospital (NRGH) are waiting much longer than ACC/AHA guideline recommendations of 48-72 hours to receive angiography. This can lead to suboptimal health outcomes for these patients.

Aim of Project:

Decrease the wait time to RJH Catheterization Lab for NRGH NSTEMI inpatients by 25% by September 2020.

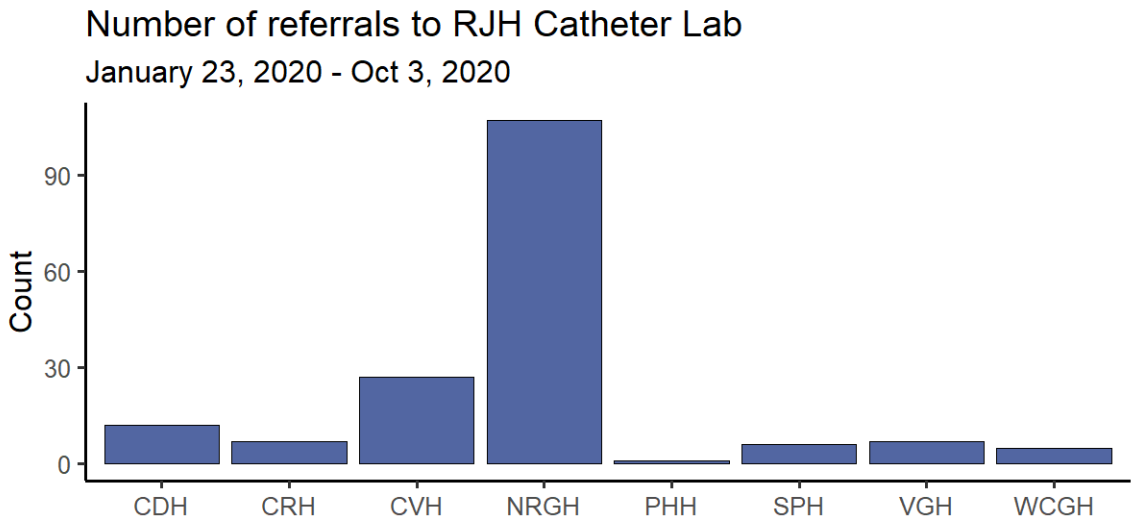
Action Taken:

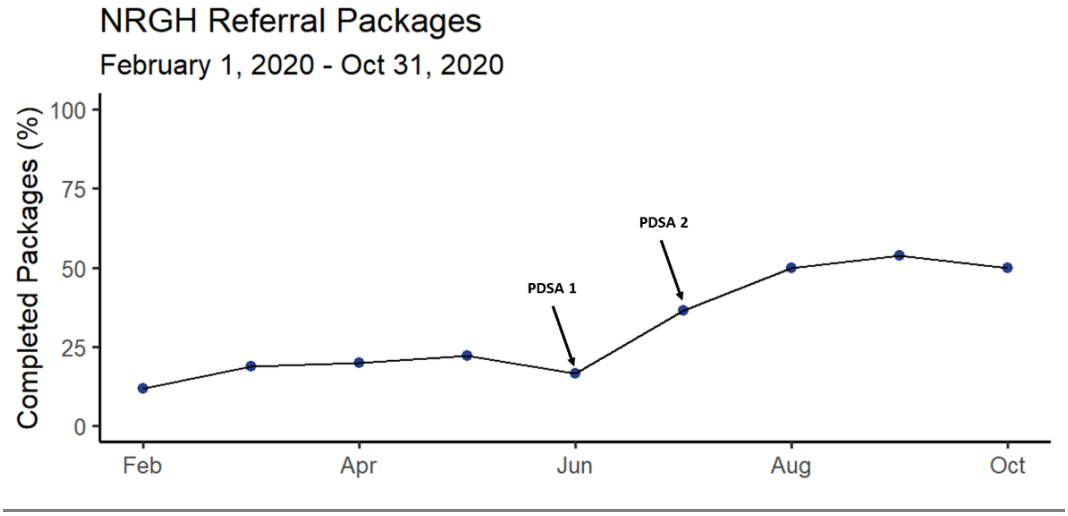
The focus of the project was to improve the information collected on referral, as incomplete referrals were thought to negatively impact timely access to the cardiac catheterization lab.

- Team based mapping session to identify why delays to catheterization lab booking were occurring
- Baseline data on transfer wait times at NRGH was reviewed
- Challenges to referral process were identified
- New referral checklist was designed
- New referral package was implemented

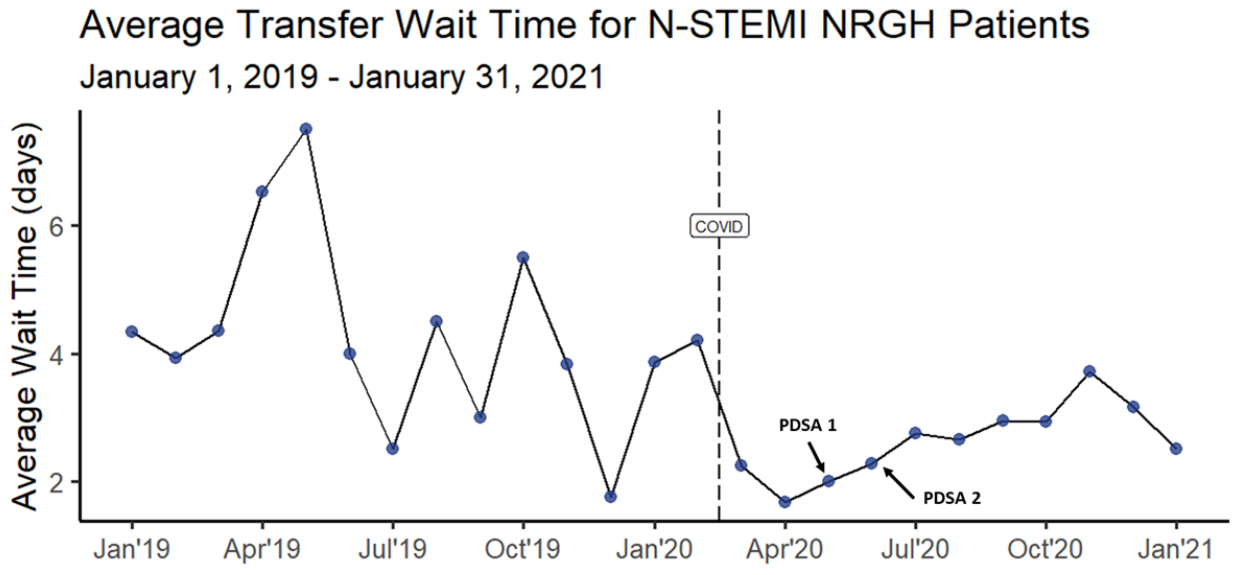
Data Analysis:

- Prospective data collection had been in place at NRGH Floor 1 by the Clinical Nurse Lead and at the RJH Catheterization Lab booking desk since January 2019
- Collected data included the number of referrals from each site across Island Health, percent of complete referral packages and identification of missing data on referral packages before and after checklist implementation at NRGH, and the impact on wait time at NRGH
- Data was analyzed using run charts and diagrams





PDSA 1: Implementation of checklist
PDSA 2: Change to the time referrals were faxed from NRGH (from ad hoc to once daily)



PDSA 1: Implementation of checklist
PDSA 2: Change to time referrals faxed from NRGH (from ad hoc to once daily)

Lessons Learned & Next Steps:

- Wait times reduced during COVID-19 pandemic
  Improvement in the completeness of the package was seen.
- Effects of optimizing the referral process in reducing wait-time to the RJH Catheter Lab for NRGH patients were not identifiable
- Next steps to optimize appropriate and timely referral involve utilizing other risk stratification tools, such as the Thrombolysis in Myocardial Infarction/Grace scores, to characterize low- versus high-risk patients for referral prioritization

Improve discharge safety planning to facilitate post-discharge follow-up for, and reduce readmissions to ER of, suicidal and self-harming youth.

Physician Lead: Dr. Rachelle Bouffard

Location: Victoria General Hospital
Specialty: Psychiatry

Background:

- Observation that an increasing number of older (17+ years) youths with long-standing suicidal and self-harm behaviours were being referred to a tertiary outpatient psychiatric team.
- Brent (2019) documents that rapid follow-up in outpatient settings is an important step towards improvement in mental health following an emergency room visit, and there is evidence that a safety plan performed in the emergency room can decrease readmission rate by improving transition to outpatient follow-up treatment
  Reference: David A. Brent, JAACAP Vol 58, #1, January 2019.

Problem:

There has been a documented increase in presentation to the emergency room for suicidal attempts, suicidal ideation, and self-harm at Victoria General Hospital (VGH) since 2017.

Aim of Project:

To improve discharge planning for youth (16 and under) presenting with suicidal attempts, suicidal ideation, and self-harm and seen by the Mental Health Crisis Team at VGH by 60% by March 2021.

Patient Voice:

Patient input was received from Laura Bobbitt, the mother of a patient:

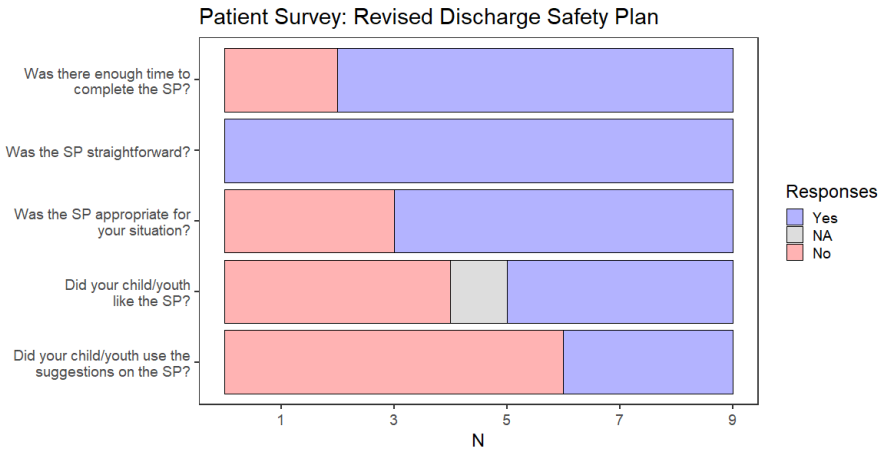
- Would have liked to have received a similar safety plan
- Every youth should get a safety plan at discharge
- Liked that all the information was on one page
- Suggested a colored page to make it easier to find
- Liked the communication tool - similar to that used in the military
- Liked that many strategies for youth were reviewed directly with the youth.
- Even if a youth does not seem interested, they may pick on one thing
- Going over the safety plan reinforces that someone is caring for them

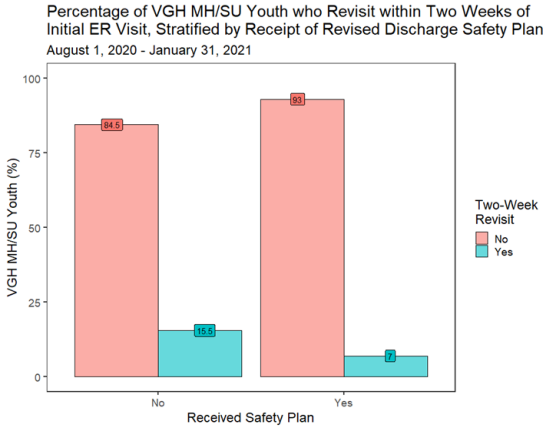
Actions taken:

- Discussion with Crisis Team and coordinator about current use of safety plans
- Education of the Crisis Team on evidence & benefit of using a safety plan at discharge from the Emergency Room
- Nurse Champion willing to develop a safety plan based on paper template used by some of the Team. Developing an online template incorporating dropdown menus for options on strategies to individualize the safety plan
- Two patient mapping sessions held February 2020
- Shared results of mapping sessions with the Crisis Team
- Chart review August 2020 to January 2021 on percentage of safety plans given out by the Crisis Team nurses
- Parent surveys
- Patient voice review of safety plan feedback with Crisis Team
- Information given to families reviewed and kept on file
- Development of a “novel discharge safety plan”

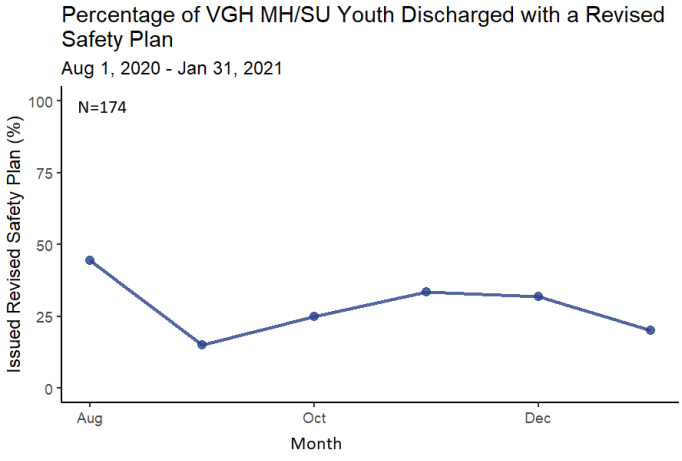
Data Analysis:

- 174 chart reviews of youth who, between August 2020 and January 2021, came to VGH ED for suicidality or self-harm.
- Prospective tracking of such youth, especially as to whether (a) they received a revised discharge safety plan, and (b) they returned to ER within 2 weeks.
- Run chart showing percentage use of revised discharge safety plan.
- Telephone surveys of consenting parents on their impressions of revised safety plan.
- Analysis of effect of revised safety plan on rate of readmission (“revisit”) to ER within 2 weeks of initial admission revealed a non-significant association. Surveys of parents reveal: (a) a degree of appreciation for the safety plan’s usefulness in facilitating post-discharge support, and (b) a degree of hopefulness that repeat ER visits may thereby be avoided.





N = 174
Chi-Squared Test
$X^2 = 1.32$, *df = 1*
p = 0.251



Lessons learned & Next steps:

- Crisis nurses see many youth and families in ER in high distress with suicide and self-harm; families have expressed appreciation for their experience, compassion, and helpfulness.
- The patient voice identified what works well and what gaps exist within and outside Island Health – one such gap being the lack of a smooth transition to outpatient services.
- Parents liked the revised safety plan; they found it clear, practical, easy to use, and helpful in facilitating follow-up.
- The Crisis Team were engaged in the formulation of the safety plan.
- Crisis nurses found the revised safety plan easy to use and complemented their practice.
- The goal of the revised safety plan is to impart crucial information and facilitate follow-up in an easy-to-use format; monitoring of its effectiveness in facilitating post-discharge support and reducing repeat ER visits should be considered.

Endoscopic Retrograde Cholangiopancreatography (ERCP) Triage and Tracking Project

Physician Lead: Dr. Alan Buckley

Location: Victoria
Specialty: Gastroenterology

Background:

- ERCPs are high risk and costly procedures used to diagnose diseases of the gallbladder, biliary system, and/or pancreas performed under conscious sedation or general anesthesia
- ERCPS are performed by a Gastroenterologist or a General Surgeon who has completed advanced training
- Approximately 500-700 cases are performed annually at the Victoria General Hospital

Problem:

- No formal tracking system for urgent and emergent ERCP cases led to care transition and handover challenges
- Possible delays in access may lead to sub-optimal outcomes for patients
- Urgent and emergent cases can become unstable while waiting for an ERCP
- Underutilization of available weekday slots
- Weekend/after hours bookings lead to increased costs

Aim of Project:

A 90% adoption of a REDCap database for scheduling emergent, semi-urgent and urgent ERCPs at Victoria General Hospital by December 2020

Actions Taken:

The project included agreement upon benchmarks for procedure completion based on triage category and measurement of percent of cases completed within benchmark.

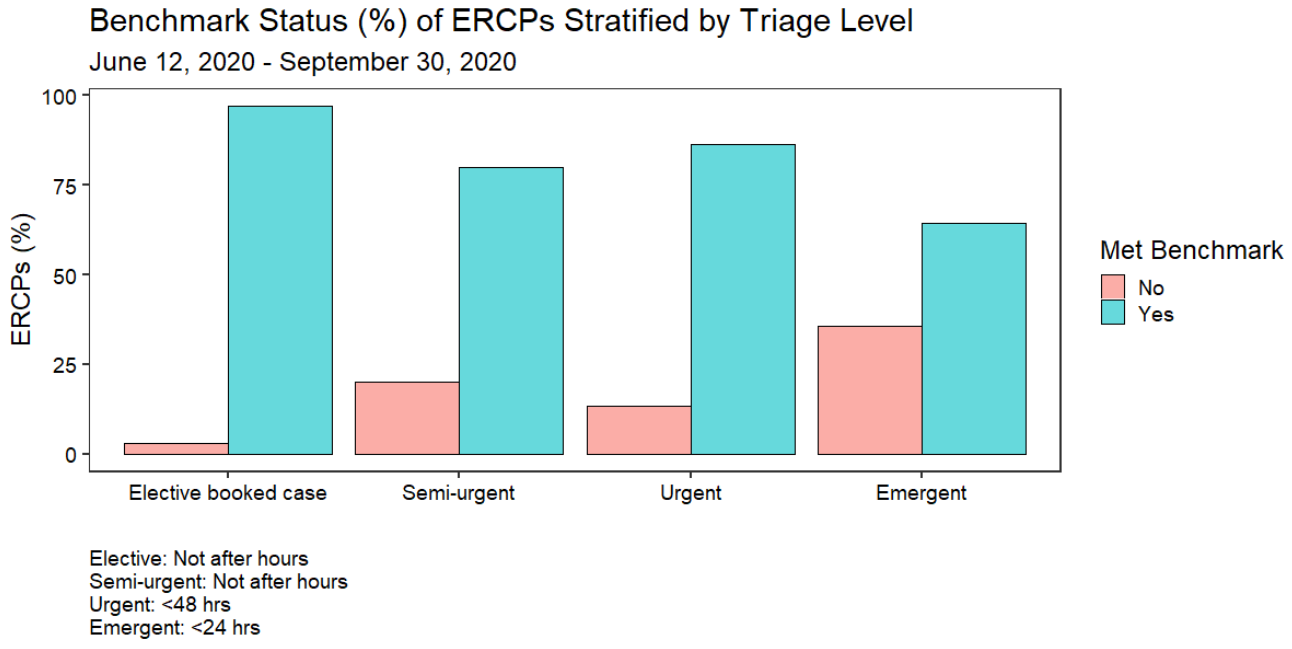
- Establish solution requirements
    - Interface with CERNER Electronic Medical Record – only requirement not met
    - Tracking system needs to be available 24/7
    - Endoscopy Clinical Nurse Leader and ERCP Physician friendly user access, with an ability to:
        - Denote patient status (urgent/emergent)
        - Denote originating hospital and referring physician
    - Assess time waiting from referral to procedure
- Conduct workflow mapping
- Establish triage categories
- Build out triage tracking platform in REDCap

Data Analysis:

Adoption: 192/212 [90%] ERCP cases were entered in REDCap tool (semi-urgent: 35%; urgent: 54%; and emergent: 11%) June 12-September 30, 2020

Benchmark: 86% of cases met their targeted triage benchmark

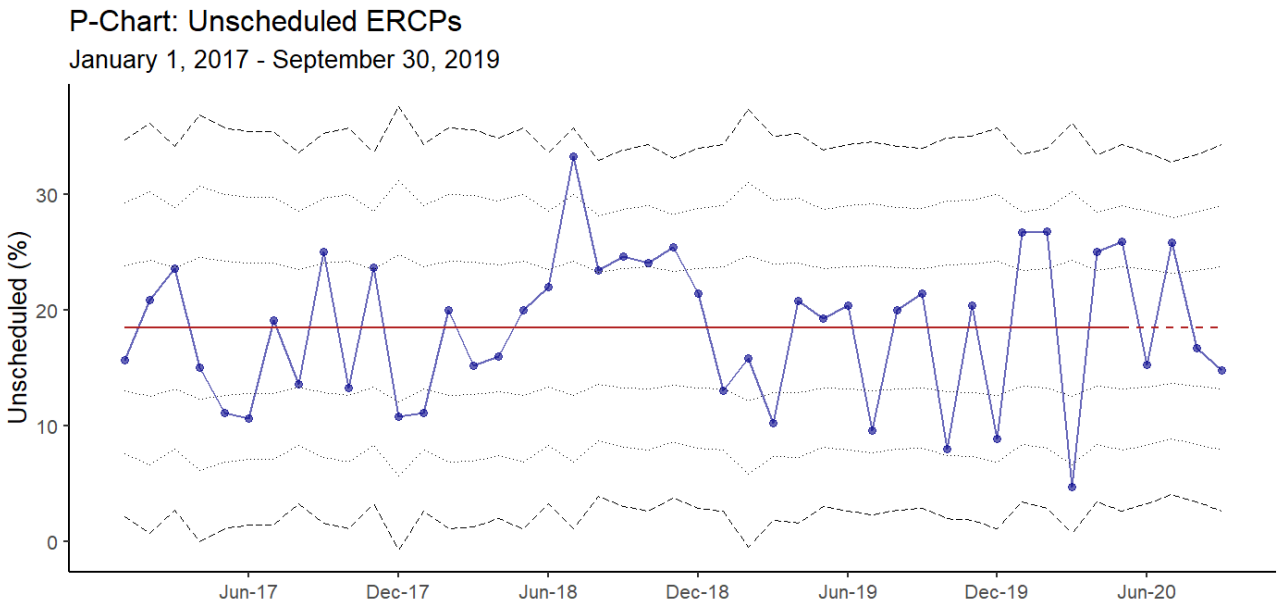
- Semi-urgent > 48 hours (92%)
- Urgent > 24 and < 48 hours (85%)
- Emergent < 24hours (76%)



Elective: Not after hours
Semi-urgent: Not after hours
Urgent: <48 hrs
Emergent: <24 hrs

Utilization:

- 31 weekday slots remained unused during the implementation of the triage tracking system
- 54 (28%) of cases were performed in off hours/weekends (semi-urgent: 22%; urgent: 66%; and emergent: 11%)



Lessons Learned & Next Steps:

- Ongoing plans to improve weekday utilization of case slots
- Evaluate semi-urgent cases for appropriate weekday booking
- Plans to increase awareness of REDCap capability to support Quality Improvement projects
- Joined CReATE (Calgary registry for advanced and therapeutic endocscopy), a prospective, pan-Canadian, multi-centre clinical registry study (PI: Dr. Nauzer Forber, University of Calgary). The tracking tool will be shared with CReATE and the research group will support ongoing research in endoscopy at Island Health

Thriving Families

Adapting a successful new model of Group Medical visit delivery to improve accessibility of mental health early intervention for new parents during a pandemic

Physician Lead: Dr. Joanna Cheek

Location: Victoria
Specialty: Psychiatry

Background:

- Mental health difficulties are inter-generational
- Reflective parenting is most helpful factor to reduce mental health problems in next generation

Problem:

- Very poor access to low-barrier interventions to help parents learn reflective parenting skills in Victoria
- COVID-19 pandemic made in-person groups inaccessible
- COVID-19 pandemic led to parent isolation and distress
- Specialist expertise is not equally distributed across province

Aim of Project:

To increase the access (# of participant spots) to reflective parenting groups for new parents by 50% in 12 months.

Patient Voice:

Patient voice was obtained through surveys

- Patients wanted skills to manage own emotions and conflict, and to promote wellness in child
- 100% were very satisfied with group, comfortable sharing, felt safe & engaged
- Expressed benefit from hearing from others' experience
- Childcare & scheduling are major barriers: appreciated participating virtually from home

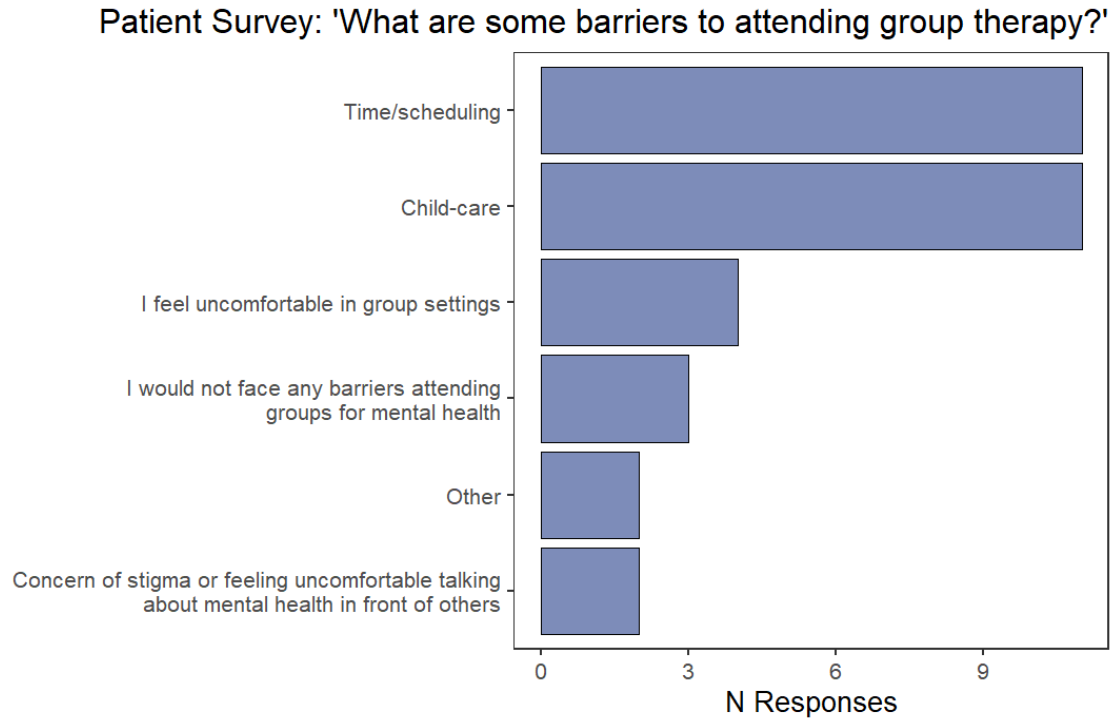
Actions Taken:

- Patient Surveys developed and deployed
- Curriculum developed and tested
- Pamphlet developed and distributed
- Delivery Model of Cognitive Behavioural Therapy Skills (CBT) adapted to Virtual
- Trial run of Virtual Group for Reflective Parenting

Data Analysis:

- Surveyed patients on preferences for services (e.g. barriers, duration of group, needs, format, content)
- Qualitative feedback from experts, clinicians, and patient voice on new curriculum and pamphlet obtained
- GMV patient scales for satisfaction, comfort, safe, engaged, level of interaction, online format; and qualitative feedback collected mid-way and at the end of the project
- Qualitative feedback of virtual patient experience with groups attained

Qualitative feedback of virtual patient experience



Lessons Learned & Next steps:

- Group Medical Visits are equally acceptable to patients and can be run effectively virtually and in-person, which improves accessibility to psychosocial interventions
- Funding for provincial spread and training of new facilitators on virtual platforms is being explored

Enhanced Team Based Community Care

Improving community care using team based approach

Physician Lead: Dr. Dieter de Bruin

Location: Campbell River
Specialty: General Medicine

Background:

- While there are various healthcare resources assigned to patients in the community, a perceived lack of coordination of those services lead to a communication gap between Campbell River Home Support (CHS) and General Practitioner (GP) offices
- Poor communication between healthcare providers and referral services can lead to delays in appropriate care

Problem:

- Status of referrals sent to CHS from Mountain View Medical Clinic (MVMC) for community services are largely unknown to the referring physician
- GP and administrative staff spend extended time tracking down referrals & following up with patient

Aim of Project:

Reduce response time from CHS on initial receipt of faxed referrals to less than 48 hours by September 2020.

Patient Voice:

Patients are often coming or calling clinic uncertain of next steps. They can be linked to several different resources and are not sure what is happening. What should they be doing?

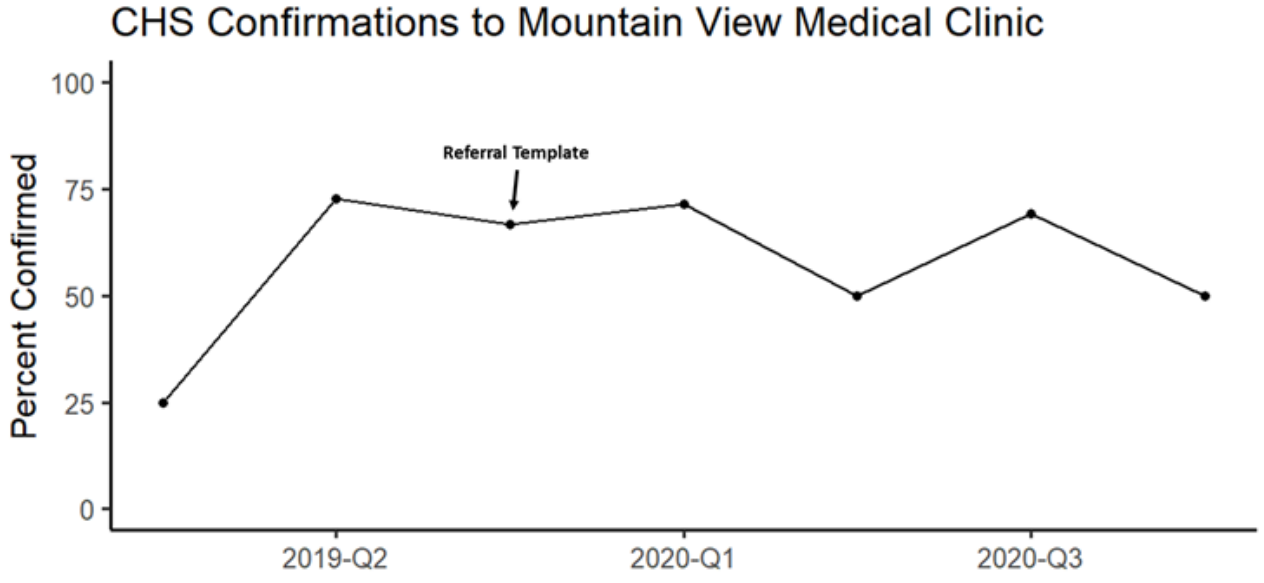
"When will someone call me?"

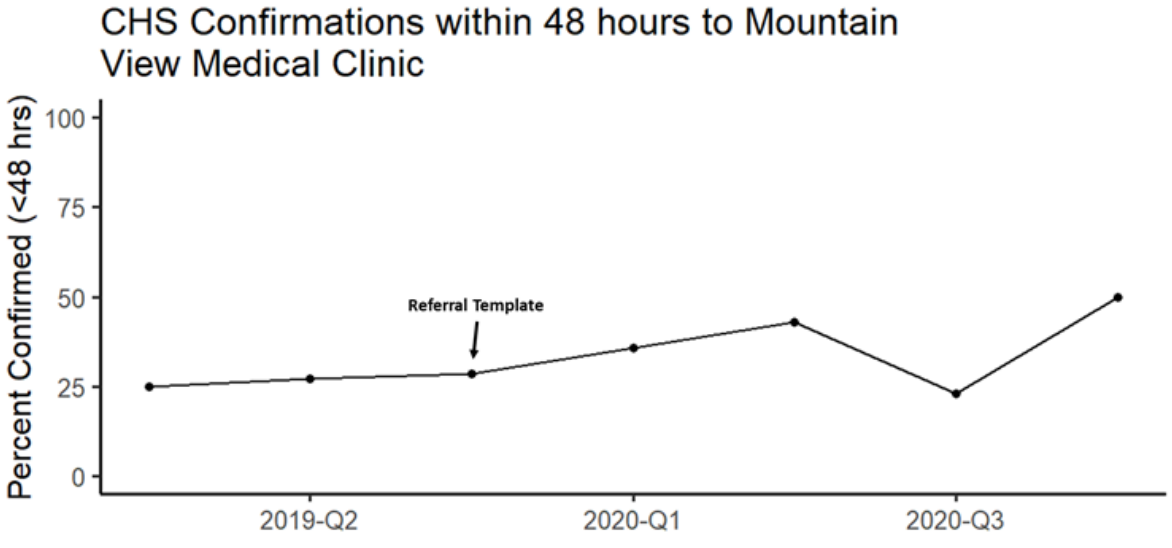
Actions Taken:

- Current State analysis to understand the booking workflow
- Referral fax template creation
- Confirmation of fax received from CHS
- Structure existing regular meetings with Case Manager as a communication tool to address referral gaps
- Creation of GP contact list for CHS staff

Data Analysis:

- Prospective data collection of Community Health Services referral responses using MVMC's EMR Electronic Medical Record (EMR)
- Analysis of 90 referrals sent from May 2019 to October 2020 and examined for confirmation that a referral had been received
- There was no observable effect on the rate that referrals from MVMC were confirmed to have been received by CHS
- Non-significant increase in the rate of referral confirmation within 48 hours





Lessons Learned & Next Steps:

- Closing communication loops when referring to any service allows for proactive planning of patient care and allows for engagement in other services as needed
- Understanding referral pathways aids primary care physicians in decision-making processes to appropriately manage patient care
- Referral pathways in CHS are diverse and require a closer inspection in order to streamline
- Due to the COVID-19 pandemic, adoption of virtual care took place. This limited the ability to measure the perceived improvement in team-based care and enhanced team communication due to the project

Advanced Cardiac Life Support Simulation Project

Improving Cardiac Arrest Management on Medical/Surgical Wards at Comox Valley Hospital

Physician Lead: Dr Albert Houlgrave

Location: Comox Valley Hospital
Specialty: Emergency Medicine

Background:

- In 2018 Dr Houlgrave applied for engagement funds to initiate a code blue simulation program at Comox Valley Hospital (CVH)
- The results were concerning, as ward teams were taking very long times to achieve their first shock on patients (> 8min)
- However, with some practice and process change we were able to shorten that time to 3 minutes after 6 simulation sessions
- This short interval improvement was the stimulus to evolve the concept into a PQI project

Problem:

Inexperience and lack of education combined with infrequent exposure and practice with cardiac arrest management, results in poor adherence to Basic Life Support/ Advanced Cardiac Life Support (BLS/ACLS) guidelines on general medical/surgical wards at Comox Valley Hospital.

Aim of Project:

To improve cardiac arrest management on general medical/surgical wards at Comox Valley Hospital to current, standardized guidelines and targets by 100% by December 31st, 2020.

Patient Voice:

- 40% of patient participants admitted to personally knowing someone who had suffered a cardiac arrest
- 80% thought this type of skills practice should be mandatory for health care staff in the hospital and not voluntary

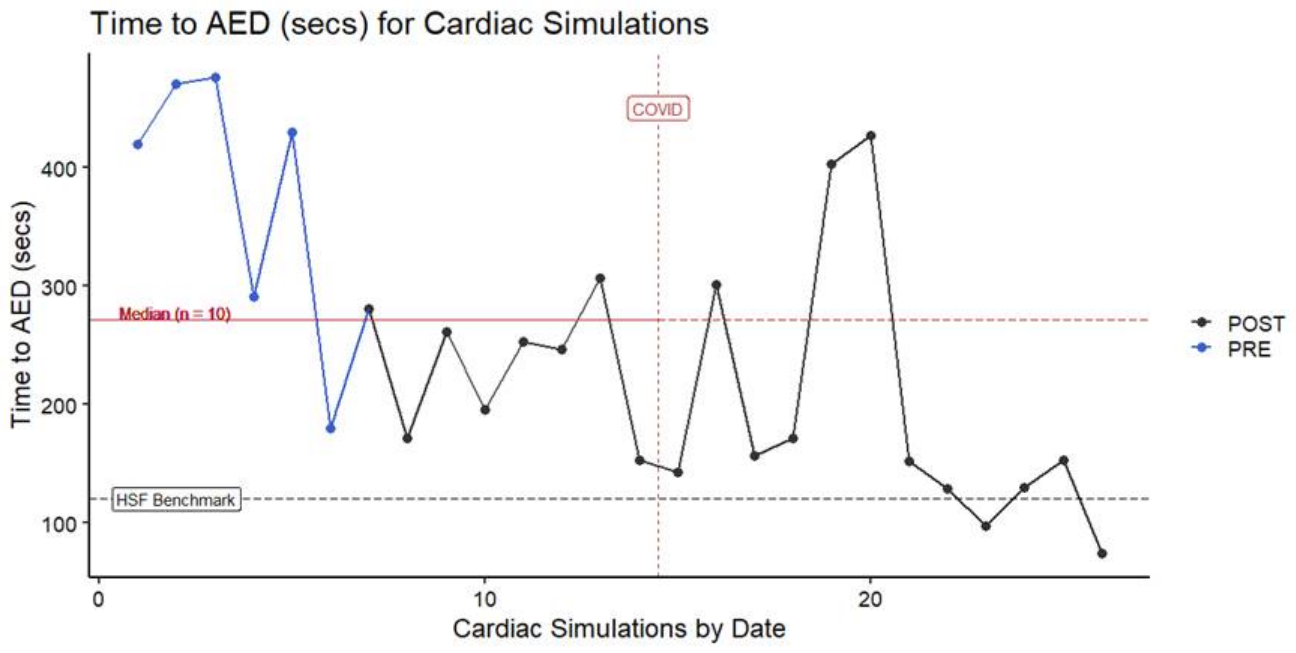
Action Taken:

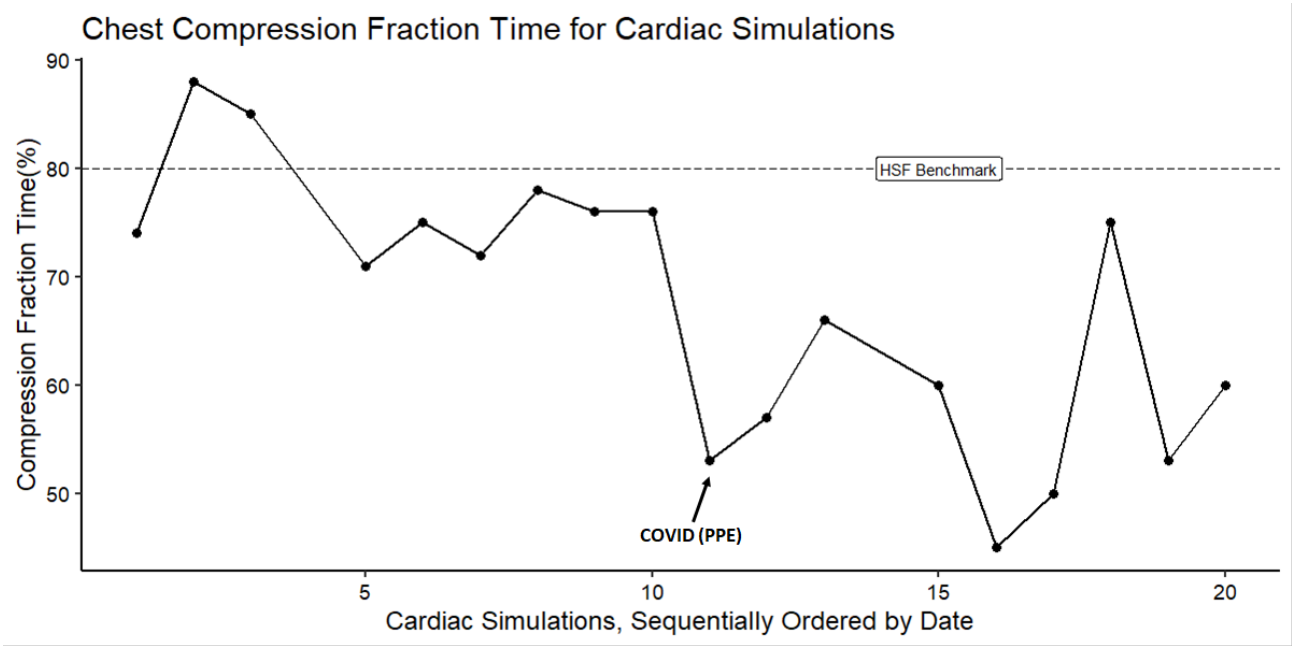
Developing a standardized feedback system and constant work reminders of goals

- Constructed a white board with real time run chart for each ward, placed at nursing hubs for review and benchmark reminders between simulations
- Reviewed and updated the whiteboard at each simulation
- Delivered pre- and post-simulation surveys to ward RNs
- Developed a feedback checklist for the simulation to capture learnings
- Performed process mapping to establish the impact of COVID-19 on resuscitation simulations

Data Analysis:

- Run charts were used to graphically display and analyse ACLS metrics
- A significant reduction was seen in time to automatic external defibrillator (AED) after the first 6 simulation events
- Simulations had limited effect on chest compression depth and chest compressions per minute
- Chest compression fraction time reduced after PPE precautions were introduced





Percentage of time CPR is in progress over total arrest time for the study period. Benchmark is >80%

Lessons Learned & Next Steps:

- This PQI project was very impactful for many of us at CVH; the confidence of an entire hospital team grew over the course of the study
- When we began our first code blue simulations in the pre study period, our times to first shock were in excess of 8 minutes. A patient might have a greater chance of survival from an AED in the Home Depot than on our own hospital wards. The time changed significantly in spite of additional time required for COVID-19 PPE precautions to 1 minute and 14 seconds by the final simulation day. That alone is a gigantic success of this program
- The advantages and impact go far beyond time to first shock. Changes were felt to positively impact patient care at CVH; as a result of issues identified and addressed in the study simulations, staff and physicians expressed positive experiences in subsequent Code Blue events
- The success of this project will translate into a regular, formal ACLS simulation program at CVH to promote ongoing nursing practice and education and improved patient care

Making Connections

Connecting Campbell River vulnerable population to medical care by utilizing the Physician Outreach Team

Physician Lead: Dr Erika Kellerhals

Location: Campbell River
Specialty: Addiction Medicine

Background:

- People experiencing homelessness in Campbell River struggle to access primary care and in many cases they also struggle to access addiction care
- People experiencing homelessness in Campbell River are believed to be disproportionate users of Emergency and inpatient services at Campbell River Hospital (CRG)

Problem:

- The COVID-19 pandemic exposed weakness in the system and concern that the homeless population was at a higher risk of the virus
- Marginalized population became more vulnerable due to the closure of indoor daytime space as it led to the denial of hygiene facilitates as well as opportunities to socialize and alleviate loneliness
- Minimizing need for CRG services needed to be addressed while ensuring appropriate care was available

Aim of Project:

A 20% reduction in CRG Emergency Department (ED) encounters by the cohort of patients accessing the services of the Physician Outreach Team by Dec 31st 2020.

Patient Voice:

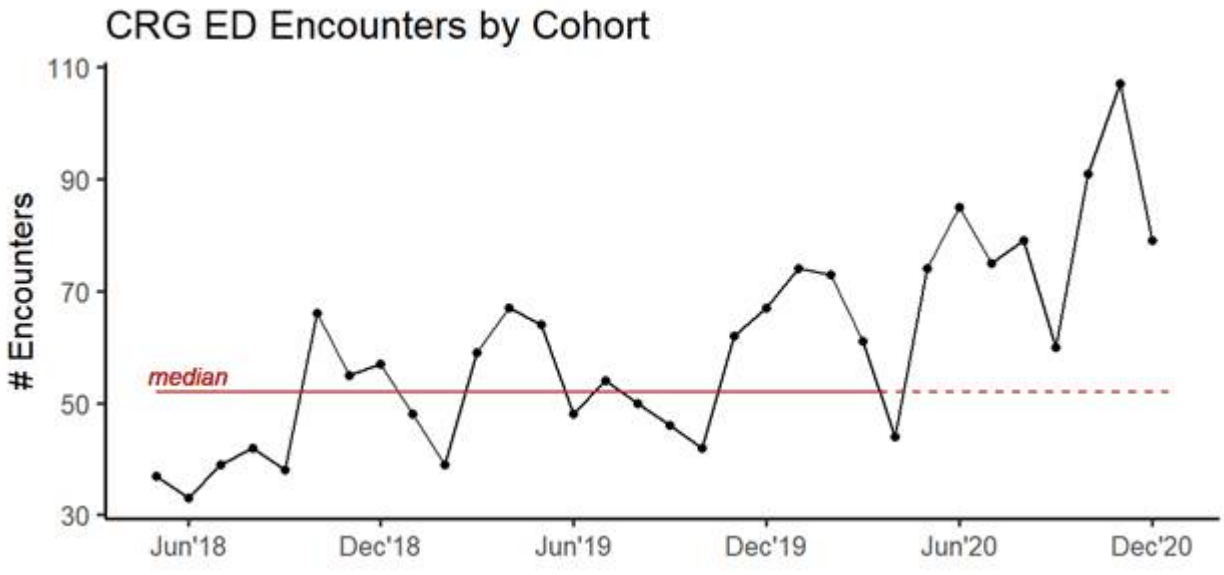
The patient voice was obtained through a patient survey
"Medical approach is laidback, thorough and non-judgemental"

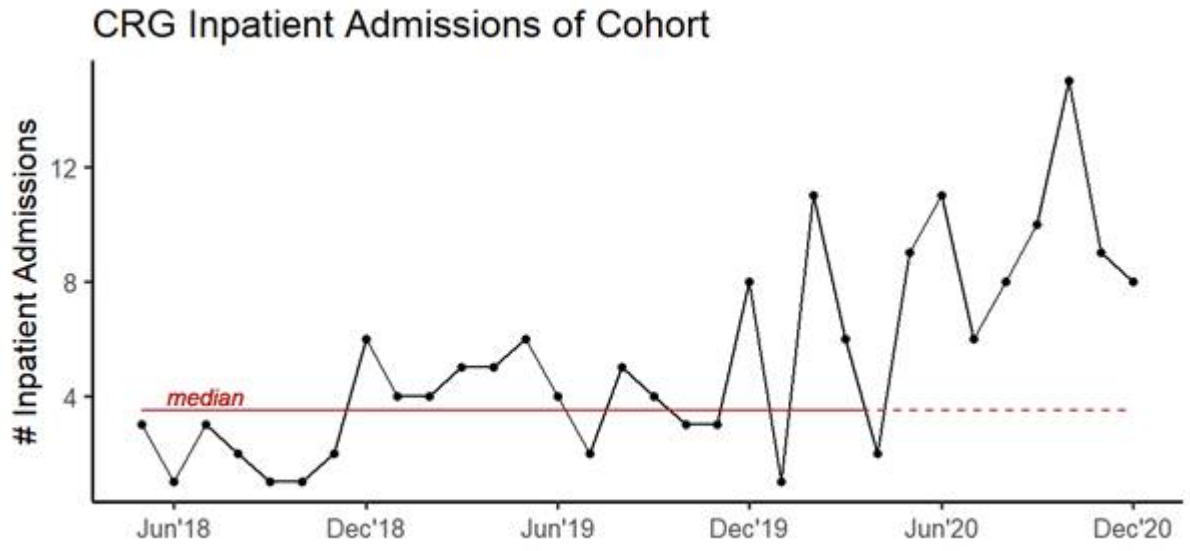
Actions Taken:

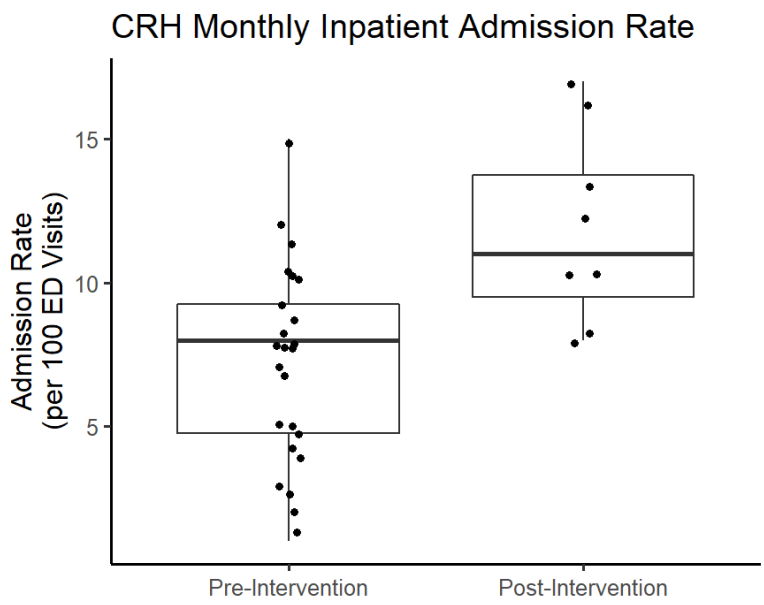
- Improved patient survey to capture patient safety and satisfaction
- Different site locations were tested to explore the impact on access to patients by Physician Outreach team
- Communication developed:
    - Tested different communication tools to build Physician Outreach Team
    - Increased profile of program to Campbell River GP community through email and Division meetings
- Clients were surveyed to capture experience and impact of change

Data Analysis:

- There was a challenge in identifying a measurable population and the cohort was identified as individuals who have had one or more contacts with the Outreach Team
- The study period included the decrease in access to GP offices due to COVID-19 pandemic
- The cohort was matched with encounters at CRG ED; a significant increase in ED encounters was seen, contrary to expectation







Lessons Learned & Next Steps:

- Data show a significant increase in ED visits. While this was associated with reduced access to GP offices due to COVID-19 pandemic, a non-significant increase in inpatient admissions was also seen
- Had time permitted, it would have been better to look at how the introduction of the outreach team has improved the health and wellbeing of this marginalized population, rather than just hospital utilization
- Team is motivated to continue following this cohort to identify other gaps in care

Improved access to Rapid Cardiac Assessment
Team based approach for effective use of RCA Clinic at Nanaimo Regional General Hospital

Physician Lead: Dr Nadia Mousa

Location: Nanaimo Regional Hospital
Specialty: Internal Medicine

Background:

- Nanaimo Regional General Hospital Rapid Cardiac Assessment (RCA) clinic assesses patients with chest pain via exercise test
- The RCA clinic has four available spots per day to assess patients who must be seen within one week of an Emergency Department (ED) visit and runs four days a week due to Electro Diagnostic Lab (EDL) resources
- Patients are allocated a slot by ED staff, and EDL is notified via faxed referral

Problem:

- Frustration by what appeared to be a high number of unused clinic spots that was a result of patients not being appropriate for the RCA clinic
- Patients were arriving for appointments and prepared for the procedure by the technologist, only to be told that it was not the correct procedure for them
- The gap identified was twofold: limited clinic spots were not being used appropriately, and ED did not have an available option for patients that did not fit criteria of current clinic model

Aim of Project:

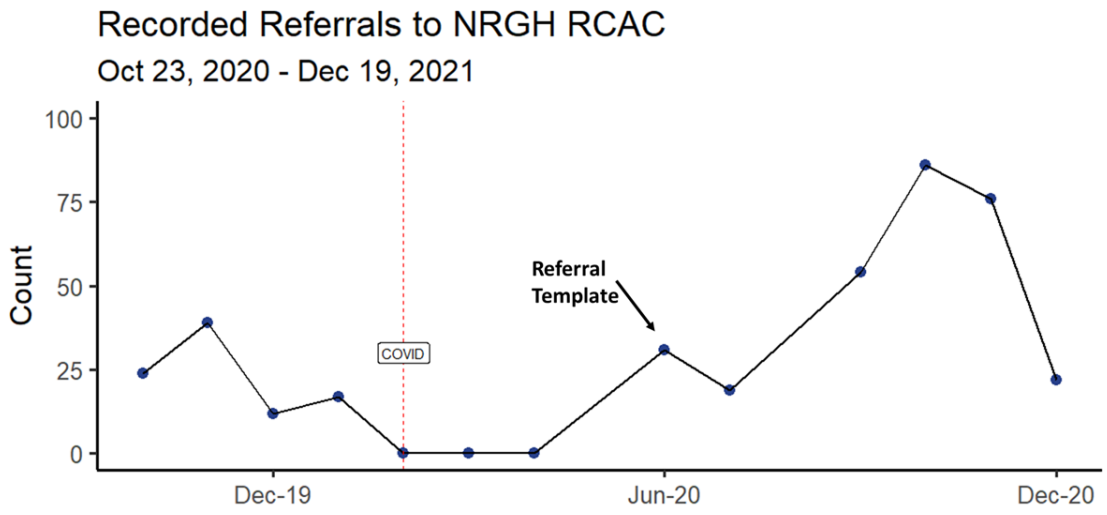
Improve referral process so that 100% of appointment times are used to assess appropriate patients at the RCA Clinic within 6 months.

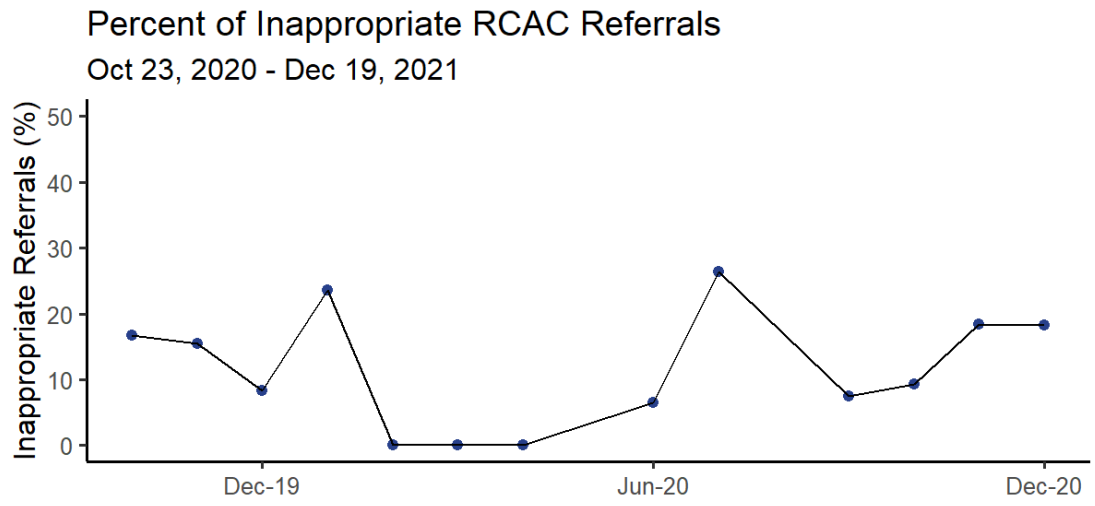
Action Taken:

- Referral form: stakeholders agreed that the current referral form was not helpful and it was agreed to have this be the first change idea and a new form was developed
- Patient information form: a gap was identified with the patient information form which resulted in delays when patient arrived for appointments and a new form was developed
- New clinic day: Emergency room physicians (ERPs) identified a gap of not having alternatives that would be more appropriate for certain patients

Data Analysis:

- Prospective data collection of the appropriateness of referral via EDL staff
- Run chart used to analyze process changes
- Ongoing surveys of ERPs to determine if new referral form was helpful





Lessons Learned & Next Steps:

- 100% of ERPs provided positive feedback and felt they now had options to deliver more appropriate care
- There was no observed reduction in the rate of inappropriate referrals
- Improvement efforts were hampered by COVID-19 pandemic effects such as changes in patient behaviour, reduced referrals, modified ED routines
- The new referral form was adopted
- A new RCA clinic day was adopted, providing access to physicians when EDL services were not required
- The new referral form spread to Oceanside Urgent Care and Ladysmith Health Centre who also refer to RCAC

Increasing Naltrexone Prescribing in the Emergency Room

Drugs for Drinks

Physician Lead: Dr Anne Nguyen

Location: Royal Jubilee Hospital
Specialty: Family Medicine – Addiction Medicine

Background:

- Alcohol Use Disorder (AUD) affects 20% of Canadians at some point in their lifetime
- Alcohol contributes to 8% of all deaths in Canadians age 0-64 years of age
- There are effective, evidenced based medications to reduce cravings and alcohol use Naltrexone is one of the two first line medications recommended in Canada for AUD (NNT = 9)

Problem:

- Less than 10% of people with Alcohol Use Disorder (AUD) are every offered anti-craving medications at Royal Jubilee Hospital (RJH)
- Given that many patients with AUD seek care in the Emergency Room, this is an ideal location in which to offer anti-craving medications
- This project was initiated in the fall of 2019 to address AUD in the setting of the Rapid Access and Discharge Unit (RADU) of the RJH in Victoria, B.C.

Aim of Project:

By May 31, 2020, 40% of patients with Alcohol Use Disorder who are admitted to the Royal Jubilee Hospital Emergency Room's Rapid Access and Discharge Unit (RADU) and eligible for the anti-craving medication Naltrexone will be offered a prescription for Naltrexone.

Patient Voice:

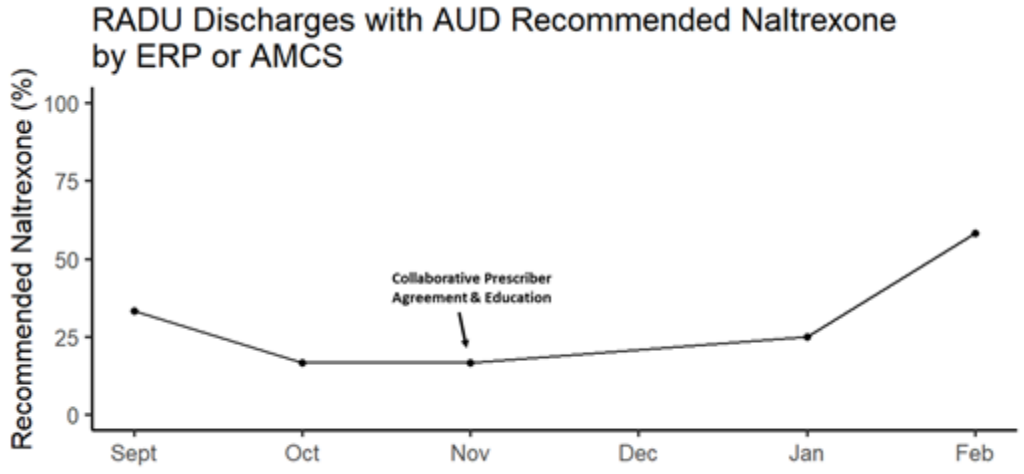
"I know I have a lot to offer. I just needed to clear my head. Now, my life is actually going in the direction that I want it to. Without access to Naltrexone I wouldn't be sober today. It gave me the opportunity to bring out my potential and be a productive member of our society, and now I am in position where I can give back…I take my pills every day."
- Hassan Ahmed

Action taken:

- Emergency Room Physician Survey, Nov 2019
- Baseline Data review of RADU discharge summaries, September-November 2019
- Emergency Room Medical Doctor and Nursing Education, February 2020
- Collaborative Prescriber Signing Initiative, November 2019
- Naltrexone Information cards for Health Care Professionals and Patients
- Post intervention chart review February-March 2020, analysis done and results shared with the team
- Presentation to Emergency Room Medical Doctors (ED MD) at a Department Meeting December 2020
- Post intervention ED MD, December 2020, and follow up including pre-printed anti-craving prescriptions for the ED, Urgent Primary Care Center, and outpatient clinics

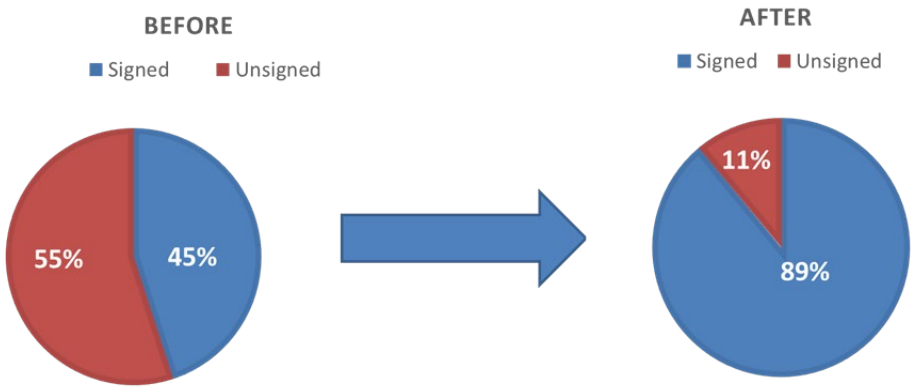
Data Analysis:

- Baseline review of 165 RADU discharges Sept-Nov 2020; 34 (21%) presented to the RJH ED with alcohol use disorder



RADU: Rapid Access and Discharge Unit
ERP: Emergency room Physician
AMCS: Addiction Medicine Consult Service

Physician signatures to the Collaborative PrescriberAgreement, before and after education events



Lessons learned & Next steps:

- Alcohol use disorder (AUD) is common condition affecting 1 in 5 Canadians. This prevalence is reflected in the number of patients presenting to the Royal Jubilee Hospital (RJH) RADU during our baseline data collection period.
- Prior to our interventions, many Victoria Emergency Room (ER) physicians and nurses were unaware of, or not comfortable, using the first line anti-craving medication Naltrexone to assist patients with AUD.
- While we were not able to reach our goal of ensuring that 40% of patients with AUD discharged from the ED received a Naltrexone prescription by the end of the project, using multiple PDSA cycles that involved chart reviews, educational initiatives, the development of educational tools and the Collaborative Prescriber Initiative, we have increased physician and nursing awareness and comfort in the use of this medication and contributed to slight increases in prescribing behaviour and discernable increases in physician and nursing comfort with this medication.
- Ongoing efforts are needed and underway to increase patient access to anti-craving medications including Naltrexone through learning cycles such as the development of pre-printed prescriptions incorporated into clinical order sets in the Emergency Department and available electronically.

Perinatal Mental Health
Screening earlier to affect change

Physician Lead: Dr Alicia Power

Location: Grow Health Victoria
Specialty: Family Practice - Obstetrics

Background:

The provincial guideline for screening and diagnosis of pregnant people with mental health concerns occurs at 28 weeks gestation. This timing does not allow sufficient opportunity to access resources (often an 8-12 week wait for Cognitive Behavioural Therapy (CBT) and perinatal mental health services), and stabilization/skills acquisition to improve outcomes postpartum.

Problem:

At Grow Health, Perinatal care providers are following the recommended guidelines around screening pregnant people for mental health concerns. The formal screen used is the Edinburgh Postnatal Depression Scale (EPDS), which only focuses on depression. In our community we do not have adequate mental health resources to provide prompt care to this population prior to the birth of their child.

Aim of Project:

Improve perinatal screening for depression and anxiety in women who present in the 1st trimester at the Grow health clinic by 95% within 6 months.

Patient Voice:

"I had a really hard time during pregnancy with mental health and due to stigmatization I didn't talk much about it. I continued down the path of poor mental health through to postpartum, and I think if I had better care prenatally, it would have been a better transition."

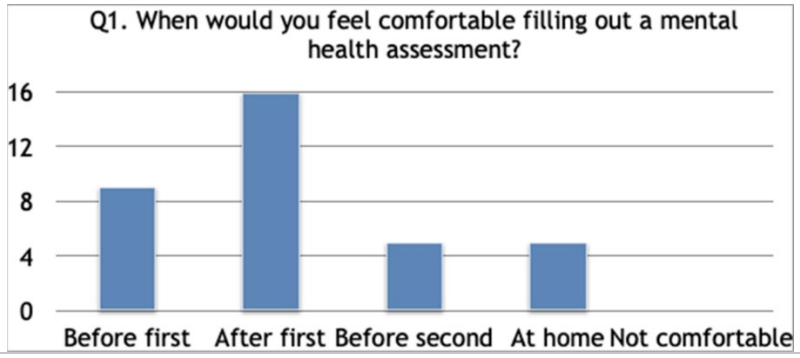
Actions Taken:

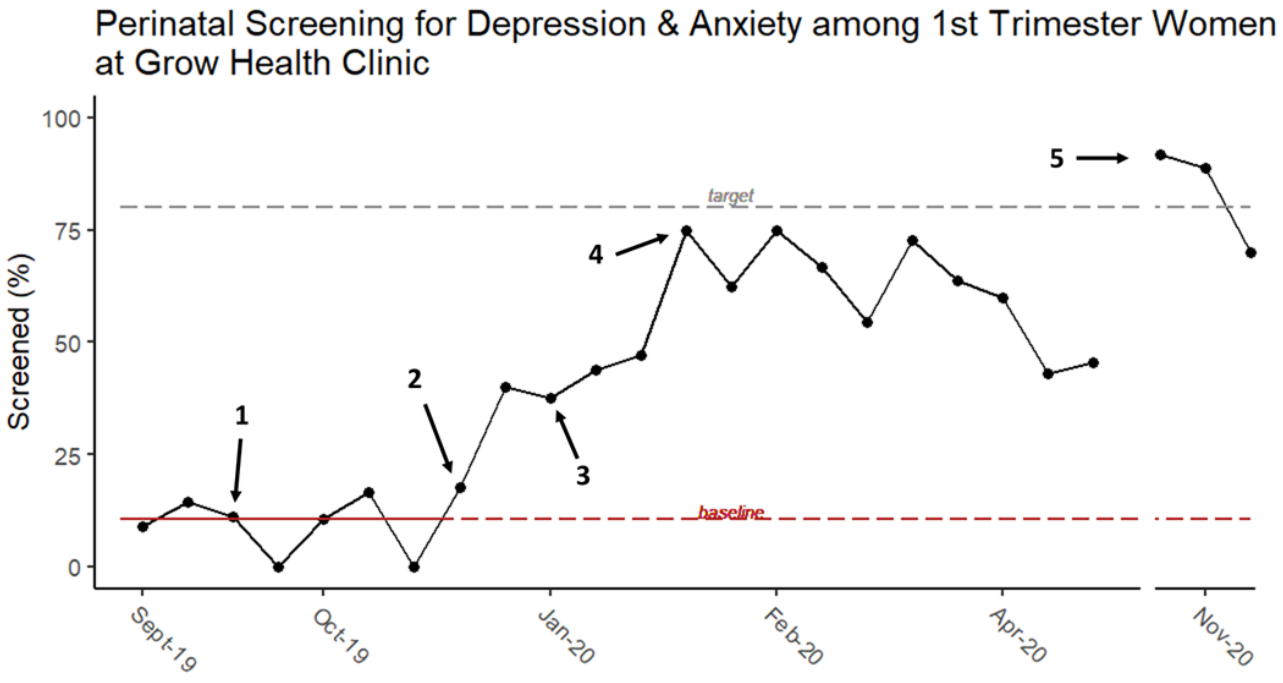
- Brought attention to current screening cycles by chart review
- Asked pregnant women how they want to be screened through a survey
- Asked Physicians how they would like to screen by conducting a survey
- Poster created & circulated at Grow Health to help reduce stigma around mental health
- Screened a small segment of the population by testing the new screening tool
- Created an e-form and Electronic Medical Record template to document in the patients chart
- Introduced screening to all patients by including screening on pregnancy intake form, given to all people prior to their second appointment, both improving access and normalizing questions about mental health

Data Analysis:

- Baseline chart review revealed that 46% of incoming pregnant patients at Grow Health had current or previous mental health diagnosis
- 10-15% of patients had screening performed in the first trimester

Survey question to patients to inform timing of mental health assessment





Actions taken:

1. Patient survey
2. Physician survey
3. Poster at Grow Health
4. Tested screening tool
5. Documented in the patient chart

Lessons learned & Next steps:

Perinatal Mental Health:

- Implementation of an easy screening tool included in the intake form increased screening to >50%, with sustained change
- Increased communication amongst Physicians
- Improved resources for patients and practitioners
- Increased patient engagement

COVID Simulations at West Coast General Hospital (WCGH)

Improving preparedness for nursing staff & Physicians

Physician Lead: Dr Janelle Schneider

Location: Port Alberni
Specialty: Emergency Medicine

Background:

- The COVID-19 pandemic required staff to adapt quickly to changing aerosol-generating medical procedure (AGMP) protocols. Understanding these changes was crucial in order to provide safe and effective care for patients while maintaining safety for staff.

Problem:

- Staff felt unprepared and uncomfortable with participating in intubations and cardiac arrests of COVID-suspect patients
- There was uncertainty around the use of Personal Protective Equipment (PPE), given multiple guideline recommendations
- Communication between staff inside and outside of patient room was challenging

Aim of Project:

By March 2021, improve the number of WCGH nurses and physicians who express comfort and preparedness with participating in intubation and cardiac arrest of COVID-suspect patients by 80%.

Participant's Voice:

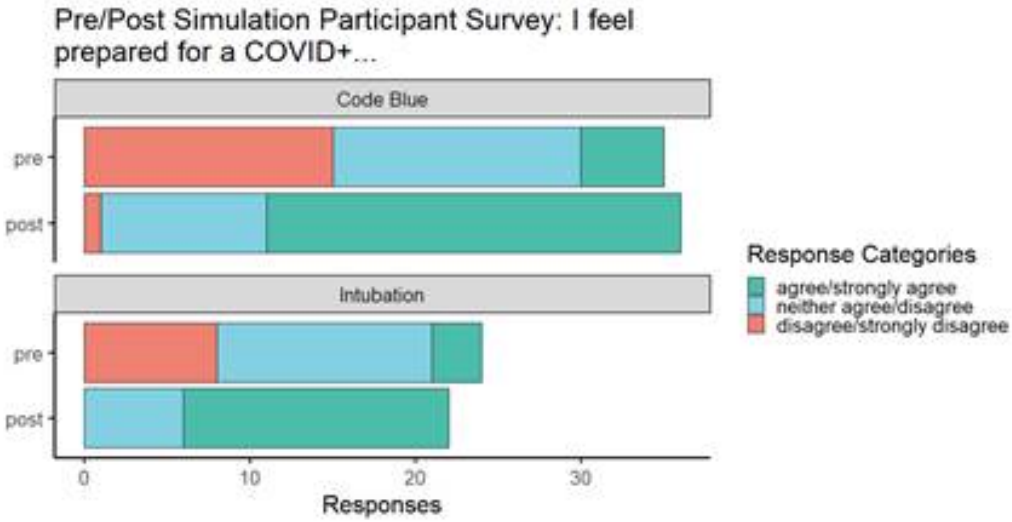
"I'm so happy to have the opportunity to do this here at WCGH. Thank you!"

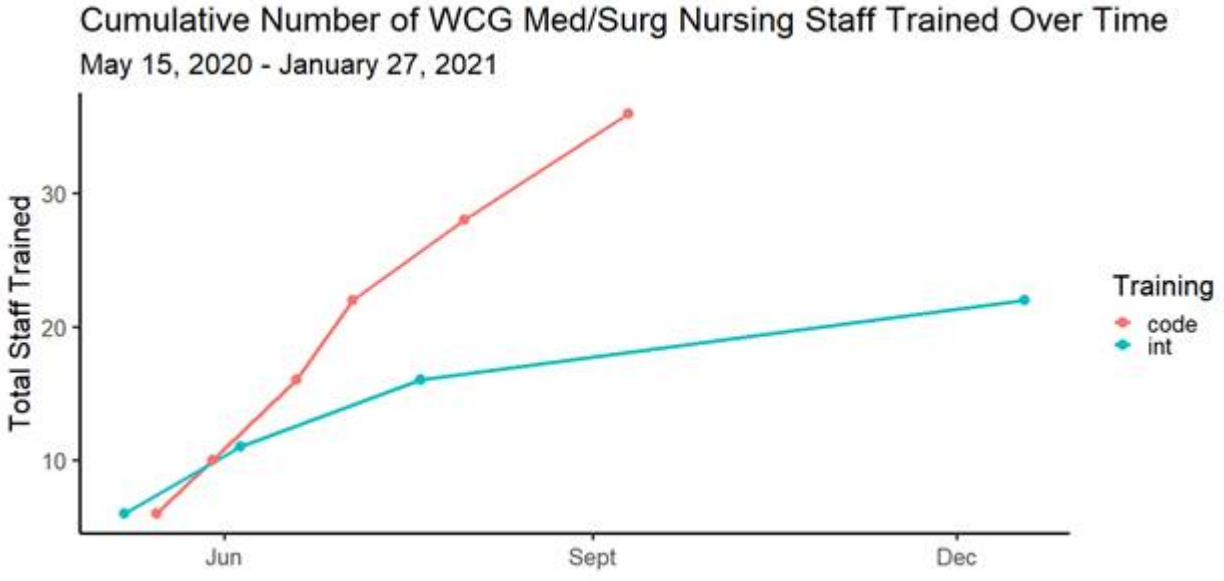
Action Taken:

- Adaptation and education of COVID-19 guidelines to address local site environmental constraints
- Developed improved team communication during simulations (telephone, baby monitors)
- Environmental Gap addressed - medication cupboard in ante-room
- Post project survey results reviewed to enhance subsequent simulations

Data Analysis:

- Surveys before and after the simulation, which assessed feeling of preparedness, understanding of PPE required and its donning and doffing techniques, roles required in real intubation or cardiac arrest, and inclusion of the patient/family in their care
- 11 simulations run with 70 participants from medical-surgical ward, ICU, ED, anesthesia, and OR
- Percentage of respondents indicating agree/strongly agree to feeling prepared to participate in code blue of COVID-suspect patients increased from 14% to 71%, and to participate in intubation from 12% to 67%





Code: Cardiac arrest training
Int: Intubation training

Lessons Learned & Next Steps:

- Staff preparedness increased significantly from simulation training
- Survey results showed WCGH staff desire ongoing simulation training beyond COVID-19
- Spread of simulation training is occurring to other departments e.g. surgery/anesthesia
- Opportunity for team building across departments and healthcare roles

Transition of Care

Seamless Transition from Hospital to Community after Cardiac Surgery

Physician Lead: Wakako Tokoro

Location: Victoria
Specialty: Nurse Practitioner – Cardiac Surgery

Problem:

A change in care provider during the transition from hospital to community shifts the primary responsibility of ongoing care onto the patient and family, which can create confusion and care burden. This may lead to preventable Emergency Room (ER) use or hospital readmission.

Aim of Project:

To implement a support call to a post-operative cardiac patient within a week of discharge, with a goal of reaching 80% by December 2020.

Patient Voice:

"There is a lot to remember and I was confused about my medications and follow up plans. I didn't know who to contact. A follow up call was helpful to clarify things. It was good to talk to someone who knows about the surgery I had and my recovery in hospital."

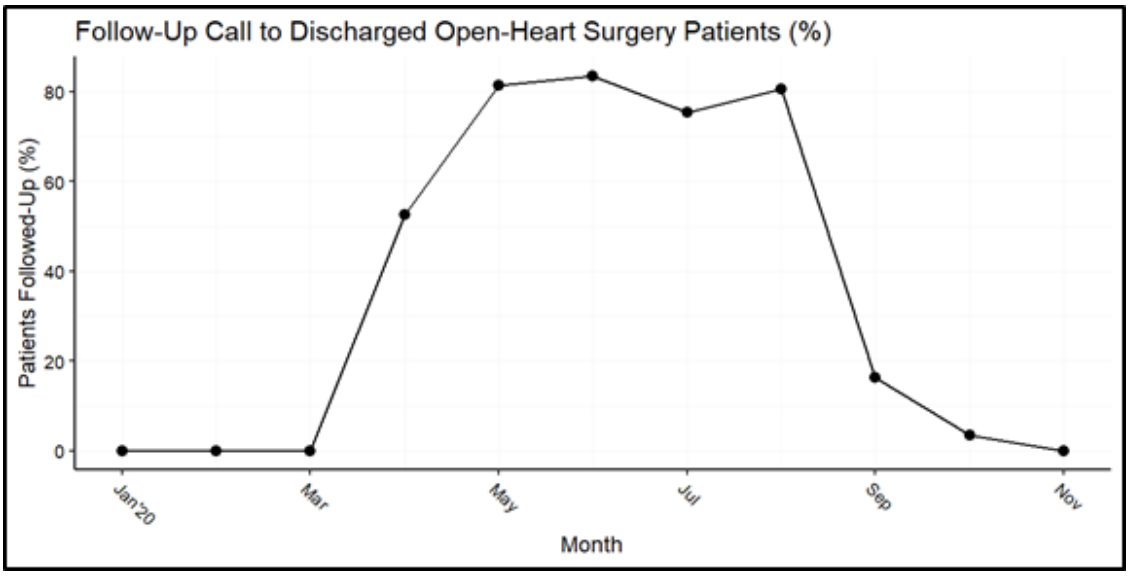
"I was not sure if retaining water was an expected issue or something I need to act on. I felt more confident in managing after talking to the nurse."

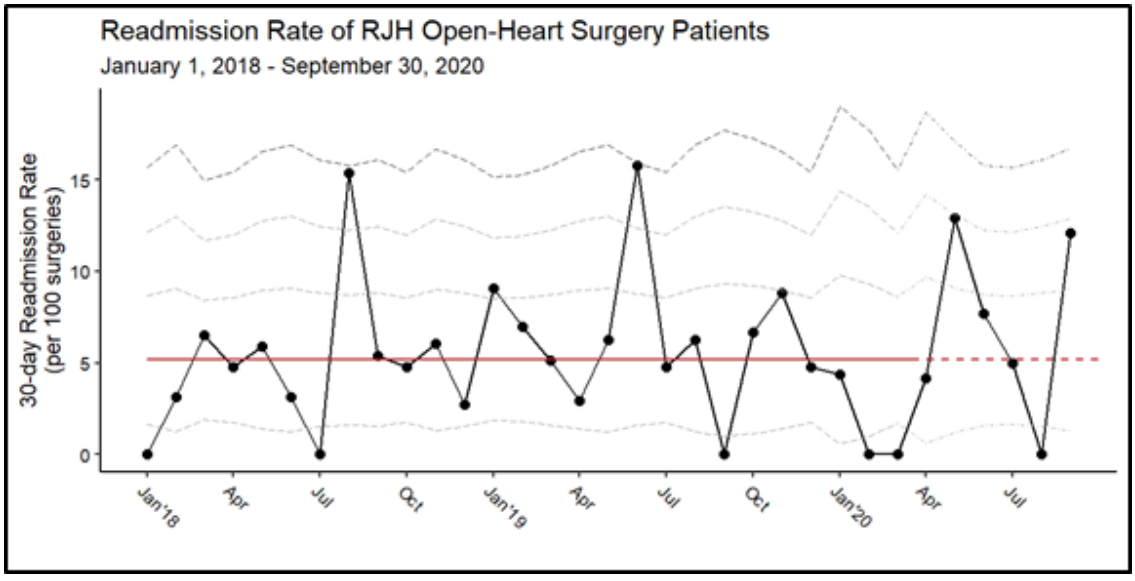
Actions Taken:

Follow-up calls: One of the nursing staff calls patient or care-giver 4-5 days after discharge to review their overall progress, medications, signs of early post-op complications, and any new issues. They will also provide a reminder of follow up plans.
Calls were documented and data collected to capture patient feedback.

Data Analysis:

- Enterprise Data Warehouse data used to develop patient readmission rate SPC P-Chart
- Approximately 80% of patients were followed-up by phone between March and September 2020; this was not sustained
- Significant confounding by COVID; patients using ED for primary care





Lessons Learned & Next Steps:

- This project highlighted the gap surgical patients experience during transition following discharge. Although we were able to achieve our aim, we could not sustain it due to staff shortages.
- The calls by the surgical team did not appear to lead to a reduction in ER use or readmission rate; however, they did enhance patients' knowledge and confidence, which is a powerful key for recovery. Ongoing data collection is in process.
- Patients appreciated the call and closed loop communication helped reinforce instructions
- Call backs to the ward were anecdotally reduced; no data capture
- Aim to introduce an automated follow-up call system in conjunction with an algorithm to screen and identify patients who may benefit from a personal call
- Plan to use the QI framework to guide development of additional initiatives pertinent to transitional care of cardiac surgery patients.

Facilitation of rooming-in at Victoria General Hospital for neonates exposed to opioids in utero

Physician Lead: Dr Marie-Noelle Trottier-Boucher

Location: Victoria General Hospital
Specialty: Pediatrics

Background:

Rooming-in has multiple benefits for babies exposed in utero to opiates including:

- Decrease need of pharmacological treatment
- Decrease Neonatal Intensive Care Unit (NICU) admission rate and length in hospital
- Increase breastfeeding initiation
- Increase maternal infant-mother bounding

Problem:

Our local protocol promotes rooming-in. However, in practice, a significant portion of the babies developing withdrawal are transferred to the Neonatal Intensive Care Unit for observation and/or initiation of pharmacological treatment, where they are separated from their mother.

Aim of Project:

Decrease by 20% the length of stay in Victoria General Hospital Neonatal Intensive Care Unit for babies exposed to opioids in utero between September 2019 and June 2020.

Patient Voice:

”Should the mothers not being given the chance like other mothers?”
Patient voice was embedded throughout the project.

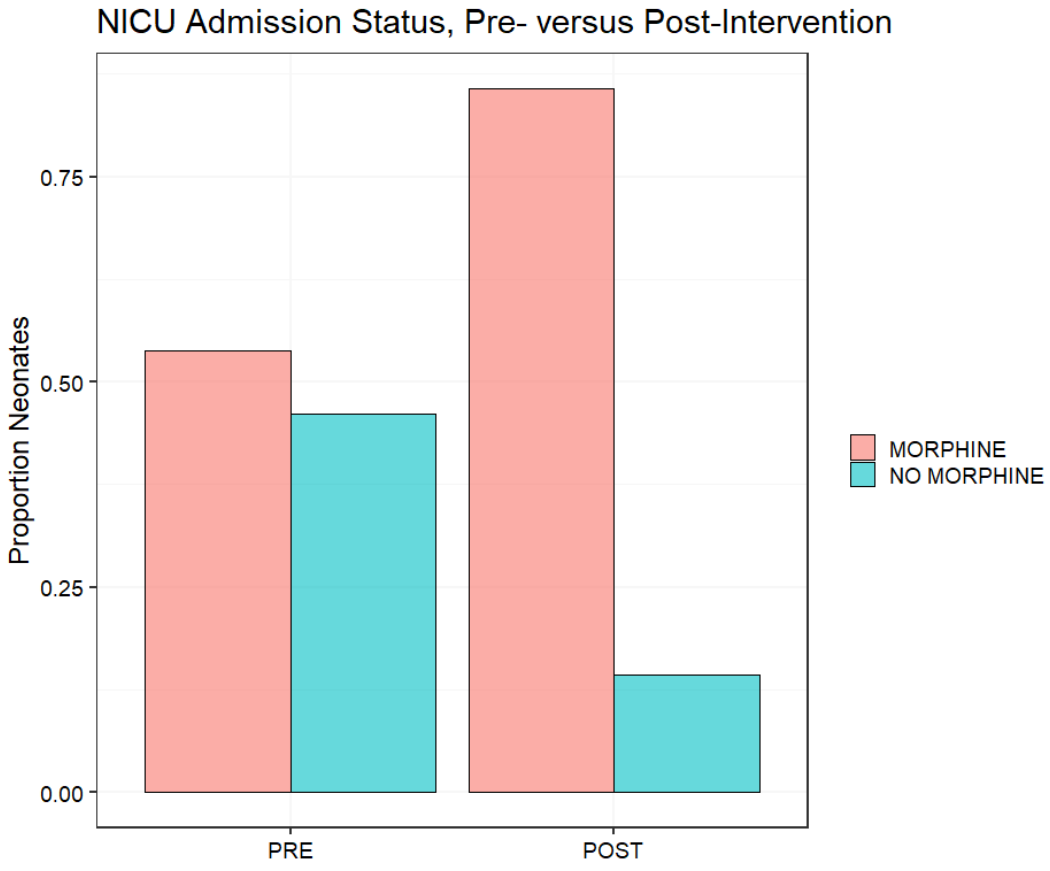
Actions Taken:

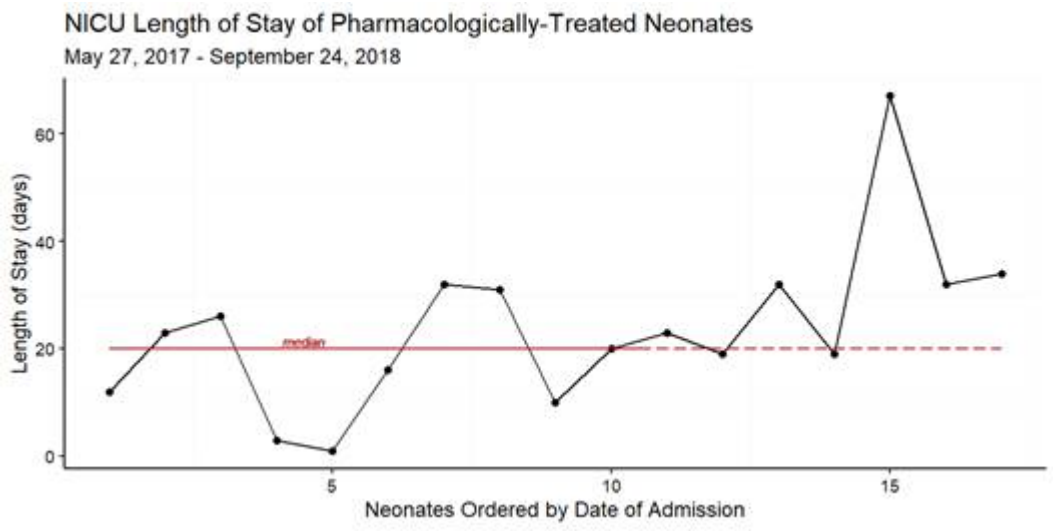
- Multidisciplinary journey mapping event to identify barriers and ideas of improvement
- Education events planned
- Monthly pediatric updates provided
- Antenatal Consultation about expected experience upon admission/delivery of baby
- Pediatricians survey completed
- CME event hosted
- Collaboration with the Breastfeeding Committee
- Education sessions provided for Nurses regarding Non-Pharmacological treatment on Mother Babe Unit/NICU
- Journal club on Eat/ Sleep/ Console held with Pediatricians

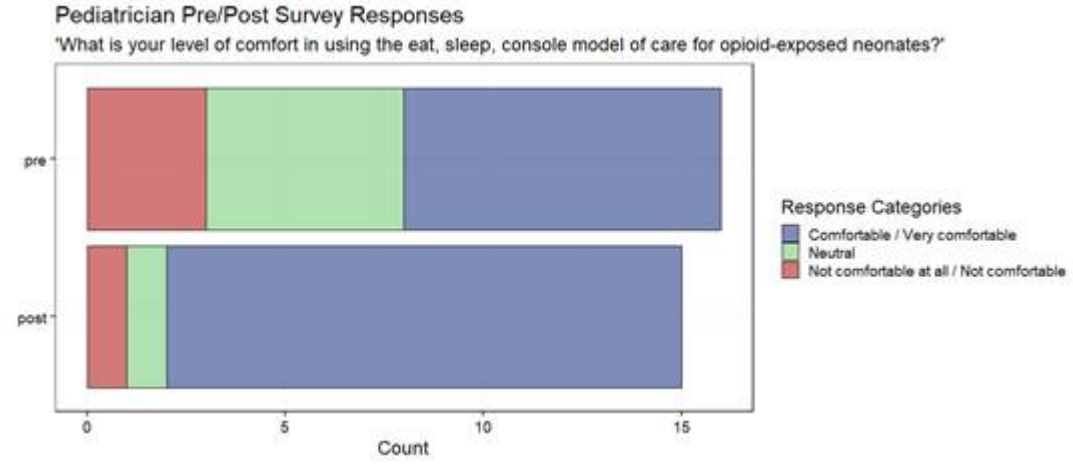
- Created a simplified pathway

Data Analysis:

- Provider's perception and comfort in non-pharmacological interventions improved by 33% with the Eat/Sleep/Console model of care
- Rate of admission to NICU was unchanged, however there was a reduction in infants admitted to NICU who did not require morphine treatment and length of stay in NICU statistically unchanged
- Small sample size is a limitation (n=29: 19 pre-intervention and 10 post intervention), further confounded by inherent variation in the population. Ongoing data collection would be of benefit.







Lessons learned & Next steps:

- Suggests more appropriate placement of babies in NICU
- Many personal learnings
    - Wiser to start with a small project and then expand
    - Implementing a Change in practice takes time
    - Great added value to include patients' voice into the project
    - Quality Improvement = life changing
- Next steps: more Plan Do Study Act cycles and change ideas to test

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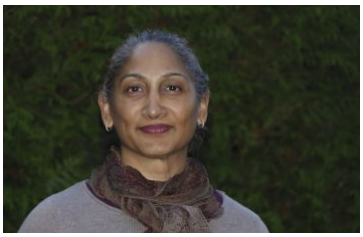

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