

Optimizing time to revascularization for NRGH NSTEMI inpatients

PROJECT TEAM

Mina Aziz, Project Lead

Project Participants:

- Kim Zavediuk : RJH Heart Health
- Honeylette Abesamis : NRG CNL
- Talia Burke : NRG CNL
- Ryan Davis : Heart Health - Director
- John Galbraith : PQI Advisor
- Kamla Gage : PQI Team
- James Saunders : PQI Team

AIM STATEMENT

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

PDSA Cycle



- Collect baseline data
- Design new referral package
- Implement new package
- Collect percent of complete packages
- Measure effect on wait time

DATA ANALYSIS

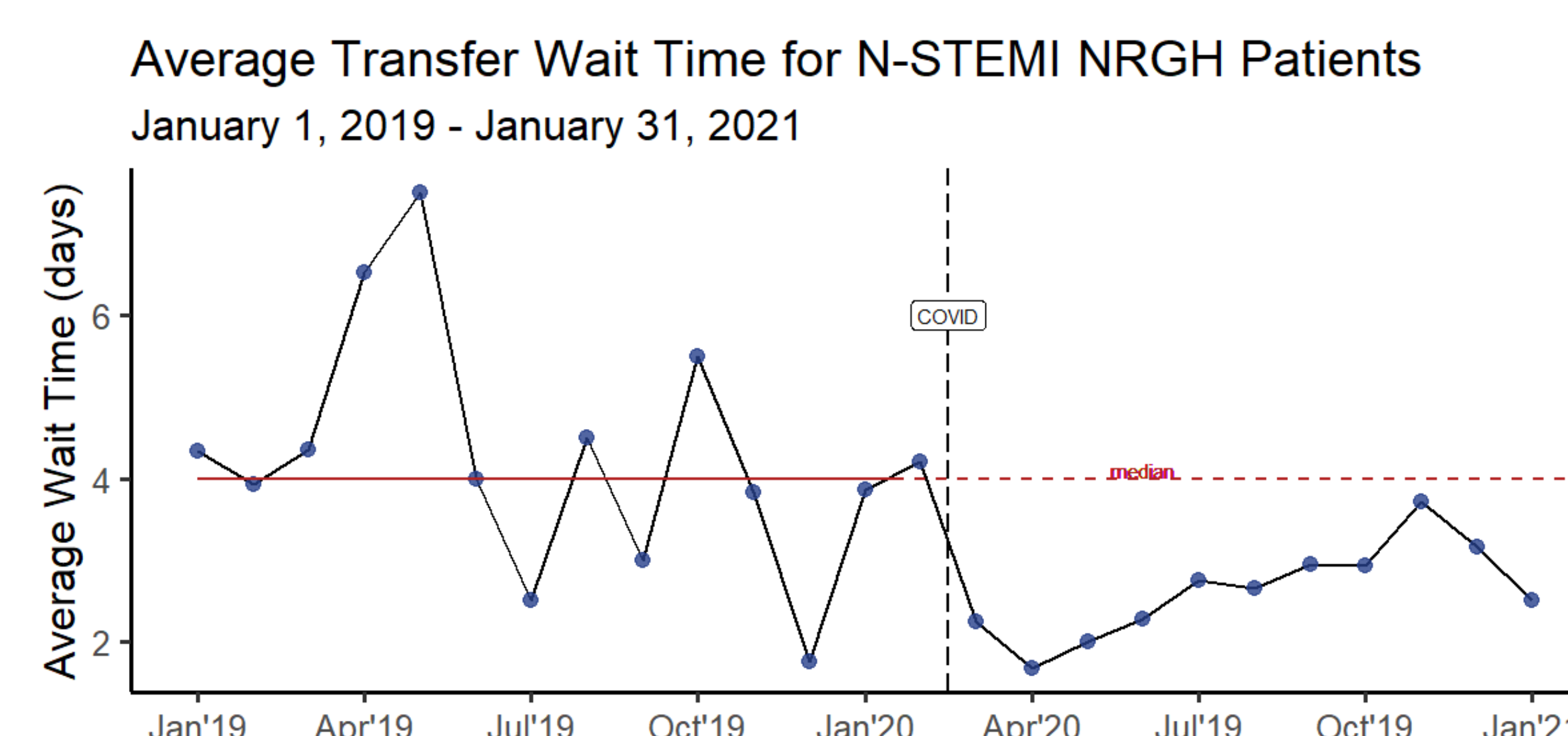
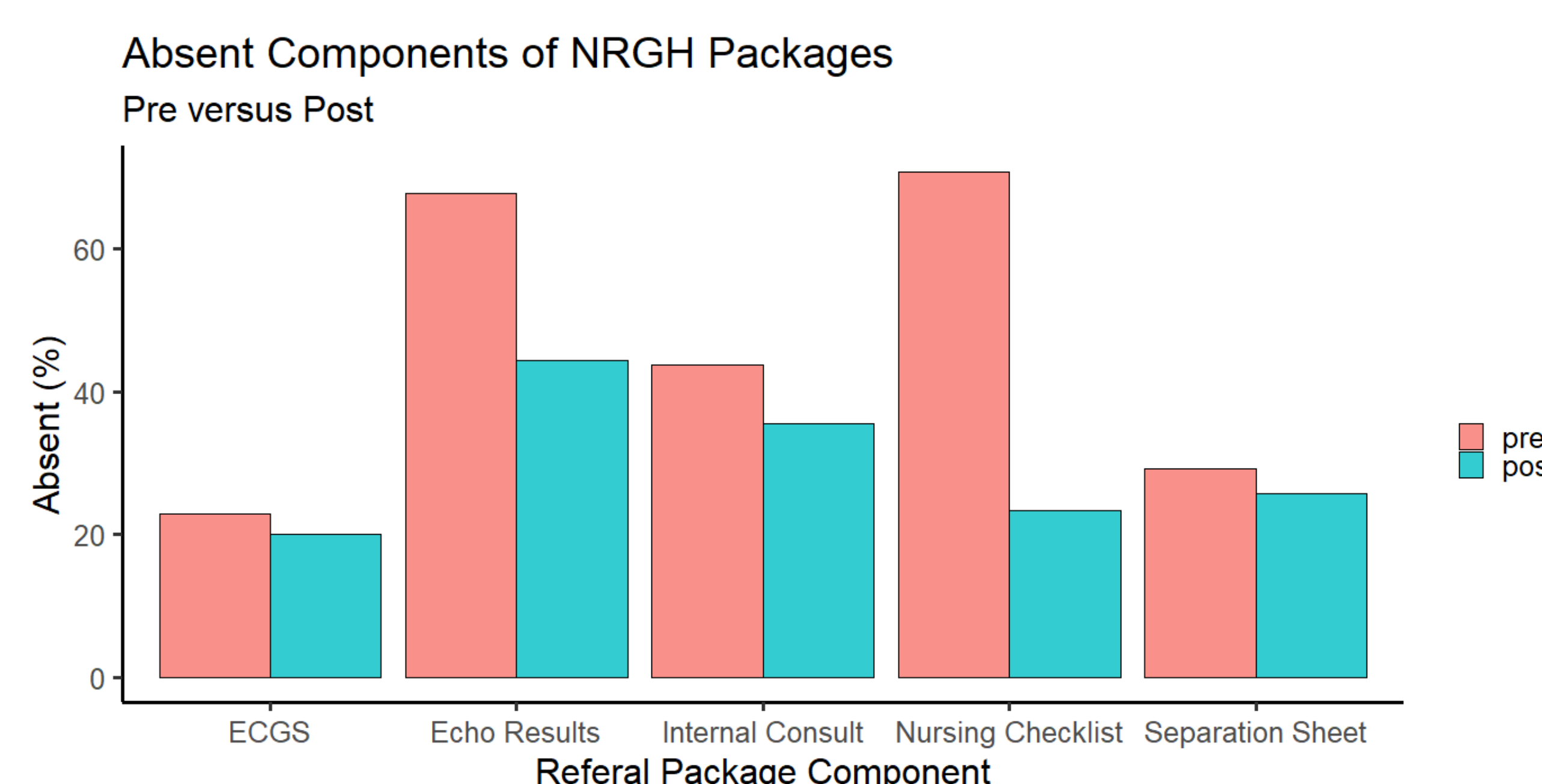
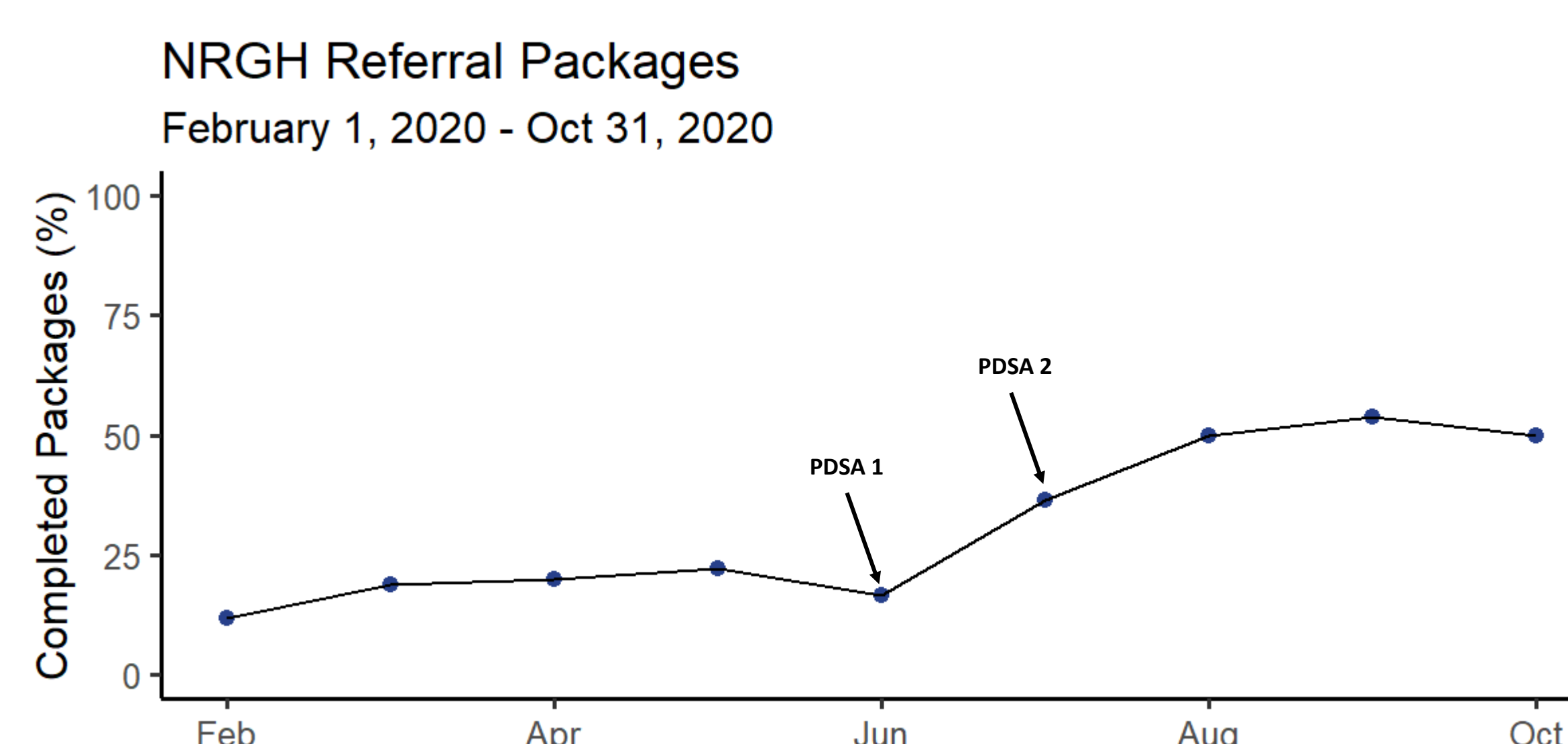
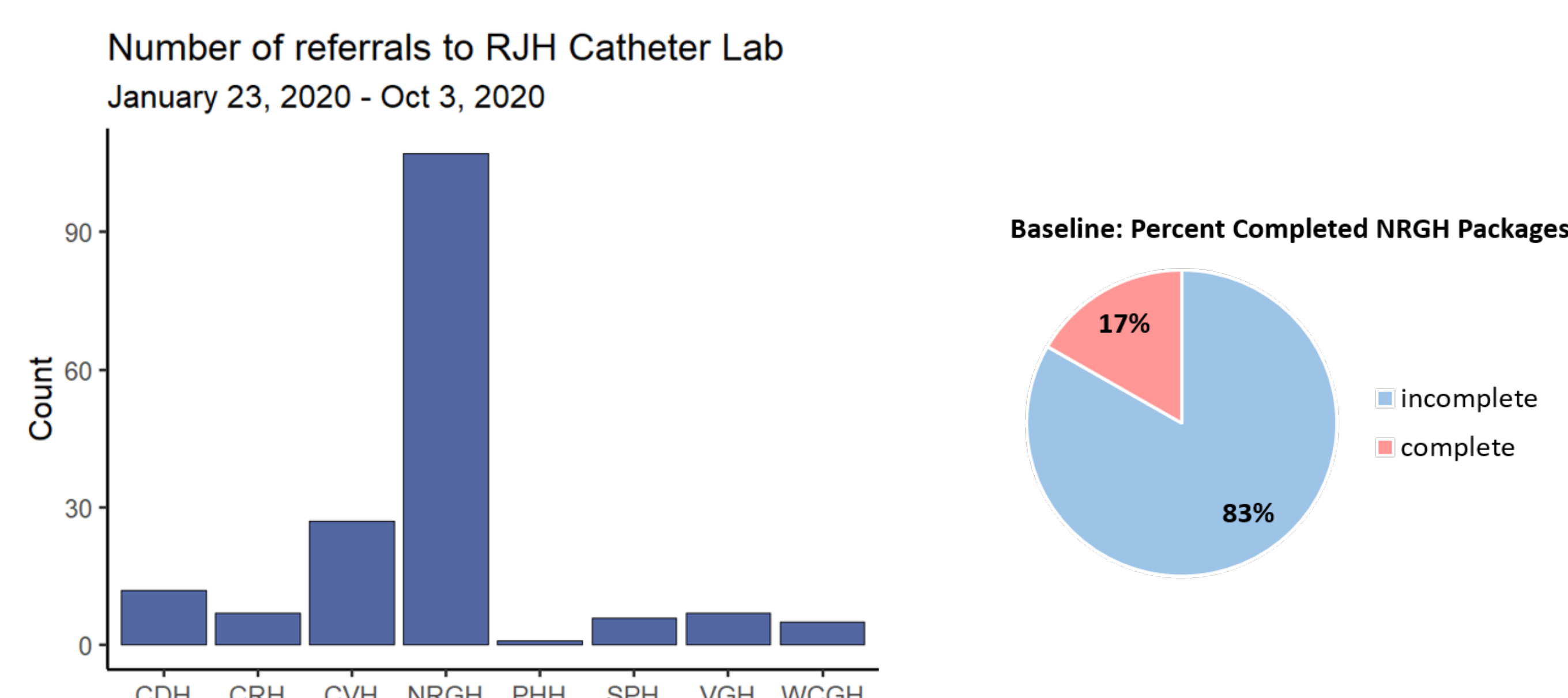
- Prospective data collection at NRGH Floor I CNL and Catheter Lab Referral point.
- Number of referrals per different sites, missing data on referral packages before and after, impact on wait time at NRGH
- Data analyzed using run charts and diagrams

FINDINGS

No evidence that the design of a new referral package with higher rate of “completeness” lead to shorter wait times to the Catheter Lab at RJH for NSTEMI inpatients at NRGH

BACKGROUND

Patients admitted with NSTEMI should ideally have assessment with angiography and revascularization within 48-72 hours according to ACC/AHA guidelines.



PROBLEM

NSTEMI patients admitted to NRGH take much longer than guideline recommendations to receive angiography. This is believed to cause suboptimal health outcomes.

CHANGE IDEA

1. Implement new referral package
2. Better risk stratification tools
3. Increase Cath Lab time

PROJECT SPREAD

Sphere of influence by discussing with Internal Medicine & Cardiology colleagues about project findings, other tools that can be used, other potential options to expedite process.

CONCLUSION

1. Optimizing the referral process has no say in reducing wait time to Cath Lab for NRGH patients, and likely other VIHA referral sites
2. Key limiting factor believed to be catheter lab time i.e. number of cath labs rooms x hours of operation
3. Need for Catheter Lab at NRGH serving central island population (>350,000)
4. Consider utilizing other risk stratification tools, such as TIMI/Grace scores, to characterize low vs high risk patients to prioritize referrals



Endoscopic Retrograde Cholangiopancreatography (ERCP) Triage and Tracking Project

Al Buckley, MD, Andrew Singh, MD and Cheryl Armstrong, BSN, MPH



CONTEXT

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



BACKGROUND



- No formal tracking system for non-elective ERCP cases
- Challenges with care transitions & handover
- Patients can become unstable while waiting for an ERCP → sub-optimal outcomes
- Underutilization of available weekday slots
- Weekend/after hours bookings → ↑ costs

OUTCOMES

Adoption: 192/212 [90%] ERCP cases entered in REDCap (urgent: 35%; urgent: 54%; and emergent: 11%)

Benchmark: 86% of cases met their target

Triage benchmark:

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



Barriers (n=9):

- Delayed transfer (n=2);
- Pending COVID results (n=1)
- Waiting patient stabilization (n=6)

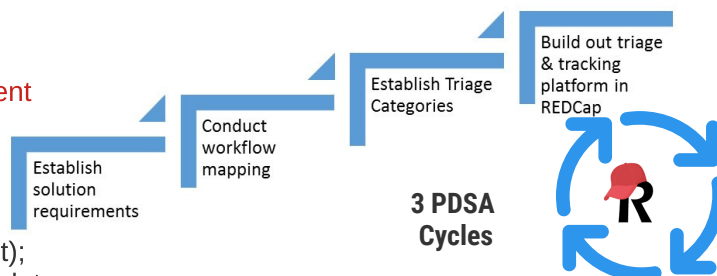
Utilization:

- 31 unused weekday slots
- 54 (28%) of cases were performed in off hours/weekends (semi-urgent: 22%; urgent: 66%; and emergent: 11%).

METHODS

Solution Requirements:

1. Interface with CERNER EMR – **only requirement not met**
2. Improve efficiency
3. Ability to track 24/7
4. User friendly
5. Able to: denote triage status (urgent/emergent); originating hospital and referring physician; calculate time waiting from referral to procedure (benchmark)



Goal: Establish triage levels and track all emergent, urgent and semi-urgent cases to improve utilization.

Aim Statement: 1. Co-develop and establish benchmarks for procedure completion based on triage category and measure % of cases completed within benchmark; 2. Achieve 90% adoption of case entry into REDcap by ERCP physicians

QI OPPORTUNITIES

- Median case length was 18 minutes; currently, cases are booked for 60 minutes
- Improve weekday utilization of case slots
- Evaluate semi-urgent cases for appropriate weekday booking
- ↑ awareness of REDCap capability to support QI projects

NEXT STEPS

Join **CRaTE**, a prospective, pan-Canadian, multi-centre clinical registry study
PI: Dr. Nauzer Forber, University of Calgary

Thriving Families in COVID-19

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

PROJECT TEAM

Lead: Dr. Joanna Cheek

Project Participants:

- R Holmes, J Saunders, Dr. S Lea, C Tomorri
- Dr. A Miller, Dr. J Ryan, Dr. M Gansner
- Dr. O Maheswari, Dr. J Kobiljski, Dr. O Hayes
- Dr. S Stuskiuk, Dr. S Johhson, H Barnes
- Public Health: Hilary Planden, Constance Haselden

AIM STATEMENT

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

PDSA Cycle



Evaluated:

- 1) Patient Survey
- 2) Curriculum Development
- 3) Pamphlet
- 4) Adapted Delivery Model to Virtual with CBT Skills
- 5) 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 curriculum and pamphlet
- Collected mid-way and post-GMV patient scales for satisfaction, comfort, safe, engaged, level of interaction, online format,; qualitative
- Collected patient participation data for CBT Skills virtual vs. in-person and analyzed with run charts
- Attained qualitative feedback of virtual patient experience with groups

CONCLUSION

- Group Medical Visits are equally acceptable and effective virtually compared to in-person and can improve accessibility to psychosocial interventions
- Virtual platforms allow for provincial spread and training of new facilitators without need for travel

BACKGROUND

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

PATIENT VOICE

- Wanted both skills to manage own emotions and conflict, and promote wellness in child
- emotions and 100% very satisfied with group, comfortable sharing, felt safe & engaged
- Benefit from hearing from others' experience
- Childcare & Scheduling are major barriers: appreciated participating virtually from home

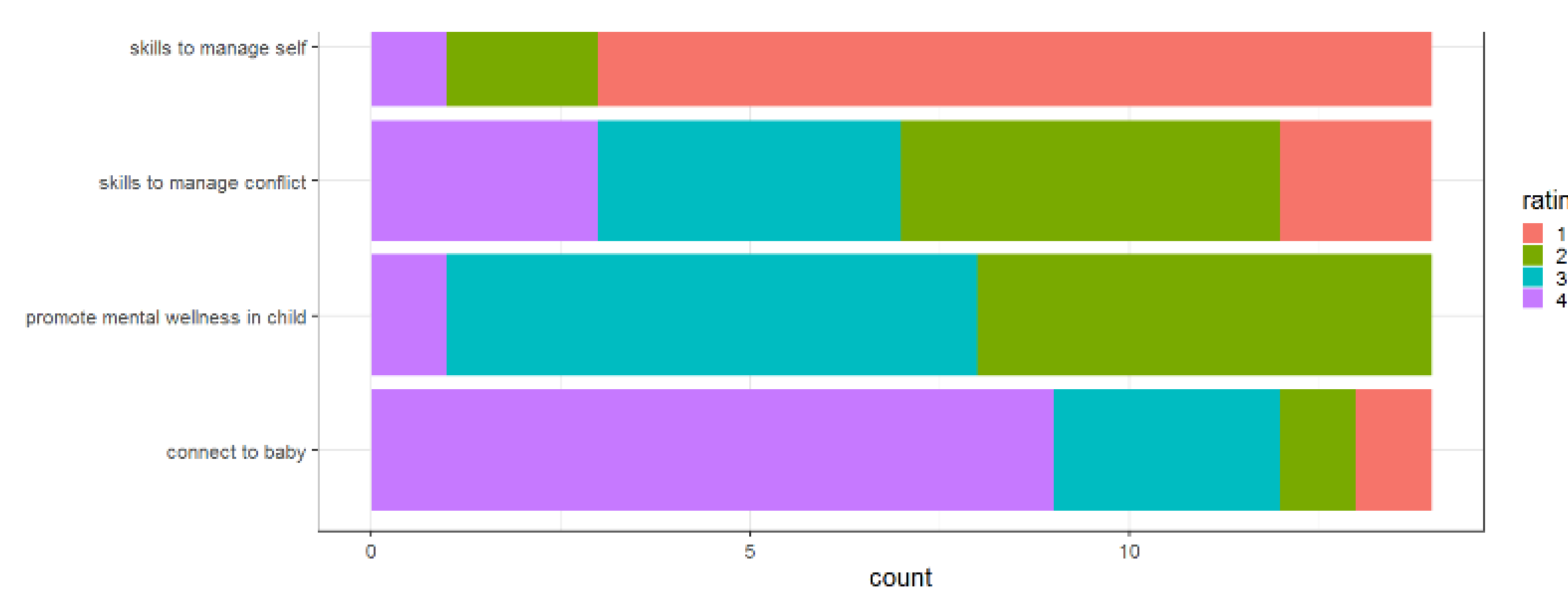
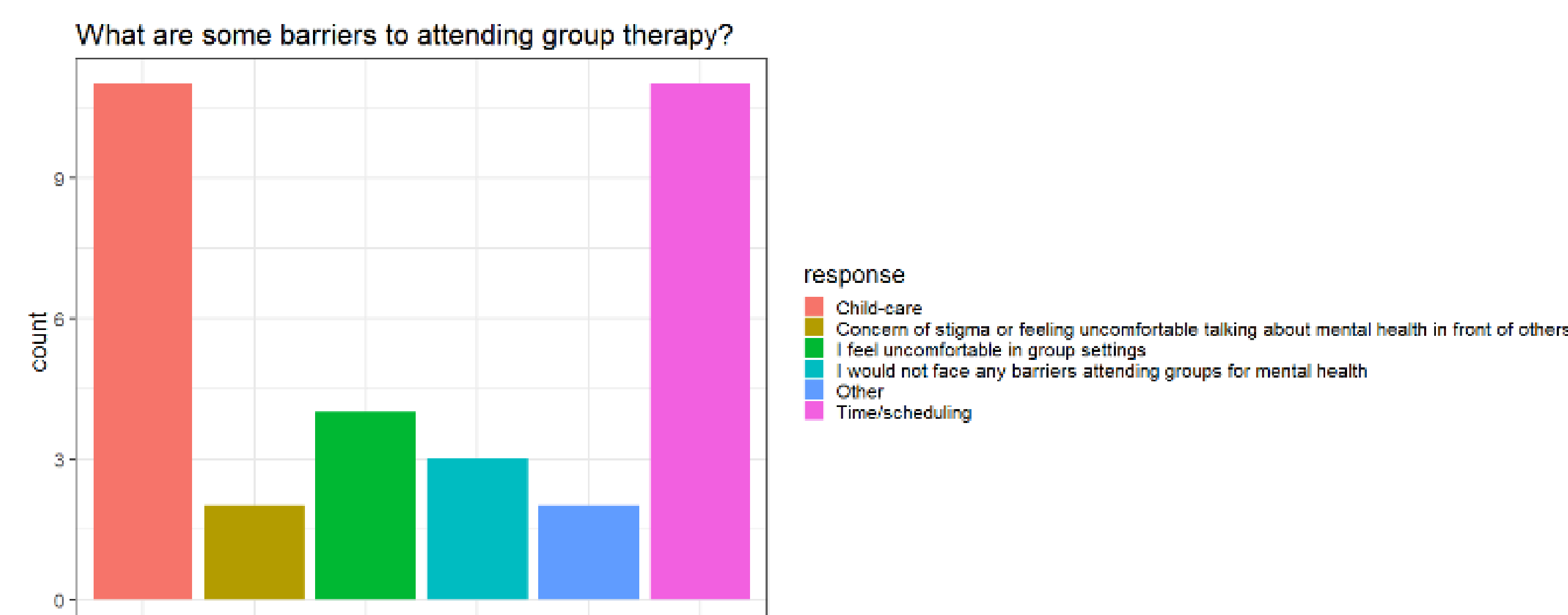


Image 1: Sample Patient Survey Results

FINDINGS

- COVID-19 delayed roll-out of reflective parenting, as could not do in-person groups, and could not train public health nurses and family doctors as they were needed for COVID-19
- New reflective parenting GMV curriculum well-received by patients and expert consultation
- Able to successfully adapt CBT skills group format from in-person to virtual with no change in acceptability or effectiveness

PROBLEM

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

CHANGE IDEA

- Use already successful CBT Skills Group Medical Visit model of delivery for new population of higher-risk parents
- Develop new curriculum in consultation with experts and patients
- Create pamphlet for education and advertisement
- With COVID-19, adapt delivery to virtual, using CBT Skills group in-person data for comparison

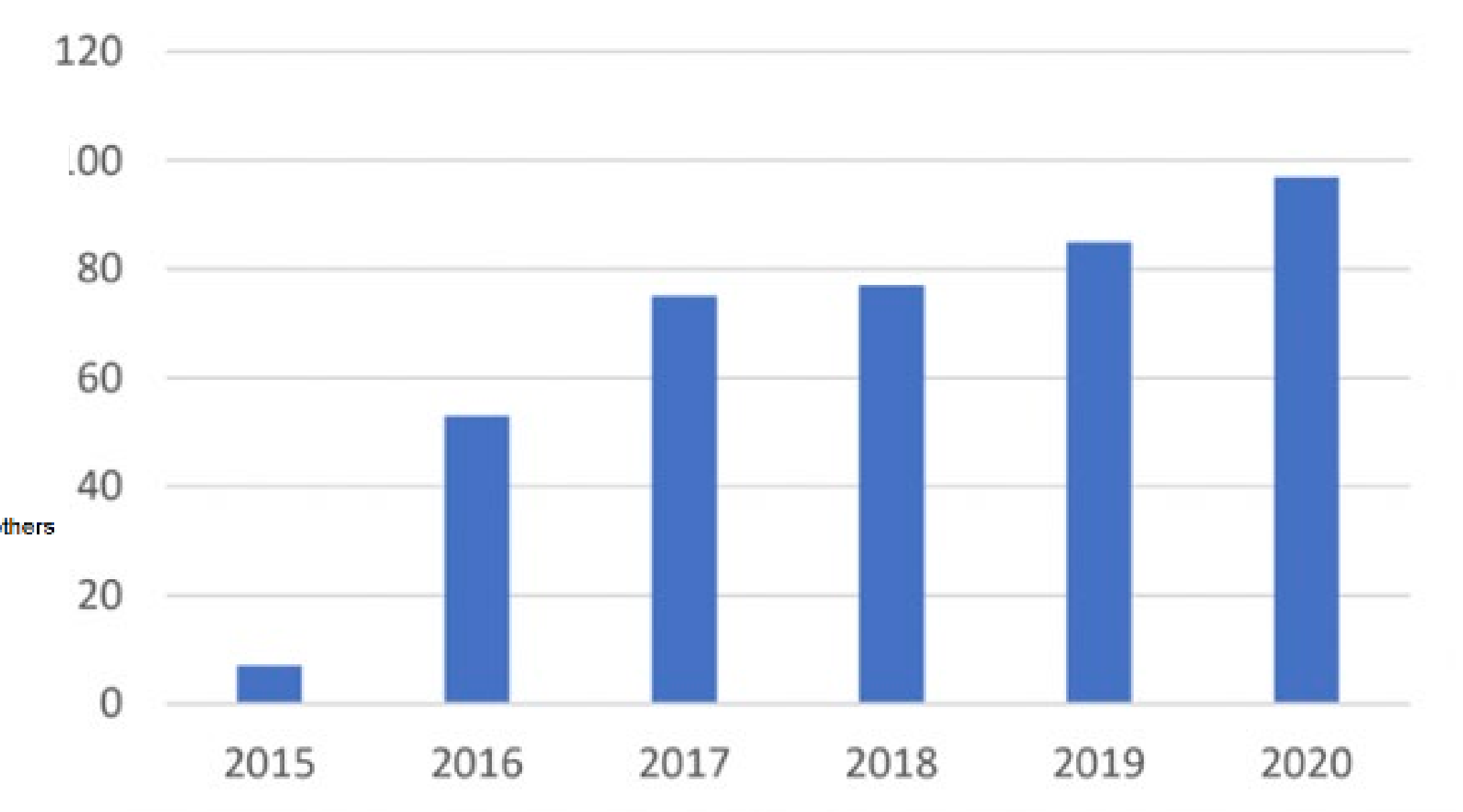


Image 2: Number of Groups (15pp/group) Offered for CBT Skills

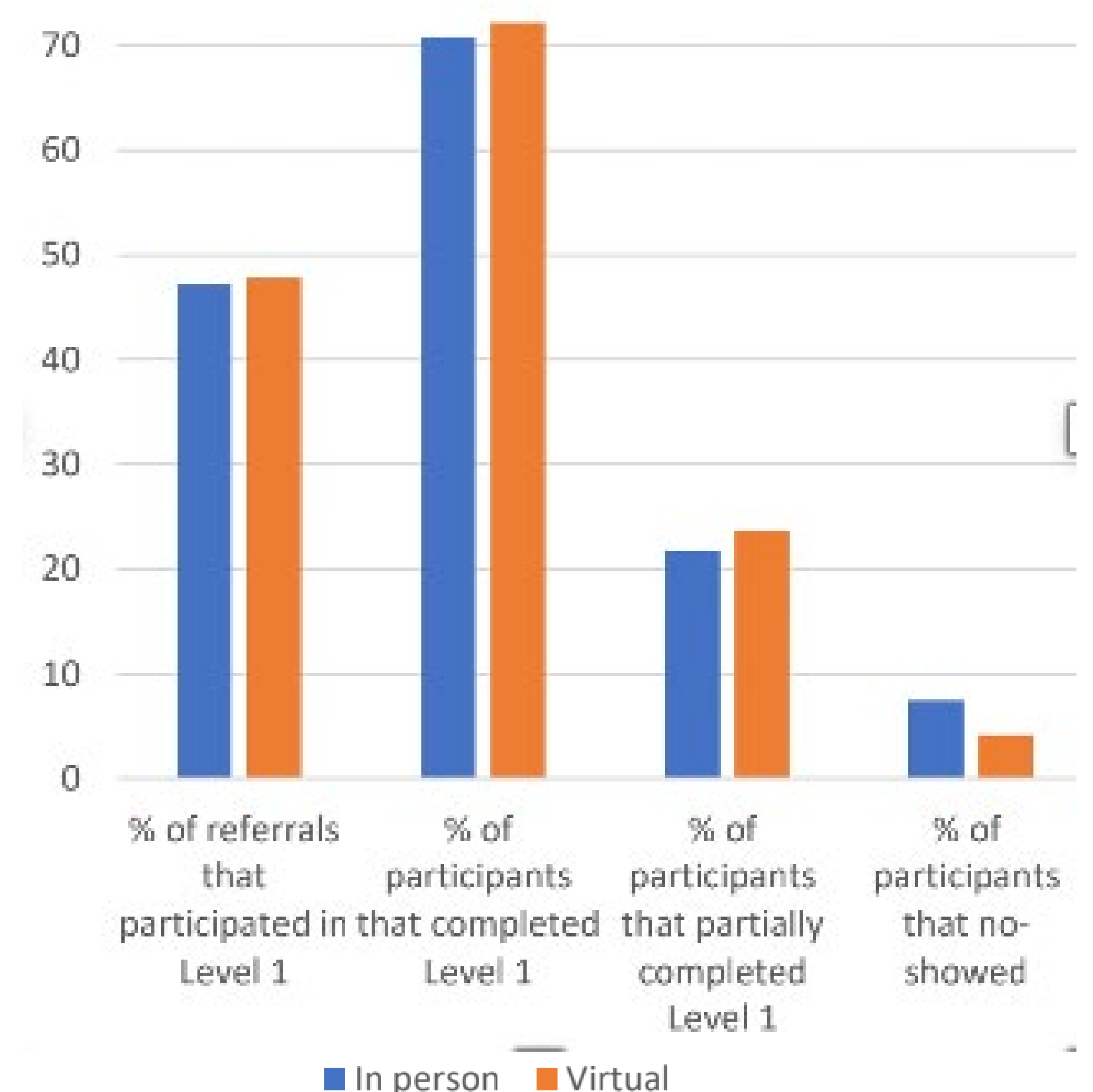


Image 3: CBT Skills Virtual vs In-Person Group Medical Visits
In Person (N=4715) Virtual (N=1272)

PROJECT SPREAD

- Capacity to spread to other communities via virtual train the trainer
- Virtual allows physicians in one community and patients in another

ACLS Simulation Project: Improving Cardiac Arrest Management on Med/Surg Wards

PROJECT TEAM

Dr. Albert Houlgrave [Project Lead]

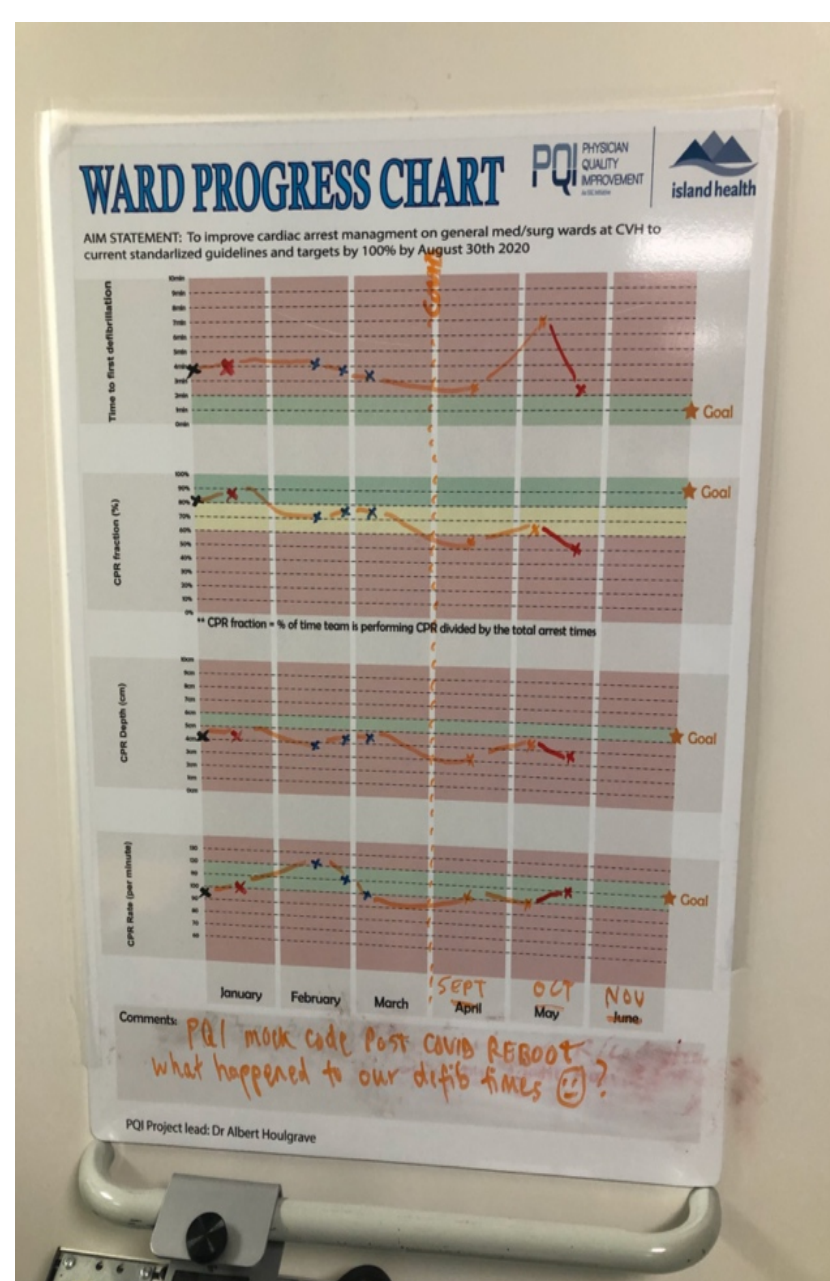
Project Participants:

Carol Tinga [RN, CNE], CVH ERP/Hospitalist/Residents
Shelagh Kantor [RN,CNE], Med/Surg ward nursing team
Peter Ramsey [RN, CNE], ICU/ER nursing team
Bronwen Leguerrier [RN], Sim Man

AIM STATEMENT

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

PDSA Cycle



Developing a standardized feedback system and constant work reminders of goals

- Constructed a white board, real time run chart for each ward
- Reviewed and updated at each sim
- Placed at nursing hubs for review and benchmark reminders between sims

DATA ANALYSIS

- Survey of ward nursing staff on ACLS attitudes and comfort
- Survey of admitted patients
- 10 ACLS sims pre-covid followed by 10 sims after a 6 month covid hiatus
- Accumulating qualitative reviews from staff

PROJECT SPREAD

This project has laid the groundwork to show that ward nursing staff benefit from regular practice at ACLS management. Health authorities and hospital administrations should aim to support ACLS leadership in running sim programs at their own respective hospitals. This project has been the stimulus for an ongoing mock code program at CVH sustaining future cardiac arrest practice and education for years to come.

BACKGROUND

- In 2018 I applied for engagement funds to initiate a code blue simulation program at 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 min after 6 simulation sessions.
- This short interval improvement was the stimulus to evolve the concept into a PQI project



Image 1: A picture of one of the early sims pre COVID in action

PROBLEM

Inexperience and lack of education combined with infrequent exposure and practice with cardiac arrest management results in poor adherence to BLS/ACLS guidelines on general med/surg wards at Comox Valley Hospital.

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

FINDINGS

- A visible pattern over the duration of the study was a decline in the time to first shock.
- A clear shift of data points is seen in the final 6 measurements on the run chart.
- It is also impressive to see that although the majority of the project showed AED times well above benchmarks set out by the Heart and Stroke Foundation of <2min, teams were finally achieving targets in 2 of the final 4 simulations for the project.
- CPR fraction time was negatively impacted by COVID while AED times were not. PPE delays and fear around CPR as an AGMP likely affected these outcome measures.
- CPR rate and depth remained relatively stable over the project

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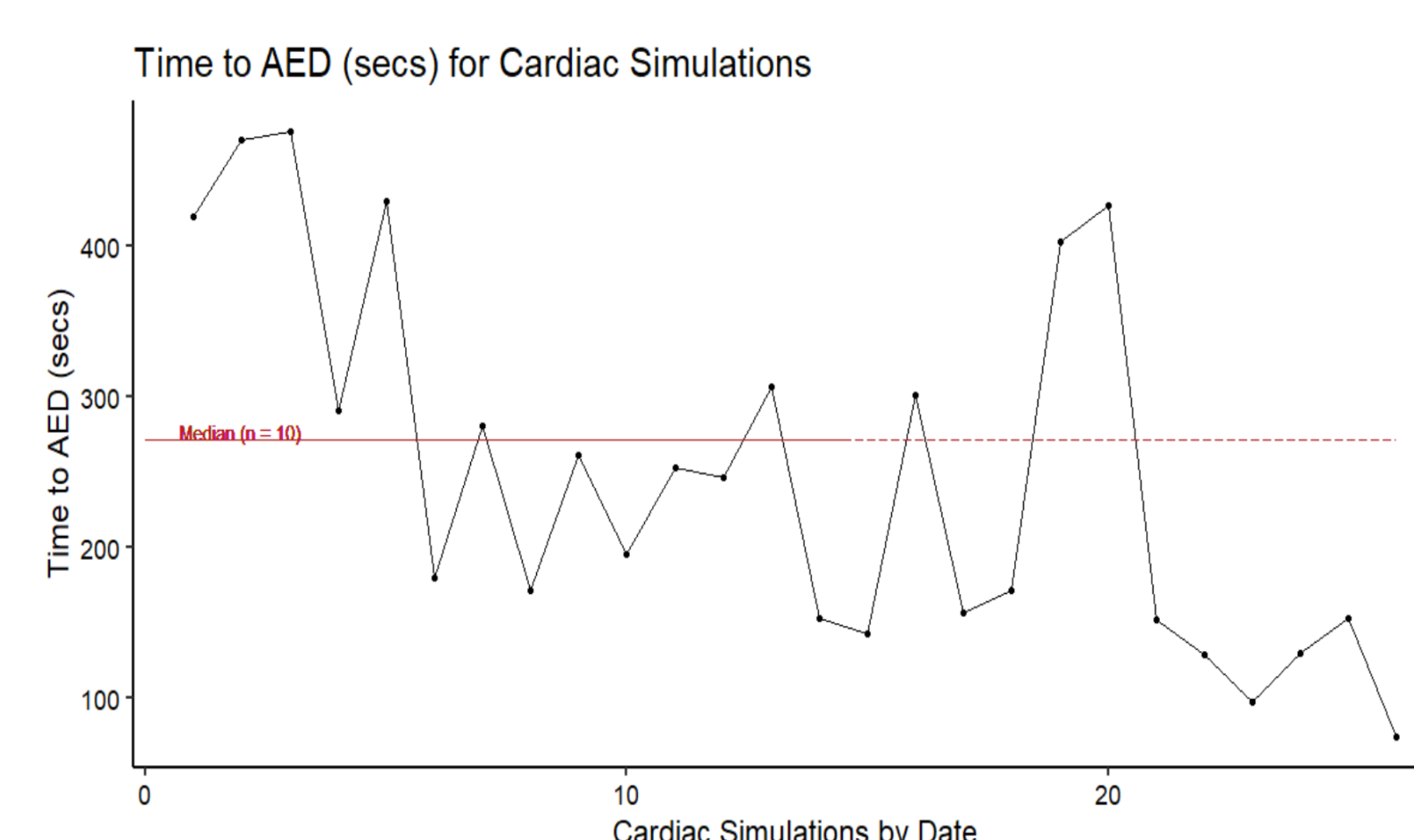


Image 2: Time to first shock by nursing staff over the study period.

Stratified CPR ALS Metrics by Pre/Post COVID

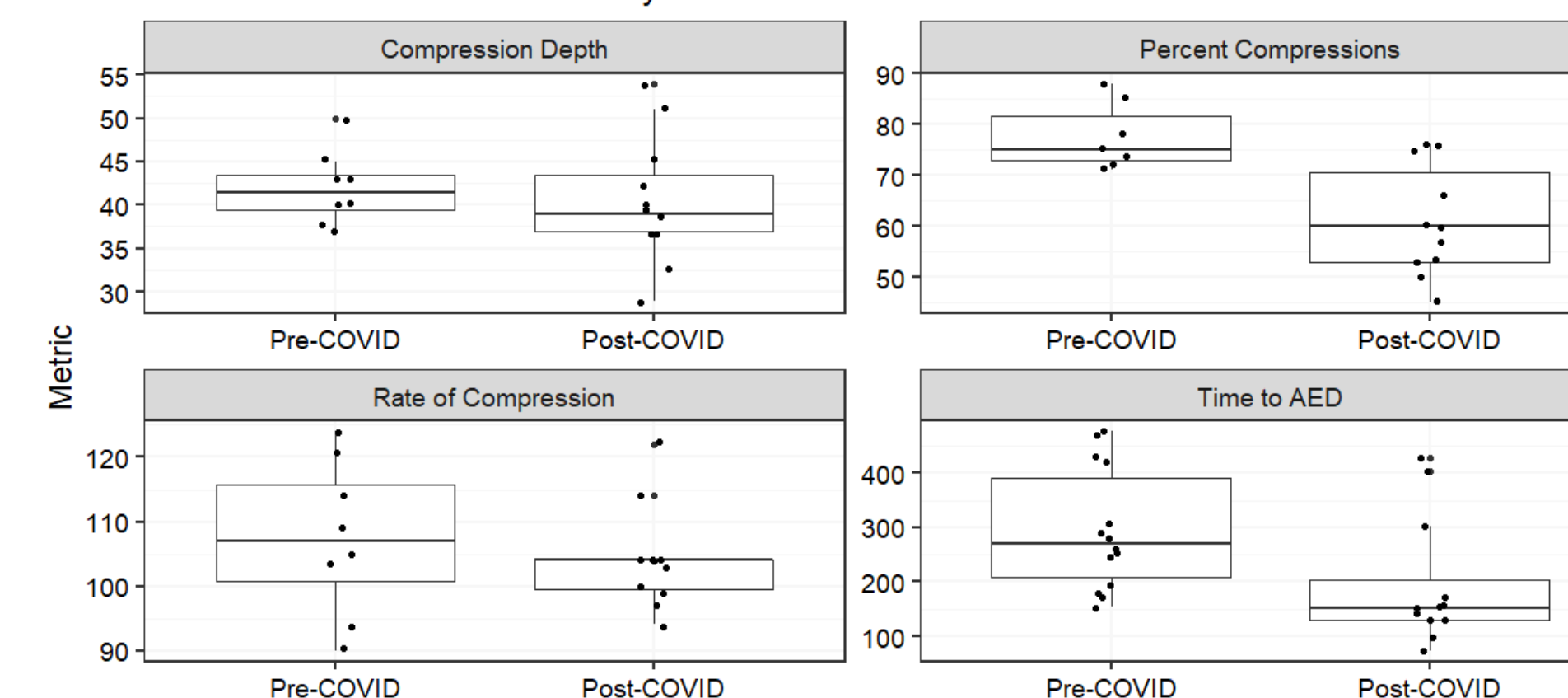


Image 3: Main study measures per vs post COVID

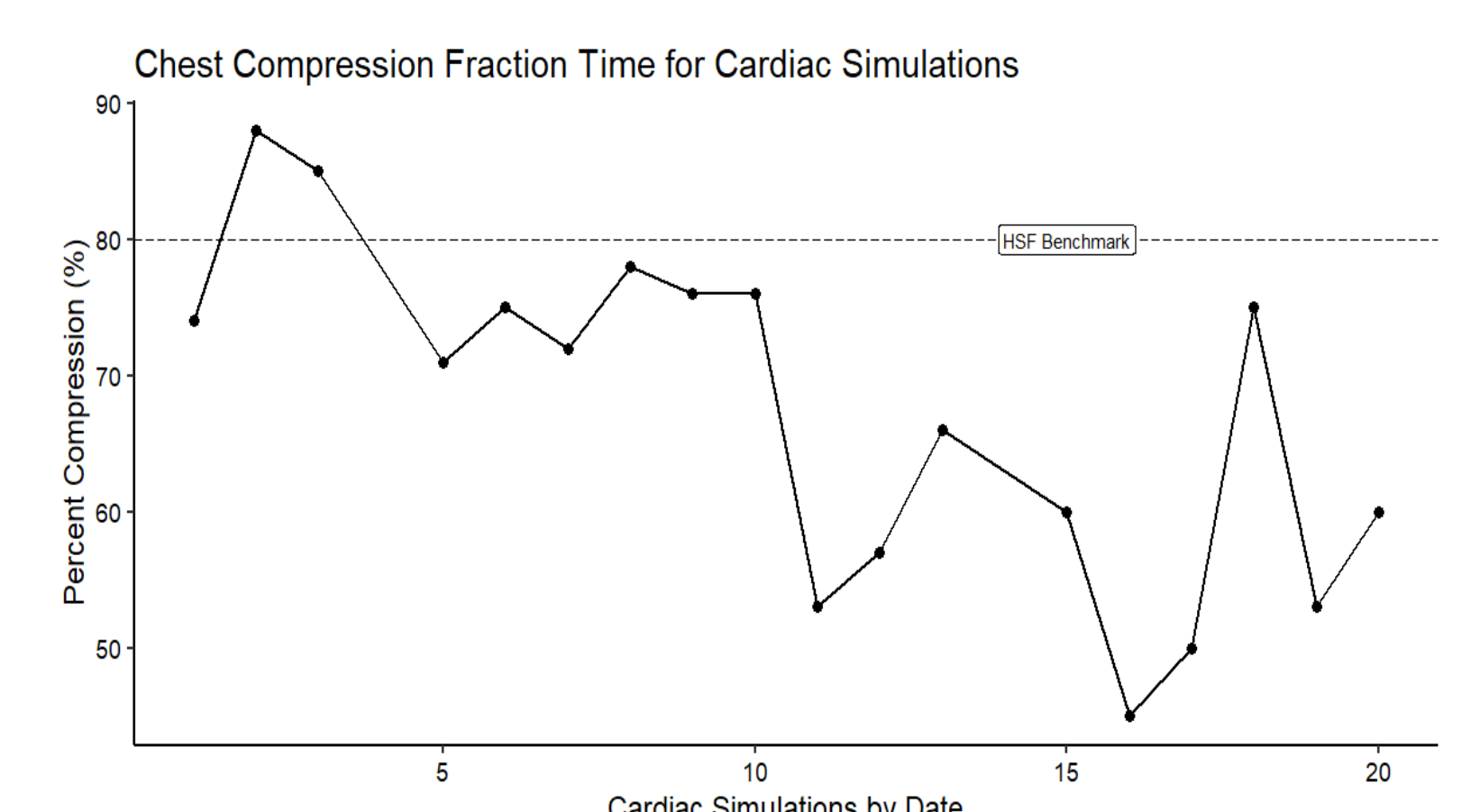


Image 4: Percentage of time CPR is in progress over total arrest time for the study period

CONCLUSION

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 min. A patient might have a greater chance of survival from an AED in the Home Depot than on our own hospital wards. Incredibly, that number changed in spite of additional time delays from COVID to 1 min 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 though. In fact, many system wide changes were brought about directly from issues derived from the study simulations that will forever positively impact patient care at CVH. 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.

PROJECT TEAM

- Dr Erika Kellerhals – Project Lead
- Dr Jessica Flear - CR Outreach Co-lead
- Leanne McIntee – KDC Social Worker
- Raymond Goodwin – Peer Lead
- Amy Palumbo – Island Health RN
- Sonja Hartz – Island Health RN
- Dr Alex Hoechsmann – PQI Advisor
- James Saunders – PQI Data Analyst
- Kamla Gage – PQI Coordinator

AIM STATEMENT

A 20% reduction in CRH ED encounters by cohort of patients accessing the services of the Physician Outreach Team by Dec 31st 2020.

PDSA Cycle



Small test of change:

- Mobile team of doctors outreach to various sites.
- Collaborative care teams
- Develop patient survey
- Develop allied provider survey

DATA ANALYSIS

- Significant challenge in identifying transient cohort – project limitation
- Cohort identified by Outreach Team contacts
- Matched cohort with encounters at CRH
- Surveyed patients to capture experience and impact of change
- Identified changes in behaviour

FINDINGS

- Outreach team connections led to increased ED utilization
- Potential confounding by COVID
- Non-significant increase in inpatient admissions, possibly explained by management of lower CTAS & referral of higher CTAS

BACKGROUND

- People experiencing homelessness in Campbell River struggle to access primary care.
- In many cases they also struggle to access addiction care
- They are believed to be disproportionate users of Emergency and inpatient services at CRH

CHANGE IDEAS

- Create physician outreach team
- Use of MOUHSS (Mobile RV) to access different locations
- Questionnaire to determine patients & allied service providers satisfaction with Physician Outreach Team
- Test site locations to maximize patient

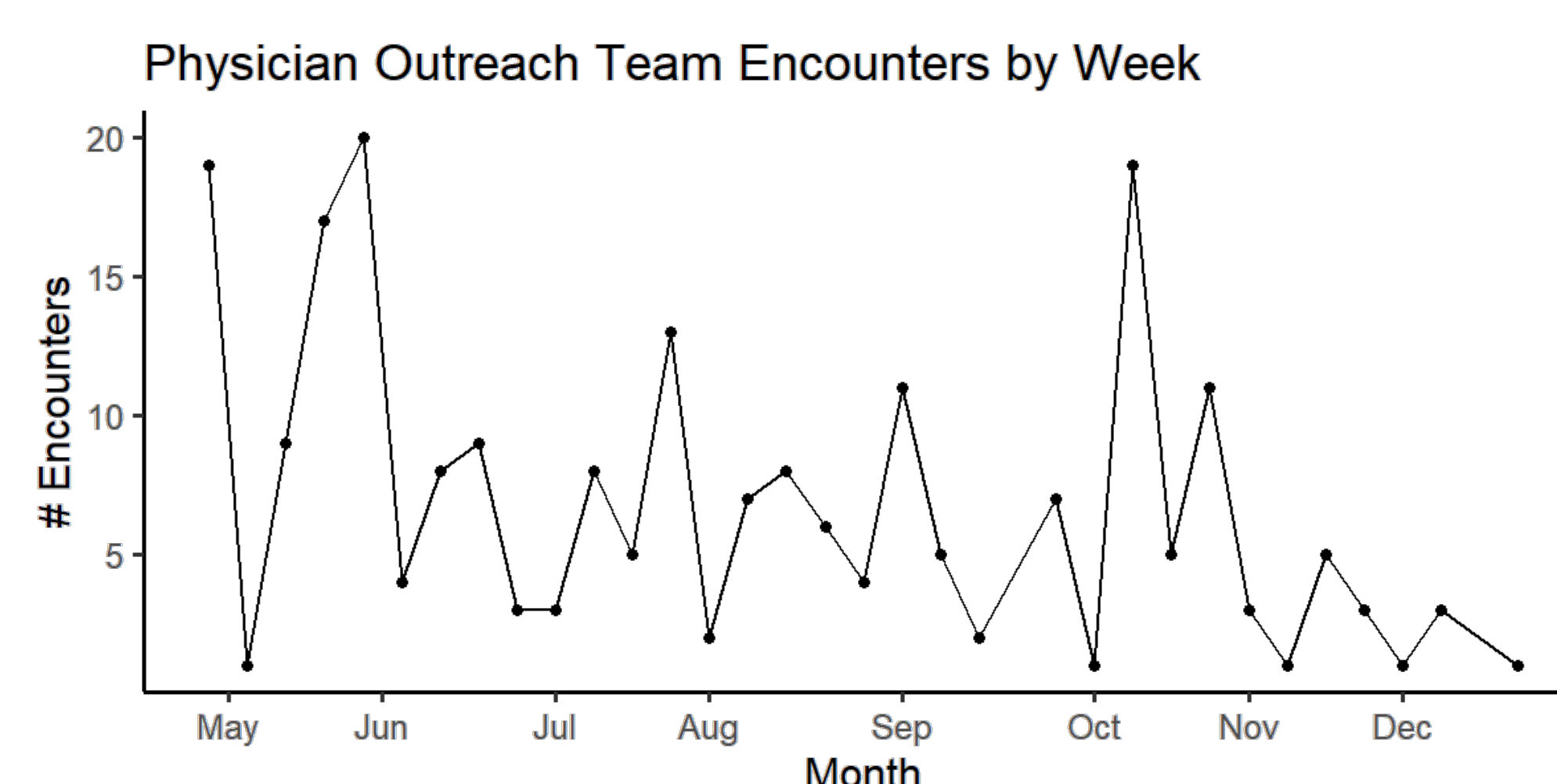


Image 1: Physician Outreach Team Encounters by Week

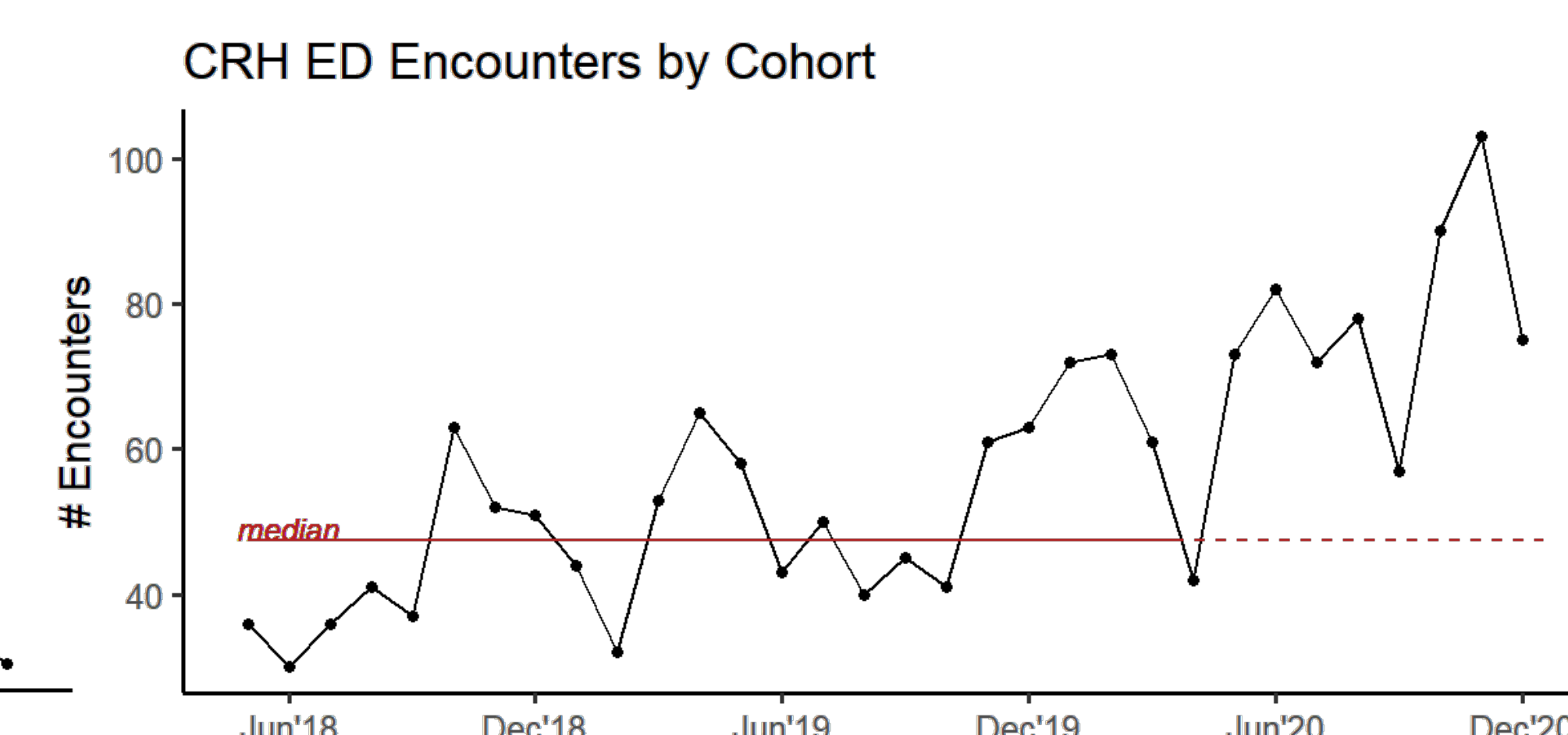


Image 2: CRH ED Encounters by Physician Outreach Team Cohort

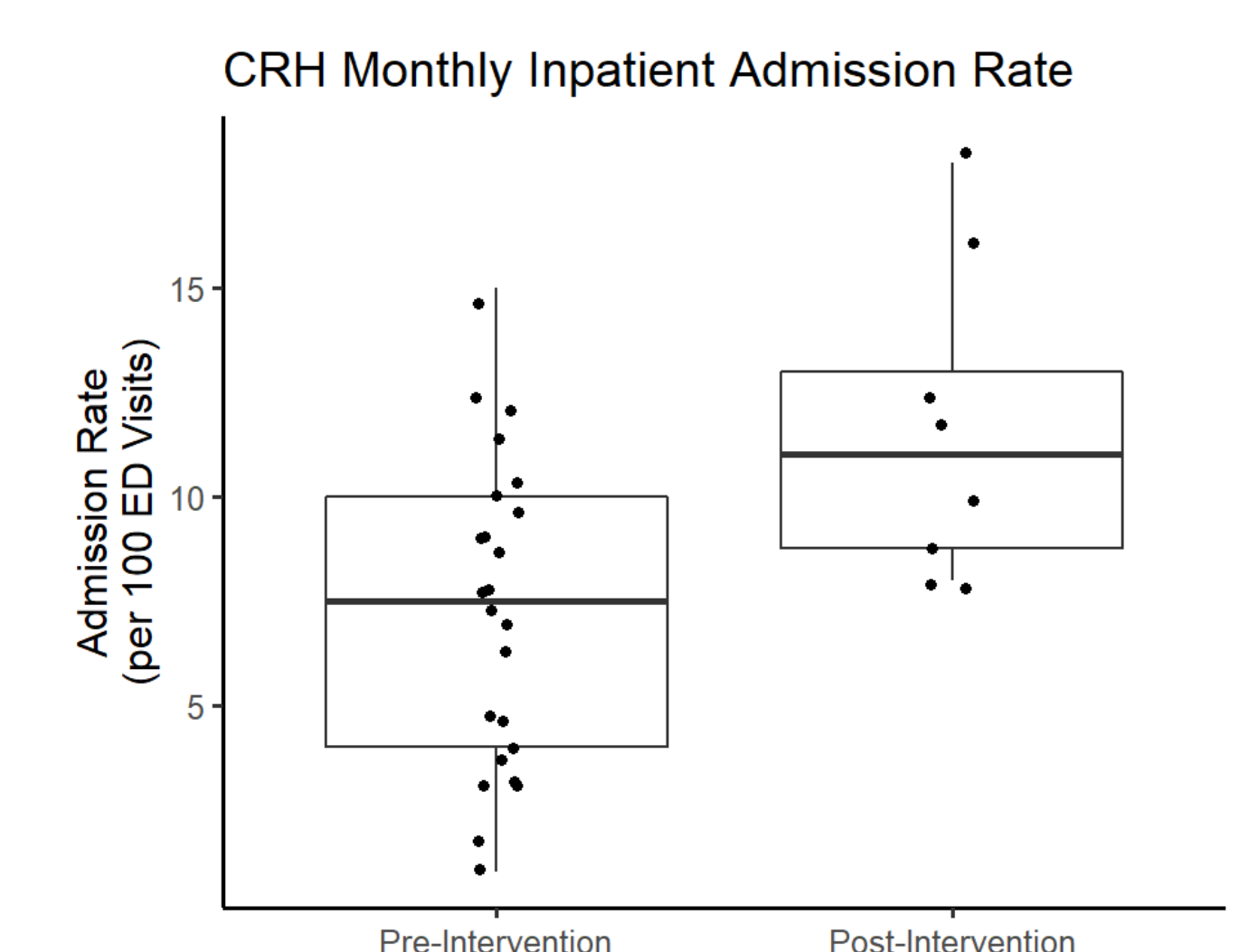


Image 3: Inpatient Admission Rate by Physician Outreach Team Cohort

PROBLEM

- The Covid-19 pandemic exposed weakness in the system and concern that this 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 CRH services needed to be addressed while ensuring appropriate care was available

“Medical approach is laidback, thorough and non-judgemental”

PATIENT VOICE

“This is the most healthcare contact many clients have had in years”

PROVIDER VOICE

CONCLUSION

Ongoing exploration regarding this service is needed

To see the impact this service has had on both patients and providers in the community has motivated the team to continue to look at how quality improvement tools could be used to improve care for this vulnerable population.

PROJECT TEAM

Dr Nadia Mousa (Project Lead)

Project Participants:

- Joanna Salken – ED Manager
- Colin Quigg – EDL Supervisor
- Joani Litchfield – ED RN
- Heather Ashdown – ED Unit Assistant
- Dan Tetreault – EDL Technologist
- Dr Greg Culp – ED Physician
- PQI Team

AIM STATEMENT

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

PDSA Cycle



Evaluated:

- Changing referral form
- Updating patient information form
- Creating new clinic

DATA ANALYSIS

- Determine amount of inappropriate appointments
- EDL staff collected data to determine type of appointment
- Ongoing surveys of ERPs to determine need for new forms were helpful after multiple PDSAs

FINDINGS

- Covid-19 most likely impacted data due to change in patient behaviour
- Long-term monitoring will be needed to determine success of changes
- While the data does not appear to support an improvement, the areas involved in this QI project continue to use the change ideas as they believe it has led to an optimized system.

BACKGROUND

Nanaimo Regional Hospital Rapid cardiac assessment (RCA) clinic assesses patients with chest pain via exercise test. The RCA clinic has 4 available spots per day to assess patients that need to be seen within 1 week of an ER visit. The clinic runs 4 days a week due to EDL resources and patients are allocated a slot by ED staff and EDL is notified via faxed referral.

CHANGE IDEA

- Update referral form
- New clinic day
- New appointment letter



PROBLEM

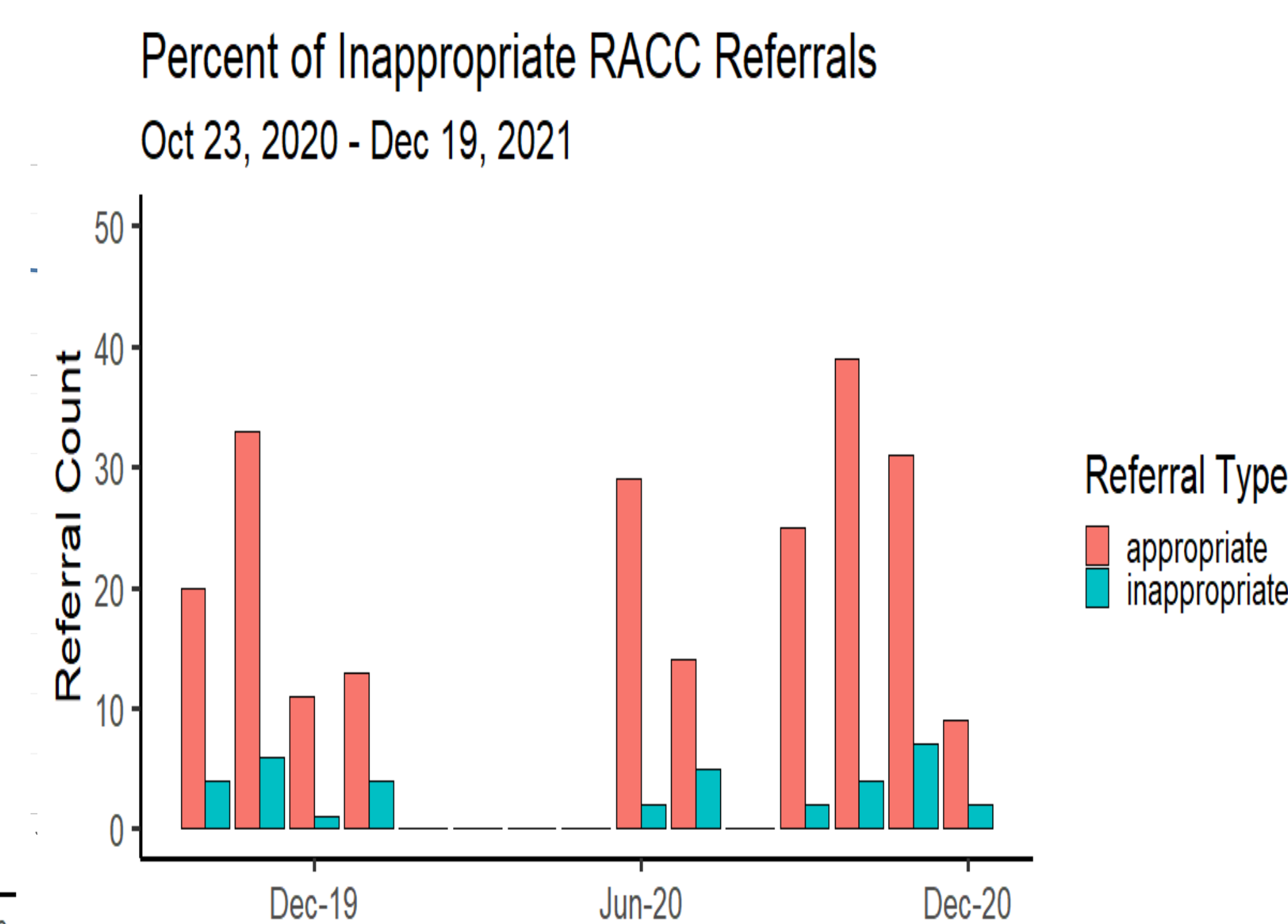
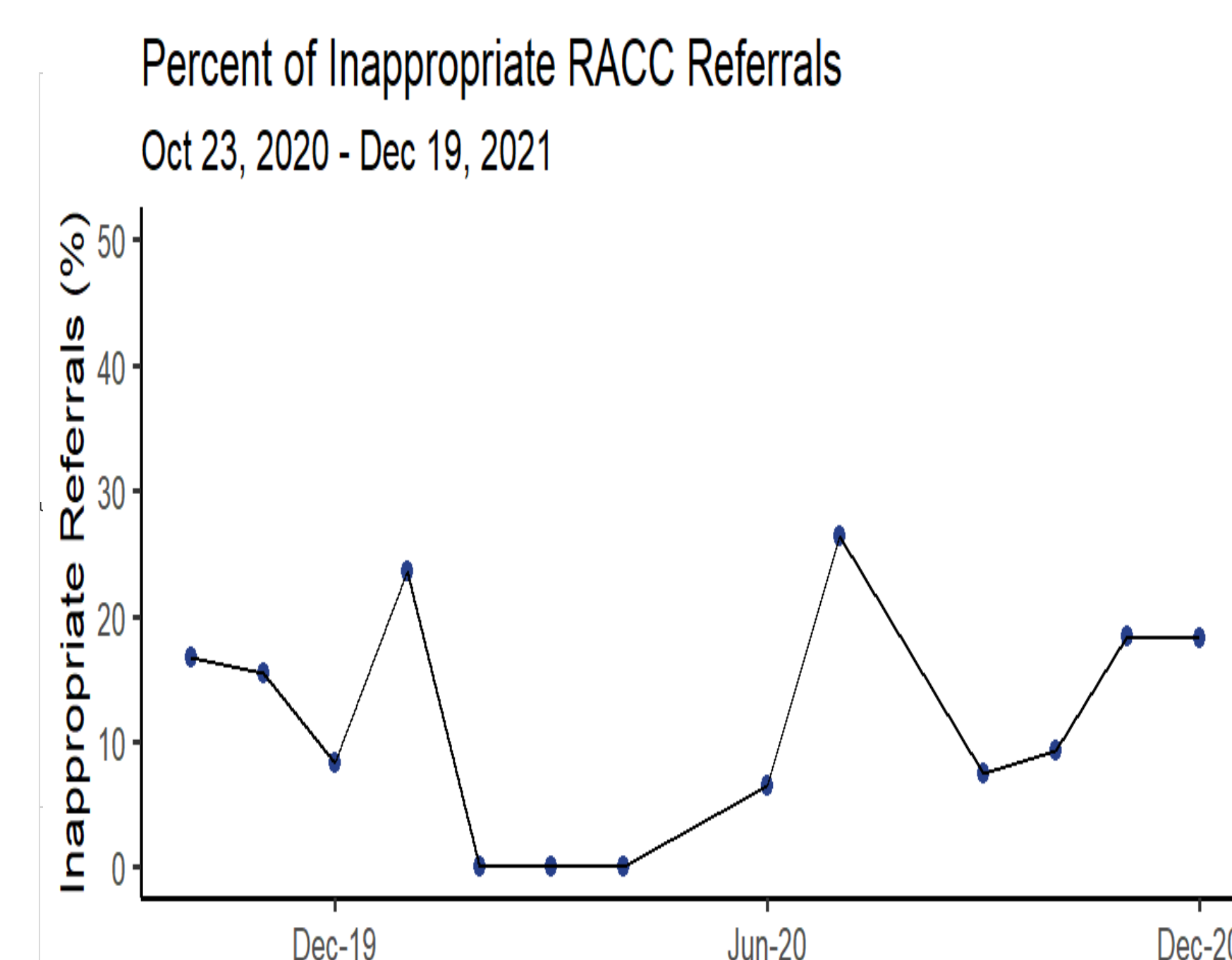
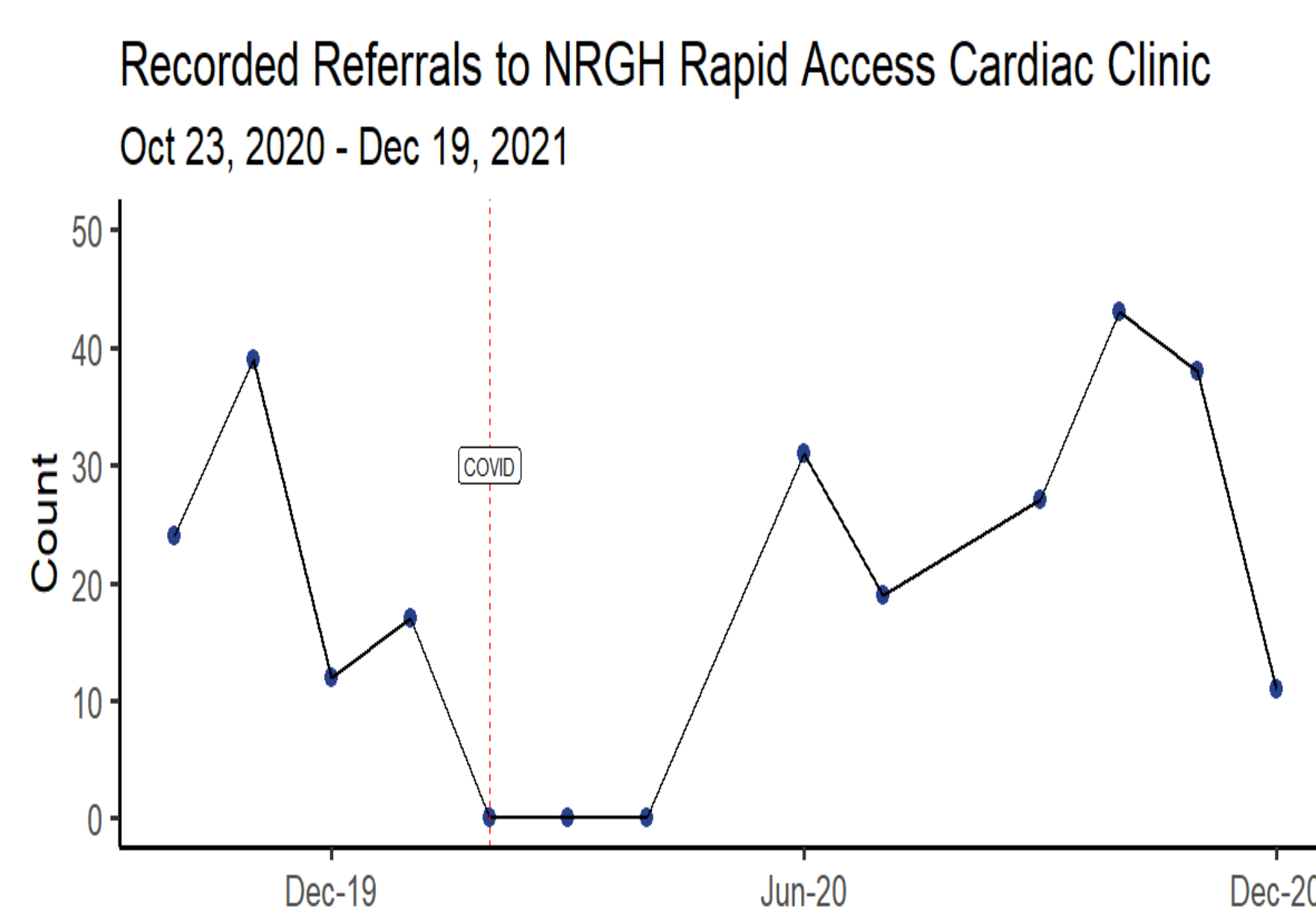
Frustration by what appeared to be a high number of unused clinic spots that was a result of patients not being appropriate for the RCA clinic. Patients were presenting for appointments, were prepped for procedure only to be told that it was not the correct procedure for them. The gap identified was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

Colleagues Feedback

100% of ERPs feedback was positive.
They felt they now had options to deliver more appropriate care

PROJECT SPREAD

- Change ideas was initially tested at NRGH ED and multiple PDSA were carried out to improve the referral form
- OHC and LHC were given the option to join and the agreed



CONCLUSION

QI is an ongoing process, the ultimate goal is to optimize resources, improve patient care and workers well being. Despite negative results, we did gain benefits by the small changes, that will likely show long term benefit. The new referral form and clinic day has been adopted by the clinical areas

Drugs for Drinks Increasing Naltrexone Prescribing in the ER

PROJECT TEAM

Dr. Anne Nguyen, Project Lead

Project Participants:

- Rosanne Holmes, PQI Coordinator
- James Saunders, PQI Data Analyst
- Bastian Weitzel, PQI Graphic Design
- Dr. Dana Hubler, PQI Advisor
- Dr. Mary Elrick, Family Physician
- Dr. Jason Vale, ER Physician
- Dr. Tina Webber, ER Physician
- Dr. Ramm Hering, Addiction Medicine Physician
- Dr. David Cook, Hospitalist Physician
- Dr. Joyce Coutts, Addiction Medicine Physician
- Dr. Richard Crow, Project Sponsor
- Rebecca Kirkwood, CNE, RJH ER
- Alison Koropatnicki, Manager, RJH ER
- Hassan Ahmed, Patient Voice
- Susan Baeristo, Patient Voice
- Keila Byron, RJH ER Clerk

AIM STATEMENT

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

PDSA Cycles



PDSA Cycle 1:

- ER Physician Survey, Nov 2019

PDSA Cycle 2:

- Baseline Data review of RADU discharge summaries Sept-Nov 2019

PDSA Cycle 3:

- ER MD and Nursing Education, Feb 5, 2020

PDSA Cycle 4:

- Collaborative Prescriber Signing Initiative

PDSA Cycle 5:

- Naltrexone Info Cards for HCP's and Patients

PDSA Cycle 6:

- Post intervention chart review Feb-Mar 2020, and analysis

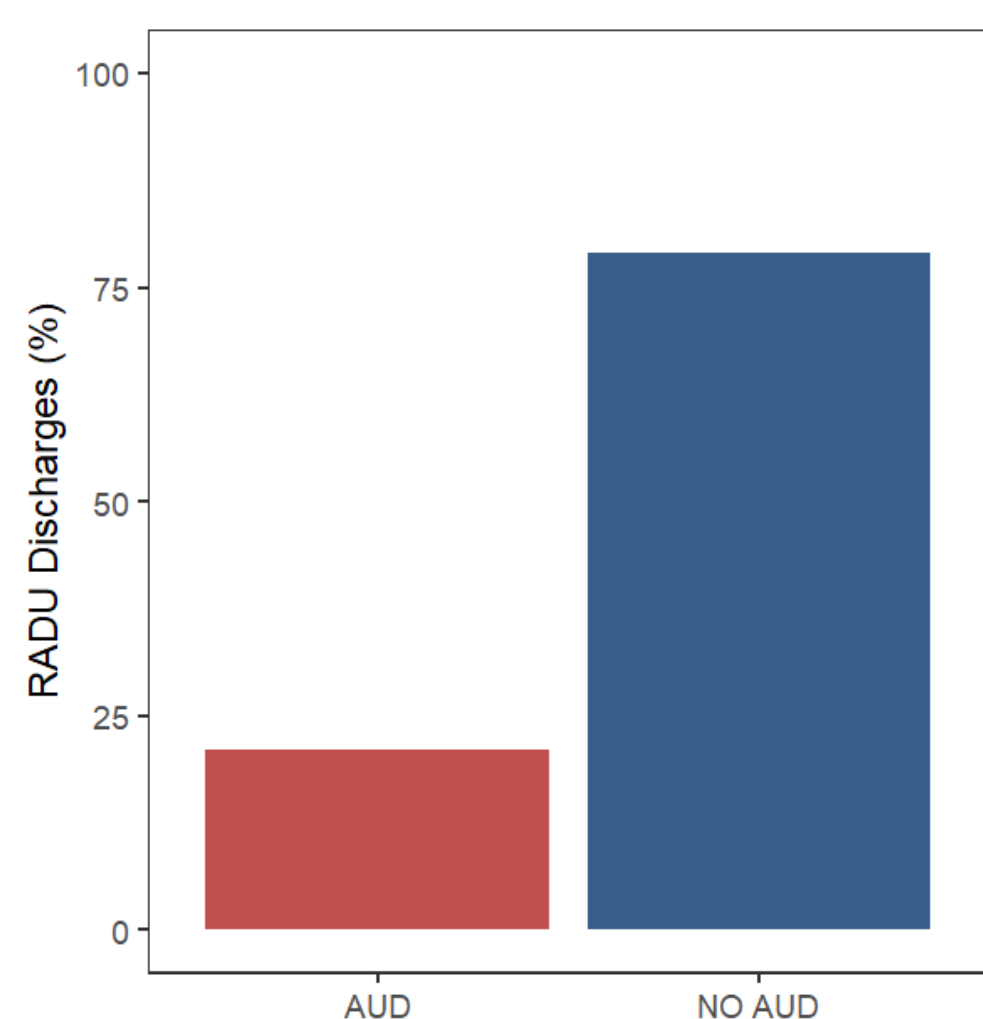
PDSA Cycle 7:

- Presentation to ER MD's Department Meeting Dec 2020

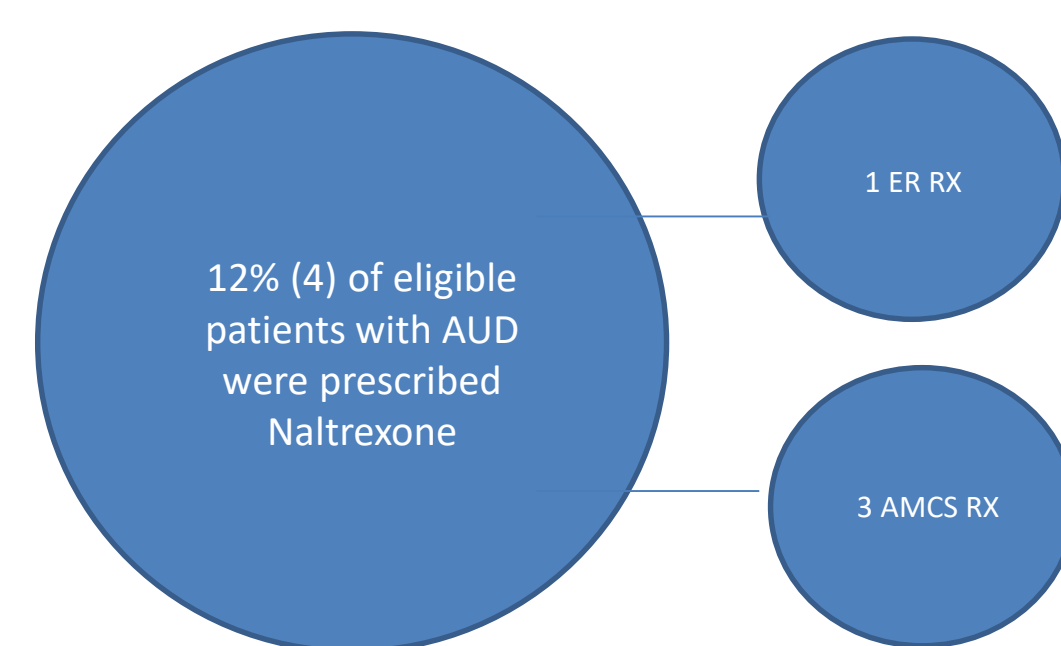
PDSA Cycle 8:

- Post intervention ER MD Survey, Dec 2020, and follow up including pre-printed anti-craving prescriptions for the ER, Urgent Primary Care Center, and outpatient clinics

DATA ANALYSIS

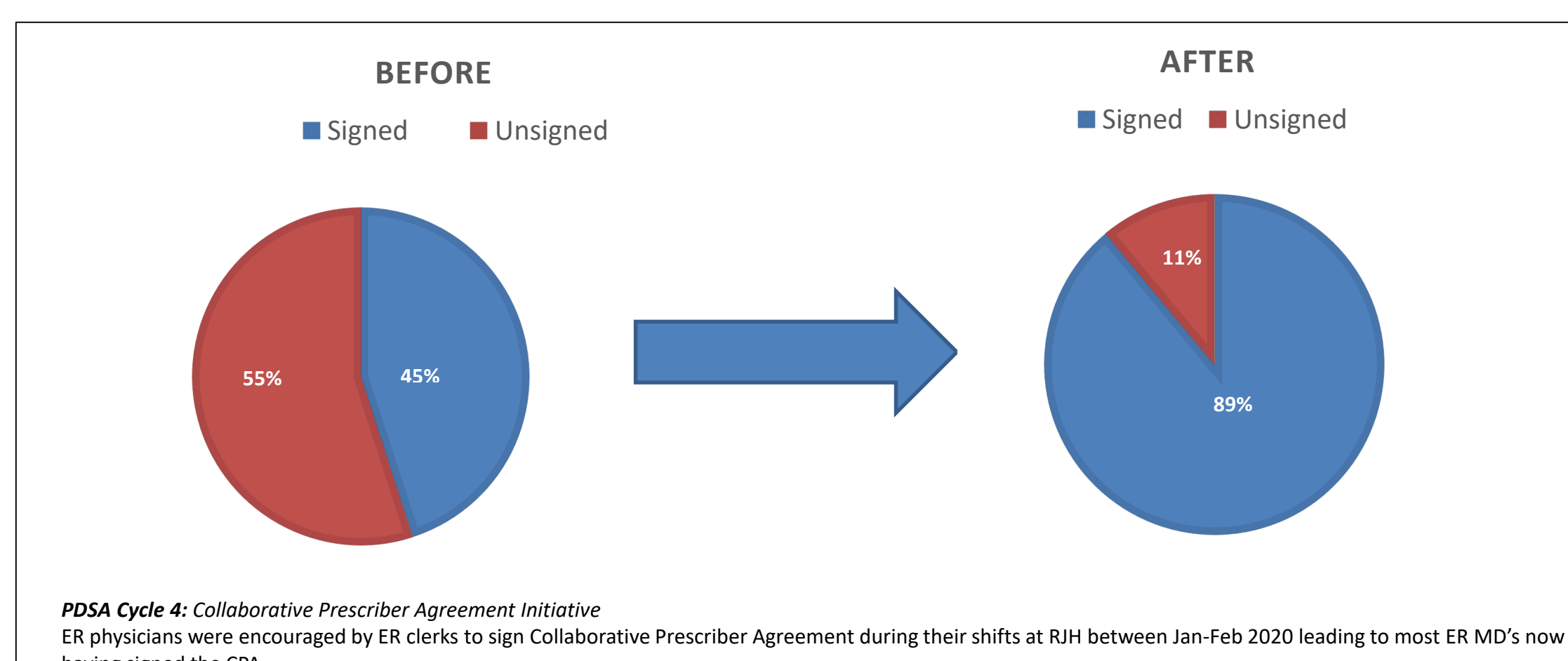


PDSA Cycle 2: Baseline review of 165 RADU discharges Sept- Nov 2020. 34 (21%) presented to the RJH ED with alcohol use disorder.



PDSA Cycle 2: Missed Opportunities

Most eligible patients with AUD in our baseline data review were not offered Naltrexone. The majority of those offered Naltrexone were offered it through a consultation with the Addiction Medicine Consult Service (AMCS) rather than through the ER

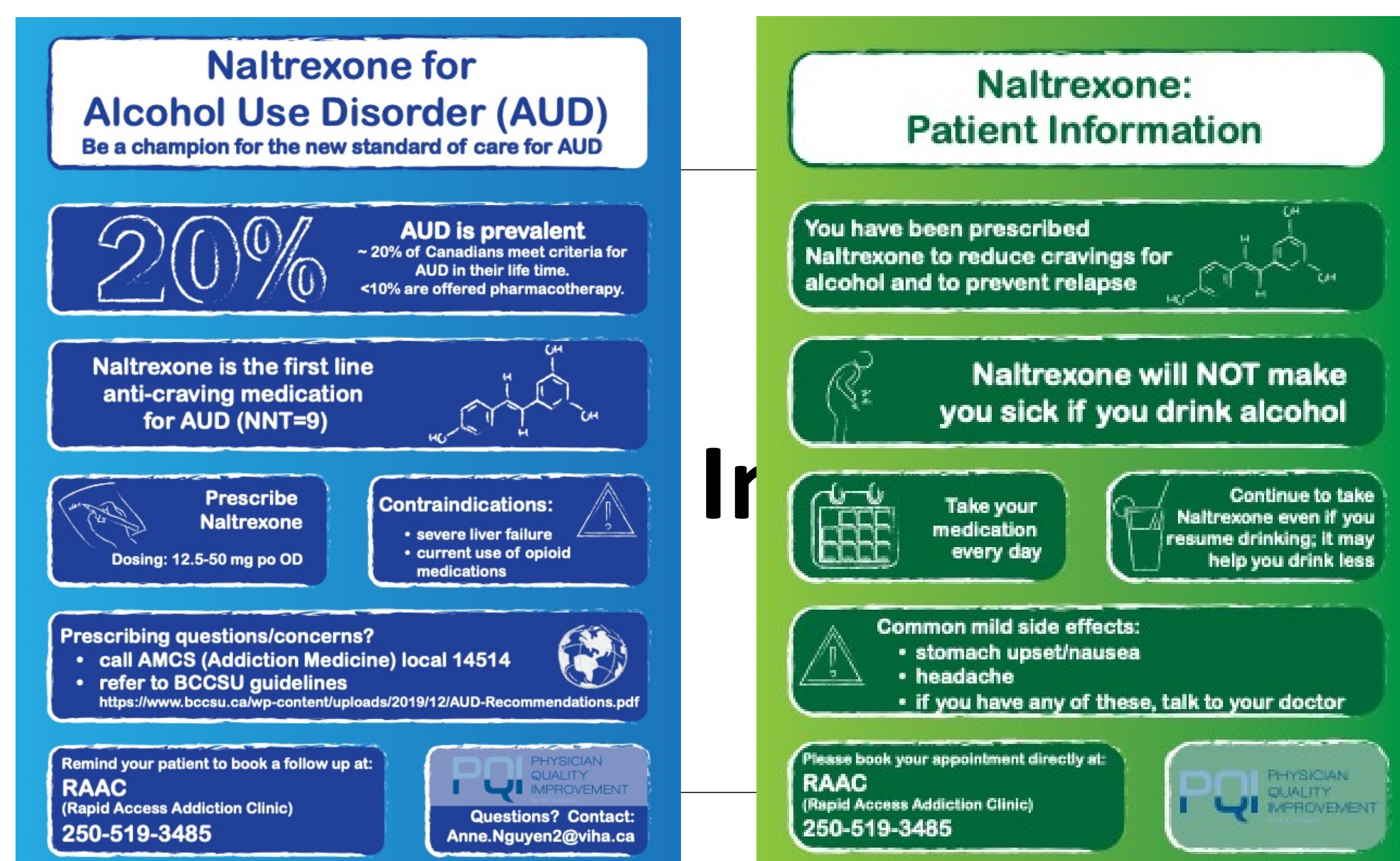


BACKGROUND

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

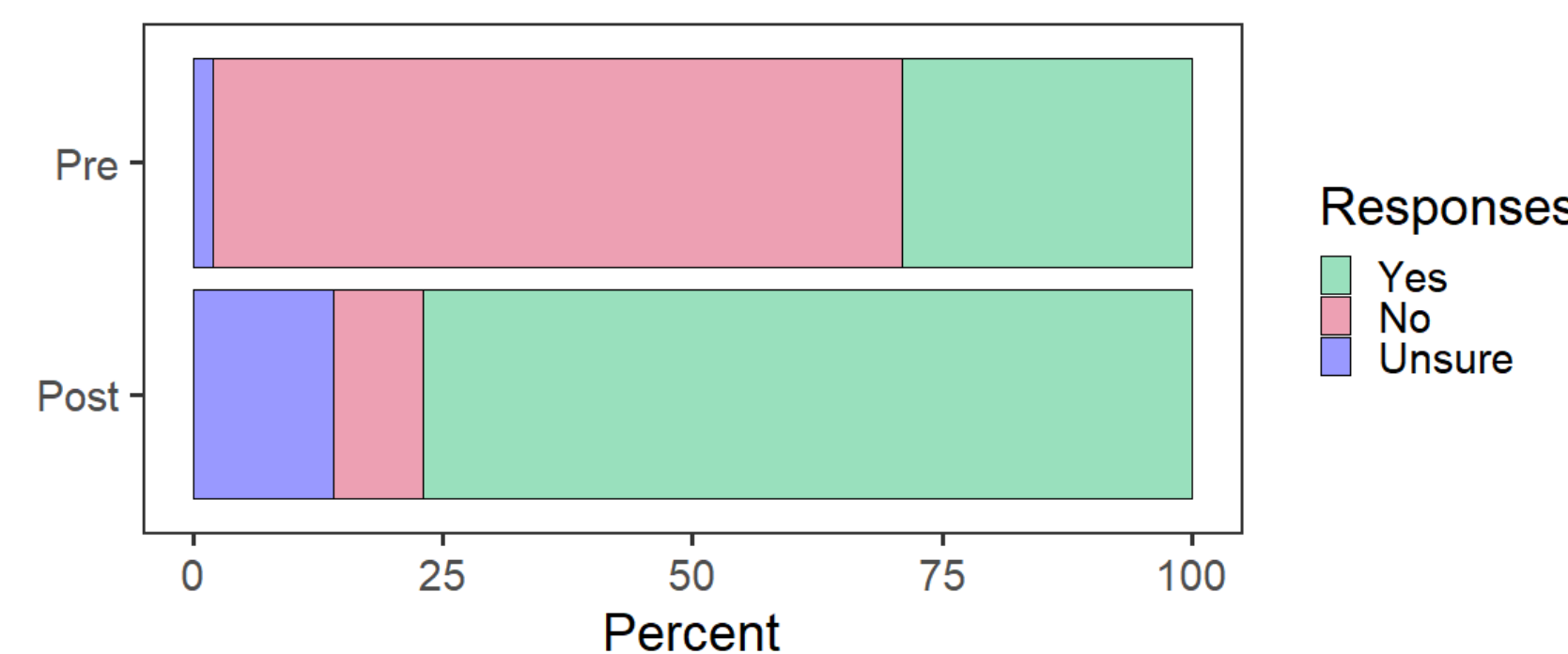
PATIENT VOICE

"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



PDSA Cycle 5: Naltrexone Information Cards. Blue cards/posters for health care professionals. Green cards for patients. Both cards are now available as a discharge resource on the Victoria ER physician's discharge resources folder.

Have you ever prescribed Naltrexone for patients seen in the ER?



PDSA Cycles 1 & 8: ER Physician Surveys:

Pre-PQI intervention survey November 2019 and Post-PQI intervention survey in December 2020. Significant increase in percentage of ER MD's every prescribing Naltrexone in the Dec 2020 survey.

CONCLUSION

- Alcohol use disorder is common condition affecting 1 in 5 Canadians. This prevalence is reflected in the number of patients presenting to the RJH RADU during our baseline data collection period.
- Prior to our interventions, many Victoria 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 ER 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 PDSA cycles such as the development of pre-printed prescriptions incorporated into clinical order sets in the Emergency Department and available electronically.

PROBLEM

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

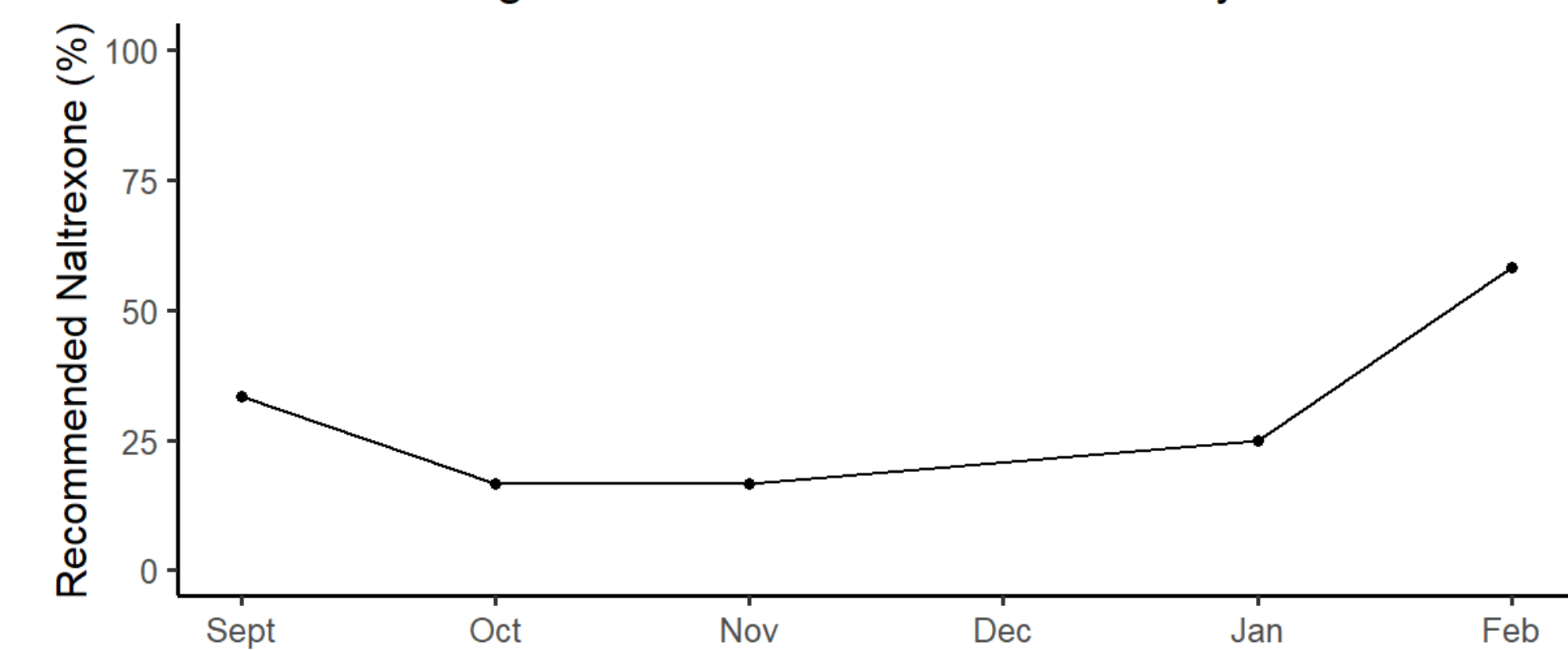
CHANGE IDEAS

- Educate ER physicians and nurses about Naltrexone
- Empower health care providers and patients with user-friendly educational materials to support prescribing and adherence
- Improve medication adherence by having prescribers sign the Collaborative Prescriber Agreement enabling patients covered by Pharmacare to access Naltrexone for free or at reduced cost

PROJECT SPREAD

- Digital copies of the Naltrexone info cards are available on the Victoria Emergency Physician's Website of discharge resources for patients.
- PQI team members are currently working with the Urgent Primary Care Centres (UPCC's) to create an pre-printed prescriptions for the anti-craving medications Naltrexone and Acamprosate to be made available on Cerner in 2021
- Through relationships built with the RJH ER clerical staff there is a process in place to ensure all new ER physicians will sign the Collaborative Prescriber Agreement

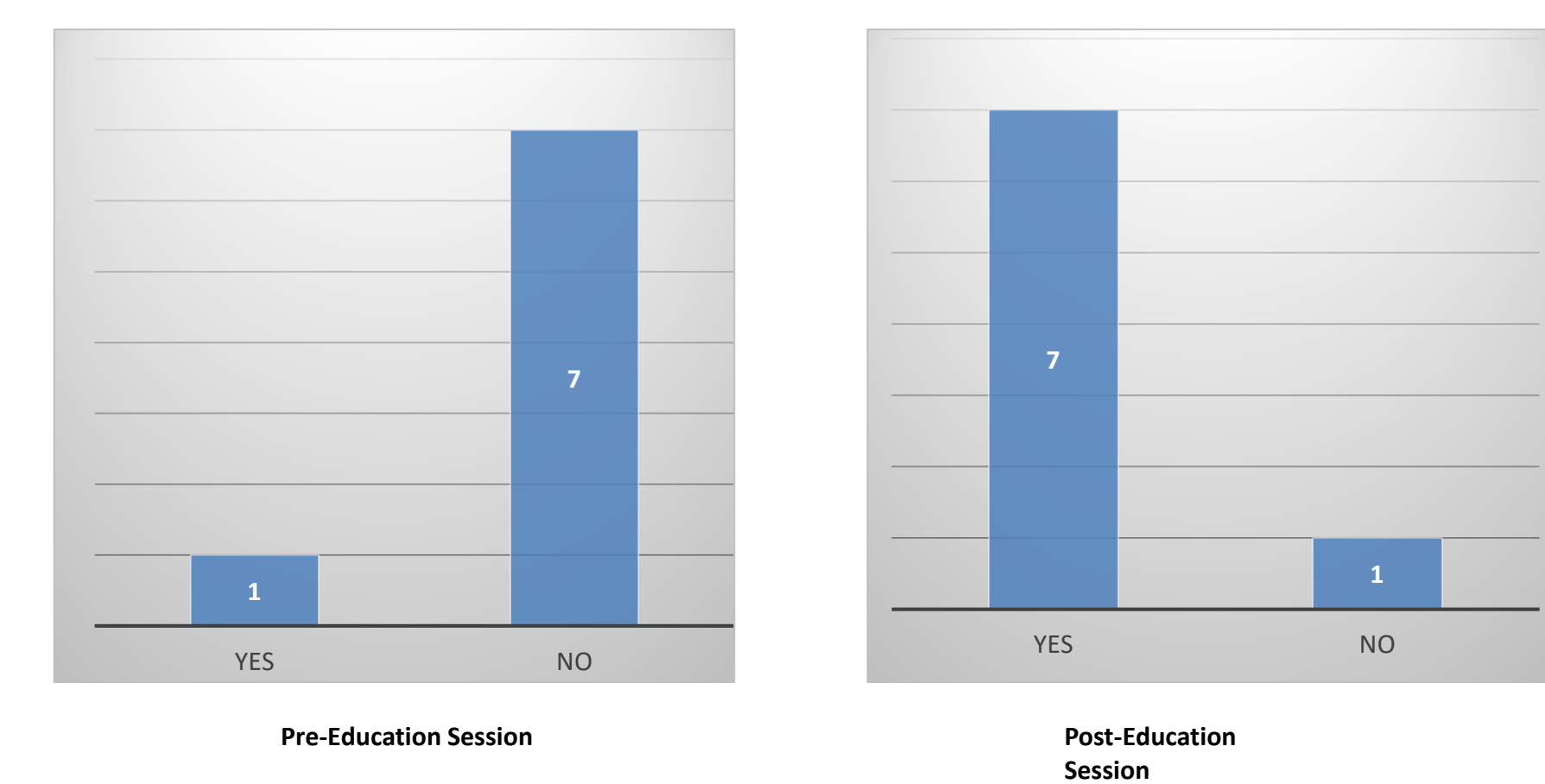
RADU Discharges Recommended Naltrexone by ERP or AMCS



PDSA Cycles 2 & 6: Review of RADU discharge summaries Sept 2019-Feb 2020

Slight increase in number of patients discharged from RADU with prescriptions for Naltrexone, although not the 40% of patients discharged from RADU that was targeted in the project AIM Statement

Naltrexone Education Sessions for RJH Nursing Staff February 5, 2020
22 attendees, 8 responses
"Would you be able to explain how Naltrexone works for patients with AUD?"



PDSA Cycle 3: Education sessions on AUD and Naltrexone provided to nursing staff at RJH ER improved nurses ability to explain how Naltrexone works to patients

Perinatal Mental Health

Screening earlier to affect change

PROBLEM

Perinatal Mental Health Screening

- Traditionally occurs at 28 weeks of pregnancy
- Limited time for treatment/intervention
- Patient not stabilized by time baby born and limited capacity for management/treatment with a newborn.

AIM STATEMENT

Improve perinatal screening for depression and anxiety in women in their first trimester at Grow Health clinic by 95% in 6 months.

CHANGE IDEA

Chart review of Family Practice and Midwifery Patients in first trimester determined 46% presented with a current or previous mental health concern. We need to screen pregnant people earlier in pregnancy.

- Screen pregnant people in first trimester.
- Create resource list to give as needed.
- Create focused mental health appointment as needed based on screen.
- Refer to treatment early in pregnancy to create more time to affect change.

PROJECT SPREAD

- Data and Intake form presented at Grand Rounds for Island health family physicians and midwives providing maternity care
- Creation of Mental Health poster for office to decrease stigma around mental health.

FINDINGS

Perinatal Mental Health

- 46% of incoming pregnant patients had current or previous mental health diagnosis
- Poor screening in first trimester (10-15%)
- Implementation of easy screening tool in intake form increased screening to >50%, with sustained change

Plan

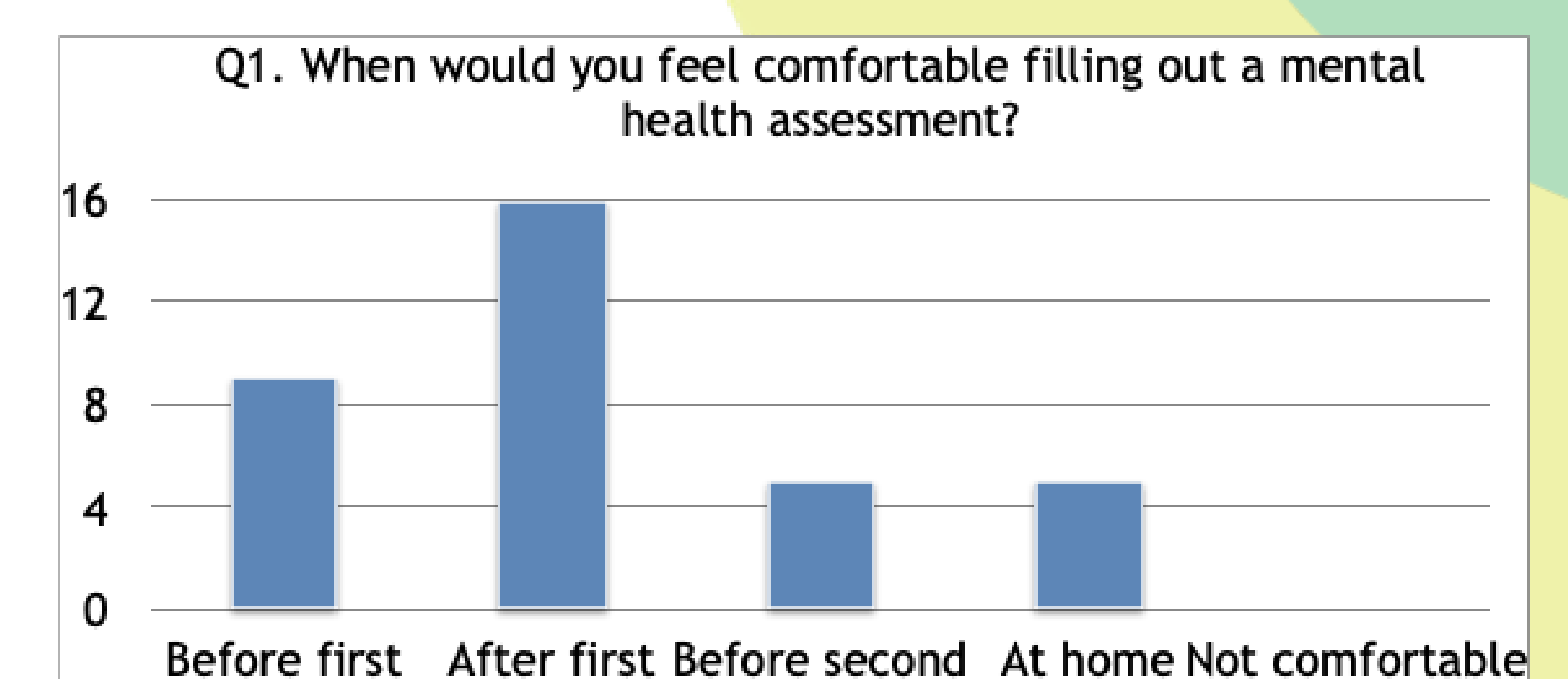
Do

CREATE A TEAM

Dr. Alicia Power
Sandy Usher, Lead MOA
Grow Health Physicians
Patient Voices
PQI Team: Rockin' Rosie, Jagged James, Jivin' Jennie

PDSA Cycles

- 1) Bring attention to current screening cycles
- 2) Ask pregnant people how they would like to be screened (see below)
- 3) Ask physicians how they would like to screen
- 4) Decrease stigma around mental health (poster creation in visible area)
- 5) Screen small segment of population
- 6) Create e-form and EMR template to document in chart
- 7) Roll out screening to all patients by including on Intake form



"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."

PATIENT VOICE

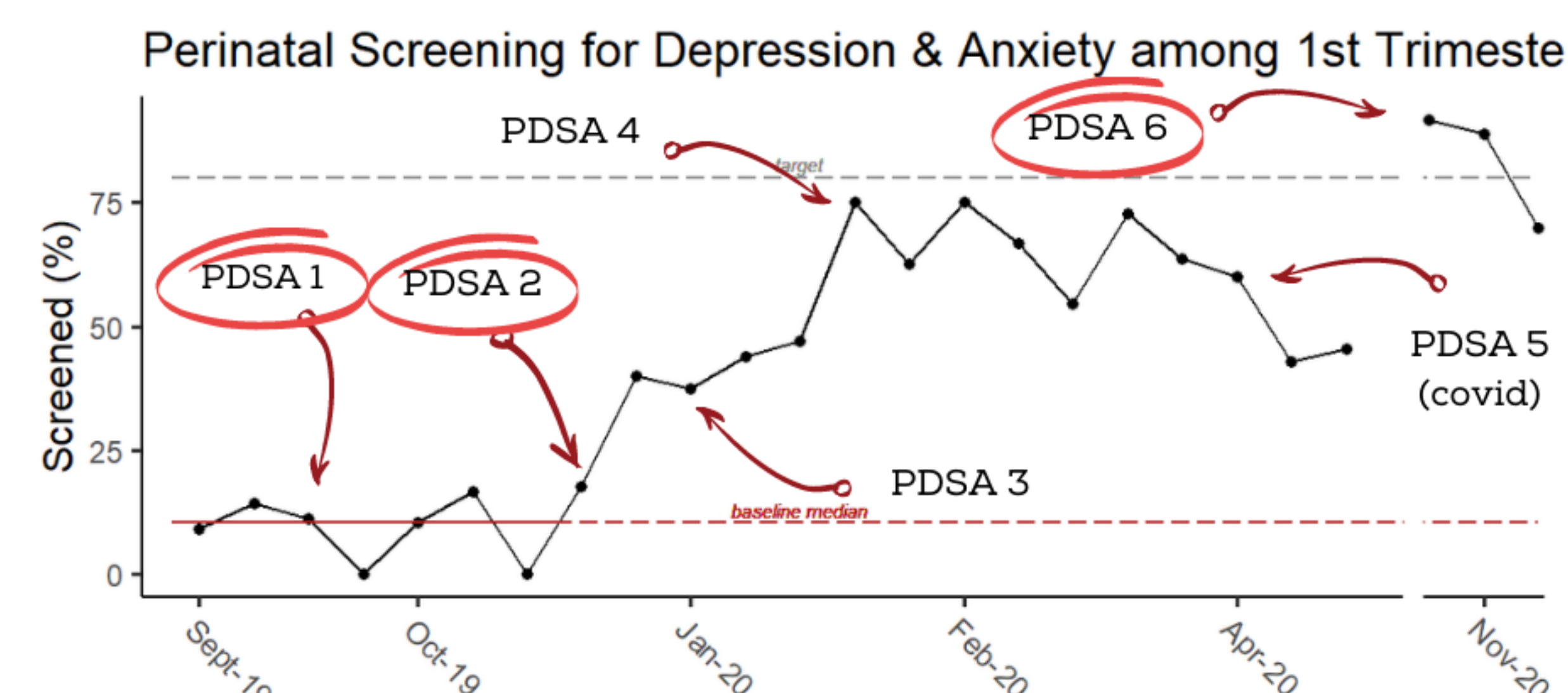
Act

Study

DATA ANALYSIS

Number of Pregnant patients in first trimester

- Number of patients screened for mental health concerns with phq9/gad7



"Has been helpful in picking up mental health concerns that may have otherwise been missed until later in pregnancy. The universal screen triggers me to suggest a MH phone call to go through the full PHQ-9/GAD-7 and make sure I'm addressing these issues. "

PROJECT TEAM

Dr. Janelle Schneider
Tanya Kuc

Project Participants:

RNs, LPNs, and physicians from ED, medical-surgical ward, ICU at WCGH

AIM STATEMENT

By March 2021, significantly improve comfort and preparedness with participating in intubation and cardiac arrest of COVID-suspect patients for WCGH nurses and physicians.

PDSA Cycle



Small Test of Change

- Education: adaptation for local environment
- Communication (Telephone, baby monitors)
- Medication cupboard in ante-room
- Reviewing survey results to enhance subsequent simulations

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.

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

PARTICIPANT'S VOICE

What was the best part of the simulation?

"Great high fidelity"
"The ability to run through SIMs with co-workers in safe environment"
"Seeing steps taken to protect selves, others, and provide patient care"

PROBLEM

- Staff felt unprepared and uncomfortable with participating in intubations and cardiac arrests of COVID-suspect patients
- PPE uncertainty given multiple guideline recommendations
- Communication difficulty between staff inside and outside of patient room

CHANGE IDEA

- Focus specifically on intubations and cardiac arrest as model AGMP via simulations
- Improve communication between staff in the room and the recorder and ante-room nurse by using three-way baby monitors, educating on how to use, and optimizing placement
- Enhance ante-room RN tasks by adding a medication cupboard such that medications can be drawn up in this room
- Optimize pre-simulation teaching to account for differences in base knowledge around intubations and cardiac arrests
- Include PPE in training

PROJECT SPREAD

- Pediatric cardiac arrest and intubation simulation
- Spread to operative room staff and anesthesia
- Sustainability through FEI funding for ongoing simulations

DATA ANALYSIS

- Surveys before and after the simulation assessed feeling of preparedness, understanding of PPE required, PPE donning and doffing techniques, roles required in real intubation/cardiac arrest, and inclusion of the patient/family in their care.
- Total of 11 simulations run with 70 participants overall from medical-surgical ward, ICU, ED, anesthesia, OR

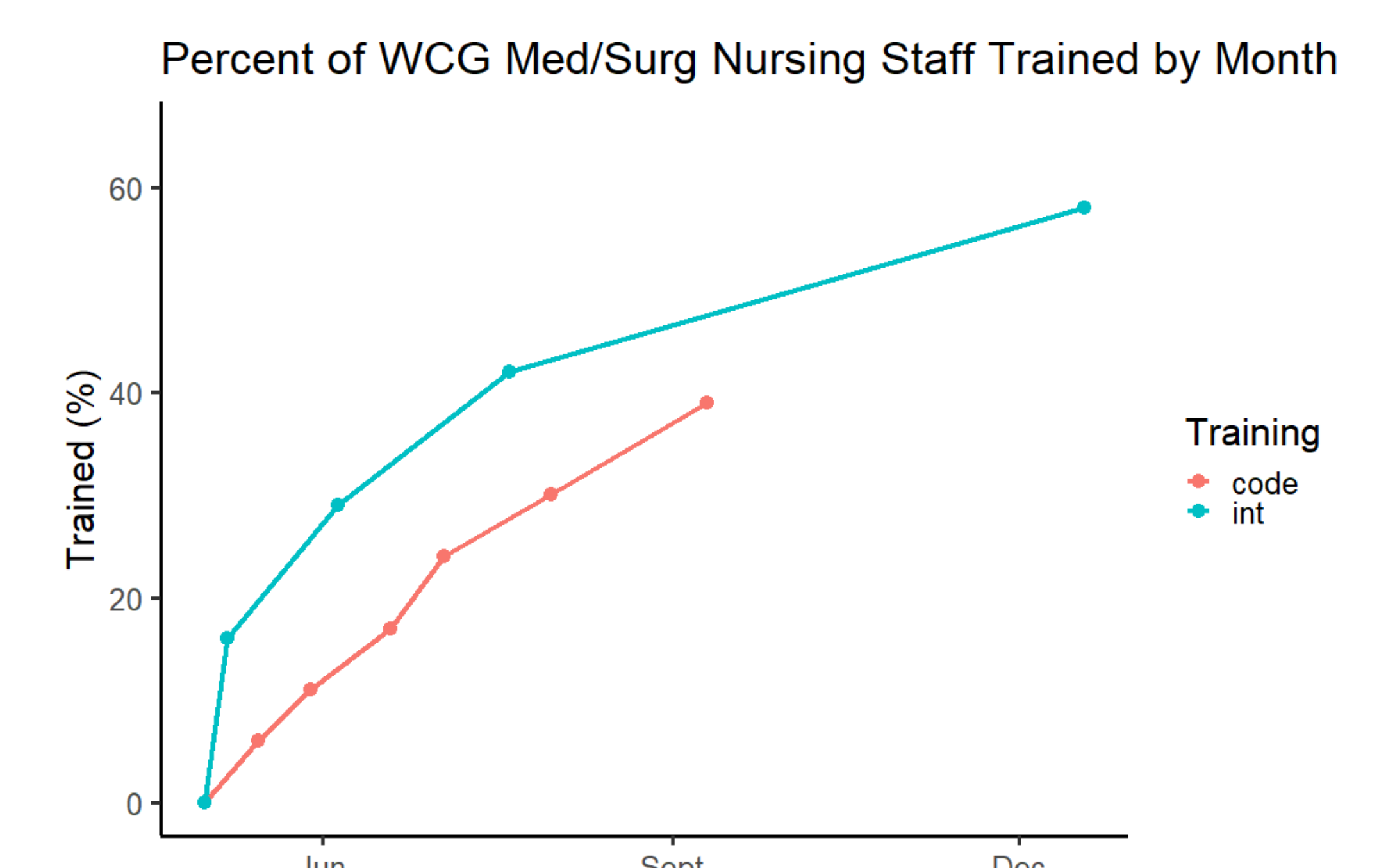
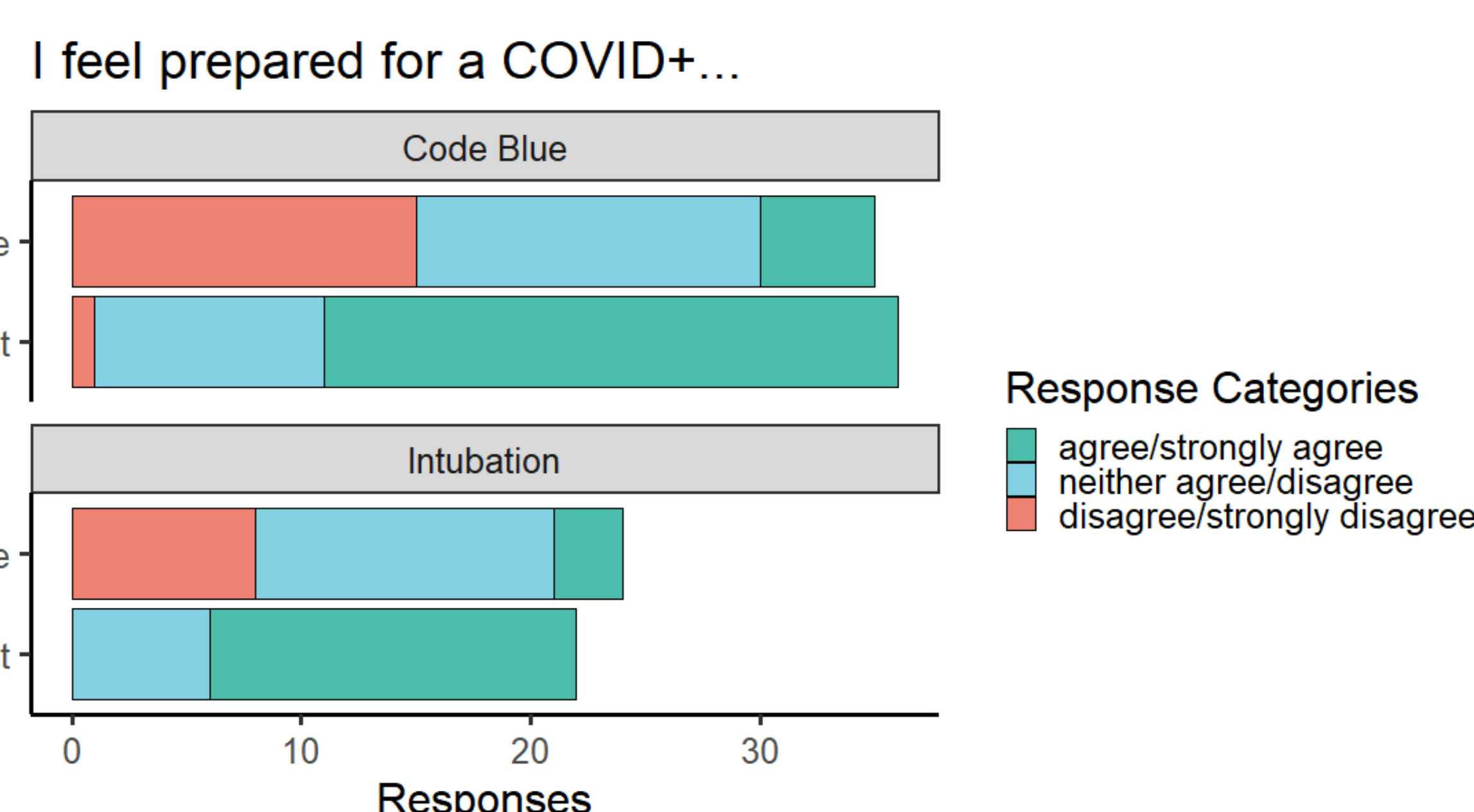
For the code blue and intubation survey results, Welch two-sample tests gave t-values of -6.17 and -3.83, respectively ($p < 0.05$)

IMPACTS

- Increased staff preparedness and comfort for AGMPs
- Enhanced culture of learning within WCGH

CONCLUSION

- Staff preparedness increased significantly from simulation training
- WCGH staff expressed a desire to see ongoing simulation training beyond COVID
- Opportunity for team building across departments and healthcare roles



Facilitation of rooming-in at Victoria General Hospital (VGH) for neonates exposed to opiates in utero

PROJECT TEAM

Team leader: Dr Marie-Noelle Trottier-Boucher

Main project participants:

- Sponsors: Gillian Kozinka/Emma Carrick
- Dr Katrina Stockley, Dr Lauren Kitney, Dr Sarah Lea, Jody Baker, Janet Gaunt, Jennifer James, Margaret Quigg, Kathryn Leblanc, Rosanne Holmes, James Saunders, December Hanson

AIM STATEMENT

↓ 20% length of stay in VGH NICU for babies exposed to opiates in utero between September 2019 and June 2020

↑ health care providers knowledge about new evidence-based management of neonates exposed to opiates in utero between October 2019 to March 2020 at VGH

PDSA CYCLES



- Multidisciplinary event to identify barriers and ideas of improvement
- Planification of education events
- Monthly pediatric updates
- Simplify pathway creation
- Etc.

DATA ANALYSIS

- Provider's perception and comfort in non-pharmacological interventions
- Attendance to education events
- Admission and length of stay in NICU
- Pharmacological treatment initiation
- Hospital readmission

FINDINGS

- ↑ providers' perception of the importance of non-pharmacological interventions
- 4 education events with more than 75 participants
- No significant change in patient's related data

BACKGROUND

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

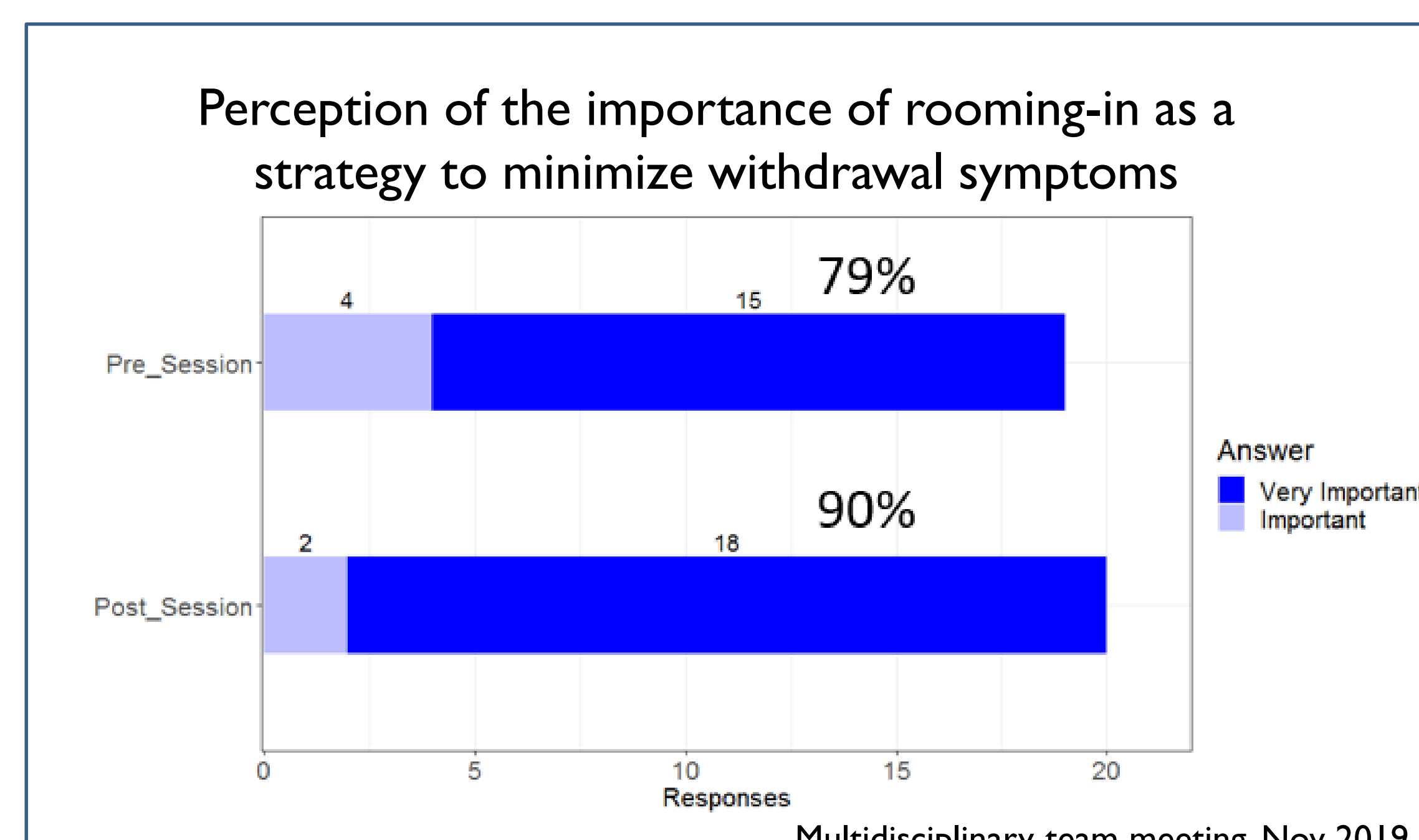
- ↓ need of pharmacological treatment
- ↓ NICU admission rate and length in hospital
- ↑ breastfeeding initiation
- ↑ maternal infant-mother bonding

PARTICIPANT VOICE

"Should the mothers not being given the chance like other mothers?"



Background: Identified barriers and ideas of improvement
From left to right: MN Trottier-Boucher, K. Stockley and L. Kitney



CONCLUSION

- Wiser to start small and then expand
- Change takes time
- Great added value to include patients' voice in project
- Next steps: more PDSA cycles and change ideas to test
- Quality Improvement = life changing

PROBLEM

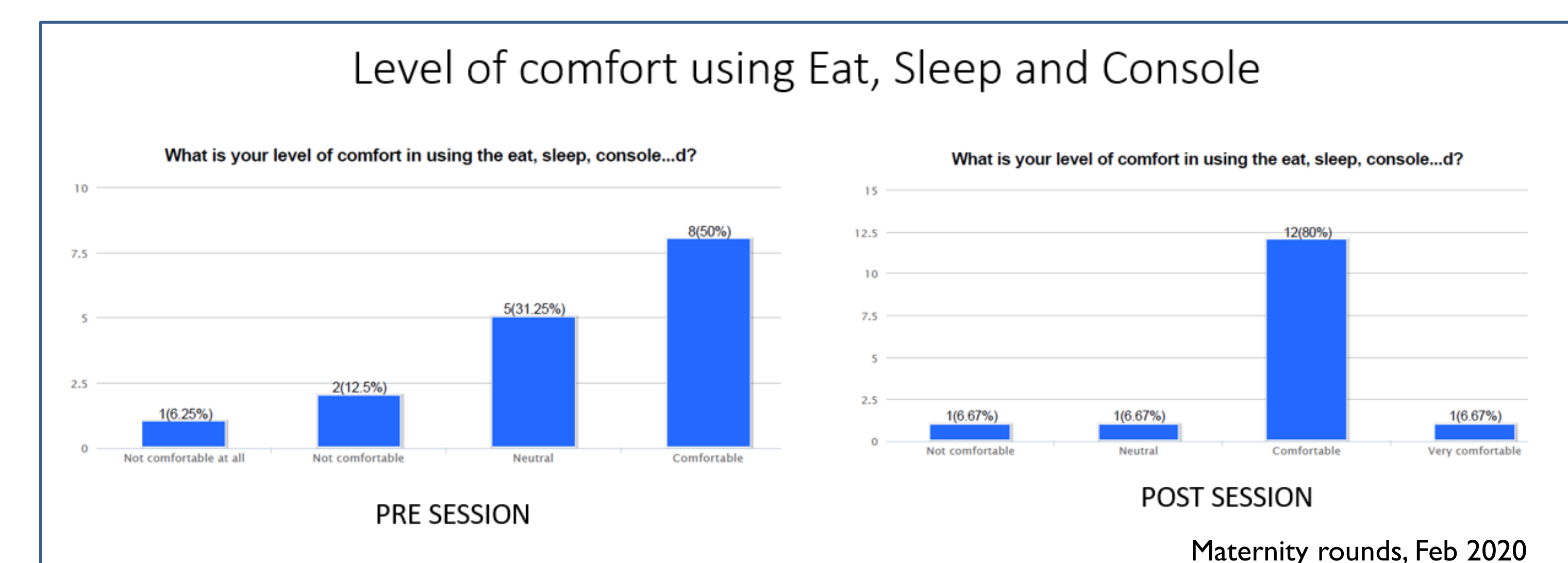
Our local protocol promotes rooming-in. However, in practice, a significant portion of the babies developing withdrawal are transferred to the NICU for observation and/or initiation of pharmacological treatment, where they are separated from their mother.

CHANGE IDEAS

- Education events:
 - Residents teaching
 - Maternity rounds
 - Pediatric journal club
 - Nurses lunch and learn
- (Introduction of PRN use of morphine)

PROJECT SPREAD

- Change ideas delayed: educational videos (Dec 2020), nursing support (Jan 2021), implementation of Eat, Sleep and Console (K. Stockley PQI project March 2021)
- Visibility of the project lead to increase communication and sharing material with health care providers through the Island and province



Multidisciplinary team meeting, November 2019, n = 35

PROJECT TEAM

Lead: Wakako Tokoro - NP

Project Participants:

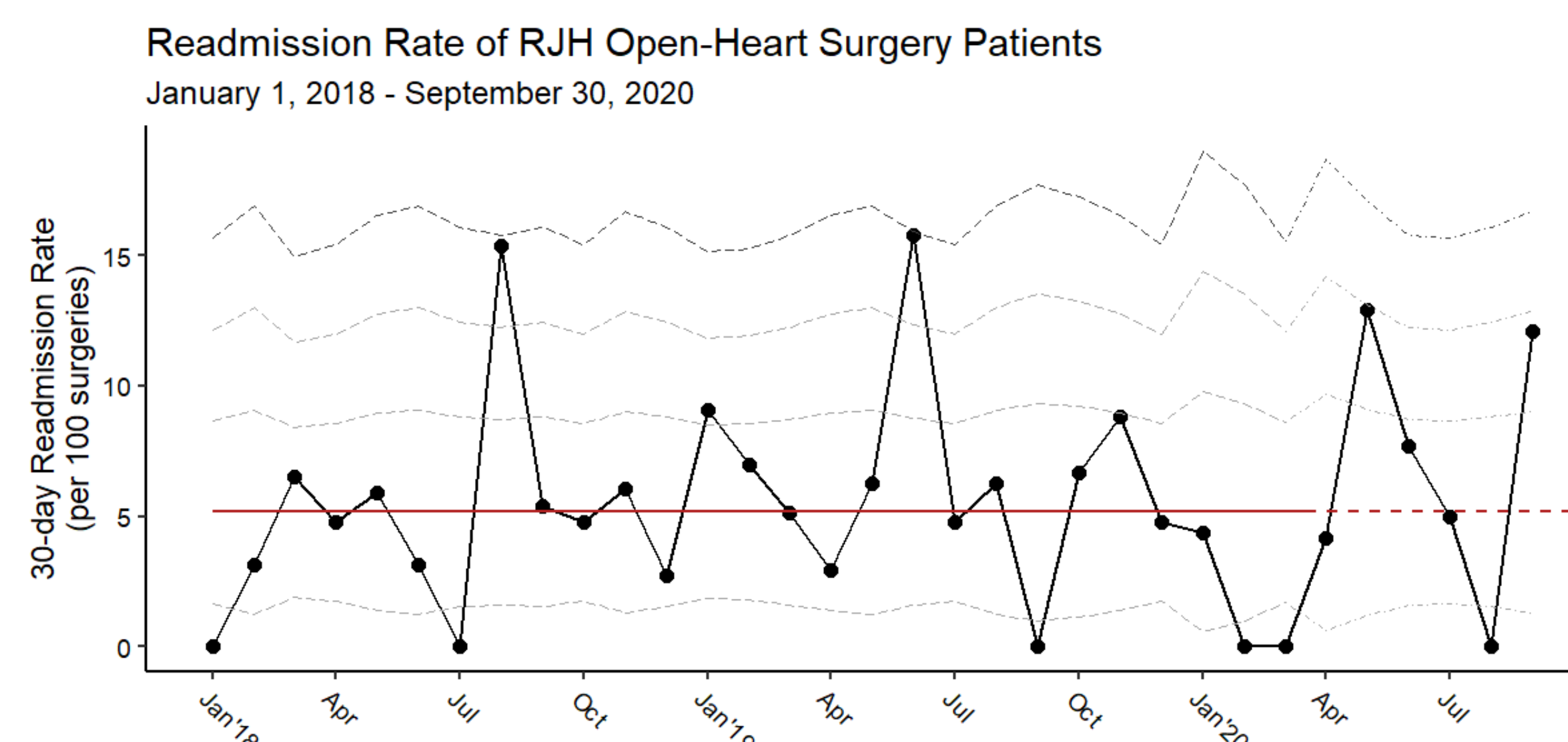
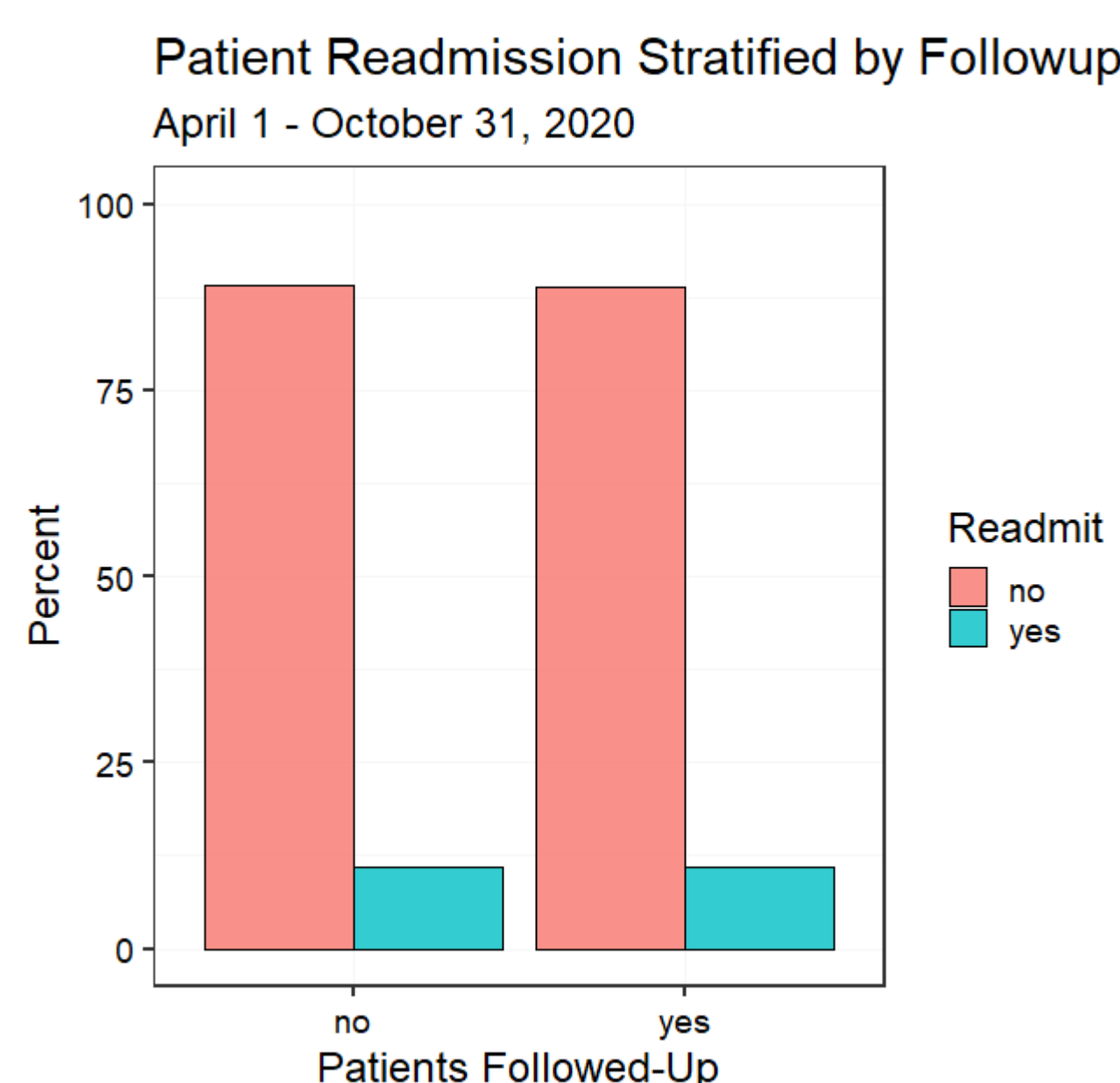
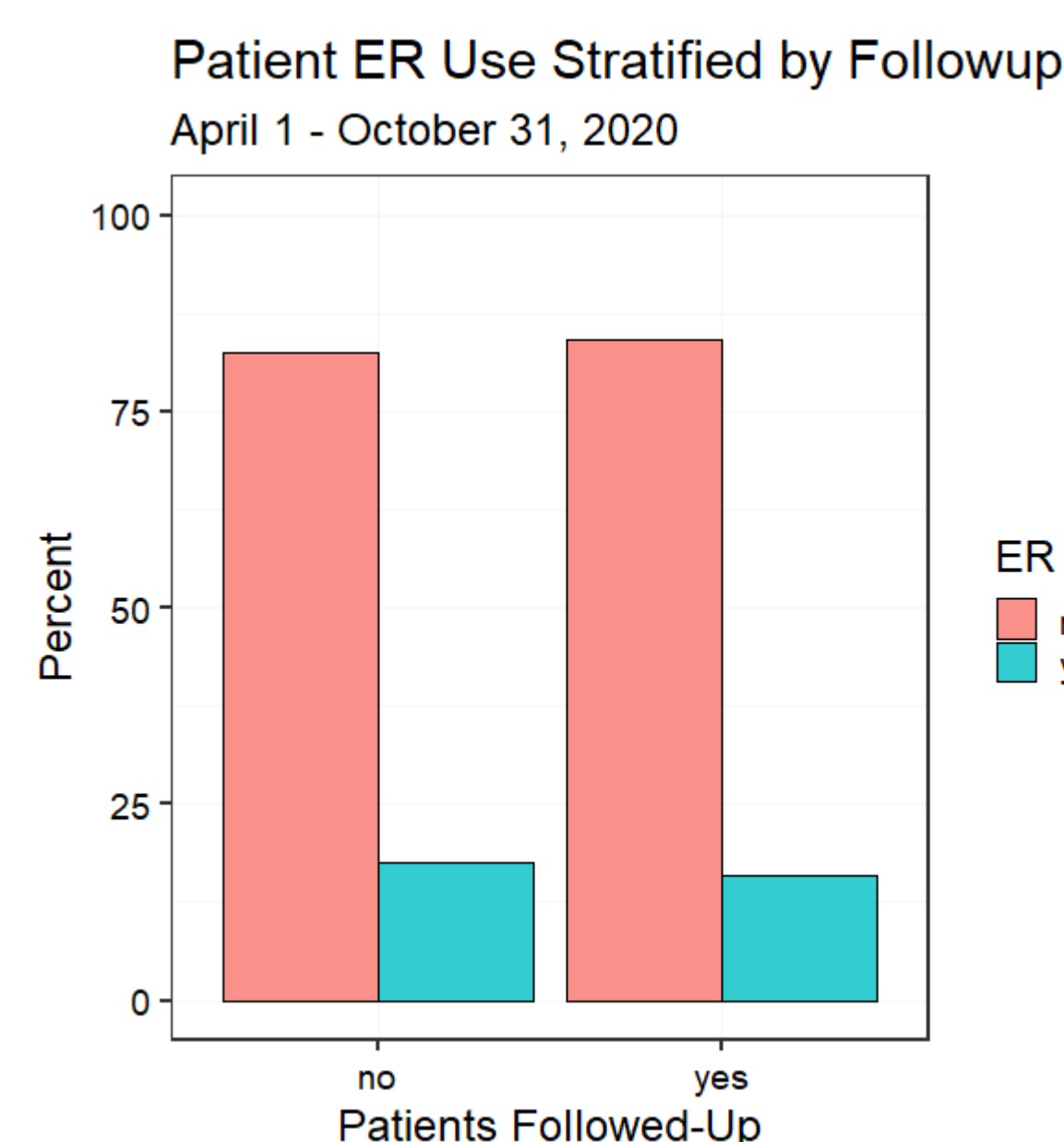
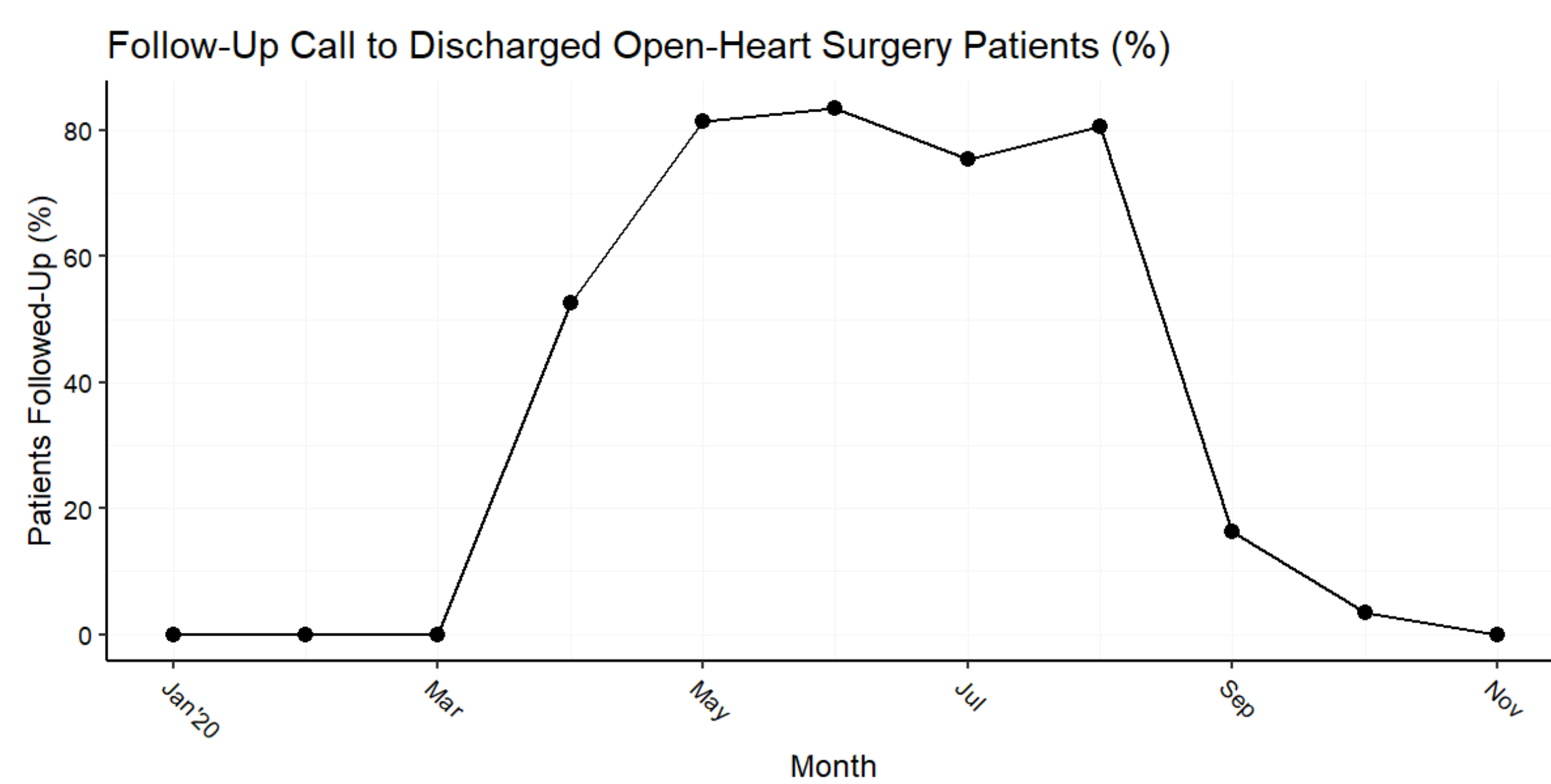
- Sheryl Anderson – CNL
- Kathryn Branson, Janelle Wrona, Hilary Hagel – Nurses
- Susan Parsons – MOA
- Bhavan Manhas – Manager, LTC
- Alexandra Richardson – Manager
- Ryan Davis – Project Sponsor
- Julia Porter – PQI Coordinator
- James Saunders – PQI Data Analyst

CHANGE IDEA

Follow-up calls: One of the nursing staff will call patients 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.

DATA ANALYSIS

1. Prospective data collection by Wakako Tokoro: captured ER usage and Inpatient Readmission through chart review
2. EDW data used to develop patient readmission rate SPC P-Chart



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 ER use or hospital readmission.

AIM STATEMENT

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

PATIENT VOICE

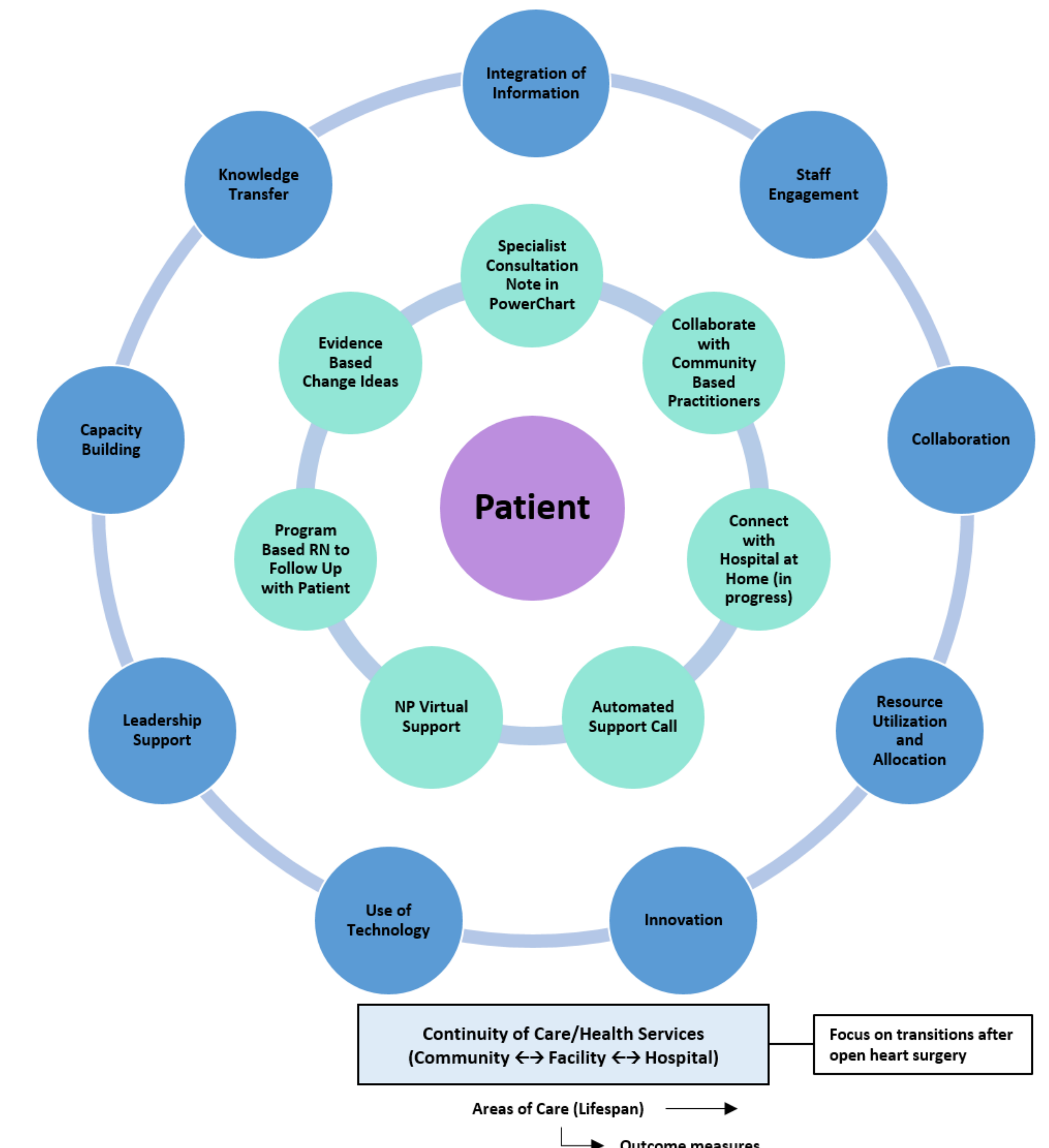
"There is a lot to remember and I was confused about my medications and follow up plans. I didn't know who to contact. A follow up call was helpful to clarify things. It was good to talk to someone who knows about the surgery I had and my recovery in hospital."

"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."

FINDINGS

- 80% of patients were followed-up with by phone, though this was not sustained
- No evidence of association between follow-up call and ER use or readmission
- Significant confounding by COVID; patients using ER for primary care

QI FRAMEWORK



NEXT STEPS

- Introduce an automated follow-up call system in conjunction with an algorithm to screen and identify patients who may benefit from a personal call.
- Use the QI framework to guide development of additional initiatives pertinent to transitional care of cardiac surgery patients.
- Advanced analysis using a Resource Weighted Intensity (RWI) of patients who received follow-up versus those who did not will be undertaken.

CONCLUSION

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. The calls by the surgical team did not 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.



Endoscopic Retrograde Cholangiopancreatography (ERCP) Triage and Tracking Project

Al Buckley, MD, Andrew Singh,
MD and Cheryl Armstrong,
BSN, MPH



CONTEXT

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



BACKGROUND



- No formal tracking system for non-elective ERCP cases
- Challenges with care transitions & handover
- Patients can become unstable while waiting for an ERCP → sub-optimal outcomes
- Underutilization of available weekday slots
- Weekend/after hours bookings → ↑ costs

OUTCOMES

Adoption: 192/212 [90%] ERCP cases entered in REDCap (urgent: 35%; urgent: 54%; and emergent: 11%)

Benchmark: 86% of cases met their target

Triage benchmark:

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



Barriers (n=9):

- Delayed transfer (n=2);
- Pending COVID results (n=1)
- Waiting patient stabilization (n=6)

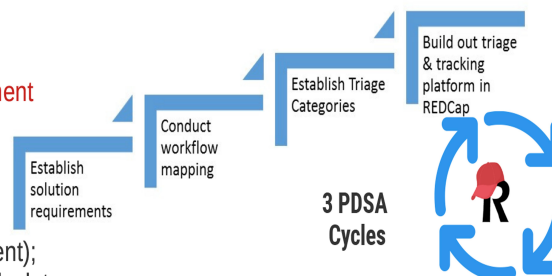
Utilization:

- 31 unused weekday slots
- 54 (28%) of cases were performed in off hours/weekends (semi-urgent: 22%; urgent: 66%; and emergent: 11%).

METHODS

Solution Requirements:

1. Interface with CERNER EMR **—only requirement not met**
2. Improve efficiency
3. Ability to track 24/7
4. User friendly
5. Able to: denote triage status (urgent/emergent); originating hospital and referring physician; calculate time waiting from referral to procedure (benchmark)



Goal: Establish triage levels and track all emergent, urgent and semi-urgent cases to improve utilization.

Aim Statement: 1. Co-develop and establish benchmarks for procedure completion based on triage category and measure % of cases completed within benchmark; 2. Achieve 90% adoption of case entry into REDCap by ERCP physicians

QI OPPORTUNITIES

- Median case length was 18 minutes; currently, cases are booked for 60 minutes
- Improve weekday utilization of case slots
- Evaluate semi-urgent cases for appropriate weekday booking
- ↑ awareness of REDCap capability to support QI projects

NEXT STEPS



Join **CRaTE**, a prospective, pan-Canadian, multi-centre clinical registry study
PI: Dr. Nauzer Forber, University of Calgary

PROJECT TEAM

Physician Name: Dr. Rachelle Bouffard

Project Participants:

- Dr. Alex Hoechsmann, Physician Quality Improvement Advisor
- James Saunders Data Analyst Physician Quality Improvement
- Susie Girling, Crisis Team/Victoria General Hospital Mental Health Coordinator
- Laura Bobbitt, Patient Voice
- Rosie Holmes, Physician Quality Improvement Coordinator
- Henny Laurin, Manager South Island Child and Youth Mental Health Substance Use
- Tanis Evans, Director Child Youth Mental Health and Substance Use
- Dr. Carol-Ann Saari, Division Lead Child Youth Mental Health and Substance Use
- Susan Gmitroski, Previous Manager Child Youth Mental Health and Substance Use
- Shauna Kazeil, Manager Victoria General Hospital Child Youth Mental Health and Substance Use
- Mental Health Crisis Team Victoria General Hospital
- Mental Health Patient Navigators Kathrine and Whitney
- Megan Hadley, Crisis Nurse
- Bastian Weitzel, Physician Quality Improvement

AIM STATEMENT

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 (VGH) by 60% by March 31, 2021.

BACKGROUND

Documented fact that there has been an increase in presentation to the emergency room for suicide and self-harm at Victoria General Hospital over the past three years. There is evidence that a safety plan performed in the emergency room can decrease readmission rates by improving the transition to outpatient follow-up treatment.

PROBLEM

Increasing number of older youth presenting with long-standing suicidal and self harm behaviours, both locally and nationally.

PATIENT VOICE

"Going over the safety plan reinforces that someone cares for them"

**"Would have liked to have had a safety plan
"I think every youth". should get a safety plan at the time of discharge"**

CHANGE IDEA

- Strategies for the youth created i.e. (warning signs, coping strategies, self-care, people to contact for additional support).
- Strategies created for the parent/guardians ability to increase safety at home as well as what cues to look out for when their child is in distress
- A communication tool for the youth to use to describe their feelings when distress.
- Online safety plan template was created with drop down menus for ease of use for the Crisis Nurses and parents.

PDSA Cycle

Small Test of Change Description

- Discussion with Crisis Team and Coordinator about the current use of safety plan.
- Education of the Crisis Team pm evidence of the benefit of using a safety plan at the time of discharge. Journey mapping sessions with staff and patient partners-lessons shared with the group.
- Patient voice –in the review of the discharge safety plan feedback incorporated.
- Nurse champion helped devise an online version of the discharge safety plan- staff feedback incorporated.



PROJECT SPREAD

Project lead, together with the Physician Quality Improvement team, will continue to engage with the Crisis Team to further improve the discharge safety plan by incorporating suggestions from the patient voice. We also intend to further canvass the Nurses on any barriers to the use of the discharge safety plan.

DATA ANALYSIS

- Approximately 174 chart reviews of youth presenting to VGH ED with suicidal or self-harm behaviours were carried out.
- Prospective data collection of copies of the piloted novel discharge safety plan for verification
- Run chart used to graphically plot the utilization of the novel discharge safety plan
- Analysis of the effect the novel safety plan had on representation rate to be carried out

FINDINGS

- The Crisis Nurses were engaged in the formulation of the safety plan
- Patient voice identified many gaps within and outside the system through the process of patient journey mapping
- Parents liked the safety plan and found it helpful following discharge
- Sharing the results of the patient journey mapping with the Crisis team helped build understanding and created momentum

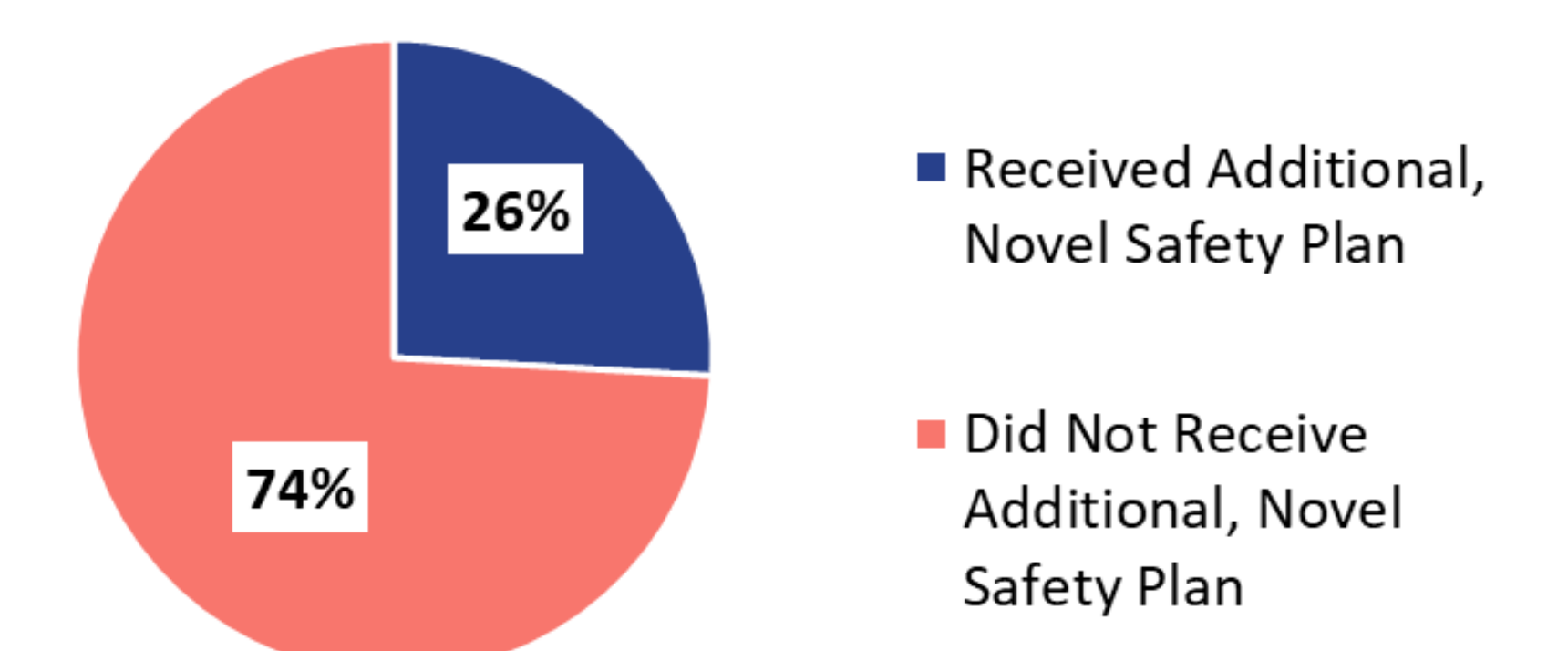
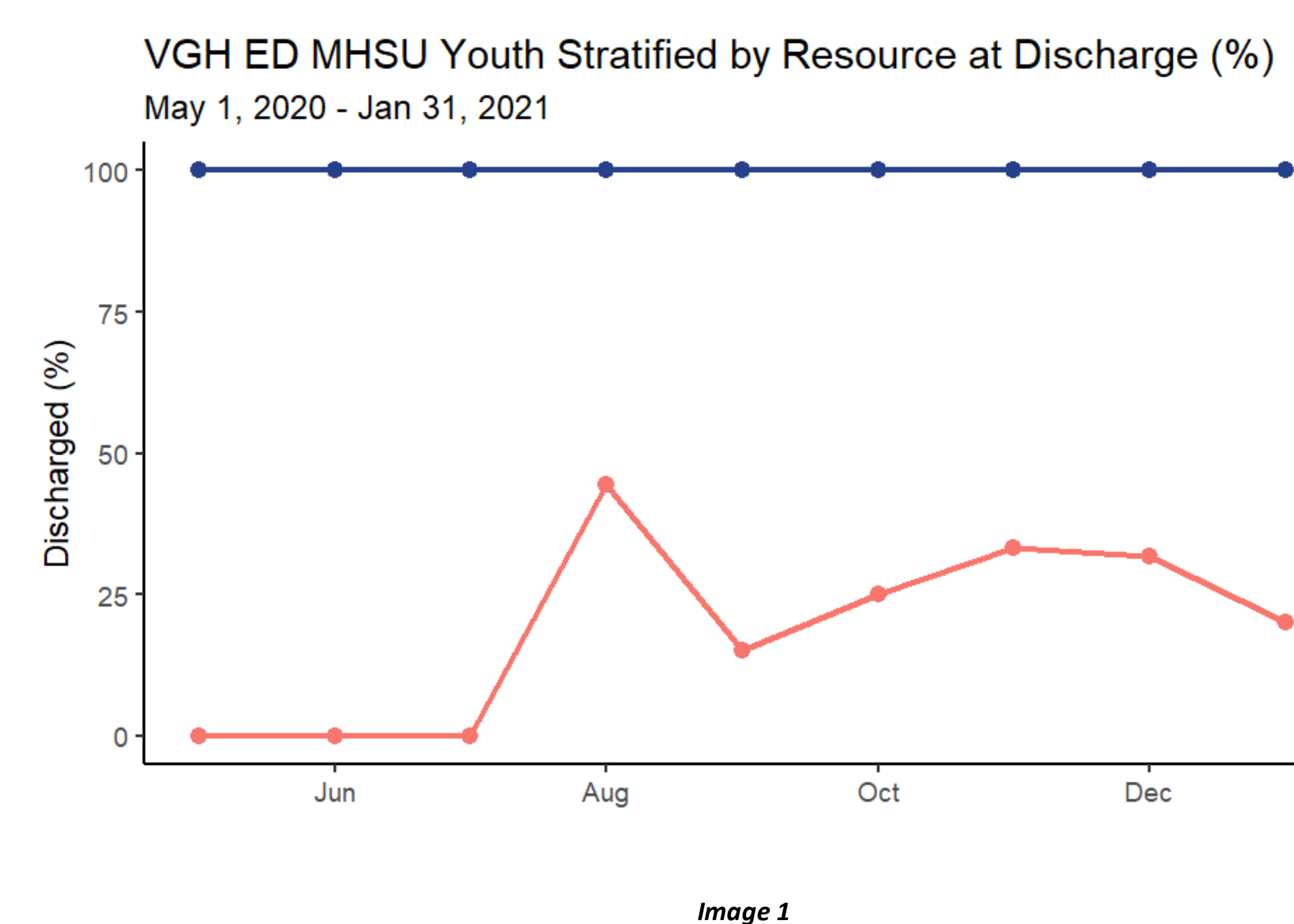


Image 2: Raw total percent of discharged youth who received the novel safety plan in addition to standard discharge resources

CONCLUSION

Project will continue to March 31, 2021.