



Report

Annual Report 2019-2020

UBC Rural Continuing Professional
Development (RCPD)

ubccpd.ca/rural



THE UNIVERSITY OF BRITISH COLUMBIA

Faculty of Medicine

Continuing Professional Development

The Rural CPD Program Final Report was prepared by:

Alissa Burrows, BSc, Research Assistant

Dana Hubler, MD, CCFP, FCFP, Medical Director

Emily Boardman, BA, Program Coordinator

Emily Lai, BA, Administrative Assistant

Hadas Haft, MM, BSc, Senior Program Assistant

Jenna Lightbody, BA, Program Coordinator

Kate Meffen, BSc Education Coordinator

Kathryn Young, MA, Project Manager

Laura Beamish, MSc, MHA, Senior Manager

Nicole Moon, BBA, Education Coordinator

Rachel Ho, BSc, Senior Program Assistant

Rachel Gledhill, BSc, Research and Events Assistant

Stephanie Gariscsak, MSc, Research and Events Assistant

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ACKNOWLEDGEMENTS

The Rural CPD program is a partnership between the UBC Faculty of Medicine's Division of Continuing Professional Development (UBC CPD) and the Rural Coordination Centre of BC (RCCbc), and is supported by the Joint Standing Committee on Rural Issues.

EXECUTIVE SUMMARY

The UBC Faculty of Medicine's Division of Continuing Professional Development Rural Program (Rural CPD) is committed to supporting the learning needs of physicians and other health care providers who practice in rural and remote areas of British Columbia. Our goal is to improve the health of rural British Columbians by offering innovative CPD to rural health care providers.

Administrative Updates

This year saw the continuation and growth of a number of Rural CPD programs and projects and the conclusion of others. Our Program is currently leading 11 initiatives and is supported by 13 medical leads and 11 team members. The Medical Advisory Committee and Medical Leads gathered for their annual retreat in May 2019 in Parksville, BC to discuss the application of quality improvement principles to our programs and our operations.

The Rural CPD Program saw transitions in its operational and medical leadership with Dilys Leung resigning in August 2019 and Dr. Nicole Ebert transitioning out of the role of Co-Medical Director at the end of March 2020. Laura Beamish joined as Rural CPD Senior Manager in October 2019 and Dr. Dana Hubler continues as Rural CPD Medical Director.

Travelling Courses

HOUSE

In the 2019-20 fiscal year, the HOUSE course delivered 12 courses to 184 participants across nine different communities. This brings the total number of courses delivered to 87 and the total number of participants reached to 1055 since the program's inception in 2015. The program continues to be highly valued by participants for its hands-on format and pool of skilled instructors. Participants reported increased confidence in their POCUS skills after taking the course.

ESCAPE

In the 2019-20 fiscal year, five ESCAPE courses were delivered to 68 participants across five different communities including Creston, Salmon Arm, Golden, Powell River and Smithers. Participants report increased confidence in critical care management and value the hands-on instruction from facilitators.

Virtual Education

Rural Rounds

During the 2019-20 fiscal year, 10 Rural Rounds sessions were run from April to March. To respond to identified learning needs, the series this year featured five presentations from Dr. Omar Ahmad, an urban intensivist who is part of the RCCbc Real Time Virtual Support pathways.

In March 2020, we increased the frequency of the sessions to once per week to address the increased need for rurally specific education about COVID-19. A total of 9 sessions were run from March 2020 to June 2020, 7 of which were additional Rural COVID-19 Rounds.

Building and Sustaining Supportive Relationships

RSON Clinical Coaching Pillar

The RSON Clinical Coaching Pillar onboarded three new Northern Health communities this year, including Hazelton, Smithers and Vanderhoof this year. Our team visited all three communities in 2019 to engage with program participants, learn about the communities' objectives, and provide an overview of the program. Along with increasing community engagement, RSON has improved communication through regular check-in meetings with other pillars and bimonthly coaching pillar working group meetings. The number of coachees and coaches participating in the RSON Clinical Coaching Pillar reached 67 and 70, respectively this year.

We also worked this year to develop new program resources and created a more structured community reporting protocol to successfully onboard new communities. This included developing and updating program resources like the program handbook, online portal, payment protocol, evaluation tools and coach training workbook. Finally, we welcomed new Coach Training facilitators, Executive Coach, Ingrid Price and Nurse, Andrea McKenzie.

CAMP

In fall 2020, CAMP began supporting pairing through a single process for coaching, rather than facilitating matching for coaching pairs through individual streams. During this period, five pairs were matched. Before this change, the Rural Physician Mentoring Program launched its 10th cohort since the program was established in 2014 with a total of 35 pairs completing the program.

After a successful pilot, the FPA Clinical Coaching stream concluded in July 2019. The FPA stream supported coaching activities in 11 communities and 47 coachees. Several of the pilot communities included RSON communities and in some cases the coaching continued after the pilot.

The Peer Emergency stream included three distinct offerings including in-person peer coaching, virtual peer coaching, and coaching for PRA-BC graduates. The in-person format included three communities and seven coachees; the virtual format included seven coachees; and the three PRA-BC graduates received coaching.

Indigenous Patient-Mediated CPD

This was a year of growth and building for the Indigenous Patient Mediated CPD Project, with a number of key deliverables completed.

The Meeting of the Minds event brought together approximately 30 leaders in Indigenous Cultural Safety (ISC) and Humility from across the province to come together in Vancouver. The meeting gathered input from this diverse group of participants to inform the development of an offering that builds on existing work in the province and creates meaningful change at the front line of care.

The environmental scan identifies current evaluation tools and resources used to educate health care practitioners on current Indigenous health inequalities. The findings consist of evaluation and research guidelines from organizations and research projects conducting research alongside Indigenous communities. This environmental scan is consistently refreshed and updated to ensure our working group has the most recent data to inform our work.

We held over 25 meetings with 11 different community and physician groups. With the COVID-19 public health emergency, we were unable to attend three scheduled community engagement visits in Haida Gwaii and Tla'almin Nation. With in-person travel likely to be limited for the foreseeable future, we have refocused our energy on conducting virtual engagement and immediate resources for physicians and providers.

Research and Evaluation Activities

HOUSE Program Evaluation

In 2018, the HOUSE program undertook a comprehensive program evaluation project to explore the impact of the HOUSE EM program on past participants and their communities, while ascertaining the learning needs of rural physicians to sustain and enhance their POCUS skills.

Overall, participants reported positive experiences with HOSUE EM. In particular, participants value the low learner to instructor ratio, hands-on format, tailored content, and the flexible teaching approach. In response to sustaining and enhancing their POCUS skills, participants requested support for tailored refresher courses, mentorship, and support developing communities of practice. Barriers to longitudinal learning include cost of implementation, time, and the need for administrative support.

New to Practice Evaluation Summary

In January 2018, the Rural Coordination Centre of BC (RCCbc) proposed a list of recommendations to the Joint Standing Committee on Rural Issues (JSC) titled "Options to better equip physicians for working in Rural BC," also referred to as the "setting up for success" initiative. The goal of these recommendations was to better support-new to practice physicians in rural communities and included funding to evaluate PRA-BC and IMG Program participants' integration to rural practice.

In September 2019, UBC CPD and RCCbc adopted a collaborative and iterative strategy to further build on the "setting up for success" recommendations with the following goals:

1. Co-develop and conduct an evaluation study focusing on the effectiveness of existing supports and programs for new-to-practice physicians in British Columbia, including supports for both rural and non-rural based physicians;
2. Provide recommendations to funding agencies, policy makers and new to practice programs; and
3. Inform stakeholders, through on-going feedback loops during the evaluation process, of challenges and successes experienced by new-to-practice physicians during integration into British Columbia's health care system, to inform program design and delivery.

Knowledge Translation

2019 Canadian Conference on Medical Education

In April 2019, the Rural Continuous Quality Improvement Needs Assessment abstract was accepted for an oral presentation at the Canadian Conference on Medical Education in Niagara Falls, ON. The findings were presented by Executive Medical Director, Dr. Bob Bluman.

2019 Centre for Health Education Scholarship Celebration of Scholarship

In October 2019, the HOUSE Program Evaluation Project was accepted for an oral presentation at the Centre for Health Education Scholarship Celebration of Scholarship in Vancouver, BC. The project was presented by Research Assistant, Alissa Burrows.

Summary and Looking Ahead

The Rural CPD Program is committed to supporting the learning needs of physicians and other health care providers who practice in rural and remote areas of British Columbia. Our program demonstrates that through community-based, interprofessional, collaborative, and practical CPD, we can support rural physicians to deliver safe and effective health care to rural British Columbians.

During the last year, the Rural CPD Program made significant progress toward its stated goals and aims to continue to support rural physicians in BC. The program saw the continuation of highly valued initiatives, the expansion of new initiatives, and the conclusion of others.

The COVID-19 pandemic has provided a catalyst for the rapid expansion and roll out of virtual education opportunities. In partnership with RCCbc, we are exploring how to support education through the newly established Real Time Virtual Support (RTVS) pathways. Directions include accrediting the RTVS calls, faculty development and upskilling for RTVS physicians, and the establishment of a virtual simulation program led by RTVS physicians.

Looking forward, we hope to continue to strengthen relationships with our partners, collaborators, and rural physician learners. We will continue to bring an equity lens to all that we do to ensure we are reaching out and supporting those rural providers who need it the most.

INTRODUCTION

Rural CPD Program Description and Vision

The UBC Faculty of Medicine's Division of Continuing Professional Development Rural Program (Rural CPD) is committed to supporting the learning needs of physicians and other health care providers who practice in rural and remote areas of British Columbia. Our goal is to improve the health of rural British Columbians by offering innovative CPD to rural health care providers.

The Rural CPD Program offers rurally-specific continuing professional development programs that are community-based, interprofessional, engaging, interactive, and practical. In addition to multi-modal learning opportunities, Rural CPD conducts a variety of research and evaluation activities related to the provision of medicine in rural British Columbia.

The program is led by Medical Director, Dr. Dana Hubler, Senior Manager, Laura Beamish, and a Rural Medical Advisory Committee with support from the senior leadership at UBC CPD and RCCbc. The program was established in 2008. This report describes Rural CPD Program activities for the period of April 1, 2019 to March 31, 2020.

Administrative Updates

This year saw the continuation and growth of a number of Rural CPD programs and projects and the conclusion of others. Our Program is currently running 11 initiatives and is supported by 13 medical leads and 11 team members. See [Appendix A](#) for list of team member profiles.

In 2019-20 Dr. Dana Hubler and Dr. Nicole Ebert transitioned into their roles as Co-Medical Directors of the program. At the end of March 2020, Dr. Nicole Ebert transitioned out of her role and Dr. Dana Hubler will continue as Medical Director for the next year. The Rural CPD Manager, Dilys Leung resigned in August 2019 after five years growing and leading the Rural CPD team. We also hired two new Research and Events Assistants, a Program Coordinator, a Project Manager, and established the new role of Senior Manager.

The Medical Advisory Committee annual retreat was held on May 24 in Parksville, BC to discuss and action the findings from the RCQI Needs Assessment. A total of 16 people attended. The annual Rural CPD Medical Leads Retreat was held on May 27 in Parksville, BC to bring together the medical leadership from the Rural CPD programs and discuss how we can mobilize and engage our team for change. A total of 25 people attended. These events were held in conjunction with the Rural Health Conference.

EDUCATIONAL PROGRAMMING

TRAVELLING COURSES

Hands-On Ultrasound Education (HOUSE) Program

Program Summary

The Hands-On Ultrasound Education (HOUSE) Program gives rural physicians the training and confidence to integrate point-of-care ultrasound into their practice. The HOUSE Program provides education that is customized and meets the needs of learners with a wide range of pre-existing skills. It delivers learning in a relaxed and fun environment with the highest instructor to student ratio (1:2) available in a hands-on ultrasound course.

The HOUSE programs consist of four distinct offerings including HOUSE Emergency Medicine, HOUSE Internal Medicine, HOUSE Obstetrical Care, and HOUSE for Rural Residents. In-community courses are delivered on an on-demand basis throughout the academic calendar year (Sep-Dec; Jan-Jun). HOUSE courses are also offered at select UBC CPD conferences throughout the year.

The HOUSE Program received sustainability and development funding from the Joint Standing Committee on Rural Issues (JSC) in 2017, and continues to use those designated funds to increase scalability, distribution and delivery of courses. In 2018, HOUSE received funding from the Rural Education Action Plan (REAP) to deliver the course to up to 90 rural residents (including international medical graduates (IMGs) and Canadian medical graduates (CMGs) per year for a total of five years (2018-2022 inclusive). Over the last year, HOUSE delivered 12 courses across 17 course days in communities across British Columbia as well as Alberta and the Yukon.

The medical lead for this program is Dr. Tandi Wilkinson and the program lead is Nicole Moon (on leave until Apr 2021) and Rachel Gledhill.

Key Project Milestones

In the 2019-20 fiscal year, the HOUSE course delivered 12 courses to 184 participants across nine different communities. This brings the total number of courses delivered to 87 and the total number of participants reached to 1055 since the program's inception in 2015.

HOUSE Emergency Medicine

Date	Location	Attendees
April 1 to 2, 2019	Yellowknife, NT	5
April 9, 2019	Kaslo, BC	4
April 27 to 28, 2019	Valemount, BC	11
May 11, 2019	Smithers, BC	10

May 24, 2019	Nanaimo, BC @ Rural Health Conference	12
Sep 26, 2019	Whistler, BC @ St Paul's EM Conference	11
Nov 2, 2019	Fernie, BC	14
Nov 30 to Dec 1, 2019	Crowsnest Pass, AB	12

HOUSE Obstetrical Care

Date	Location	Attendees
May 23, 2019	Nanaimo	12

HOUSE for Rural Residents

Date	Location	Attendees
Oct 21 to 22, 2019	Vancouver	23
Nov 16 to 17, 2019	Vancouver	22
Dec 6, 2019	Vancouver	10

Evaluation Findings

Program evaluation results for this year continue to reflect its value to course participants. Participants across all course offerings (EM, OB and Residents), report nearly 92% of the time that the course was very worthwhile, with majority of participants agreeing or strongly agreeing that the learning objectives were met.

Participants report increased confidence (Confident or Very Confident) in listing the correct steps in POCUS use; demonstrating the manual skills required to use POCUS; safely incorporating POCUS into your patient care; and creating an appropriate long-term learning plan for maintaining your POCUS practice.

Below is a sample of representative quotes from participants in the EM, OB and Resident courses.

"This was awesome. It has given the confidence + skills to ultrasound clinically and continue to improve" - HOUSE EM Participant

"Really appreciate the 'Learn, then do' element of the course - all the hands-on was awesome! Instructors were very approachable." – HOUSE for Residents Participant

"Excellent course with very good pre-course material and excellent instructions" – HOUSE EM Participants

The HOUSE program undertook a comprehensive program evaluation consisting of semi-structured phone interviews from a variety of stakeholders involved in the program. The evaluation aimed to

explore the key elements of success for the HOUSE program, its impact on patient care, and the future of the program. A detailed summary of the evaluation results can be found in the *Research and Evaluation* section below.

Lessons Learned

The HOUSE Program continues to be a highly successful, closer-to-home offering in the Rural CPD portfolio. This logistically complex program continues to rely on strong administrative support in order to be successful and appropriate staffing is key. We have learned that work internally to document processes, procedures, goals, and outcomes has contributed to the successful transition of new staff to this program.

Another lesson learned in this past year is that the success and reach of the HOUSE program in BC, may be contributing to a saturation of the current delivery model. Community course requests have decreased over the last few years. These communities very likely still need POCUS support; however, they may need a different version of the course or a different method of delivery in order to help optimize longitudinal learning. This led us to begin to explore new and innovative delivery models prior to the COVID-19 pandemic.

Through the program evaluation work, we also learned that the in-community model, strong administrative backbone, faculty development, and flexibility of the HOUSE course are what make it so appealing to learners and communities. Barriers include cost and sustainability of skills after the course. The program evaluation is discussed in greater detail below.

Looking Forward

The COVID-19 pandemic in March 2020 presented unique challenges for a program that is built around in-person, hands-on skill development. All in-person courses have been cancelled through to 2021, however we have identified an opportunity to explore a virtual HOUSE model. We believe this innovative approach will not only address community saturation, but will make the HOUSE course even more accessible by offering real-time, point of care education. Conversations have begun with various stakeholders including RCCbc, REAP and the HOUSE medical leads.

This work aligns with RCCbc's Real Time Virtual Support pathways and we aim to work with the physicians engaged in these supportive pathways to develop an educational program that supports the new virtual realities, the introduction of handheld ultrasound probes, and the power of peer support for education.

The Enhanced Simulation of Critical Care and Perioperative Emergencies (ESCAPE) Course

Program Summary

The Enhanced Simulation of Critical Care and Perioperative Emergencies (ESCAPE) Course is a one-day, high fidelity simulation program, designed and delivered by family practice anesthesiologists, that focuses on building team dynamics to optimize crisis resource management in the rural perioperative setting. One of the challenges of providing surgical care in a rural hospital is being prepared to effectively manage a multitude of diverse perioperative emergencies that present infrequently due to a low-volume setting.

The main objective of the course is to bring high quality simulation to rural hospitals and provide an opportunity for perioperative care teams to practice management of these infrequently encountered emergent scenarios. It was designed for anesthesiologists, surgeons, nurses and other practitioners who participate in patient care in a rural hospital with surgical services. Simulations will take place in the operating room and other critical care environments and will focus on caring for patients who would typically be resuscitated by providers with advanced skills in this field.

The medical leads for this program are Dr. Bruce McKnight and Dr. Kirk McCarroll, and the Program Leads are Nicole Moon (on leave until Apr 2021) and Rachel Gledhill.

Key Project Milestones

In the 2019-20 fiscal year, five ESCAPE courses were delivered to 68 participants across five different communities.

ESCAPE Courses

Date	Location	Attendees
May 1, 2019	Creston	15
Sep 6, 2019	Salmon Arm	16
Nov 29, 2019	Golden	8
Nov 29, 2019	Powell River	13
Feb 24, 2020	Smithers	16

Evaluation Findings

The data below summarizes the evaluation results for Creston. All other evaluation data is delayed due to staff transitions as a result of COVID-19.

Participants at the Creston ESCAPE course experienced an increase in confidence across all elements of the course including confidence in crisis resource management skills; management of intra-operative

emergencies, trauma, and critical care resuscitation; treatment of patients presenting with rare or infrequent and time sensitive health issues; using crucial equipment and medication; and identification and management of potential system issues.

Participants found the course facilitators to be highly effective and the combination of hands-on and debriefing components to be effective.

Lessons Learned

The ESCAPE course relies heavily on a small group of facilitators to engage with communities, determine their needs, and facilitate the education. A lesson learned this year is that providing more structure to the program may help alleviate some of that burden on facilitators and create opportunities for greater reach.

Looking Forward

The COVID-19 pandemic in March 2020 presented unique challenges for a program that is built around in-person, hands-on skill development. Opportunities exist to develop and offer a virtual simulation program via the newly established real-time virtual support pathways and leveraging existing telehealth and remote presence technologies.

Dummy Makes Perfect Airway Mannequin Loan Program

Program Summary

The 'Dummy Makes Perfect' Airway Mannequin Loan Program provides mobile access to three Laerdal airway mannequins (adult, pediatric, and infant) and educational materials, including airway scenarios, to remote communities in BC.

The medical lead for this program is Dr. Brenda Huff and the program support is Nicole Moon (on leave until Apr 2021) and Rachel Gledhill.

Key Project Milestones

The program continues to accept booking requests, although the volume is low. This year, the mannequins were loaned to Port Hardy in June 2019.

Evaluation Findings

No evaluation data to report.

Lessons Learned

Although this program fills an educational gap for small communities who may not be able to host larger in-community courses, uptake is low. Some potential approaches that may improve uptake in the program are a dedicated communications plan and staff member responsible, better connection to on-the-ground community needs via the RCME coordinators, and more proactive outreach.

Looking Forward

In the upcoming fiscal year, we will examine the long-term sustainability of the program and how we might be able to update the program and improve uptake, or pivot the program resources to a new initiative.

VIRTUAL EDUCATION

Rural Rounds

Project Summary

Rural Rounds is a live video rounds program with a rural focus. Communities, including physicians, students and other providers, join the interactive teaching sessions led by an expert. These rounds run the first Thursday of every month from September to June of every year. The sessions and topics are driven by feedback from rural communities and have a significant interactive section designed to work through the application of evidence to rural practice.

The medical lead for this program is Dr. Dana Hubler and the program lead is Hadas Haft.

Key Project Milestones

During the 2019-20 fiscal year, 10 Rural Rounds sessions were run from April to March. Data from a brief needs assessment conducted in the spring of 2019, found that participants were most interested in urgent and critical care topics. To response to those learning needs, the series featured five presentations from Dr. Omar Ahmad, an urban intensivist part of the RCCbc Real Time Virtual Support pathways.

In March 2020, we increased the frequency of the sessions to once per week to address the increased need for rurally specific education about COVID-19. A total of 8 sessions were run from March 2020 to June 2020.

2019-20 Rural Rounds Schedule

Date	Title	Registrants
Sep 5, 2019	New AUD Guidelines Part 1 with Dr. Jeff Harries	10 communities
Oct 10, 2019	Virtual Rural case Simulation with Real-Time Virtual Support lead by Dr. Omar Ahmad	13 communities
Nov 7, 2019	New AUD Guidelines Part 2 with Dr. Jeff Harries	13 communities
Dec 5, 2019	Rabies - Review of a Recent Rural Case with a provincial panel lead by Dr. Omar Ahmad	13 communities
Jan 9, 2020	Implicit Bias in the ED with Dr. James Liu	16 communities
Feb 6, 2020	Rural case discussion with Real-Time Virtual Support intensivists lead by Dr. Omar Ahmad	16 communities
Mar 5, 2020	Virtual Rural case Simulation with Real-Time Virtual Support intensivist lead by Dr. Omar Ahmad	16 communities
June 4, 2020	Rural case discussion with Real-Time Virtual Support intensivists lead by Dr. Omar Ahmad	16 communities

COVID-19 Rural Rounds Response

Date	Title	Registrants
Apr 2, 2020*	Team-Based Airway Management with Dr. Caroline Shooner	200 registrants
Apr 9, 2020*	Virtual Support Pathways with Dr. John Pawlovich, Dr. Neil McLean, Dr. Kendall Ho and Mr. Dave Harris	182 registrants
Apr 16, 2020*	Rural COVID-19 Case Discussion with Dr. Omar Ahmad and Dr. Ed Marquis	208 registrants
Apr 23, 2020*	Ventilator Refresher in the Rural Setting with Dr. Kirk McCarroll	284 registrants
Apr 30, 2020*	Indigenous Health and Cultural Safety in a Pandemic with Dr. Shannon McDonald, Dr. Terri Aldred and Mr. Harley Eagle	264 registrants
May 7, 2020*	Managing non-COVID illness in the time of COVID with Dr. Chester Morris	117 registrants
May 14, 2020*	Managing COVID-19 Patients in the Rural ER with a panel of four rural physicians from across the province	87 registrants

**Offered as part of the COVID-19 Response and are part of fiscal year 2021.*

Evaluation Findings

The data below summarizes evaluation findings from September 2019 to March 2020.

- The overall rating for Rural Rounds was positive, with 81% of participants rating the presentations as good or excellent.
- 64% of participants said they plan to make changes in their practice based on the information they learned in a presentation.
- 93% of participants agreed or strongly agreed that the information they learned in the presentations will be used in their future practice.
- Qualitative feedback shows that participants prefer presentations with more opportunities to interact and ask questions and that it is essential to focus on topics within the rural context.

The data below summarizes evaluation findings from the Rural COVID-19 Rounds.

- The overall rating for Rural COVID-19 Rounds was positive with 90% of participants rating the presentations as good or excellent.
- A total of 78% of participants agreed or strongly agreed that the information they learned in the presentations will be used in their future practice.
- The transition from WebEx and videoconferencing rooms to Zoom was straightforward and well received by learners.

Lessons Learned

This year, the Rural Rounds team worked to revamp the series to offer a more interactive, case-based program that addressed identified needs around critical care management. This shift involved engaging with the Rural Outreach Support group (ROSe) via the RCCbc's Real Time Virtual Support (RTVS) pathways. Sessions were case-based and co-led by an urban intensivist and a rural physician. From this process, it became clear that when involving urban colleagues in the sessions, it is essential they understand the rural context and present information that is relevant to the rural audience. It also demonstrated the value of bi-directional learning between the urban intensivist and the rural family physician about the rural context and critical care support and skills, respectively.

Another lesson learned this year is that the program is nimble and able to respond to immediate learning needs during a crisis with little additional administrative burden. When the COVID-19 pandemic public health emergency was declared in British Columbia in mid-March, our team was able to respond immediately by drawing on our network of skilled rural physicians as presenters, removing the paywall, offering sessions weekly, and changing to a new virtual platform (Zoom). This resulted in record-high registration and attendance at the sessions and filled an immediate and urgent learning need. This indicates to us that the model of Rural Rounds can be applied to future crises if and when they arise.

Looking Forward

The upcoming fiscal year will focus on adapting the current format of the series to better address the needs of rural healthcare providers. We will review session frequency, format, registration process, branding and finances. Given these changes, we will postpone the upcoming series to January 2021 to conduct development work over the summer and fall of 2020.

One suggestion to revitalize the series, is to adopt a model similar to Project ECHO and offer case-based presentation by a specialist physician, followed by a discussion with the rural physician audience. This model brings together a group of rural physicians for virtual learning with an urban specialist where each of the rural physicians brings forward case from their practice to discuss. We will assess the accessibility, sustainability, and feasibility of coordinating and offering sessions modeled after Project ECHO in the summer of 2020.

Virtual Grand Rounds

Program Summary

Virtual Health Grand Rounds (Virtual Rounds) is a quarterly provincial electronic rounds series that brings together health care providers, information management/information technology (IM/IT) colleagues, health administrators, health policy makers, and academics to jointly explore transformative, technology-enabled healthcare delivery case examples to support patient-centred care. These rounds are a collaboration between Rural CPD, UBC Digital Emergency Medicine and the Rural Education Action

Plan (REAP). They aim to spark thoughtful discussion around the risks, benefits, and considerations around the adoption of technology in healthcare throughout BC, while optimizing mutual learning and enhancing relationships. The format includes clinical, case-based presentations with built-in opportunities for questions and discussion.

The medical leads for this program are Dr. John Pawlovich and Dr. Kendall Ho and the program lead is Hadas Haft.

Key Project Milestones

2019-20 Schedule

Date	Title	Registrants
April 26, 2019	Virtual Consultation with Dr. Martin Dawes	167 registrants
Oct 25, 2019*	PIT Appointments and WelTel	79 registrants
April 17, 2020**	PIT Appointments and WelTel	N/A

* Postponed due to conflict of interest

** Cancelled due to COVID-19

Evaluation Results

No evaluation data to report.

Lessons Learned

Lessons learned from this year’s Virtual Rounds series include:

- A need for early, clear, and consistent engagement with the planning committee to ensure a common understanding of program goals, processes, and procedures. To address this need, a program guide was developed and adopted by the program team.
- A need for timely completion of conflict of interest forms and learning objectives to ensure appropriate mitigation of bias and conflicts of interest.
- A need to balance the presentation of new virtual health innovations and the bias introduced by industry and for-profit businesses (e.g. Telus Health) and CME accreditation standards.

Looking Forward

The upcoming fiscal year will focus on developing a series that keeps in mind the lessons learned. We will do this by establishing regular meetings for the planning committee and requiring timely completion of conflict of interest forms and other presenter details. We will also aim to host presentations that balance the need to present virtual health innovations and accreditation standards.

BUILDING AND SUSTAINING SUPPORTIVE RELATIONSHIPS

Rural Surgical and Obstetrical Networks (RSON) Clinical Coaching for Excellence Pillar

Program Summary

The Rural Surgical and Obstetrical Networks (RSON) Clinical Coaching for Excellence Pillar supports rural British Columbian surgical and obstetrical teams build clinical and personal supportive relationships within their community and their regional centre. RSON Coaching Pillar engages family physician anesthetists (FPA), family physicians with enhanced surgical skills (FPESS), surgeons, anesthetists, nurses, and midwives.

RSON assists in building networks to optimize clinical practice using a personalized and contextualized approach to clinical coaching. The program responds to region-specific learning goals and supports operative and non-operative obstetrics and surgical services, closer to home maternity care within provincial care networks, cultural safety, as well as enhanced critical care, emergency and trauma services.

The RSON Clinical Coaching Pillar welcomed Dr. Bruce Hobson to the role of Senior Medical Lead in March 2020. Pillar Medical Leads are Dr. Vikki Haines (FP ESS), Dr. Kirk McCarroll (FPA), Dr. Dietrich Furstenburg (FP) and Ms. Melissa Leslie (Nurse). The program leads are Emily Boardman and Kathryn Young.

Key Project Milestones

Community and Network Engagement

RSON onboarded three new Northern Health communities this year, including Hazelton, Smithers and Vanderhoof. UBC Rural CPD visited all three communities in 2019 to engage with program participants, learn about the communities' objectives, and provide an overview of the program. Along with increasing community engagement, RSON has improved communication through regular check-in meetings with other pillars and bimonthly coaching pillar working group meetings.

Coaches & Coachees Currently Enrolled in RSON Coaching Program

The number of coachees and coaches participating in the RSON Clinical Coaching Pillar increased across the six communities involved in the program this year.

Community	Number of Coachees	Number of Coaches
Revelstoke	6	6
Fernie	7	23
Creston	16	8
Golden	12	21
Hazelton	4	5
Smithers	22	7
Vanderhoof	<i>Coachees and coaches are currently being onboarded</i>	
Total	67	70

Program Development

This year, our team developed new program resources and created a more structured community reporting protocol to successfully onboard new communities. This included developing and updating program resources like the program handbook, online portal, payment protocol, evaluation tools and coach training workbook. We also distributed and shared resources with Clinical Leads and Community Coordinators through online shared drives and online portal, and implemented structured community reporting protocol. Communities provide program updates through quarterly community coaching reports. Finally, we welcomed new Coach Training facilitators, Executive Coach, Ingrid Price and Nurse, Andrea McKenzie.

Coach Training Sessions

Coaches are invited to attend a two-hour Coach Training session to build their coaching and mentoring skills, network with peers, and learn more about the Clinical Coaching Pillar program. Below is a summary of the Coach Training sessions this year.

- April 2nd, 2019 Nurse Virtual Coach Training
 - 9 physicians attended
- May 21st, 2019 Physician Virtual Coach Training
 - 4 physician and 2 nurses attended
- November 20th, 2019 Physician, Midwife and Nurse Virtual Coach Training
 - 5 physician, 9 nurses and 2 midwives attended
- December 16th, 2019 Physician and Nurse Virtual Coach Training
 - 6 physicians and 2 nurses attended
- February 27th, 2020 Nurse Virtual Coach Training
 - 7 nurses attended

Community Site Visits

In 2019, the UBC Rural CPD team attended site visits at three Northern Health sites. Below is a summary of the site visits.

- June 5th, 2019 to Vanderhoof

- UBC CPD staff, and Dr. Kirstie Overhill, Medical Co-Lead
- June 26th, 2019 to Smithers and Hazelton
 - UBC CPD staff, and Kim Williams, RSON Lead

Key Meetings

- April 23, 2019 Coaching Pillar Working Group Meeting
- June 10th, 2019 Coaching Pillar Working Group Meeting
- August 21st, 2019 Coaching Pillar Working Group Meeting
- August 27th, 2019 Check-In with Local Community Coordinators
- October 15th, 2019 Coaching Pillar Working Group Meeting
- November 27th, 2019 Pillar Leads Meeting
- December 4th, 2019 Program Orientation for Local Coordinators and Clinical Leads
- December 5th, 2020 Coaching Pillar Working Group Meeting
- January 24th, 2020 Pillar Leads Meeting
- February 4th, 2020 Coaching Pillar Working Group Meeting
- March 12th & 13th In-Person General Meeting

Evaluation Findings

The data below summarizes key themes, feedback and stories from RSON participants, shared through pre and post-program evaluation surveys and interviews.

Key Themes:

- Creates openness and an opportunity to share knowledge, ideas, techniques, and approaches to practice.
- Provides an opportunity to network with colleagues, build relationships within teams, and develop trust.
- Influences the coachee to continue practicing in a rural community. Participants feel more confident knowing they are able to receive support from a coach and that the program provides financial support for coaches to do so.

Participant Quotes

The following quotes were collected during participants interviews.

“It’s been a great opportunity for our surgeons to see the investment in their small little sites... When they see nursing is trying to build up confidence, I think that builds their trust in our system as well.”

“... [the program] allowed us to sharpen our skills and as we sharpen our skills, we serve the community better”

“There’s a new level of trust that’s developed within their relationship, to the point that the coaches are... proud to present us to other specialists if you’re in our visiting sites”.

“The ongoing support is terrific and much appreciated.”

Logic Model

This year, the team developed and refined the project’s program evaluation through developing a logic model to track outcomes and indicators.



RSON EVALUATION LOGIC MODEL

ACTIVITIES/INPUTS	OUTPUTS	OUTCOMES		
		SHORT-TERM	INTERMEDIATE	LONG-TERM
<ul style="list-style-type: none"> • Funding (JSC/RCCbc) • Staff time (RCPD) • Medical Leads & WG member’s time • Engagement/commitment from rural communities • Program delivery: <ul style="list-style-type: none"> ○ Support Calls ○ Online modules ○ Coach training ○ Coaching activities ○ Check-Ins ○ Site Visits ○ Interviews/evaluations 	<ul style="list-style-type: none"> • Program materials • # of WG meetings • # of study credits • # coaching hours • # of coach/coachee pairs • # of participants (physicians, nurses and midwives) • # communities • # of coach visits to rural site • # of coachee visits to regional or other centres • Completion of program forms, evaluations and interviews • # of coach training sessions held • # coaches who received coach training • Collaboration between participating rural communities • Collaboration between healthcare professionals (HCP) in their community 	<ul style="list-style-type: none"> • Increased confidence for participants (rural physicians, nurses and midwives) • Increased number of participants in the program • Community and learners identify their goals and understand how to achieve them • Increased collegiality between coach and coachee 	<ul style="list-style-type: none"> • Enhancement of participant’s skills • Development of a clinical coaching culture • Increased understanding and collaboration between participating sites • Rural HCPs feel professionally supported • Increase resilience • Increased collegiality in HCP’s community 	<ul style="list-style-type: none"> • Preservation and better support of rural surgical and maternity care services • Improved/optimized patient care • Better access to care (population wide) • Better coordination of care within the network and with other centres • Increased recruitment and retention • Increased collegiality between other RSON communities • Increase collegiality between rural communities and regional or other centres

Lessons Learned

Engaging community providers to participate in, and track their coaching activities requires ongoing engagement by RSON staff and Working Group members. Some ways the Coaching Pillar increases the volume of coaching activities is by:

- Reaching out to health care professionals in RSON communities and regional centres to build personal connections and trust.
- Connecting possible coaches with the RSON Local Coordinators and Clinical Leads.
- Capturing and sharing success stories through a one-page information sheet.
- Encouraging peer community coaching.

The RSON Coaching Pillar offers a flexible program that is adaptable to the needs of communities and individuals in those communities. For example, UBC Rural CPD received feedback from participants that there was a need to customize coach training sessions to better address individual learning goals. In order to do this successfully, Coach Training facilitators made the decision to divide coach training session delivery based on disciplines (physicians/midwives and nurses) to focus sessions on the unique needs of nurses, physicians, and midwives and allow more opportunity for discipline-specific case discussion.

Looking Forward

In the upcoming fiscal year, the RSON Coaching Pillar will focus on the following priority areas:

- Support participant onboarding throughout the year
- Offer Coach Training once a month
- Offer Skill Development Check-In sessions for coaches to increase their coaching skills and best support their coachee
- Launch coaching skills online learning module
- Refine and enhance coach training education with facilitators
- Facilitate matching of coaches/coachees
- Collect interviews and stories
- Host RSON Coaching Pillar WG meeting every 6-8 weeks
- Host Quarterly check-in for Local Community Coordinators and Clinical Leads
- Share monthly UBC Rural CPD updates with Local Community Coordinators
- Visit Interior or Northern community sites and/or in-person coach training
- Support the onboarding of three new RSON communities: Vanderhoof, Port Alberni and Squamish

Coaching and Mentoring Program (CAMP)

Program Summary

UBC Rural CPD's Coaching and Mentoring Program (CAMP) supports rural physicians and healthcare providers to build meaningful collegial relationships for mutual learning and knowledge exchange. CAMP provides administrative support and individualized learning options for participants to enhance their coaching/mentoring relationships. This includes matching each coachee/mentee with a coach/mentor,

providing peer support activities, training opportunities, CME credits, and optional tools and resources through an online portal.

The CAMP umbrella includes four distinct programs: The Rural Physician Mentoring Program, the Clinical Coaching for Excellence Program, the Rural Surgical and Obstetrical Network (RSON), and the Rural Obstetrical and Maternity Sustainability Program (ROAM-SP). Note: RSON and ROAM-SP Updates are reported separately.

Key Project Milestones

Program Delivery

Rural Physician Mentoring Program Delivery

In 2019-20, the Rural Physician Mentoring Program launched its 10th cohort since the program was established in 2014. This year the program delivered three cohorts:

- Cohort 8 / November 2018-August 2019 / 13 pairs
- Cohort 9 / September 2019-June 2020 / 11 pairs
- Cohort 10 / November 2019-August 2020 / 11 pairs

Staff recruited participants for Cohort 11 during Q4. These participants (11 mentees/12 mentors) were onboarded to CAMP in the 2020-2021 fiscal year.

Clinical Coaching for Excellence Program Delivery

The Clinical Coaching for Excellence Program includes several sub-stream initiatives, each of which were funded separately and focused around a particular target audience or area of practice. These streams have since been merged administratively and fiscally into the overarching CAMP umbrella as of April 1, 2020. Below is a summary of the activities for each sub stream during the 2019-2020 year.

Family Practice Anesthetist (FPA) Clinical Coaching

After a successful pilot, the FPA Clinical Coaching stream concluded in July 2019. The FPA stream supported coaching activities in 11 communities and 47 coachees. Several of the pilot communities included RSON communities and in some cases the coaching continued after the pilot.

Peer Emergency Coaching

The Peer Emergency stream included three distinct offerings including in-person peer coaching, virtual peer coaching, and coaching for PRA-BC graduates. The in-person format included three communities and seven coachees; the virtual format included seven coachees; and the three PRA-BC graduates received coaching.

CAMP Coaching Delivery

In fall 2020, CAMP began supporting pairing through a single process for coaching, rather than facilitating matching for coaching pairs through individual streams. During this period, five pairs were matched.

Training and Orientation

The training and orientation sessions onboard new participants into the program and review key concepts in coaching and mentoring and CAMP program details. This year, a total of five sessions were delivered including two Coach Training sessions and three Mentor Orientation sessions.

Online Portal

Orientation information, tools and resources are now available through the CAMP Online Portal. For mentor/coaches who are unable to attend an orientation prior to beginning a mentoring/coaching relationship, the Online Portal allows them to review key information at their own pace and convenience. The portal is presented in two parts, with Part 1 available now and Part 2 launching in September 2020.

- Part 1: CAMP program goals and principles, documents/resources, the distinction between coaching and mentoring
- Part 2: The coaching process, introduction feedback, advancing learning through feedback

Medical Leadership Transition

Drs. Kirstie Overhill and Bob Bluman transitioned out of their Medical Co-Lead roles after six years of leading the programs. Dr. Overhill stepped down as of March 31, 2020 and Dr. Bluman as of May 1, 2020.

Dr. Bruce Hobson joined the program as CAMP Senior Medical Lead as of April 1, 2020.

Evaluation Strategy

In order to measure program goals and objectives, the CAMP team continues to refine and build its evaluation strategy and tools. This evaluation work informs continuous program improvement and allows program staff to collect valuable feedback from participants. This process includes developing/refining an evaluation logic model, evaluation questions, and data collection tools (surveys and interview protocols).

Partnerships

CAMP has partnered with the Indigenous Medical Education Committee (IMEC) to support the identified need for mentorship for Indigenous students, residents and physicians in the province. Through a collaborative process with IMEC, the program was adapted to meet the unique needs of this group and work towards becoming a more culturally safe program.

Evaluation Findings

The data below summarizes key evaluation findings for each of the CAMP streams collected through program surveys and interviews during the 2019-2020 fiscal year.

Rural Physician Mentoring Program

A total of 35 pairs representing four of BC's Regional Health Authorities, including Vancouver Coastal, Island Health, Interior Health and Northern Health participated in the program. All mentee participants practice full time in RSA communities, except for two rural locum physicians and four resident physicians, who either don't practice rural full-time or haven't entered full-time practice yet.

Mentees reported personal and/or professional benefits as a result of their mentoring relationship; a majority of mentees achieved the short-term goals they set at the beginning of the program, felt more confident in their clinical skills to practice rural medicine and were satisfied with their decision to participate in the program. Mentors identified professional satisfaction and learning experiences as the most important and personally beneficial aspects of the program.

Mentee Feedback

- Mentorship agreement (confidentiality) was a critical component to the program
- Resource for physicians new to the area
- Opportunity to learn more about the rural landscape
- Connection to a role model outside [residency] program
- Suggestion to improve the program would be to offer more mentor options during selection process

Clinical Coaching for Excellence Program

The FPA, PRA-BC Peer Emergency Medicine and Virtual Peer EM coaching streams collected program evaluation data, feedback and stories through post-program surveys and interviews with coachee and coach participants.

FPA Coaching

All coachees surveyed felt willing and prepared to continue working in their community, felt comfortable and confident in their role as an FPA, and would recommend the program to a colleague. Most coachees rated a high level of comfort and confidence with massive trauma, circulation support, regional anaesthesia, difficult airways and treat vs trauma. The most helpful program elements to coachees were the community orientation, financial compensation for the coach and REAP funding.

All coaches surveyed either strongly agreed or agreed that the program enhanced their skills and/or knowledge and they would recommend the program to a colleague. Most coaches felt comfortable discussing a difficult case with a coachee and prepared to advocate for the rural site.

Participant Quotes

“It’s a really nice opportunity to expand knowledge of services for anesthesia around the province and build bridges between other colleagues” – Coach

“I feel that sitting down and sharing a meal with someone and stripping away the formality and veneer and telling truth to scenarios is really valuable” – Coach

“Overall, I was very impressed. I think it’s a fabulous idea, a great way to network with colleagues around the province, get out of the silo of your own institution, talk with other people, see the challenges in a community that is very different from a structural and recourse point of view, compared to your own facility. I really think it’s a fabulous program and deserves funding!” – Coachee

Peer Emergency Medicine Coaching

All coaches in the PRA-BC Peer EM coaching stream agreed that the program had a positive impact on coachees and that they would recommend the program to a colleague. One coachee from the Virtual stream appreciated that the administrative aspects of the program were kept to a minimum and stated that being able to connect with a colleague during an emergency shift increased their comfort and confidence and reduced feelings of isolation.

Participant Quotes

“It helped me to feel more confident when I was on shift to be able to talk to someone. I didn’t feel like I was taking up other docs who were working time because [coach] had put away this time specifically and getting paid for it” – Coachee

“...going into an emerge shift knowing that you have another doctor on the line who is there for you if you don’t know what you’re doing is a really reassuring thing. It just helps that transition to make you feel less alone” - Coachee

Lessons Learned

The intention behind creating an overarching “CAMP umbrella” was to align program supports for mentorship and coaching into one simple process and entry point for physicians. Over the last six years, a number of coaching and mentoring funding/program sub-streams were initiated and developed, all of which were all delivered in slightly different ways, with different leads, and various processes. This made consolidating all programs under CAMP a challenging task. While Rural CPD officially launched CAMP in early 2019, it took the COVID-19 global pandemic in March 2020 to spark changes to merge the separate streams of Clinical Coaching and Rural Physician Mentoring into one single process at all levels (sign up, training, resources, and payment). The changes were made based on needs identified as a result of the pandemic and feedback from participants and partners/collaborators.

Further, with multiple staff and leadership transitions over the course of the last year, we understand the importance of sustainability planning, documentation, and clear administrative processes to ensure the continuity of the program. In order to navigate these transitions, the team has tested multiple mechanisms for information sharing and communication within the team and to partners and stakeholders. We continue to engage our medical leads, who possess extensive knowledge and experience in their sub-specialty areas (FPA, ER, Mentoring), and benefit from the leadership of a Senior Medical Lead who helps to guide the overall direction of CAMP.

Looking Forward

The CAMP team, along with Rural CPD leadership, continues to review, assess and refine the program on an ongoing basis. This Plan-Do-Study-Act cycle approach allows us to build on what is working well and address any barriers or areas that may not be working well. Based on the current budget and workplan, the following will be key priority areas in the coming year.

Target Participant Numbers

- 50 mentoring/coaching pairs
 - Funding is available for each mentee/coachee to access **up to 35 hours of funding** for coaching/mentoring support
 - A mentee/coachee may use funding to pair with one or multiple coaches
 - A pair may access the funding for a 6-month period before their funds are returned to the larger funding pot and repurposed to increase the number of participant spots

New and Enhanced Learning Opportunities

CAMP will offer more robust learning opportunities and resources. Coaching and mentoring participants may access:

- Mentor/Coach Orientation
 - 2-hour session / 1 Orientation per month
 - This session was recently redesigned, and focuses on identifying/addressing learning needs, providing support on coaching and mentoring “hot topics”, and offering a brief refresher on the updated CAMP process.
- Mentor/Coach Skill Development Check-ins
 - 1-hour session / 1 Check-in per month
 - This new offering is for coaches and mentors who have already attended the orientation. The session will focus on building on participants’ knowledge of key coaching and mentoring skills (e.g. providing feedback, listening, creating the alliance, structuring the conversation) and will provide an opportunity to connect with other coaches and mentors.
- Updated mentor/coach database with new “filter by area of interest” feature

- CAMP Online Portal where participants can access resources, education, and program information at their own pace

Partnerships

We will explore opportunities to share CAMP offerings within rural and provincial organizations, including the RCME Program, Rural Divisions of Family Practice, Practice Support Program, and Doctors of BC. We hope that these relationships will lead to collaborations and knowledge translation in the area of coaching, mentoring and peer support. As part of our future partnerships, we will build on existing connections made with the Indigenous Medical Education Group and First Nations Virtual Doctor of the Day to support Indigenous physicians in BC to access peer support.

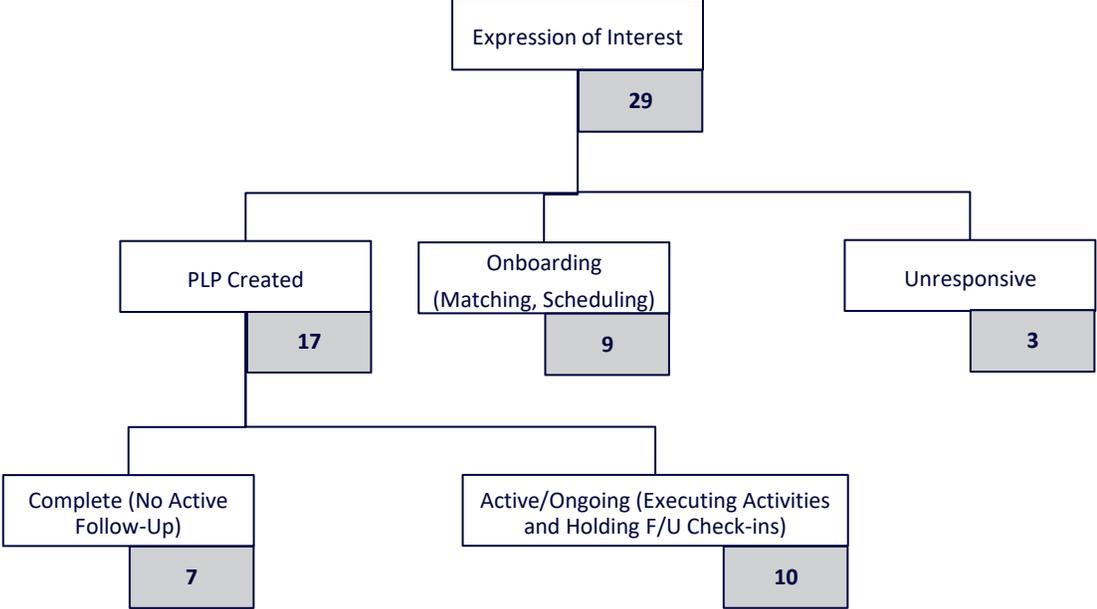
Personal Learning Plans

Program Summary

Personal Learning Plans (PLP) support physicians to navigate the continuing professional development (CPD) landscape and achieve personal and professional success in British Columbia. PLP offers a concierge service at no cost to international medical graduates (IMGs) in BC. The program identifies participant's learning goals and develops a plan to help them achieve those goals and support successful integration into practice and community. A concierge and the physician advisor collaborate with the participant to help them identify relevant resources and connections needed to meet their goals. Participants may claim Self Learning MainPro+ credits or MOC Section 2 credits. Our team is experienced in addressing needs identified by new-to-practice or new-to-community IMGs, including, but not limited to electronic Medical Record Management, Emergency Room Skills, Clinical Topics (e.g. Mental Health), Exam Preparation (LMCC & CFPC), Billing, and Psychosocial Support / Family Support.

Key Project Milestones

The figure below outlines the total number of rural participants who expressed interest, enrolled and completed learning plans as of March 31, 2020.



The table below illustrates the demographics of rural participants by IMG program and medical specialty as of March 31, 2020.

IMG Programs	Participant Count	Medical Specialty	Participant Count
PRA-BC	25	Family Physician	28
BC-PIP	3	Pediatrician	1
IMG Residency	1		
Total:	29		29

Learning Goal Themes

As more participants go through the program and we track trends in the identified needs of IMGs in British Columbia, we may be able to address potential systems gaps on behalf of our participants by sharing with key stakeholders.

For example, through the program, we have connected IMGs requesting LMCC Exam Support with the UBC Family Medicine Residency Program Sites. This connection may lead to opportunities for the IMG to participate in the OSCE, SOOs, or SAMPs prep sessions. Other residency sites have connected the IMG to chief residents who extend invitations to join resident study groups.

Identified Need/Topic	Request Count
LMCC Exam Support	8
Adult Mental Health	8
Billing	6
Emergency Skills	6
EMR	5
Chronic Pain	4
Opioid Prescribing	3

Presentations and Engagement

We presented to IMGs at the Practice Ready Assessment BC (PRA-BC) Centralized Orientation and the British Columbia Physician Integration Program (BC-PIP) Orientation during the Spring and Fall seasons. We also engaged with the Physician Recruitment Committee from Health Match BC Recruitment Solutions and the CPSBC Provisional Compliance Team.

Expansion and Development

We expanded PLP offerings from PRA-BC graduates to include all rural IMGs in March 2019 for Phase 2 of the funding proposal. Coinciding with this expansion, funding was granted through the Joint Collaborative Committees for BC-PIP to provide Personal Learning Plans for urban provisionally licensed IMGs. As a result, project teams aligned efforts to serve all provisionally licenced IMGs in British Columbia.

Program Resources

- **Physician Advisor Guide:** An onboarding tool developed for physician advisors, which details roles and responsibilities, program process, and a facilitation guide when conducting the initial meeting.
- **Value Statement:** Our first program principle is to ensure that this program be a safe space for the participants who choose to participate. In order to ensure that we continue to uphold this promise to the participants, the project team expects any external members who join the calls to abide by the same core values, principles, and top priorities of the program. It is our hope that this value proposition will inform, reinforce, and remind potential partners about these priorities and goals.
- **Resource Database:** A repository of resources, including resources for popular learning goal themes and accessible to healthcare providers in British Columbia or Canada.

Partnerships and Relationships

- **Practice Support Program:** We formalized a partnership with the Practice Support Program (PSP) after meetings in November 2019 and January 2020. Local community connections, notably with the PSP Regional Support Teams, have been a useful and valuable resource, both

for the concierge in finding resources, and for directly supporting the participants' success in reaching their goals. We will continue to collaborate with organizations (such as PSP) that have the on-the-ground resources and relationships that help IMGs reach their goals and feel supported and successful in their practice. Through this partnership, we were invited to have a booth at RST Learning Days in November 2019, where all PSP coaches from around the province came together in Vancouver for orientation and training.

- **PRA-BC:** On September 24, 2019, representatives from UBC CPD, RCCbc and PRA-BC met to ensure that the stated goals, intention, and structure of the PLP program are maintained moving forward for this group of participants. The meeting resulted in revisions to the program's structure and process for PRA-BC graduates. The revised approach, effective Fall 2019, included a revised meeting structure with multiple touchpoints between PLP and each PRA-BC graduate. This change supports longitudinal learning and a trusted relationship between the PRA-BC graduate and PLP. By offering multiple meetings and the option to invite external participants, the new process has the potential to uncover more learning gaps and unperceived needs so that the PLP team may work with each graduate to develop a more comprehensive learning plan.
- **RCME:** We are connected with the Rural Continuing Medical Education (RCME) team to share insights and resources to support their endeavour of a community concierge service. We are continuing the conversation to explore the potential of community learning plans for rural communities.
- **Doctors of BC:** We are currently exploring the potential for collaboration with the Doctors of BC Regional Advisors & Advocates under the recommendation of Julie Kwan from Doctors of BC. No connection has been established as we are in early stages of understanding their mandate.
- **CPD Organizations and Offices:** We shared our open-source materials to other organizations who have expressed an interest in our work. This includes other CPD offices across Canada, UBC CPD Practice Improvement Hub Subgroup, UBC CPD Coaching and Mentoring Program (CAMP), PRA-BC, BC Medical Quality Initiative (BCMQUI), and the Transition to Practice Subgroup of the GPSC Provincial Recruitment and Retention Committee.

COVID-19 Effects

We have pivoted our programming in the face of the pandemic in March 2020. We offered further support and changes to study plans and PLPs for participants who faced postponements to the MCCQE Part I and II exams. Participants with and without an initial learning goal on billing were updated on new billing codes related to COVID-19 via webinars and courses. We had one participant who held their meeting during the emergence of COVID-19 in late-March. His COVID-19 related learning goal was on telehealth, which was a first for the program. Updates were made to the facilitation guide to provide space and time to explore COVID-19 related goals and make conversations more context-sensitive. We onboarded a respirologist as a physician advisor, who could act as a specialist consultant to provide insight on COVID-19 from an internal medicine, critical care, and respirology perspective.

Evaluation Findings

In accordance to the funding proposal, approximately 20% of participants were interviewed to evaluate the initiative. Key findings of the evaluation indicated that the learning plan served as a helpful tool for participants to navigate differences between Canada and the country they trained in, and to integrate into the Canadian medical system. Participants expressed that both the concierge and physician advisor were very helpful in supporting them to identify their learning needs and goals. The PLP team connected participants to relevant, educational resources that have since supported the participant's professional growth. One participant's experience with the program could have been improved if they had regular, monthly follow-ups with the concierge.

"I was able to figure out my goals in terms of what I wanted to do and what I wanted to achieve... weaknesses and areas of practice. That was the area I am really happy with most of all."

As such, the learning plan has impacted the participant's integration in their community, practice management skills and patient communication by creating connections between the participant and other CPD programming.

"[The PLP] helped me to get to know more about the webinars, CMEs... It drew me closer to [my mentor] ...It enhanced my knowledge... Without the Personal Learning Plan, I wouldn't have access to that. In that sense, the Personal Learning Plan has been very helpful... [This] has helped me to learn the Canadian system... to give me the confidence to say I am doing things by Canadian standard."

This participant had a very positive experience with PLP; they have been recommending the program to their colleagues and would also participate in PLP again in the future.

"I really loved this program. It has helped me to become familiar with the Canadian way and I am learning faster."

"I am really impressed. Canada is an impressive country where... people go out of their way to develop you as a person and hope you use that to the benefit of the patient and society in general. It is not like that where I come from in the Caribbean. I give Canadians and UBC credit."

In addition to the formal evaluation, we receive continuous feedback from participants throughout the process.

Impact Story

On January 28, 2020, the BC Rural Update (e-newsletter from RCCbc) published [Overcoming the myth of career shock with Personal Learning Plans](#). In this article, a physician shares their experience moving to British Columbia and how a Personal Learning Plan (PLP) helped them.

Lessons Learned

We learned the value of inviting a Specialist Consult to meetings for specialist physician participants. Expertise in the specialty field provided a greater breadth of understanding of resources and

opportunities available for participants. We are currently looking to onboard a roster of Specialist Consults of varying specialities in anticipation for prospective specialist participants.

When creating the revised process for PRA-BC, we learned how to balance being nimble and adaptable to new process streams while preserving the program principles. It was important for the UBC CPD team to ensure the program remained a resource for quality improvement rather than quality assurance.

We established strategies for handling unresponsive participants who have expressed interest in the program or have their learning plans fully developed. We also implemented a 15-minute no-show policy for scheduled meetings to ensure the quality of PLP calls. This is to recognize that meetings require logistical considerations for internal UBC CPD staff who work in a shared office space, such as booking rooms, equipment, and videoconference platforms.

Looking Forward

We look forward to a presentation to all CPD/CME Coordinators at the CPD Leaders Meeting organized by The Doctors of BC CPD Nucleus Committee. We hope to solidify a more robust program end (“wrap up”) protocol for participants.

We hope to continue the preliminary discussions around the expansion of this program to a larger audience of physicians through the Transition to Practice Subgroup of the GPSC Provincial Recruitment and Retention Committee.

Rural Obstetrical and Maternity Sustainability Program (ROAM-SP)

Program Summary

The Rural Obstetrical and Maternity Sustainability Program (ROAM-SP) supports the delivery of rural maternity services by enhancing connections and team approaches to care through peer, facility, and regional network initiatives and coaching in eligible communities. UBC Rural CPD’s Coaching and Mentoring Program (CAMP) facilitates coaching for maternity teams in order to build clinical and personal supportive relationships and to increase community-based confidence to provide local intrapartum services.

ROAM-SP communities may access CAMP offerings, including training, orientation, and resources to support coaching activities. The RCPD team will also assist communities in developing customized coaching plans based on community needs.

Key Project Milestones

Timeline

The majority of ROAM-SP activities began in Q4 of the 2019-2020 fiscal year:

- December 2019 – Preliminary meetings with ROAM-SP coordinator
- January 2020 – First consultation meeting between ROAM-SP team & community (Salt Spring Island); RCPD held debrief meeting with ROAM-SP
- February–March 2020 – CAMP finalized coaching resources for communities

Resources

RCPD finalized resources to distribute to communities following the coaching informational/consultation call:

- ROAM-SP Coaching – Menu of Options
- ROAM-SP Coaching Handbook
- Examples of Coaching Activities
- List of Funding Opportunities for Rural BC
- Needs Assessment Questions

Evaluation Findings

No evaluation data to report.

Lessons Learned

In-person community site visits, while ideal for relationship building and contextualizing community needs, proved challenging for the ROAM-SP team given the need to coordinate the schedules of numerous providers and medical project leads. Scheduling challenges, in conjunction with travel restrictions in place due to COVID-19, led to phone/video call meetings and informational webinars between ROAM-SP and communities. With the introduction of these virtual community engagements, UBC Rural CPD is anticipating a greater influx of inquiries from communities regarding coaching.

Looking Forward

UBC Rural CPD will continue to offer community coaching support, which includes a needs assessment call with key members of the maternity team. We will continue to refine our approach to meeting with communities, including developing a consultation call protocol to outline the meeting and work with communities to develop a coaching plan based on their needs and goals.

Indigenous Patient-Led Continuing Professional Development Project

Project Summary

The Indigenous Patient Mediated Continuing Professional Development Project (IPM CPD) is an Elder-led project working to increase cultural safety and humility in rural BC. Through experiential learning opportunities offered in-community, the project aims to build relationships with Indigenous communities and physician communities and shift the experience of Indigenous people accessing the healthcare system in rural BC.

The project connects cultural safety innovators and leaders across the province and builds on existing work happening in the province. We will offer learning opportunities that address systemic racism and cultural bias and celebrate the strength of Indigenous ways of knowing and traditional healing practices. We aim to shift hearts and minds.

The medical leads on this project are Dr. Terri Aldred and Dr. Dana Hubler and the program leads are Stephanie Gariscsak and Laura Beamish.

Key Project Milestones

Think Tank Event: October 4, 2019

The Meeting of the Minds event brought together approximately 30 leaders in Indigenous Cultural Safety (ISC) and Humility from across the province to come together in Vancouver. The meeting gathered input from this diverse group of participants to inform the development of an offering that builds on existing work in the province and creates meaningful change at the front line of care.

Environmental Scan (Evaluation): Ongoing

The environmental scan identifies current evaluation tools and resources used to educate health care practitioners on current Indigenous health inequalities. We will use the resources identified in the environmental scan to validate an evaluation tool that measures humility within health care practitioners who participate in this work. The findings consist of evaluation and research guidelines from organizations and research projects conducting research alongside Indigenous communities. This environmental scan is consistently refreshed and updated to ensure our working group has the most recent data to inform our work.

Environmental Scan (Education): Ongoing

The environmental scan identifies current ICS resources and educational offerings. We used the resources identified in the environmental scan to identify current Indigenous educational offerings and ensure our work continues to complement and enhance current offerings, not duplicate. Findings show there is little ICS education targeted to physicians and minimal work offering a community-led approach. This environmental scan is consistently refreshed and updated in order to ensure our working group has the most recent data to inform our work.

COVID-19 Response

In response to the Covid-19 pandemic, our working group was called to quickly develop ICS education materials which offer a primer of important considerations for front line health care workers when engaging with Indigenous patients regarding cultural safety. We created a set of short videos, as well as a document outlining these ideas, to meet the needs of learners, as well as allow for quick dissemination via social media and sharing through professional networks. These documents and videos can be found on our project website here: <https://ubccpd.ca/rural/indigenous-patient-led-cpd>.

FNHA Doctor of the Day Partnership: May, 2020

In response to the COVID-19 Pandemic, the First Nations Virtual Doctor of the Day Program was established to enable more First Nations people and their family members to access primary health care closer to home. In response to identified needs, our group will develop a community-based and Elder-led education offering for each of the four Doctor of the Day regions.

Community Engagement Meetings

The following list identifies individuals and their respective organizations that our working group has met with in order to learn of community engagement needs and opportunities. These meetings have served as invaluable and have allowed us to begin building relationships with communities in order to better understand their unique needs and skills.

- Nisga'a Nation: Valerie Doolan
- Island Health: Ian Thompson, Dan Horvat, Kristine Votova
- Interior Health: Vanessa Mitchell
- FNHA: Trish Howard, Devi Goberdhan, Megan Hunt, Sean Wachtel,
- Health Arts Research Centre: Charis Alderfer-Mumma and Sara de Leeuw
- Cowichan Tribes: Dr. Derek Thompson
- Haida Gwaii: Trish Howard, Waneeta Richardson, Lauren Brown Monica Brown, and Caroline Schooner
- Sechelt: Dr. Rahul Gupta and Dr. Jennifer Baxter
- Tla'amin Nation: Nathan Jantz
- SPARC-BC: Scott Graham

Research Methodology Meetings

Cowichan Tribes Research Methodology:

- Attendance: Derek Thompson, Caitlin Hickman
- The working group met with a research team from Cowichan Tribes to discuss their previously conducted research project, ethics procedure, and methods for engaging community and obtaining community consent for research

Brokered Dialogue Methodology Discussion:

- Attendance: Daniel Wiebe, Tina Biello, Doris Warner, Megan Muller

- The Working Group met with Megan Muller and her research team to discuss the possibility of utilizing brokered dialogue as a research methodology for community engagement.

Evaluation Findings

Meeting of the Minds:

At our Meeting of the Minds, we engaged in rich dialogue in order to develop a deeper understanding of the current landscape of ICS education in BC, and identified key areas in which communities wished to see action take place. This engagement allowed us to meet with key champions and leaders, and gain their input on our project goals and next steps. We learned the importance of ICS (ICS) education, from the perspective of Indigenous patients, as well as the fact that ICS is not mandatory for physicians across BC. We also learned that there is limited opportunity for physicians, including international medical graduates, to participate in educate and receive ongoing ICS mentorship and support.

Environmental Scans

Results from the environmental scan have found that most ICS education programs are offered online and contain a mix of videos, recording, and texts for learners to go through at their own pace. Although these offerings provide a good starting point for ICS education, there is room for improvement, particularly for physician providing care to Indigenous and First Nations peoples.

In order to address these gaps, our team is using the principles of patient-mediated education, and shifting the paradigm of traditional continuing medical education from physicians and other subject matter experts identifying the perceived and unperceived needs of learners, to the Elders and community members identifying what they think physicians and other health care providers in their communities need to know in order to provide culturally safe care.

Lessons Learned

One of the most significant lessons that our team has learned through our work is the importance of relationship building prior to the start of community engagement and acknowledging that this process requires time. The importance of relationship building has been emphasized by both Elder Roberta Price and Elder Cheryl Schweizer within our working group as key to the success of the project. We have modelled our approach to relationship building in community with our own internal process.

Within our working group, we have created strong, meaningful relationships through regular communication rooted in ceremony and protocol led by Elder Roberta Price and Elder Cheryl Schweizer. These strong relationships have allowed us to remain nimble and react quickly during this time of uncertainty presented by the COVID-19 pandemic. Through our close working relationships, we have welcomed innovation, change, and new ideas with respect and appreciation. This has allowed us to bring a strong foundation of trust and respect to the communities that we have engaged with, especially during this time of pandemic.

Looking Forward

Reflective Practice

To begin the evaluation process, our group will engage in a personal reflection on our experiences and learnings of ICS and humility through our work on this project. Using the medicine wheel and a two-eyed seeing approach, this reflection will continue to build our relationships with one another. We plan to share our thoughts and learnings within a sharing circle in June 2020.

Brokered Dialogue

During this time of pandemic, while in-person gatherings are not permitted, we are exploring innovative ways to approach virtual ICS education, while maintaining meaningful engagement and ensuring community-led approaches are prioritized. Moving forward, we now aim to use a digital approach to capturing stories and fostering dialogue between Indigenous and First Nations communities in rural BC, and the physicians that provide care in those communities.

By capturing the stories and experiences of local community members in a digital format, we hope to support communities to create a legacy of locally-relevant ICS educational resources and information for health care providers providing care in their communities. Through this process we hope to foster meaningful dialogue and support sustainable, community-led ICS education for physicians and other health care providers.

FNHA Doctor of the Day Education Programming

We will work with FNHA to facilitate community-led education that is culturally relevant to each of the four health regions (Northern, Interior, Vancouver Island, Vancouver Coastal/Fraser) for physicians engaged in this program. Further, we will evaluate the demonstration of cultural humility within the physicians engaged in this program, to further develop a validated tool to measure cultural safety and humility within physicians in BC.

Virtual Meeting of the Minds

We plan to host a virtual Meeting of the Minds in the Fall of 2020 to reconnect with ICS leaders from across the province. This offering will replace the in-person event scheduled for May 2020 at the Rural Health Conference that was cancelled in response to the COVID-19 pandemic. At this meeting, we intend to share our progress on educational offerings, as well as continue to learn and share alongside folks within BC engaged in ICS work.

RESEARCH AND EVALUATION ACTIVITIES

HOUSE EM Evaluation Project

Project Summary

In 2018, the HOUSE program undertook a comprehensive program evaluation project to explore the impact of the HOUSE EM program on past participants and their communities, while ascertaining the learning needs of rural physicians to sustain and enhance their POCUS skills. The report was complete in 2019 and can be found in [Appendix B](#).

Methods

Over 50 semi-structured telephone interviews were conducted with participants and stakeholders from 24 communities. Interview questions focused on the perceived changes to practice and patient care as well as the ways in which physicians prefer to be supported in their longitudinal learning efforts post-course. Interviews were transcribed and analyzed for common themes, from which overall conclusions and recommendations were made.

Evaluation Questions

Evaluation questions were derived via the development of a program logic model and associated evaluation framework and were used to guide the development of the interview protocols.

- What is working well with the HOUSE program? How might it be improved?
- How significant an impact does the HOUSE program have on physician practice, including scope of practice?
 - What motivates participants to make changes to their practice?
 - What barriers do they face in making changes to their practice?
 - How sustained are these impacts over time?
- What role do the following elements play in the HOUSE program's effectiveness?
 - Customization of individual course content and delivery
 - Relationship-building
 - Flexible and adaptable course components (e.g. content, teaching style, participants' level of knowledge)
 - Support and quality control provided by UBC CPD to local coordinators
 - Reducing the coordination burden on physicians
 - Urban and rural instructors with diverse skills sets and knowledge bases from various different contexts
- What other aspects make the HOUSE program unique among other POCUS courses?
- What impact does the HOUSE program have on patient outcomes?
- What impact does the HOUSE program have on rural communities?

- What aspects of the program are most appropriate for scaling up? What is required for the HOUSE program to become a model for dissemination to other regions?

Conclusions

Overall, participants reported positive experiences with HOSUE EM. In particular, participants value the low learner to instructor ratio, hands-on format, tailored content, and the flexible teaching approach. In response to sustaining and enhancing their POCUS skills, participants requested support for tailored refresher courses, mentorship, and support developing communities of practice. Barriers to longitudinal learning include cost of implementation, time, and the need for administrative support.

HOUSE is recognized nationally as a successful, high-quality, and innovative rural continuing professional development (CPD) program. The innovations developed via HOUSE have significantly informed the development of other CPD rural programs and the overall use of ultrasound in rural practice.

New to Practice Evaluation Study

Project Summary

In January 2018, the Rural Coordination Centre of BC (RCCbc) proposed a list of recommendations to the Joint Standing Committee on Rural Issues (JSC) titled “Options to better equip physicians for working in Rural BC,” also referred to as the “setting up for success” initiative. The goal of these recommendations was to better support new to practice physicians in rural communities and included funding to evaluate PRA-BC and IMG Program participants’ integration to rural practice.

In September 2019, UBC CPD and RCCbc adopted a collaborative and iterative strategy to further build on the “setting up for success” recommendations with the following goals:

4. Co-develop and conduct an evaluation study focusing on the effectiveness of existing supports and programs for new to practice physicians in British Columbia, including supports for both rural and non-rural based physicians;
5. Provide recommendations to funding agencies, policy makers and new to practice programs; and
6. Inform stakeholders, through on-going feedback loops during the evaluation process, of challenges and successes experienced by new to practice physicians during integration into British Columbia’s health care system, to inform program design and delivery.

Key Project Milestones

November/December 2019

- UBC CPD Project Manager and Research Assistant identified and allocated to project.
- Held initial meetings with Dr. Ray Markham and Dr. Dietrich Furstenburg.

January 2020

- A working group was established and first met to discuss the initial stages of the planning phase.
- An environmental scan, literature search and review of existing UBC CPD program evaluation data was conducted to help inform project planning.

February 2020

- The working group met again to review documents pertaining to the project plan, including the project logic model, evaluation questions and evaluation framework.
- First interim report underway.

March 2020

- UBC CPD drafted first interim report and circulated with Drs. Markham and Furstenburg for review.

April 2020

- The working group met again with input from senior leadership at UBC CPD and RCCbc on reassessing the scope of the study, methodology, and goals and to strategize next steps.

May 2020

- UBC CPD is carrying out work to refine the scope of the project, research questions, and study methodology with direction from Dr. Brenna Lynn.
- Changes and adjustments made to project staffing.

Evaluation Findings

No evaluation data to report.

Lessons Learned

One challenge we have encountered is the vast amount of UBC CPD program evaluation data and filtering to identify findings that pertain to new to practice physicians. The initial draft of the interim report was too long to effectively meet the needs of stakeholders. Establishing a clearer and narrower scope for this study to meet the needs of UBC CPD and RCCbc has been identified as a priority. At the latest meeting in April, the Working Group recognized that the primary aim of the study is to examine how new to practice physicians are set up for success in rural communities in BC.

Looking Forward

Below is a high-level chronological outline of the workplan for the upcoming fiscal year.

1. Finalize project scope and study methodology.
2. Engage researchers and physician advisors as appropriate to advise on direction of study.
3. Connect with project partners to finalize research questions and scope of study.
4. Refine and adapt existing data collection tools.

5. Recruit study subjects and collect data.
6. Summarize and analyze data.
7. Prepare report and disseminate to stakeholders.

KNOWLEDGE TRANSLATION

2019 Canadian Conference on Medical Education (CCME)

In April 2019, the Rural Continuous Quality Improvement Needs Assessment abstract was accepted for an oral presentation at the Canadian Conference on Medical Education in Niagara Falls. The findings were presented by Executive Medical Director, Dr. Bob Bluman. The learning objectives for the presentation were:

1. Describe how BC rural-based physicians engage in CQI.
2. Identify some of the challenges BC rural-based physicians encounter when engaging in CQI.
3. Reflect on approaches to support BC rural-based physicians' engagement with CQI.

2019 Centre for Health Education Scholarship Celebration of Scholarship

In October 2019, the HOUSE Program Evaluation Project was accepted for an oral presentation at the Centre for Health Education Scholarship Celebration of Scholarship in Vancouver, BC. The project was presented by Research Assistant, Alissa Burrows.

SUMMARY AND LOOKING AHEAD

The Rural CPD Program is committed to supporting the learning needs of physicians and other health care providers who practice in rural and remote areas of British Columbia. Our program demonstrates that through community-based, interprofessional, collaborative, and practical CPD, we can support rural physicians to deliver safe and effective health care to rural British Columbians. This is achieved through strong relationship with our partners, collaborators, and team members as well as strong pedagogical approaches to teaching and education.

During the last year, the Rural CPD Program made significant progress toward its stated goals and aims to continue to support rural physicians in BC. The program saw the continuation of highly valued initiatives such as the HOUSE and ESCAPE courses. We saw the evolution of the Coaching and Mentoring Program and expansion of the interdisciplinary RSON Clinical Coaching Pillar. The PLP program continues to set IMGs up for success in this province and has been a model for what tailored CPD can look like. We established new programs aimed at addressing bias and racism experienced by Indigenous and First Nations people in rural BC, and through this networking, are establishing supports for Indigenous physicians, residents and medical student through CAMP. Our Rural Rounds program demonstrated its nimbleness in response to the COVID-19 pandemic and we continue to offer Virtual Health Grand Rounds as the need for telehealth and remote presence technology increases dramatically. This year also saw the conclusion of the successful Shock program and Online Journal Clubs.

The COVID-19 pandemic has provided a catalyst for the rapid expansion and roll out of virtual education opportunities. In partnership with RCCbc, we are exploring how to support education through the newly established Real Time Virtual Support (RTVS) pathways. Directions include accrediting the RTVS calls, faculty development and upskilling for RTVS physicians, and the establishment of a virtual simulation program led by RTVS physicians.

Looking forward, we hope to continue to strengthen relationships with our partners, collaborators, and rural physician learners. We will continue to bring an equity lens to all that we do to ensure we are reaching out and supporting those rural providers who need it the most.

APPENDICES

Appendix A. Team Profiles

Alissa Burrows, BSc (Hon), Research Assistant

Alissa attended the University of Nottingham in England, where she received a Bachelor of Science in Psychology (with international study). In her third year of university, she traveled to Canada and studied at the University of British Columbia, where she volunteered at the Brain, Attention and Reality Laboratory. Alissa was involved in research investigating attentional biases in social environments, of which she presented at NOWCAM, 2017, at Simon Fraser University. In her final year of university, she became interested in mental health and gained experience conducting her own research investigating associations between suicidal thoughts, behaviours and alcohol use. From her independent project, Alissa developed a strong interest in research and strives to use her skills to support the research and evaluation of a number of projects at UBC CPD, including the [Hands-On Ultrasound Education Program](#), [Clinical Coaching for Excellence Program](#), and [Rural Physician Mentoring Program](#), dedicated to educating, building support and facilitating relationships between rural healthcare practitioners.



604.875.4111 x24608

alissa.b@ubc.ca

Emily Boardman, BA, Program Coordinator

Emily earned her B.A Recreation and Health Education from the University of Victoria and has extensive experience planning programs, most recently as the Special Events Coordinator at the Arthritis Society in Vancouver. Her program work to date includes considerable experience recruiting and managing volunteers, proven leadership on high-profile planning committees, and the successful production of numerous multi-city fundraising events. During her time as Coordinator of Services at Recreation Integration Victoria, Emily managed the Supported Child Development Program, providing individualized assistance to families of children with disabilities as they accessed inclusive recreational programs. In addition to her local pursuits, she is also an avid traveler, having held positions in the field of education in both the UK and China.

In her current role, Emily is working with the Rural CPD team on the Clinical Coaching for Excellence program, which fosters coaching relationships to educate and provide support for rural health practitioners.



604.875.4111 x24722

emily.b@ubc.ca

Emily Lai, BA, Administrative Assistant

Emily holds a Bachelor of Arts degree in Political Science from the University of British Columbia. She has previously worked as the constituency assistant for a local Member of Parliament.



604.845.4111 x24612

emily.l@ubc.ca

Hadas Haft, MM, BSc, Senior Program Assistant

As a Master of Management and dual Bachelor of Science graduate (in Biology and in Food Nutrition and Health), Hadas is excited to apply her knowledge and skills to support medical professionals in providing safe, efficient, high quality healthcare. She has previously worked with the Richmond Community Foundation where she led the development of their endowment fund, and was responsible for the timely submission of progress reports, project deliverables, and ongoing communication with the faculty advisor and staff. She also worked on a health promotion project on feeding practices with UBC Child Care Services in which she used evaluation tools to determine short- and long-term objectives, and developed and conducted program evaluation surveys to determine project benefits. In her free time, Hadas enjoys eating and cooking, traveling, painting, and experiencing diverse cultures



604.875.4111 x24601

hadas.h@ubc.ca

Jenna Lightbody, BA, Program Coordinator

Jenna holds a Bachelor of Arts degree with a major in English (Literature Concentration) from UBC. She has been with CPD since November 2015, initially as Administrative Assistant where she provided support to the Associate Dean, Director and Executive Medical Director. Jenna joined the Research & Education team as a Senior Program Assistant in January 2017, bringing her experience to multiple projects being developed within the Division, and moved into a Program Coordinator role in August 2017 where she focuses on the ongoing operations and development of the Rural Physician Mentoring Program.



604.875.4111 x24614

jenna.l@ubc.ca

Kathryn Young, MA, Project Manager

Kathryn joined UBC CPD in 2014 to develop and deliver educational programming for rural British Columbia physicians. She has since managed a variety of projects, including Hands-On Ultrasound Education ([HOUSE](#)), the International Medical Graduate (IMG) Programs, and the ICBC Education Project. In her current role, Kathryn is Project Manager for the Rural CPD Program's Coaching and Mentoring portfolio.

Kathryn earned a BA in Anthropology from the State University of New York at Geneseo, followed by a Master of Arts in Anthropology from the University of Denver. She is originally from upstate New York and has previous education experience working professionally in museums and academic publishing.



604.875.4111 x24621

kathryn.y@ubc.ca

Laura Beamish, MSc, MHA, Senior Manager

Laura is the Senior Manager for the Rural Program at UBC CPD, a diverse portfolio of projects that support rural practitioners in British Columbia. Since 2014, Laura has worked as a Research Assistant, Education Coordinator, and Project Manager for the UBC CPD. In 2016/17 Laura worked as a Quality Improvement Coordinator at the BC Centre for Excellence in HIV/AIDS where she led a Breakthrough Series Collaborative aimed at improving care for people living with opioid use disorder in Vancouver. Laura holds a Bachelor of Science degree in Psychology from Queen's University, a Master of Science degree in Neuroscience from the University of Western Ontario, and recently completed her Master of Health Administration at the University of British Columbia.



604.875.4111 x24615

laura.b@ubc.ca

Nicole Moon, BBA, Program Coordinator

Nicole earned her Bachelor of Business Administration degree at Simon Fraser University with a double concentration in marketing and human resource management. Nicole's strong program planning skills, particularly with multiple stakeholders, has been demonstrated in her past work managing high-profile conferences locally and internationally (most recently in Arusha, Tanzania). She also has over 10 years of experience in event planning and venue management, which is useful in planning and delivering the UBC CPD Rural Programs' Closer to Home courses and Medical Advisory Retreats.

Nicole is delighted to have transitioned her skills from event planning to the medical field, where she finds a deep sense of purpose in her work and connection to UBC CPD's mission of empowering continuous learning and practice improvement.



604.875.4111 x24627

nicole.m@ubc.ca

Rachel Ho, BSc, Senior Program Assistant

Rachel holds a Bachelor of Science degree with a major in Integrated Sciences from UBC Vancouver. She is currently supporting the UBC Rural Continuing Professional Development (RCPD) Program and its various projects and activities. She is dedicated in continually facilitating the development and enhancement of the clinical practices and learning needs of physicians and health professionals in BC.

As a born and raised Vancouverite, she is committed to giving back to her community, whether that be through her work at UBC CPD or in her free time through her involvement in different volunteering initiatives.



604.875.4111 x24624

rachel.h@ubc.ca

Stephanie Gariscsak, MSc, Research and Events Assistant

Stephanie joined the CPD team in July 2019 and holds a Master's of Science from the University of Guelph and a Bachelors of Health Sciences (Hon) from the University of Western Ontario. She has participated in several research initiatives pertaining to rural communities, LGBTQ2IA+ health, and youth and adolescent mental health.

Stephanie has experience in community facilitation, research, teaching, and program evaluation and has presented her research at the Canadian Rural Revitalization Conference, the Rainbow Ontario Public Health Conference and the Ontario Public Health Convention.

Stephanie is passionate about capacity building within public health and is excited to pursue these interests within UBC CPD.



604.875.4111 x24613

stephanie.g@ubc.ca

Rachel Gledhill, BSc, Research and Events Assistant

Rachel Gledhill joined the UBC CPD team in August 2019 as a Research and Events Assistant. She holds a dual BSc in Astronomy and Statistics from the University of British Columbia and has a background in physics research and math education. Rachel currently works primarily on the Hands-On-Ultrasound-Education project.



604.875.4111 x24611

rachel.g@ubc.ca

Appendix B. HOUSE EM Evaluation Report



Hands-On Ultrasound Education Program for Emergency Medicine (HOUSE EM)

Program Evaluation

Overview of Evaluation Findings

December 2019

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Acknowledgements

This project was funded by the Joint Standing Committee on Rural Issues through the Rural Coordination Centre of BC. We would like to thank all of the physicians, specialists, coordinators, staff and others who took time to provide their thoughts and ideas throughout this engagement process.

METHODS

Semi-structured phone interviews ranging from 30 minutes to 1 hour were conducted with the following groups:

- 22 past HOUSE EM course participants
- Five HOUSE instructors
- Six ultrasound models who have volunteered as sample patients
- Four local coordinators who have organized a HOUSE EM course
- Three community physician leads working as a communication conduit between UBC CPD and their community
- Two specialists who know physicians who have participated in HOUSE EM
- Two regional continuing medical education administrators who support communities
- Five UBC CPD staff supporting the organization and delivery of the program
- Three leaders of provincial level stakeholder organizations, including the Rural Education Action Plan (REAP), Rural Coordination Centre of BC (RCCbc) and the Joint Standing Committee on Rural Issues (JSC).

Evaluation Questions

Evaluation questions were derived via the development of a program logic model and associated evaluation framework and were used to guide the development of the interview protocols.

- What is working well with the HOUSE program? How might it be improved?
- How significant an impact does the HOUSE program have on physician practice, including scope of practice?
 - What motivates participants to make changes to their practice?
 - What barriers do they face in making changes to their practice?
 - How sustained are these impacts over time?
- What role do the following elements play in the HOUSE program's effectiveness?
 - Customization of individual course content and delivery
 - Relationship-building
 - Flexible and adaptable course components (e.g. content, teaching style, participants' level of knowledge)
 - Support and quality control provided by UBC CPD to local coordinators
 - Reducing the coordination burden on physicians
 - Urban and rural instructors with diverse skills sets and knowledge bases from various different contexts
- What other aspects make the HOUSE program unique among other POCUS courses?
- What impact does the HOUSE program have on patient outcomes?
- What impact does the HOUSE program have on rural communities?
- What aspects of the program are most appropriate for scaling up? What is required for the HOUSE program to become a model for dissemination to other regions?

OVERALL CONCLUSIONS

Results from the interviews found that:

1. Participants reported very positive experiences with HOUSE EM, with many indicating they would be involved in HOUSE EM again in the future and would recommend the program to others.
2. Participants felt well supported by HOUSE EM and UBC CPD staff to organize courses and participate as learners.
3. Participants particularly valued HOUSE EM for teaching in community, the instructor-to-student ratio, the practical hands-on-time using ultrasound on real models, the opportunity to tailor course content to community needs, and the ability of instructors to use a flexible teaching approach to meet the needs of a diverse set of learners.
4. Being involved in HOUSE EM provides the opportunity for physicians and healthcare providers to interact with others inside and outside their professional networks.
5. The course changed many learners' own medical practice and impacted patient outcomes as perceived by learners. Changes have not been observed for all learners and their patients, which may be explained by lack of access to point of care ultrasound (PoCUS) and lack of confidence to utilize PoCUS, particularly for diagnoses.
6. A significant barrier to participating in the program is cost. Communities could benefit from more support in accessing funding opportunities available to them.
7. Access to in community educational support is one challenge associated with using PoCUS, particularly due to lack of colleagues with PoCUS expertise.
8. Although the course covers a wide range of content, many interview participants questioned the extent to which the learnings are sustainable. One challenge is maintaining and developing PoCUS skills post-course. For many learners, much of the course content is forgotten after the course. Rural learners may have little opportunity to practice ultrasound skills due to working in low volume centres.
9. Further support with sustaining and developing skills post-course is needed, such as follow up courses with more focused learning content, in-person or virtual coaching opportunities with instructors, and help establishing a community PoCUS champions to lead a community of practice.
10. The HOUSE program has strong and continuous leadership, the necessary complement of staff, effective systems in place, good relationships and communication with faculty and team members, ongoing financial support, and a critical mass of engaged instructors.
11. HOUSE is recognized nationally as a successful, high-quality, and innovative rural continuing professional development (CPD) program. The innovations developed via HOUSE have significantly informed the development of other CPD rural programs and the overall use of ultrasound in rural practice.

RESULTS

The following sections highlight the main findings from the interviews.

Past-Course Participants (n=22)

Background

Participants were family physicians in rural communities, who have generally worked in areas such as emergency medicine, general practice, acute care, palliative care, anesthesia, inpatient care, clinic work, interventional pain, obstetrics and surgery.

Participants ranged from being new to practice, to having practiced for 30+ years.

Key Quotes

“It’s kind of nice to have the pre-learning material...the days consolidate the theory and it’s more about the hands-on.”

“We have the resources from the HOUSE course as well as BC POCUS...I found that was a really nice benefit of the HOUSE course.”

“I think it was fantastic...it’s very gratifying in that, knowing that if one tries and if one practices [they] might be able to generate an image which may be able to help us with our patient encounters...”

“I don’t recall having another course where it was a two-to-one [learner to instructor] ratio... I think it’s maximizing our potential of learning in a day.”

“I liked that we did it with our whole department...that really encouraged a lot of people to pick it up [and] talk about it in the department because we all did it together.”

“Each time I got a chance, I just use it...I try to apply the knowledge.”

“...It would be really nice to have more follow-up.”

“I’m trying to practice a half hour a week with my colleagues.”

“...If I wanted mentorship...I would probably have to go to a different area.”

“...It was really nice to learn a whole bunch of different [scans] and their different clinical applications so that...I can think of things to do and to scan and...add to the clinical picture.”

“For us [PoCUS is] not even an alternative. It’s an added value because we don’t have any diagnostic imaging. So, in an ER setting, I’m sometimes able to get a diagnosis that I wouldn’t be able to get if I didn’t have the POCUS.”

“I think it was really valuable because I did actually start using the ultrasound probe and understanding how the machine works and pulling it out whereas before I really had no idea.”

How did they hear about HOUSE EM?

- The most common way participants learned about HOUSE was through recommendation from colleagues (some of which who have arranged a course previously).
- Other ways include through an online search for ultrasound education, through the Practice Ready Assessment Program, Kootenay Boundary Division of Family Practice, Emergency Medicine conference registration and flyers, hearing about course coming to a nearby community, personally knowing a HOUSE instructor, UBC CPD emails, during residency and hospital committee meetings.

What did they think about the registration process?

- The registration process was easy and simple.
- One participant reported that, after registering, they learned the course content was not what they had originally expected or hoped for.
- One participant reported being disappointed to learn that they could only participate in one course day rather than two as they had originally expected.

What did they think about the pre-course materials?

- Generally, the pre-course work was found to be helpful and relevant to learning, particularly the videos.
- There was appreciation for having the opportunity to learn prior to the course and review what had been learned using hands on time during the day.
- The pre-course learning also allowed for more time to practice using PoCUS on the day.
- Some participants commented that the pre-learning videos were repetitive and did not necessarily add more value to the content.
- One participant commented that the overall feel of the pre-course reading was “piecemeal” as the videos came from different sources, demonstrating different methods, affecting the flow of the modules.
- One participant mentioned that as some instructors were not familiar with the pre-course learnings, there felt to be a disconnect between the modules and the course.
- Most participants felt positive about the amount of preparation that was required.
- Most participants also felt that they were given an adequate time-frame to complete the pre-course learning.
- It was mentioned that it is important to let people know in advance of how long they can expect to take completing the material.
- Some felt there was too much content.

What did they think about the information provided?

- Participants commented that they found it useful having information accessible to them post-course, such as the modules - a feature that other courses do not offer.

What was their overall satisfaction with the course?

- Participants commented that the course was generally a useful introduction to PoCUS, particularly for beginners with no experience.
- Overall, participants reported having very positive experiences with course instructors and valued instructors for a variety of reasons, including their:
 - Ability to make learners feel at ease when asking questions and handling the ultrasound through patience and non-judgement.
 - Ability to teach with a flexible approach to meet the learning needs of learners with diverse skill/knowledge levels and interests.
 - Ability to answer questions and provide feedback.
 - Diverse range of backgrounds and experiences.
 - Ability to instill confidence in learners in handling the ultrasound machine.
- There was an appreciation for the presence of female, as well as male, instructors, playing a role in emergency medicine education.
- One participant reported that the diversity of teaching approaches was challenging as a learner. Some teaching felt rushed, inhibiting the learner's ability to understand how to achieve clear images and reflect on what they were seeing by themselves.
- Some participants commented that there was too much content covered over the course day(s) and would have preferred to have spent more time focusing on fewer essential areas more relevant for their practice.
- One participant commented that much of the teaching content seemed repetitive because of learning with others who were at a more basic level of understanding.

What did participants like about the course?

- One of the most common comments about what participants particularly like about the course was the amount of opportunity to practice using ultrasound on sample patients.
- The instructor-to-student ratio was also highly valued by participants; facilitating practice and making the environment feel more comfortable.
- Participants particularly appreciated learning in their community, enabling them to practice with their team in their environment, saving time and money on travel.
- Participants liked the opportunity to customize the content of the course to their specific needs.
- Participants enjoyed being able to practice using ultrasound on real people and found patients with positive findings particularly useful.

How does HOUSE EM compare to other courses?

- Participants made many positive comments on how HOUSE compares to other similar courses, such as:
 - Convenience of course being in-community, reducing travel time and expenses, and also giving participants an opportunity to connect with people in their professional networks and apply community specific scenarios to their learning.
 - More hands-on time and models allowed for more opportunity to practice.
 - More instructors per student allowed for increased engagement and personalized learning.

- Participants are encouraged to learn prior to the course, which provides an opportunity to learn independently and facilitates developing skills on the day.
- Continued access to learning resources after the course.
- Value for instructors who work in emergency medicine who are able to provide advice and tips specific to the working environments of learners.
- The lack of course standardization and the extent to which instructors can be flexible in their teaching allows them to address specific learning needs across learners.
- One participant commented that HOUSE gives more attention to detail to teaching the key steps of using an ultrasound to give the learner a clear approach of how to handle the equipment, compared to courses such as Emergency Department Echo (EDE).

How could the course be improved?

- A significant portion of participants commented on the need for follow up courses in their community for further learning. Some suggested the need for mentorship with guided supervision and feedback to increase confidence using PoCUS. This is especially because of a reported lack of opportunity to practice to keep knowledge fresh and develop skills.
- Participants reported wanting more models with real pathology, obese models and models who do not have empty stomachs to practice in situations that are more realistic. Participants also suggested that if there is a lack of ultrasound models in their first trimester available, these could be replaced with video clips and lectures.
- Some participants commented about the high cost of the course and the possibility of the course being subsidized. Perhaps assistance with identifying and accessing funding opportunities available to them could be beneficial.
- One participant suggested standardizing the course to allow for formal certification upon completion.
- It could be helpful to tell participants how long they should expect to take to complete the pre-course materials ahead of time, with a reminder nearing to the date of the course, as well as providing a summary of the materials.
- One participant also commented that there did not seem to be much continuation between the pre-course materials and the teaching content because instructors were not familiar with the pre-course materials.
- Another participant felt that the pre-course materials felt “piecemeal” as there were links to different sources and that the materials would feel more professional and cohesive if they were all prepared and provided by UBC CPD.
- Some participants commented on the need for more pregnancy-related teaching content for their learning, as well as wanting the learning content to be further tailored to their specific needs.
- One participant also mentioned that it would be helpful to know in advance the modules that will be taught for pre-conference courses.
- One participant commented that they would have benefited from less didactic and more hands-on time, to optimize time to practice with the ultrasound on different models.

Have participants been using PoCUS since the course?

- Most participants have continued to use the PoCUS skills they learned at the course.
- Some participants reported not having continued using some ultrasound skills due to lack of opportunity to practice.
- Participants have commented on having gained better access to ultrasound equipment following the course.
- Nearly all participants commented that they practice using ultrasound on their patients in order to sustain their skills following the course, even if patients do not require an ultrasound.
- Some participants commented that they have not been sustaining all the skills they learned at the course but rather have chosen to focus practice on select scans.

How could participants be supported to sustain skills post-course?

- The issue of sustainability of skills in rural practice was mentioned. When asked what could help participants sustain their skills post-course, most commented that they would like to take the HOUSE course again in the future as a follow-up.
- Some participants mentioned a lack of colleagues who can provide expertise in ultrasound and would therefore benefit connecting with someone who can give further training and guidance.
- Participants felt they would benefit from support in maintaining skills via refresher courses, working with coaches, and having access to a local POCUS champion.

How have participants been enhancing their PoCUS skills?

- Participants who reported having taken steps to further enhance their PoCUS skills since the course commented that they have done so by practicing in their community.
- Many participants commented having taken, or interest in taking, additional courses to further their learning.
- Some participants reported that they have been using websites such as the HOUSE website, List Serve, and BC POCUS to further their learning since the course.
- A significant portion of participants reported that they have not yet taken further action to enhance their learning. One participant mentioned this was due to lack of time.

What sources of support have participants accessed?

- Colleagues were reported to be one of the most common sources of support for participants, through consulting over scans, help accessing additional courses, protected time to practice with colleagues, and being an ultrasound champion for a community.
- Some participants mentioned being unable to access support from others due to lack of colleagues or physicians in the community who have enough knowledge with ultrasound to provide support or training.
- Some participants mentioned setting up a community of practice as a source of support, but time was mentioned to be a barrier.
- Access to online resources was another common source of support reported by participants, including the HOUSE website, BC PoCUS and the HOUSE List Serve.

- Online videos of ultrasound scans, most commonly from Google or YouTube, have reported to have been a helpful source of support.

Has the course lead to perceived changes to participants' medical practice?

- Nearly all participants reported feeling more confident to incorporate PoCUS into their practice following the course.
- Some participants did not report increased confidence or confidence overall. For one participant, this was because they were already confident with ultrasound.
- Nearly all participants reported using PoCUS more frequently following the course. For some, this increase went from not using PoCUS at all, to using PoCUS sometimes, or very often.
- One participant reported no increase in frequency of use but this was because they were already using PoCUS frequently prior to taking the course.
- Nearly all participants reported gaining a wider scope of PoCUS use on a variety of indications.
- Most participants did report feeling more comfortable working in the ER because of being able to utilize PoCUS.
- Some reported no increased comfort. One reason is due to not being confident enough to make clinical decisions using PoCUS.
- One participant commented that the course did not lead to any changes in their own medical practice because PoCUS has not replaced the use of any other mode of imaging.

Has the course lead to any perceived impacts on patient outcomes?

- Most participants reported that they were able to make diagnoses based on PoCUS, or that PoCUS aided in making a diagnosis.
- For some participants, the skills gained from the course has had no impact on their PoCUS use.
- Some participants commented that using PoCUS has enabled them to communicate more effectively with specialists.
- Many participants reported no impact on specialist referrals.
- Many participants reported the perceived benefits of using PoCUS as a decision-making tool for patient care. Using PoCUS has made an impact on patient transfers by giving physicians a better understanding of the need to transfer a patient.
- Some participants reported no impacts on patient transfers.
- Other perceived impacts include:
 - Reduction of unnecessary imaging and other procedures.
 - Increased ability to answer patient questions.
- A few participants have reported that the course has had a lack of perceived impact on patient outcomes. Reasons include because of a lack of skills or opportunity to practice skills. Some participants also did not change the way they treat the patient based on ultrasound use and might still refer to other imaging methods.

Would participants recommend HOUSE EM to colleagues?

- Responses to this question were incredibly positive, with all but one participant reporting that they would, or already have, recommended the course to others.

- Some highlighted a need for PoCUS to be incorporated into rural practice.

Conclusions from Participant Interviews

1. Overall, past-course participants reported positive experiences learning with HOUSE. The program has positively impacted participants' medical practice, by way of increased confidence in use of POCUS, increased frequency of use and scope of use, as well as a perception of improved patient outcomes, such as expedited diagnosis, referrals and transfers. A small number of participants have reported a lack of change, mostly due to barriers to practicing the skill.
2. HOUSE stands out as a favorable course over other ultrasound courses. The practical hands-on time was an element of HOUSE that learners particularly liked, along with the instructor-to-student ratio, customized course content, ultrasound models, and the fact that HOUSE is taught in-community.
3. For a few learners, the online learning took longer to complete than expected; however, the pre-course material was generally felt to be useful, relevant and for some, necessary. Learners appreciated maximizing hands-on learning during the course, and also valued ongoing access to the learning materials for later review.
4. Participants felt that HOUSE could be further improved by supporting continued learning with post course follow up visits, having more ultrasound models with positive findings, and more realistic patient models, such as overweight or non-fasting models.
5. Continued use of ultrasound and sustaining skills were reported to be challenging for participants due to their work in low volume centres as well as lack of access to local colleagues with POCUS skills. Participants felt they would benefit from support in maintaining skills via refresher courses, working with coaches, and having access to a local POCUS community champion.

Recommendations from Participant Interviews

1. Develop a sustainable model for continued learning.
2. Consider including some models that reflect the reality of practice, rather than the ideal scanning model. For example, those with positive findings, obese models, and non-fasting models.
3. Improve communication to participants prior to the course regarding conference course agendas and time required for pre-learning.
4. Encourage instructors to become familiar with the new online learning material to support participants' continuity of learning from pre-course material to course day.
5. Continue ongoing efforts to improve pre-course materials.
6. When responding to physician inquiries regarding the course, provide communities with information on available CME funding options to reduce the barrier of cost of course delivery.

Instructors (n=5)

Key Quotes

“Everybody is very friendly and...it’s a very safe environment for learning from each other.”
“...I just enjoy teaching.”

“UBC CPD staff is very organized, very friendly, approaches you very professionally, always on top of the game...you email them and you will get [an] answer right away.”

“Tandi...spearheaded the faculty development weekend that we had just in October...which was great...”

“...We’ve done a really good job in terms of modifying content, even on the fly... it’s great for the participants to actually choose what content they want to learn.”

“I think the biggest challenge is the learners. People who think that they get it when they don’t.”

“It’s fantastic to get together with your peers, have your peers teaching you things...they bring in these ultrasound black belts...and they’ll show us these either super cool moves or things that we didn’t know or new ways to teach, new technologies.”

“The learner comes to the station and you get to teach in your own style and you get to modify your teaching based on the learner’s level of knowledge...I like the fact that there’s a fluidity allowed.”

“...When [you] travel to rural communities [as an instructor] ...you meet the physicians and sometimes you transfer patients under these physicians or they transfer the patient to you...I think it will be beneficial for patient safety.”

“...Keeping each course small, I think, is one of the definite...benefits.”

What has been their role with HOUSE EM?

The instructors interviewed have been involved with teaching for HOUSE as early as its initial launch in 2015 to having become involved more recently in spring 2019.

What has been their experiencing working with the course?

- Overall, instructors’ experience working with HOUSE has been very positive and enjoyable.
- One instructor commented that the instructors make up a collegial group that welcomes learning ultrasound skills from each other.
- Having the opportunity to maintain and develop ultrasound skills by sharing knowledge with fellow instructors outweighs any loss of income for one instructor.
- Another instructor commented that the varied backgrounds of instructors from both rural and urban practices lends itself well to collective teaching.
- One instructor also commented that the value of HOUSE over other programs include in-community teaching and customizable learning.

- Instructors have generally taught several times a year. One instructor mentioned they have not instructed as much as they would have liked to.

Why do they teach for HOUSE EM?

- The opportunity to spend time with colleagues and network with other instructors.
- A way of sustaining and developing ultrasound skills.
- Enjoyment teaching physicians who want to learn.

What has their experience been working with UBC CPD staff?

- All instructors commented that they have had a very positive experience working with UBC CPD staff, who are very organized and friendly to work with.
- Instructors in particular commented valuing UBC CPD staff for their timely and helpful responses to questions.

What has their experience been working with the course Medical Lead?

- Comments were very positive. The course Medical Lead is valued by instructors for a range of reasons, including:
 - Great to work with and easy to get along with.
 - Nurtures a safe learning environment.
 - Effective communicator.
 - Ability to be flexible with teaching and adapt to changes to address every learners' needs.
 - Shared passion for PoCUS.

What did they think about the remuneration?

- Opinions on remuneration were split. Some instructors felt the remuneration was sufficient, especially as they were compensated for travel costs.
- One instructor commented that although other courses pay their instructors at a higher rate, they understand how difficult it would be for HOUSE to do the same due to the high instructor-student ratio, so are generally fine with how much they are paid.

What is currently working well with HOUSE EM?

- Success at scheduling course days.
- Success with engaging communities across the province.
- Great instructor-to-student ratio that facilitates learning.
- Revisiting communities to maintain and develop ultrasound skills.
- Instructors' ability to be flexible and modify course content to meet the diverse needs of learners.
- Learners are able to customize the course depending on their needs and interests.
- The amount of course content is manageable.

Are there any challenges with being an instructor?

- Teaching learners with different skill levels, background knowledge and needs can be challenging.
- It can be challenging to teach learners who feel like they have more knowledge and understanding than they do in reality. In these situations, one instructor approaches this by encouraging the learner to reflect on their knowledge by asking them questions.
- Finding a balance between what participants are ready to learn and what they want to learn can be difficult when they don't possess enough background knowledge.
- It can be frustrating for instructors to teach learners who have not completed the pre-course readings, limiting them to teaching learners the very basics.
- Sometimes instructors teach at very different levels and there is lack of standardization with respect to experience and knowledge of instructors. This can cause confusion among learners.
- Although HOUSE is valued for flexible teaching on the go, it can be challenging for first time instructors to teach a certain topic at the last minute without preparation.
- It can be challenging to travel to certain communities which requires a large time commitment.
- Even though the number of instructors around the province has expanded, allowing instructors who live more closely to certain communities to be recruited in replace of other instructors who live further away, some of the most experienced instructors do not teach at certain courses.
- Scheduling teleconference meetings can be challenging due to conflicting schedules.
- It can be hard to predict the level of skill that learners have when they come to a course at a conference.

How could the program be improved?

- Make learning scenarios more realistic. During the current scenarios, learners are given information that they would not necessarily have access to in real situations.
- Standardize terminology used during instruction with another courses part of the Canadian Ultrasound Society.
- Encourage learners to complete pre-course material in order to optimize learning.
- Decrease amount of pre-course learning content.
- Ensure teaching videos are consistent and add to each other in learning value.
- Provide information on ways in which learners can continue and further their learning after the course.
- Organize follow up learning opportunities for communities sooner and more regularly to help learners sustain skills.
- Provide opportunities for instructors and learners to connect in non-formal settings to establish personal connections and to open the door to connect after the course for support.
- Allow receipts to be submitted electronically.
- Ensure every community is equipped with a team to help with course logistics and set up so the burden does not fall on the instructor.
- Increase opportunities for instructors to maintain and develop their ultrasound knowledge and skills.
- Attach more courses onto conferences to increase outreach to communities.

- Expand HOUSE to urban areas as physicians in urban areas have similar learning needs to physicians in rural areas and could benefit from ultrasound education.

In what ways have they felt valued and engaged as instructors?

- A number of components of HOUSE have made instructors feel valued and engaged, including:
 - Debrief sessions
 - CPD funding for instructor development
 - Appreciation from learners
 - HOUSE List Serve
 - Teleconference meetings
 - Faculty development days

How can UBC CPD empower instructors?

- Instructors felt empowered by being able to use a flexible approach to teaching to keep the course interesting and to address learners' needs.
- One instructor commented that they would have liked more opportunity to teach at more courses.
- One instructor commented that they would like to be better informed about opportunities to teach in the future.

What makes HOUSE EM unique among other courses?

- Teaching in communities.
- The organization of follow up courses to ensure communities are retaining what they learned during courses. However, follow up courses are perhaps not as utilized as they could be for all communities.
- Allowing instructors to teach with a flexible approach to accommodate for a variety of interests and skill levels. Other courses follow a rigid schedule that is less adaptable to learners.
- The value of having a Medical Lead who listens to feedback from the instructors about how to improve the course.
- Unlike other courses, HOUSE has more support from staff to organize the course, reducing the coordination burden on a lead instructor.
- To their knowledge, instructors thought there were no other ultrasound courses that prioritizes a similar instructor-to-student ratio.
- HOUSE allows instructors to meet, and develop relationships with, physicians in their professional networks.
- Instructors enjoy being able to meet new people outside of their regular work environment.
- The opportunity to meet and work with people well known in the ultrasound community.
- Instructors for HOUSE come from different backgrounds of medicine and bring different skillsets to the courses, allowing for a variety of opinions and approaches to problems.
- HOUSE recruits instructors from both rural and urban backgrounds which is beneficial because rural instructors are relatable and have a unique understanding of challenges in rural

communities and urban instructors offer valuable perspectives as they often work with rural physicians.

- Unlike other courses offered by the Canadian Ultrasound Society, there is no standardization of HOUSE EM terminology used across instructors. The instructors observed that this can be disadvantageous for learning.
- Learners can learn without the pressure of exams.

What aspects of the program are appropriate for expanding/scaling up? How can HOUSE EM be a model for dissemination to other regions?

- One instructor commented that they think HOUSE currently has a good model for dissemination to other regions.
- Teaching the most basic ultrasound scans and skills will be valuable to other communities or regions.
- Continue providing in-community training.
- One instructor commented that HOUSE is a good model because it prioritizes adapting to learners' needs.
- Provide in-community training to communities in other provinces, such as Saskatchewan and Manitoba, that may be behind BC on ultrasound skill development.
- It could be useful to measure how impactful the course has been to their practice and have data to prove the value of HOUSE in ultrasound education to other regions.
- Provide more financial support for instructors to travel to small communities.
- One challenge that may be associated with disseminating the course to other regions is scheduling dates with instructors that have conflicting schedules.

Conclusions from Instructor Interviews

1. Overall, instructors reported a very positive experience working with HOUSE EM, including UBC CPD staff, the Medical Lead and fellow instructors.
2. HOUSE EM is valued by instructors for its uniqueness in POCUS education, including in-community teaching, learner-driven teaching, the small instructor-to-student ratio, the opportunity to develop new relationships, and the unique instructor mix, which includes fellowship trained physicians, rural physicians, and ultrasound technicians.
3. Instructors feel that HOUSE EM is a good model for dissemination to other regions and encourage HOUSE EM to expand outside of BC and into urban areas as well.
4. Being an instructor comes with its challenges, including teaching learners with varied needs, and the demands and uncertainty of travel to rural communities.
5. Some suggestions for program improvement include changes to the course content, pre-course material and facilitating an expansion of efforts to support continued learning after the course.

Recommendations from Instructor Interviews

1. Consider standardizing POCUS terminology in course materials and teaching, consistent with international nomenclature guidelines.

2. Continue to provide information and support on ways in which learners can continue their learning after the course, including further opportunities for learners to connect with instructors.
3. Organize timely and regular follow-up learning opportunities for communities after a course to help learners sustain and enhance skills.
4. Continue to advocate to UBC Finance for electronic submission of receipts, as a way of reducing barriers for instructor participation.
5. In addition to faculty development days, explore further ways that instructors can develop their own ultrasound knowledge and skills.
6. Continue to run courses at existing CME conferences to increase outreach to communities.

Community Physician Leads (n=3)

Background

The community physician leads (CPLs) interviewed were rural physicians, ranging from having recently finished residency, to having worked in rural practice for over 10 years. CPLs have worked in emergency medicine, and have done work in in-patient care, walk-in clinics, long-term and palliative care, as well as office work.

Key Quotes

“I thought it was very positive, pretty easy for me...my job was really to find local examples, and other than that they took care of everything.”

“It’s nice to [take the course] together and talk about that local reality where we’re sharing the exact same experience and the pertinence of what we’re doing is exactly the same.”

“I think...assisting people with finding the funding to do [the HOUSE course] would probably be the biggest help.”

“I had a few comments on how fabulous this initiative was and how lucky we were to have something like that in our community. There was definitely a sign of local involvement that pleases the community...”

“I guess the biggest impact is on myself as a CPD lead and getting to know the organization more.”

“...very customizable, well-run course for a reasonable cost to bring to your facility; it ends up being one of the best options.”

How did they hear about HOUSE?

- CPLs heard about HOUSE through a patient care coordinator at their hospital, the Rural Health Conference or through their community CPD leader.

What was their experience working with UBC CPD staff?

- Overall, CPLs had a positive experience working with UBC CPD staff who provided great support to arrange courses in their communities. Most commented how easy it was to get in contact with staff who responded to questions in a timely manner.
- Information provided to them by UBC CPD was clear and easy to understand.
- For some CPLs, this was a tricky question to answer because they felt like UBC CPD took on most of the work required to organize the course. However, CPLs generally didn't feel like they needed support or felt well supported.
- Initial planning calls were found to be very useful, and for one CPL, essential. CPLs commented that UBC CPD did a good job listening to the community's needs and suggestions for the course content.
- CPLs felt that UBC CPD staff were open to listening to their suggestions and needs and that the process of creating an agenda was straightforward.
- CPLs experience with communication between themselves, UBC CPD and their community was straightforward, and made easier by prompt responses from staff.

How did they find the paperwork and administration

- The paperwork and administration were minimal and made easy by facilitation and support from the Program Coordinator.

What was their experience finding a local coordinator?

- It was easy and straightforward to find a suitable local coordinator.

Opportunity to connect with colleagues

- One CPL commented that HOUSE gave them the opportunity to connect and learn new things collectively with their colleagues which was an enjoyable experience.

What would they do differently next time?

- Most CPLs reported that they would not do anything differently.
- One CPL however did comment that some learners were not well prepared for the course because they had not gone through the pre-course materials. They felt that the responsibility was on the learners to complete the materials as UBC CPD sent them out well in advance. This caused some frustration for learners who did go through the materials as the course had to be slowed down for those who did not, and frustration from the instructors who could not teach as much as they hoped they could.

What could UBC CPD do to better support physicians to organize a course?

- Most CPLs felt that UBC CPD could not do anything to better support physicians.

- However, one CPL felt that UBC CPD could do a better job of assisting communities to identify and access funding in order to pay for the cost of the course, by providing communities with information about funding options available to them.

What impacts has HOUSE had on their community?

- Since the HOUSE course, physicians are using ultrasound more frequently.
- The main impact has been enthusiasm for local involvement in medical education.
- The HOUSE course impacted one community only minimally because most learners did not complete the pre-course materials and thus did not get much out of the course day itself.
- There was a quality assurance program that existed before HOUSE came to the community of one CLP but it has not been sustained.
- In one community, there is no quality assurance program as they do not have the resources required for facility engagement, as their hospital is small.
- Most CPLs commented that there has not been any initiatives for ongoing PoCUS in their community yet.
- There is an ultrasound program for resident students that existed before HOUSE came to one community.

Has HOUSE had an impact on UBC CPD's reputation as an innovator or leader?

- One CPL commented that they did not understand UBC CPD to be an “innovator” but that they recognize that UBC CPD does have a good reputation.
- Similarly, another CPL did not feel they were the right person to ask but commented that UBC CPD has a good existing reputation in CME.
- One CPL commented that they were not aware that HOUSE was led by UBC CPD before the course came to their community.

Would they recommend the program to their colleagues?

- CPLs would, and have, recommended the course to other colleagues and CPD leads. One CPL commented that although HOUSE competes with EDE, it is favorable for customizable education.

Conclusions from Community Physician Lead Interviews

1. Overall, CPLs had very positive and straightforward experiences bringing HOUSE to their community.
2. CPLs felt well supported by UBC CPD staff, valued the prompt responses to questions, and felt that staff effectively listened to their community's needs and suggestions for the course content.
3. Overall, the level of administration and paperwork required of CPLs was minimal and this was appreciated.
4. Finding a local coordinator was generally easy and straightforward.
5. CPLs had no suggestions for future improvements.

6. Most CPLs reported not having any facility-led POCUS quality assurance program established, nor were there any initiatives for ongoing learning of PoCUS in the community.
7. UBC CPD has a good reputation in the field of medical education.
8. CLPs do recommend HOUSE to their colleagues.

Recommendations from Community Physician Lead Interviews

1. Continue to support CPLs by using them primarily as context experts. As much as possible, continue to take on all tasks that can be diverted from local physician leads to UBC CPD staff and local coordinators.
2. Ensure that communities who do not have strong local physician CME leads also have access to the HOUSE course.
3. Renew efforts to provide communities with information on available CME funding options to reduce the barrier of cost of course delivery. Add this discussion into early course planning calls with the community.
4. Continue to encourage the development of a PoCUS quality assurance program in the community and enlist the support of the CPL in this.

Specialists (n=2)

Background

The two specialists interviewed have been working in their communities for ten years, practicing internal medicine and general surgery.

Key Quotes

“...One example [of the impact of the HOUSE course on patient care] would be someone who came in with a cardiac arrest and they got return of circulation and then the bedside ultrasound was highly suggestive of high right heart pressures and so through that we were able to determine that most likely reason was a pulmonary embolism. So, we were able to lyse the patient right there without having to move a very unstable patient to the CT scanner and then later on we were able to confirm that diagnosis.”

“There’s a difference between the physicians who have taken the time to really learn their ultrasound skills and those who, you know, obviously would have just done it in residency...they do seem more confident and more ready to make diagnosis and move forward...”

Familiarity with HOUSE

- Specialists were somewhat familiar with HOUSE and have heard about the course from colleagues.

Are they aware of any referring physicians who have taken HOUSE?

- Specialists were aware of a few physicians who have taken the course and one who is an instructor.

Has HOUSE had any perceived impacts on patient outcomes?

- Since the course, ultrasound has been helpful in providing information during trauma codes.
- Ultrasound was able to help to identify a pulmonary embolism which avoided the need to move an unstable patient for different imaging.
- Ultrasound has led to a quicker diagnosis.
- They observed an over-reliance on ultrasound to make decisions, when other imaging procedures should have been conducted.
- Answers to whether HOUSE has impacted specialist referrals were somewhat split. One specialist felt no impacts were made, and another commented that using ultrasound has decreased the time to receive formal imaging.
- Physicians with ultrasound knowledge are more comfortable performing procedures such as placing lines, which has led to safer patient transfers.
- Use of ultrasound has been helpful to decide when to transfer a patient.
- Some patients have reported feeling like they have received better care as a result of undergoing an ultrasound procedure.

Has HOUSE had any perceived impacts on community?

- Physicians who have taken the course feel more confident using ultrasound and confident making diagnoses and performing procedures.
- Introducing new technology to practice leads to positive results.

Conclusions from Specialist Interviews

1. HOUSE was perceived to have increased participant confidence to make diagnoses and perform procedures.
2. Specialists were familiar with HOUSE based on what they have heard from colleagues, past-participants, and a course instructor.
3. HOUSE was perceived to have had impacts on patient outcomes, with specialists citing influences on diagnosis, trauma and arrest care, and influences on patient transfer decisions.
4. Some patients have commented to specialists that they felt better cared for as a result of undergoing an ultrasound procedure and seeing the imaging results.

Recommendations from Specialist Interviews

1. Continue to seek input on HOUSE outcomes from specialists and bring them into evaluation processes where possible.

Provincial Level Stakeholders (n=3)

Background

Three representatives from provincial rural medicine organizations were interviewed. Their positions were Rural Education Action Plan (REAP) Coordinator, Executive Director of the Rural Coordination Centre of BC (RCCbc), and Co-Chair of the Joint Standing Committee on Rural Issues.

The representatives had varying levels of familiarity with the HOUSE program ranging from a high awareness, to having actually been involved in its original development and taken the course several times themselves.

Key Quotes

“[HOUSE] has a modular approach so there’s a way in which family physicians and other doctors who are taking the training can follow a learning trajectory that fits in with the work that they’re doing in their own community.”

“The program is delivered and offered largely by rural physicians to rural physicians, or the faculty is very sensitive to the needs of rural physicians.”

“There’s a process to it now and so that makes it a little bit less intrinsically flexible and nimble. I don’t know that it’s necessarily [something to improve] but something to keep the eye on kind of as it evolves...”

“You need a variety of skills and tools in your toolbox to be a generalist who is both competent and confident and I think HOUSE is one of those strategic tools because the stethoscope of yesterday is the ultrasound of today.”

“It really does go a long way to support rural doctors making informed decisions about a diagnosis that their patient may have, but also helps to rule out some critically important medical and surgical issues, and often it avoids transporting patients out of the rural community to a more urban or possibly a tertiary centre for an investigation that can readily be done in a rural community where the skills and training exist with the person deploying the tool.”

“[The HOUSE course has] elevated the conversations that have occurred between UBC CPD and the Joint Standing Committee to have a much better and more robust understanding of what is UBC CPD’s role, how can UBC CPD respond appropriately to the needs of the rural doctors and new-to-practice physicians to rural medicine in British Columbia. So, I think it has. I think it’s enhanced the JSC’s understanding of UBC CPD as not just being a repository of teaching and sharing adult information and education but I think it does squarely put UBC CPD in a very innovative box, absolutely.”

“The HOUSE course will be in big demand for the foreseeable future, a growing demand. Because ultrasound education is of great importance... People want to continue to up their skills and knowledge about ultrasound, it’s used every day in clinical practice and it’s growing in its utility in clinical practice so I think that it will be present long into the future.”

What do they believe are the strengths of the HOUSE program?

- Responds to an identified need in the lack of ultrasound training in formal medical education.
- Goes out to rural communities.
- Employs a modular, customizable approach.
- Serves residents as well as clinicians.
- Interrelates well with other provincial programs.
- Continually adapts and improves.

Uniqueness among Other Rural Programs

- In addition to being a strength, the stakeholders reiterated that going out to communities directly was a unique aspect of the program.
- The program is strongly driven by a community's specific needs.
- The program is unique in being delivered by rural physicians for rural physicians.

How could it be improved?

- Ensure that, as the program continues to evolve, it maintains its unique level of nimbleness.

What value does a program like HOUSE play in their own work or organization?

- The representatives interviewed offered several examples on how HOUSE contributes to achieving their own organization's mandate.
 - HOUSE has facilitated greater sharing among rural medicine organizations.
 - HOUSE has worked to change how clinicians view ultrasound in general.
 - Emphasis on the role that HOUSE plays in supporting their efforts around physician recruitment and retention.
 - HOUSE has served to help maintain the relationships between UBC CPD and other rural medicine organizations.

What other impacts does the HOUSE program have on rural medical communities in BC?

- HOUSE plays a role in bringing high-quality education to communities and this has impacted physician confidence, competence, and patient care.
- A representative provided a direct example with chronic pain and rural patient care.

Has the HOUSE program had any impact on UBC CPD's reputation as an innovator and leader?

- HOUSE has had a positive impact on UBC CPD's reputation and relationships.

Should the HOUSE program expand?

- Representatives felt the demand for ultrasound education was going to continue as it is now viewed as an extension of core clinical skills. One representative questioned the ability of UBC CPD's staffing resources and capacity to do this.

Conclusions from Provincial Level Stakeholder Interviews

1. The representatives interviewed have a strong understanding of the HOUSE program's uniqueness and its impact on rural practice.
2. HOUSE has aided the mandate of provincial stakeholders by maintaining an ongoing relationship with UBC CPD, facilitating greater sharing among organizations, supporting their own efforts around physician recruitment and retention, and changing how clinicians view ultrasound in general.
3. The demand for ultrasound education is going to continue, as it is now viewed as an extension of core clinical skill. This may impact HOUSE demand moving forward, however there is a concern that the program's capacity to expand may be limited.

Recommendations from Provincial Level Stakeholder Interviews

1. Recognizing the demand for PoCUS education will continue and develop capacity to meet the future needs of rural communities.
2. Continue to consider stakeholders values in the provision of HOUSE education.

UBC CPD Staff (n=5)

Background

Five UBC CPD staff and faculty with ties to the HOUSE EM program were interviewed. Their positions were Medical Lead, Program Coordinator, Past Program Coordinator, Project Manager Rural CPD, and Senior Program Assistant.

What is currently working well with the HOUSE program?

- The education offered is very high quality.
- The course currently has the necessary complement of staff, effective systems, processes, and feedback mechanisms in place, good communication and trust among team members, continuity of medical leadership, a critical mass of engaged instructors, and good financial support.
- The course has had the opportunity to fine tune and streamline operations over the years to make it run smoother.
- The course is always evolving yet has managed to maintain its unique aspects including a strong learner-centered and rural focus, and customization.

What makes HOUSE unique among other rural programs?

- Staff observed that the HOUSE program is notable for being very nimble, recognizing that each rural community is different, taking the coordination load off the instructors.
- It has a strong focus on relationship building that greatly stems from the long-standing and hands-on involvement, vision, and passion of the course Medical Lead. This helps the development of strong relationships, keeps faculty and staff motivated, and drives continual course improvement.

What challenges do they experience in their role working with the HOUSE program?

- Regular challenges associated with rural course delivery such as shipping logistics and instructor travel uncertainties to rural communities were frequently mentioned.
- Recruiting sufficient ultrasound models and/or dealing with no-shows were also cited as regular and time-consuming challenge. Recent steps to streamline model recruitment process may increase efficiency moving forward.
- Meeting the demand for courses, and with appropriate lead time for planning, can be a challenge, particularly with the increased demand for resident courses. One staff member wondered to what degree the resident courses were displacing the regular rural offerings. Even though they have separate funding, they still affect staff capacity.
- Staff is operating at maximum capacity delivering courses, which does not leave much time for additional ideas and improvements, such as trying to implement new post-course support ideas. The field of ultrasound is also evolving so the course continually needs to stay current. Program growth is often more reactive than proactive.
- Staff turnover can also be a challenge. Although staff are usually promoted within UBC CPD, there is some loss of institutional memory and the learning curve for new staff can be significant.
- Getting instructors to submit receipts in a timely way and the UBC reimbursement system was also cited as a challenge.

Is there anything that could be improved about the program?

1. Staff are currently working on how to improve the follow-up components of the course to increase the sustainability of learning including developing a “finishing school” and other forms of post-course support.
2. The Medical Lead would like the opportunity to receive formal feedback on her performance.
3. One staff member commented it would be nice to have more rigorous evidence of impact.

How engaged are the instructors in the program?

- Instructors are very invested in, and passionate about, the HOUSE program. While it can be occasionally hard to recruit instructors, once recruited they are quite engaged. One indicator of this high engagement includes the generally positive response when a call is put out for instructors and the high attendance at faculty development days.
- Some instructors are more engaged than others, but this is understood to fluctuate depending on personal factors at the time. Factors that influence this engagement include the personal relationships developed by the Medical Lead, the camaraderie cultivated in the post-course group dinners, the faculty development days, and the bi-annual teleconference.

Has the HOUSE program had any impact on UBC CPD’s reputation as an innovator and leader?

- HOUSE has positioned UBC CPD as a leader in rural programming and it has received recognition via accreditation, conferences, and awards.

- The innovations developed via HOUSE have informed other UBC CPD rural programs, where it is seen as the gold standard for a rural travelling course. These include a strong community and learner-centered focus, a coaching component, and the use of local coordinators to reduce the burden on physicians.
- The HOUSE name is well-known and the number of direct requests for HOUSE is substantial.
- HOUSE is delivering more residents courses, which is in turn influencing how ultrasound is being used more in rural practice overall.

Are there aspects of the HOUSE program that could be scaled-up to other regions?

- HOUSE is currently operating at maximum capacity so despite requests for more courses, there are limits to its growth. These are staff capacity, availability of equipment, and the need to have a certain volume of courses to sustain staffing needs.
- There is no urgent push to grow. Staff are currently balancing being responsive to requests with their current capacity and evaluating feasibility on a case-by-case basis.
- If the decision were made and funding was available, HOUSE could certainly grow, but it requires a discussion as to how best to approach it.
- Staff have developed a train-the-trainer model to support other provinces interested in HOUSE.
- One trend that may push growth or future adaptation of the program is the observation that ultrasound is becoming more accepted as a standard part of medical practice. HOUSE may need to evolve to meet a different need if more rural physicians receive ultrasound training before going out to practice.

Conclusions from UBC CPD Staff Interviews

1. The HOUSE program currently has an effective system and infrastructure in place. It has the necessary complement of staff, good relationships and communication with faculty and team members, ongoing financial support, and a critical mass of engaged instructors.
2. HOUSE is recognized nationally as a successful, high-quality, and innovative PoCUS training program. The innovations developed via HOUSE have significantly informed the development of other rural PoCUS training programs and the overall use of ultrasound in rural practice.
3. The leadership, passion, and continuity of the HOUSE Medical Lead has played a substantial role in this success.
4. Ongoing operational challenges include meeting the demand for courses, shipping logistics, instructor travel uncertainties, ultrasound model recruitment, occasional CPD staff turnover, and finding the time for program enhancements.
5. Staff have recognized interest from other provinces for HOUSE education.

Recommendations from UBC CPD Staff Interviews

1. Continue to provide the high-quality support from UBC CPD staff, which is essential for successful HOUSE programming.
2. Recognize that UBC CPD staff play an integral role in the success of HOUSE and continue to support UBC CPD staff to be able to continue in this capacity.

3. Recognize that relationships between UBC CPD staff and various other elements of the HOUSE course are key to success, and intentionally support these relationships.
4. Continue to support the role of the course Medical Lead and build into that role succession planning.
5. Continue to develop innovations that improve rural PoCUS education and ultrasound use.
6. Continue to address ongoing operational challenges by incorporating our ongoing in office learning into future program enhancements.
7. Develop short- and long-term plans for future course developments and enhancements, recognizing the inherent tension between course provision and course development when it comes to staff time.

Local Coordinators (n=4)

Background

Local coordinators held a variety of roles, including administrative assistants, nurse and unit clerk.

Key Quotes

“I learned a ton watching them do their ultrasounds so for me it was super rewarding that I was actually able to participate.”

“I think because I work at the hospital...I had ...an advantage there with the material that was sent...I had a good understanding of the supplies that were needed and how to get them at the hospital.”

“I felt well supported. Any time I had a question, it was very easy to text, email, or telephone call and get the answer.”

“I’ve known [the community physician lead] for a long time. We have a great relationship.”

“[HOUSE instructors] were very receptive of what our physicians wanted... they were flexible enough to really elaborate on certain items and they were flexible enough to let the physicians practice a little bit more on certain things they wanted to.”

“...Everyone was very thankful...the staff that you brought in were...very caring towards us.”

“It can be daunting for somebody that’s never done it before, looking at that [course planning] checklist.”

How did they become involved in organizing a HOUSE EM course?

- All local coordinators became involved in organizing a HOUSE course through their professional networks. For example, being asked to support the organization of HOUSE by other physicians or managers of hospitals in their community.

What was their experience as a local coordinator?

- Generally, organizing HOUSE was an enjoyable experience and made easy by support networks.
- The experience of being a local coordinator is a rewarding one; they enjoyed being part of the day, getting an insight into a physician's world, and commented that the ultrasound models and learners enjoyed the day too.
- Generally, expectations of the role were positive. One local coordinator commented that the role turned out exactly as expected.
- For one local coordinator, the role was less work than expected due to the productivity and efficiency of the team they worked with. For another, the role was more detail oriented than expected, possibly due to coming into the role with no previous experience. They nevertheless felt that the organization went well.
- Organizing HOUSE was similar to organizing a Comprehensive Approaches to Rural Emergencies (CARE) course in one local coordinator's community. However, there was some more labour associated with organizing HOUSE that was identified as a logistical challenge.
- Most local coordinators reported successfully recruiting models by utilizing contacts within their professional networks and putting posters around their community.
- For one local coordinator, recruiting models was particularly difficult in their small community and felt that the healthcare staff that work with physicians could have been part of the day to fill in for models and to extend the learning experience.
- local coordinators appreciated having support from the Program Coordinator, physicians and instructors to set up the course, which made the experience more positive.
- Support provided by the Program Coordinator was well received by local coordinators, who commented that her support kept them on track and facilitated smooth organization.

What did they think of the information provided to them by UBC CPD staff?

- Generally, the amount of information provided by UBC CPD was helpful in organizing HOUSE and appropriately detailed. One local coordinator felt that their experience working in a hospital put them at an advantage for organizing the course.
- However, for one local coordinator who had years of experience organizing similar courses, the amount of information provided was felt to be too much. They also mentioned that for someone new to organizing a course, the checklist may come across as daunting.

What did they think of the support provided to them by UBC CPD staff?

- Generally, communication between the local coordinator and UBC CPD staff was timely and relevant and local coordinators felt that staff could be easily reached and answer questions appropriately.
- For one local coordinator, it was difficult to get in touch with UBC CPD staff, and assumed this was possibly during a busy course season. They therefore felt a lack of support.

How did they find the administration and paperwork?

- The paperwork was organized, easy to work through and navigate.

- One local coordinator mentioned that for someone with less experience organizing courses, the administration and paperwork may be more of a challenge.

What did they think of the initial planning call with UBC CPD?

- local coordinators felt well supported during the initial planning calls and felt they were an important stage in the organization of HOUSE.
- One local coordinator commented on the timeliness of UBC CPD staff.

What was their experience with the community physician lead?

- Positive experiences were reported for working with CPLs. Having a strong, existing working relationship with the physician lead played a significant role.
- One local coordinator commented that the physician lead was well informed about what needed to be done which made the experience positive.
- One local coordinator appreciated having the independence to organize the course without being micromanaged by the Community Physician Lead.

What was their experience with the instructors?

- Overall, local coordinators commented very positive experiences with, and impressions of, instructors, for reasons including:
 - Ability to adapt to last minute changes.
 - Instructors were relatable as they had experience practicing in rural communities.
 - Flexibility of teaching dependent on learners' needs.

Did they feel their contribution was valued and appreciated?

- Most local coordinators felt appreciated for their work from physicians and UBC CPD staff.
- For one local coordinator, their appreciation felt somewhat valued by physicians but less so by UBC CPD staff.

Were there any challenges organizing the course?

- Overall, organizing the course was reported to have gone smoothly, with only a few challenges.
- Recruiting models was particularly challenging for some, particularly models with positive findings.
- Difficulty working with one model was reported due to the model being uncooperative.
- There was some challenge faced when trying to contact a model who had not turned up to the course day.
- There was some trouble with catering arriving late.

What knowledge and skills do they think are important for local coordinators to have?

- The most common attribute mentioned as important for a local coordinator was having a background in a medical environment, which puts one in advantage for accessing resources and recruiting the right models with positive findings.
- Being respected in the medical community was felt to be important in accessing patients in order to recruit models.

- One local coordinator went as far as to say that experience in a medical environment should be an essential requirement for local coordinators.
- Having prior experience with planning a course and understanding of the coordination required was commented to be an important attribute.
- Being organized with paperwork was also commented to be an important attribute, a skill that would likely come with having prior experience planning a course.

How could UBC CPD better support local coordinators?

- Most local coordinators felt well supported and did not have any further suggestions.
- One local coordinator encouraged anyone new to the role of supporting local coordinators to be well supported by teammates and provide timely responses.
- Payments to local coordinators and caterers should be paid in a timely manner, or notify if payment cannot be made quickly upfront.
- Providing examples of how previous communities have organized courses may be especially helpful to local coordinators with little planning experience.

How could the course be improved?

- One local coordinator felt that an alternative area for the catering to be set up may have prevented people not part of the course from helping themselves to the food as the venue was set in an academic building during term time.
- It was suggested by one that payment to models should be increased and that many of the models they paid were surprised at how low the payment was.

Would they do anything differently next time?

- Most local coordinators commented that they would not do anything differently. One local coordinator felt that they might try different ways to recruit additional models.

Conclusions from Local Coordinator Interviews

1. Overall, local coordinators had a positive experience organizing a HOUSE course in their community, with all local coordinators commenting that they found it to be a rewarding experience. They felt well supported by the course Medical Leads and UBC CPD staff and appreciated the comprehensive materials provided to help with their role.
2. The main challenge for local coordinators was recruiting and working with potential models.
3. There was a request for more timely payments of local coordinator wages.

Recommendations from Local Coordinator Interviews

1. Continue to customize support for local coordinators during one-on-one phone calls.
2. Update the local coordinator guide to address minor improvement suggestions from interviews.
3. Improve the information we provide to potential local coordinators to help them better understand the needs of the role and remuneration.
4. Continue to provide support to local coordinators for finding models and address other model related issues.
5. Continue to ensure all local coordinators feel supported and appreciated by UBC CPD staff.

6. Continue to evaluate the local coordinator experience.

Regional CME Administrators (n=2)

Background

The CME administrators interviewed provide support for rural communities to increase access to CME education, support with accreditation applications, supporting locally driven conferences and managing community CME funds and regional funds.

Key Quotes

“I think it’s really, really well known. Most of our physicians in the North know about it. We’ve run multiple HOUSE courses.”

“I have to say that working with the staff at UBC CPD has been fantastic. Everyone is so nice and so willing to help... They’re just very helpful in facilitating things...”

“Sometimes finding a local coordinator that has clinical knowledge on scanning is difficult... I’ve worked to support rural physicians’ further education and administration for a decade and I still find it difficult, even for me, to know what is needed.”

“I think that the impact is community...UBC comes and they deliver all this amazing information and we’re building capacity at a local level, closer to home, you’re building ...the community up. So, the community of physicians is stronger.”

“There aren’t many people [other than HOUSE] that are willing to...travel to some of our really rural and remote communities.”

How did they first hear about HOUSE?

- CME administrators first heard about HOUSE either through research or physician request.

How recognizable is the HOUSE brand in BC?

- HOUSE is very well known, especially in the North, and more well-known than alternative ultrasound courses such as EDE.

What has their involvement been in HOUSE?

- Involvement in HOUSE has included support with; organization and logistics, navigation of funding, bursary applications, invoicing, online registration, identifying physician leads, and course promotion online and in newsletters. CME administrators have also played a role liaising with UBC CPD staff, local coordinators and others who provide local administrative support.

What has their experience been working with HOUSE?

- Experience working with UBC CPD staff has been incredibly positive due to their willingness to help, connection with REAP and ability to facilitate courses.

What have been the challenges and barriers of bringing HOUSE to their region or a specific community?

- A significant challenge was finding someone willing to support HOUSE as a local coordinator, who also has relevant clinical knowledge and knowledge about the community, despite not being a physician or other health care practitioner.
- Cost is a significant barrier. Communities have not had enough money for HOUSE in the past, despite being interested.
- One CME administrator commented that they do not think UBC CPD can do anything to reduce barriers to participate.

Have there been any impacts of the program at a regional level?

- Any impacts that HOUSE has made remains at a community level where education is being delivered, including potentially less referrals to regional centres and increased ultrasound skills.
- The development of a group of certified instructors that can provide expert knowledge to colleagues.
- With access to ultrasound training, physicians have been in a better position to request ultrasound equipment from regional Health Authorities and clinical administrators and communicate a need for this equipment.

What is working well with the HOUSE program?

- Not many educational offerings are willing to travel and teach in communities due to challenges of travelling to remote communities. The willingness of HOUSE to teach in community puts it apart from other courses.
- The instructor-to-student ratio was commented on being a valuable part of HOUSE.
- Having instructors local to some communities helps to reduce the cost.
- People trust the content of the course because of the Medical Lead, Tandi, being available locally.
- HOUSE is easy to organize because of the support and resources it provides to communities.

How can HOUSE better meet the need for local PoCUS training?

- Access to gaining Independent Practitioner certification is challenging in rural areas.
- Learners are not confident enough with ultrasound skills after taking a HOUSE course, especially because of the low volume in rural areas leading to little opportunities to practice.
- Learners would benefit from completing a series of scans following the course to gain IP certification and thus feel more confident with ultrasound skills.

Conclusions from Regional CME Administrator Interviews

1. The HOUSE brand is very recognizable in BC and a popular choice over other existing ultrasound courses.
2. Challenges and barriers for regional administrators in bringing HOUSE to a community include finding a local coordinator and the course cost.

3. Providing supervised scans towards IP certification is desired (editor's note - although currently not possible for HOUSE to provide).
4. In-community teaching, the low instructor to participant ratio, the use of local physicians as HOUSE instructors, course reputation and ease of organization are all working particularly well with the HOUSE program.

Recommendations from Regional CME Administrator Interviews

1. Recognize that regional CME administrators may have difficulties with identifying local coordinators, unlike courses supported by local community physician leads. As much as possible, assist with this process.

Ultrasound Models (n=6)

Background

Age of models ranged from 17 to 60 years old. Models were students in high school or university, or retired.

Key Quotes



... I felt like I had contributed to the learning."

"It was kind of weird at first...because I didn't really have...a strong understanding of how this works and what's going to happen but overall it was pretty good."

"...You get to see [your] body – you're hearing them explain...You're talking about your body all day."

"It was super – we got told of all the list of materials that we needed to bring, which was awesome."

"...The emails were very clear and the directions were very clear."

"You're the human model in a station where a doctor is coming to practice a technique that he can only do on a live model and you have to listen very carefully to what the instructor's telling you and then the doctor who's practicing on you. Because the doctor needs you to respond...and he only has a very short time to practice this technique of finding the exact spot that he's looking for... the ultrasound machine and the model are equally important."

"I felt I was comfortable telling them if I was uncomfortable –if they were, say, applying too much pressure."

"I enjoyed being an outlet for doctors to gain more knowledge. I found it very humbling for me."

"I would love to be an ultrasound model again...you can't ever really get tired of watching your own heart beating..."

How did they hear about HOUSE EM?

Models heard about HOUSE through a number of avenues, including volunteer programs, Craigslist, family member working in medicine who know about HOUSE, and through having worked in a venue that has held a HOUSE course.

What motivated them to participate?

- A desire to give back and interest to contribute to medical education.
- Remuneration.
- Learning opportunities, including learning about their own body and interest in ultrasound technology.
- Fulfillment of volunteer hours required to graduate from school.

Was the role what they expected?

- The role of ultrasound model was what they expected for most models. One model reported that they did not quite know what to expect.
- For one model, the day was less organized than expected, as well as feeling less welcomed than expected. This was because there was little coordination for the models, which lead to some confusion and uncertainty about where they needed to be.
- There was some uncertainty experienced on the day and a lack of understanding of what will happen on the day for one model. They would have benefited from a step-by-step guide of what to expect.

What was their experience as an ultrasound model?

- Overall, models report having positive experiences as an ultrasound model.
- They felt comfortable as ultrasound models and felt respected by instructors and learners.
- One model particularly enjoyed getting an insight into what physicians see when they use ultrasounds on patients.

What was their experience with course organizers?

- Overall, most models felt that course organizers adequately prepared them for the day. However, one model reported that they did not feel adequately prepared and that there was some coordination confusion.

Information

- Overall, most models commented that they received the information they needed in advance. However, one model mentioned that they would have liked to have been given more information about what to expect on the day.

How well did they understand their role as an ultrasound model?

- All models reported to have understood their role as an ultrasound model.

Did anything happen during the course to make them feel uncomfortable?

- Most models reported that there was nothing that happened during the course to make them feel uncomfortable.
- One model commented that they found the cold gel uncomfortable but that the instructors were very friendly about this.

Were they diagnosed with any abnormal findings during the course?

- Generally, models reported that they were not diagnosed with any abnormal findings.
- One model mentioned that something did initially look abnormal but did not find anything concerning on further inspection. They felt the instructors handled this very professionally and made them feel comfortable.

Did they feel comfortable to speak up and voice any comments or concerns?

- Most models felt comfortable to speak up and voice any comments or concerns and that the instructors and learners were encouraging and friendly.
- One model mentioned that they only felt somewhat comfortable and did not want to discourage learners when finding something of interest.

What did they enjoy about the course?

- Many models mentioned that they enjoyed being an ultrasound model for the unique learning experiences it afforded them.
- Some models enjoyed being a model to contribute to medical education.
- New experiences outside of one's comfort zone.
- Going to the community.

What were their thoughts on payment?

- Overall, most models were satisfied with how much they were paid to be a model. One model felt the honorarium was low.

Would they participate as an ultrasound model again?

- All models commented that they would participate again, some reasons being; opportunity to interact with physicians, enjoyable and fun hands-on learning experiences, learning new things, contributing to medical education, and food.

How could their experience as an ultrasound model be improved?

- Provide ultrasound models with more information about key areas of the venue, instructions and contacts who can answer questions on the day.
- Provide ultrasound models with more information about PoCUS and describe to them what is happening during the ultrasound procedure.
- Recommend ultrasound models bring warm articles of clothing or provide these on the day as the venue can be uncomfortably cold.
- Set up screens to maximize privacy for ultrasound models.
- Remind physician learners about bedside manner when interacting with models.

Conclusions from Ultrasound Model Interviews

1. Overall, models generally report very positive experiences being an ultrasound model; they felt well informed and prepared by course organizers, and enjoy interacting with physicians.
2. Models report many benefits from their participation. The opportunity to facilitate physicians' learning was a rewarding experience, as was learning more about the human body and ultrasound technology.
3. Some models would have liked more information about what to expect over the day and during the scanning, as well as having a designated person to answer their questions.
4. All models reported that they would participate as an ultrasound model again in the future.

Recommendations from Ultrasound Model Interviews

1. Review information provided to models to enhance the quality and detail of information provided in advance, as well as the process by which information is provided.
2. Communicate with models about the level of privacy they can expect during ultrasound scanning.
3. Help participants to be sensitive to the needs of models, by ensuring appropriate communication and management of their experience.
4. Include testimonials from previous models in the ultrasound model volunteer pamphlet to encourage prospective models to participate.