LOUD in the ED
BC PATIENT SAFETY & QUALITY COUNCIL

Learning about Opioid Use Disorder (LOUD) in the Emergency Department (ED)

Final Report
2020/2021

Funded by: BRITISH COLUMBIA Ministry of Mental Health and Addictions
BRITISH COLUMBIA CENTRE ON SUBSTANCE USE
Networking researchers, educators & care providers

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KEY DEFINITIONS

Buprenorphine/Naloxone: The clinically recommended first-line treatment for opioid use disorder in BC. It can prevent withdrawal symptoms and cravings in people with opioid use disorder (or opioid dependence). Suboxone® is buprenorphine combined with naloxone. The naloxone does not have effects unless it is injected, in which case it will cause withdrawal symptoms.[1]

Decision Support Tool (DST): A roadmap of recommended practices that provides clinicians with structured guidance when making decisions.

Induction: Opioid agonist treatment initiation with buprenorphine/naloxone.

Opioid Agonist Treatment (OAT): "refers to (opioid) medications prescribed for the treatment of opioid use disorder. OAT is used to prevent withdrawal symptoms and cravings in people with OUD."[1] OAT is typically provided in conjunction with provider-led counselling; long-term substance-use monitoring (e.g., regular assessment, follow-up, and urine drug tests); comprehensive preventive and primary care; and referrals to psychosocial treatment interventions, psychosocial supports, and specialist care as required.

Opioid Use Disorder (OUD): "Also known as opioid addiction, generally means that you are using opioids regularly and experiencing some kind of distress or health or social consequences. Symptoms include dependence, tolerance, cravings, using when it's unsafe, giving up important activities, continuing to use despite having social or interpersonal problems, and not being able to cut down or control opioid use."[1]

People with Lived and/or Living Experience (PWLLE): allies, advocates, and other community members with lived experience of substance use who may or may not be associated with relevant organizations.

Suboxone®: Brand name for buprenorphine/naloxone. Term is used interchangeably with buprenorphine/naloxone for ease of communication. LOUD in the ED Project Team and Faculty do not have pharmaceutical conflicts of interest, nor preference for one brand over another.

[1] British Columbia Centre on Substance Use. Opioids: A Survivor's Guide [Internet]. Vancouver; BC Centre on Substance Use, May 2019. 84pp. Available from: https://www.bccsu.ca/opioids-survivors-guide/

Acknowledgement

We acknowledge that the BC Patient Safety & Quality Council, BC Centre on Substance Use and Overdose Emergency Center are based out of the Coast Salish territories – xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh (Squamish) and səl̓ilwətaʔɬ (Tsleil-Waututh) Nations – with staff and support from many communities across what is known today as British Columbia.

This report would not be possible without the tireless contributions and efforts of our advisory group, as well as those with lived and/or living experience who generously offered their time, insight and guidance to the creation and execution of this initiative. Throughout this report the following terms are used interchangeably to reflect their expertise and perspective: person with lived and/or living experience (PWLLE) and person who uses drugs (PWUD).

Partner Organizations

BC Patient & Safety Quality Council

The BC Patient Safety & Quality Council (the Council) provides system-wide leadership to efforts designed to improve the quality of health care in BC. Through collaborative partnerships with health authorities, patients, and those working within the health care system, the Council promotes and informs a provincially coordinated, patient-centred approach to quality.

Overdose Emergency Response Centre

The Overdose Emergency Response Centre (OERC) is part of the Ministry of Mental Health and Addictions, and works in collaboration with multi-sector public agencies, affected communities, and people and families with lived and/or living experience, to escalate the response to the overdose emergency in BC.

BC Centre on Substance Use

The BC Centre on Substance Use (BCCSU) is a provincial organization with a mandate to develop, help implement, and evaluate evidence-based approaches to substance use and addiction. With the support of the Province of BC, the BCCSU aims to transform substance use policies and care by translating research into education and care guidance, thereby serving all British Columbians. The BCCSU seeks to achieve these goals through integrated activities of its three core functions:

Research — Leading an innovative multidisciplinary program of research, monitoring, evaluation and quality improvement activities to guide health system improvements in the area of substance use.

Education and Training—Strengthening addiction medicine education activities across disciplines, academic institutions and health authorities, and training the next generation of interdisciplinary leaders in addiction medicine.

Clinical Care Guidance—Developing and helping implement evidence-based clinical practice guidelines, treatment pathways, and other practice support documents.

Executive Summary

Learning about Opioid Use Disorder (LOUD) in the Emergency Department (ED) was a provincial initiative led in partnership between the BC Patient Safety & Quality Council (the Council), BC Centre on Substance Use (BCCSU) and Overdose Emergency Response Centre (OERC) with EDs across BC. This quality improvement initiative aimed to shift how EDs care for individuals with OUD.

In the context of dual public health emergencies – the overdose crisis and the COVID-19 pandemic – this initiative launched as a virtual action series to support evidence-based quality care in EDs. The action series focused on four main drivers: recommended clinical decision support tools, clinical education and strategies, people- and provider-centred care, and the connection continuum. The objective and aligned metrics from LOUD in the ED are summarized below.

Objective: To improve the experience of Opioid Use Disorder (OUD) care for people and providers. This included reducing the morbidity and mortality for people with OUD in the ED by improving access to evidence-informed care, particularly buprenorphine-naloxone (Suboxone®).

24 participating ED teams consisting of physicians, nurses, and other health professions.

141 clinicians completed the Provincial Opioid Addiction Treatment Program (POATSP).

84 providers completed the Provincial Health Services Authority's Buprenorphine/Naloxone (Suboxone®) Training.

28% increase among final survey respondents in prescribing buprenorphine/naloxone to patients in EDs.

90% of final survey respondents greatly or somewhat improved their confidence in providing OUD care in their EDs.

Introduction

Scope of Report

This report summarizes the background and intent of LOUD in the ED, a provincial quality improvement initiative led in partnership between the Council, OERC and BCCSU. The original design of the initiative, as well as the impacts of COVID-19 and resulting redesign are discussed. Analysis on the quantitative and qualitative data related to the participation and engagement of the initiative is included, as well as discussion of the impacts at local sites. Key learnings and opportunities are offered for future initiatives and for system transformation in OUD care within BC.

Background

The ED setting provides a unique opportunity to connect with people who use drugs and intervene early. Applying best practice for people with OUD in the ED improves patient care and has the potential to reduce length of stay, readmission rates, and workload and burnout for staff.

Purpose

LOUD in the ED ran from October 2020-February 2021 with the aim to improve the experience of OUD care for people and providers in the ED. This included reducing the morbidity and mortality for people with OUD in the ED by:

- Increasing buprenorphine/naloxone (Suboxone®) induction by 20% and ensuring 100% of eligible patients are given information on how and where to access harm reduction supplies and resources;
- Increasing successful connections to community services by 20%; and/or
- Improving the experience of OUD care for both people with OUD and care providers by reducing stigma.

Access: *The ease with which health services are reached.*

Accessibility: *The extent to which individuals can easily obtain the care when and where they need. Accessibility aims to ensure there are not physical, financial or psychological barriers to receiving information, care and treatment.*

Impacts of COVID-19 & Redesign

In March 2020, LOUD in the ED had just finalized enrollment of teams when a second public health emergency was declared in BC due to COVID-19. Given the uncertainty of the COVID-19 pandemic and the rapid shifts in practice required by all, LOUD in the ED partners made the collaborative decision to postpone the initiative launch.

Initially, LOUD in the ED was designed as a Collaborative, based on the Institute for Healthcare Improvement (IHI)'s Breakthrough Series[2], which focuses on promoting best practices and data

[2] Institute for Healthcare Improvement. Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement. IHI Innovation Series white paper. Boston: Institute for Healthcare Improvement; 2003. Available from:http://www.ihi.org/resources/Pages/IHIWhitePapers/TheBreakthroughSeriesIHIsCollaborativeModelforAchievingBreakthroughImprovement.aspx

collection. Given the COVID-19 pandemic and corresponding public health measures, it was necessary to identify and pursue alternative delivery options for this initiative. Conversations with LOUD in the ED Faculty and other stakeholders highlighted both the need and desire to move forward with this work despite the challenge circumstances. All stakeholders acknowledged that the BC health care system was highly strained, and efforts were made to adapt the original collaborative model to be more adaptable and less onerous for participating teams.

LOUD in the ED was formally launched as an entirely virtual action series with 24 participating teams in October 2020. This adapted model provided teams with increased flexibility and practicality while participating in a condensed virtual delivery format that focused on education rather than measurement through emergency department data and analytics. The redesign was completed in close consultation with Faculty who provided on-the-ground insight into ED capacity, and under the guidance of leadership from all partner organizations.

Governance

LOUD in the ED was a joint effort between the Council, the OERC, and the BCCSU. The Council offered expertise and project management from a quality improvement and educational perspective; the OERC offered expertise and project management from a systems perspective (EDs as well as provincial regulations and operations); the BCCSU offered expertise in clinical guidance, research, and education to ground this initiative in evidence-based practice. Provincial relationships and delivery logistics were shared broadly across the organizations, informed by regular meetings and updates at the senior leadership level. LOUD in the ED was also supported by a diverse, regionally representative faculty of experts with clinical and lived experience, as well as adjunct faculty members from the University of British Columbia's EQUIP Health Care team who supported the series' teachings and activities (Appendix A).

Initiative Structure & Redesign

This section explains both the original structure of LOUD in the ED and the resulting adaptation due to the COVID-19 pandemic.

Faculty Purpose & Involvement

The LOUD in the ED Faculty was a representational province-wide group of experts who met and collaborated regularly to steer the initiative (Appendix A). Faculty was responsible for identifying key drivers for improvement and change ideas, linking to existing resources and additional stakeholders, providing expertise, leadership and coaching throughout, responding to emerging needs and guiding the final report. Faculty members were recruited based on their specific clinical expertise, while maintaining a diverse, comprehensive and representational group. Compensation was provided to Faculty at the standardized clinical rates, and was adjusted based on capacity shifts after the onset of COVID-19.

EDs have an important role for OUD care as individuals with OUD have high rates of ED use, offering a potential system touchpoint to initiate OAT. Recognizing this opportunity, the LOUD in the ED Faculty worked with the BCCSU on two key resources:

1. New course content to the Provincial Opioid Addiction Treatment Support Program (POATSP)
2. ED Decision Support Tool (DST)

Provincial Opioid Addiction Treatment Support Program

The POATSP is the first step in the provincial authorization process to prescribe OAT. It is a comprehensive online program with evidence-based education on the full range of treatment options available for individuals with varying presentations of OUD. As part of LOUD in the ED, two new modules (Modules 23 and 24) were created for ED clinicians who are treating and managing patients with OUD. The new education modules went through multiple rounds of review by Faculty, experts and stakeholders to ensure relevant and evidence-informed content. As of November 2020, the POATSP program offered a new acute care stream designed for in-hospital and ED clinicians.

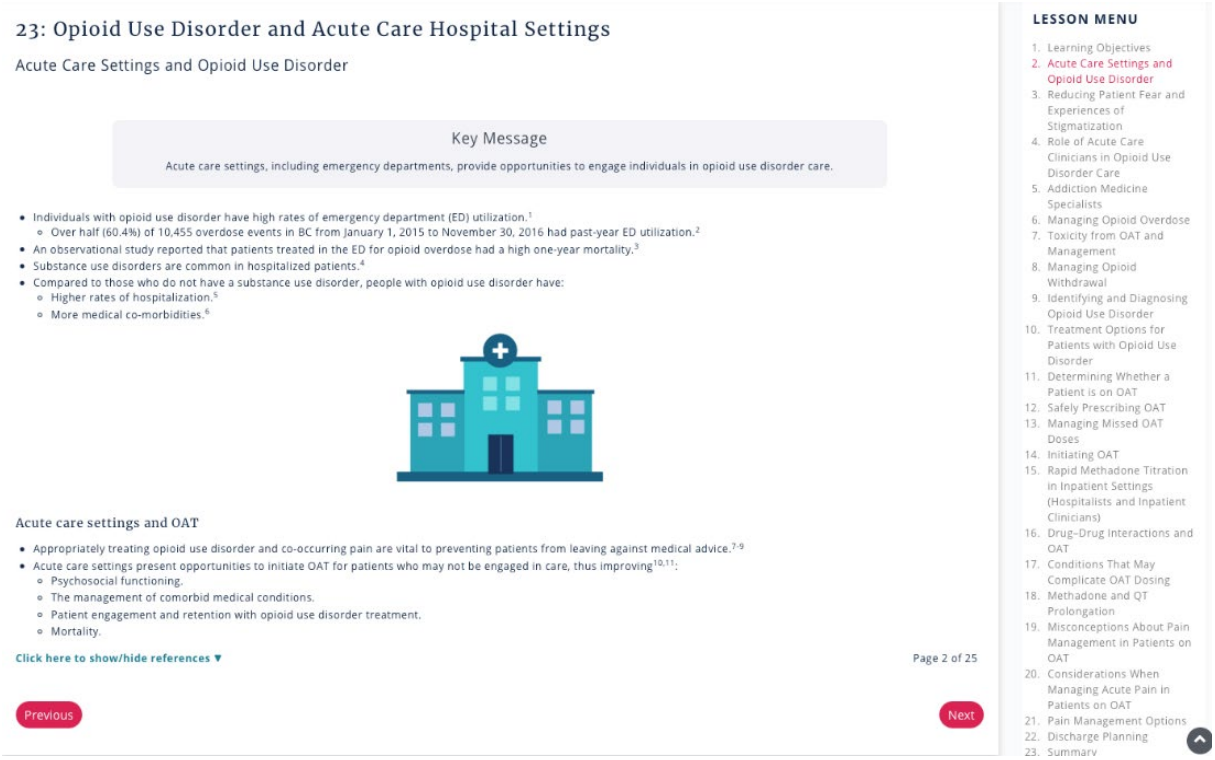


Figure 1 – Sample screenshot of new POATSP education content.

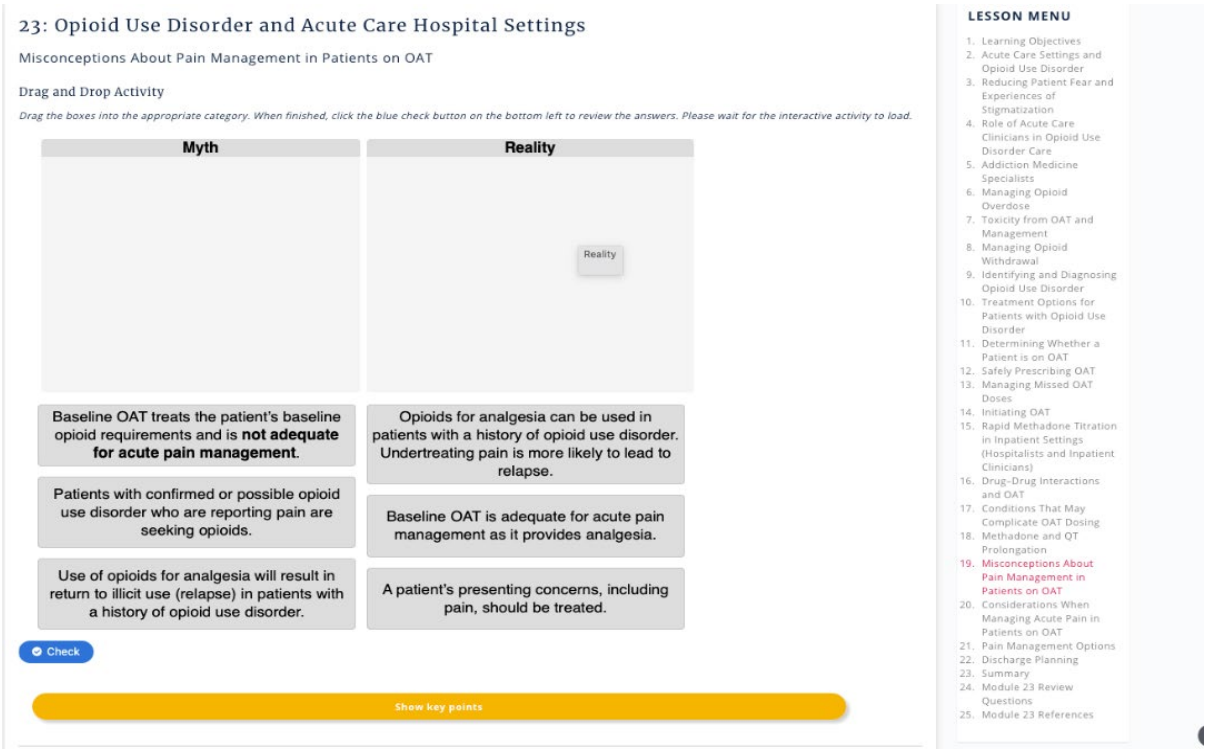


Figure 2 – Sample interactive activity in POATPS. POATSP includes interactive activities and multimedia types to enhance the learning experience and support the learning objectives.

Decision Support Tool

As part of the updates to the POATSP, a DST for the ED was developed to provide structured guidance through the process of decision-making for a buprenorphine/naloxone induction in the ED (Appendix B). Key information was included to create a clear, concise (one page, double-sided), accessible and informative document for ED clinicians to use when making decisions. The DST was designed using inclusive language and optimized color use to increase accessibility for those with colour blindness.

The DST aims to provide clinicians with a comprehensive base map of recommended standardized practice. Faculty collaborated around existing DSTs and pre-printed orders (PPOs) from across the province to consolidate them into a single pathway. This pathway models an ideal future state for clinicians to strive for and considered both current and recommended practices. The DST offers prompts for diagnostic tools, clinical connections as well as possible referral points, and is intended to be used in conjunction with hospital-approved PPOs for buprenorphine/naloxone induction.

To develop the DST, the Project Team drafted an initial version based on extensive Faculty input. This draft was then shared with Faculty for further feedback, as well as the BCCSU's clinical team who added comprehensive details and enhanced the tool to ensure it was reflective of current evidence-based practice. The DST served as a lynchpin and central navigation tool for teams to navigate additional resources. Given the complexity and urgency of the ED, the DST acts as an easy-reference guide for ED clinicians to start treatment and provide care for OUD patients.

Call to Action & Team Recruitment

In January 2020, a Call to Action was sent out to recruit teams for LOUD in the ED (Appendix C). The Project Team held two information sessions to provide an overview of the initiative goals and structure, and to answer any outstanding questions from interested participants.

Team recruitment relied on Regional Response Team (RRT) leads, who identified select EDs as having the interest and capacity to participate in this initiative. The Call to Action was distributed via the RRT leads to the pre-identified ED managers or delegates and formally introduced during the monthly team call between the OERC and the RRTs. Team sign-up was collected at the local level and before being forwarded to the Project Team by a designated team lead for official enrollment in the initiative.

Figure 3 – An overview of the LOUD in the ED Call to Action distribution process.

Enrolled teams were representative of all regions and a combination of urban and rural, mid-sized centers. Health authority (HA) leads identified by the RRTs were responsible for prioritizing ED Teams to participate in this initiative by allocating spots to them on behalf of the HA. This allocation was reflective of demonstrated need, capacity, and interest of staff. Each HA was offered to enroll four teams. Additional spots were made available to St. Paul's Hospital due to their leadership in this area, as well as BC Children's Hospital due to their specialization.

In recognition of the delayed launch and mounting pressure on EDs during the COVID-19 pandemic, teams were contacted in July 2020 to confirm their participation. One team dropped out of the initiative and additional teams from Fraser Health and Island Health were added, bringing the total number of participating teams to 24 (Appendix D). These multidisciplinary teams included over 150 physicians, nurses, pharmacists, and other professions.

Given the structure of the EDs within individual acute care sites, teams were not allocated for the First Nations Health Authority (FNHA), however, FNHA agreed to participate on Faculty on an ad-hoc basis. Additionally, selection of Faculty aimed to reflect an Indigenous healing voice and lens. Though BC Children's Hospital expressed strong interest in this work, it later abstained from participation due to capacity issues in response to COVID-19 public health emergency and in reflection of the unique pathways that exist for youth.

Non-participating sites, Community Action Teams (CATs)[3] and other stakeholder groups were invited to sign up as a LOUD in the ED supporter to receive updates on initiative progress in the form of regular newsletter summaries, which summarized and documented resources, participation and webinar recordings.

One of the other key components to participation in this initiative hinged on ensuring sessional funding for participating clinicians in the initiative. Funding was available for clinicians to be compensated to

[3] Community Action Initiative. Community Action Teams [Internet]. 2021. Available from: https://caibc.ca/grants-training/oerc-cai-stream-grants/oerc-cai-stream-1/

participate in webinars (in real time, or retroactively), team improvement work, as well as allocated as incentives to complete the POATSP. This funding was intended to appropriately compensate participants for their time and remove barriers to participation.

Impacts of COVID-19

The Project Team finalized team enrollment at the end of February 2020 and COVID-19 was declared as a public health emergency shortly afterwards. Given the uncertainty of the dual public emergencies, all partner organizations agreed to postpone the launch.

The COVID-19 pandemic and related public health measures made it necessary to identify and pursue alternative delivery options for this initiative. Conversations with the Faculty and other stakeholders highlighted a strong need and desire to move forward with this work, despite the COVID-19 public health emergency. Still, it was acknowledged that the BC health care system was highly strained, and efforts were made to adapt the original collaborative model to be more flexible and less onerous for participating teams.

Given the rapid changes over the initial months of COVID-19, several considerations arose when planning for the relaunch of the LOUD in the ED initiative:

- Shifting priorities delayed the release of the updated Guideline for the Clinical Management of Opioid Use Disorder.
- Anticipated need to engage Faculty on ED-specific sections to ensure alignment of guidelines with LOUD in the ED work.
- Additional supports were needed to create, design, and deliver streamlined ED-specific education modules relating to opioid agonist treatment options in the ED setting.
- Elimination of in-person events and non-essential travel.
- Anticipated surge of COVID-19 cases in Fall 2020.

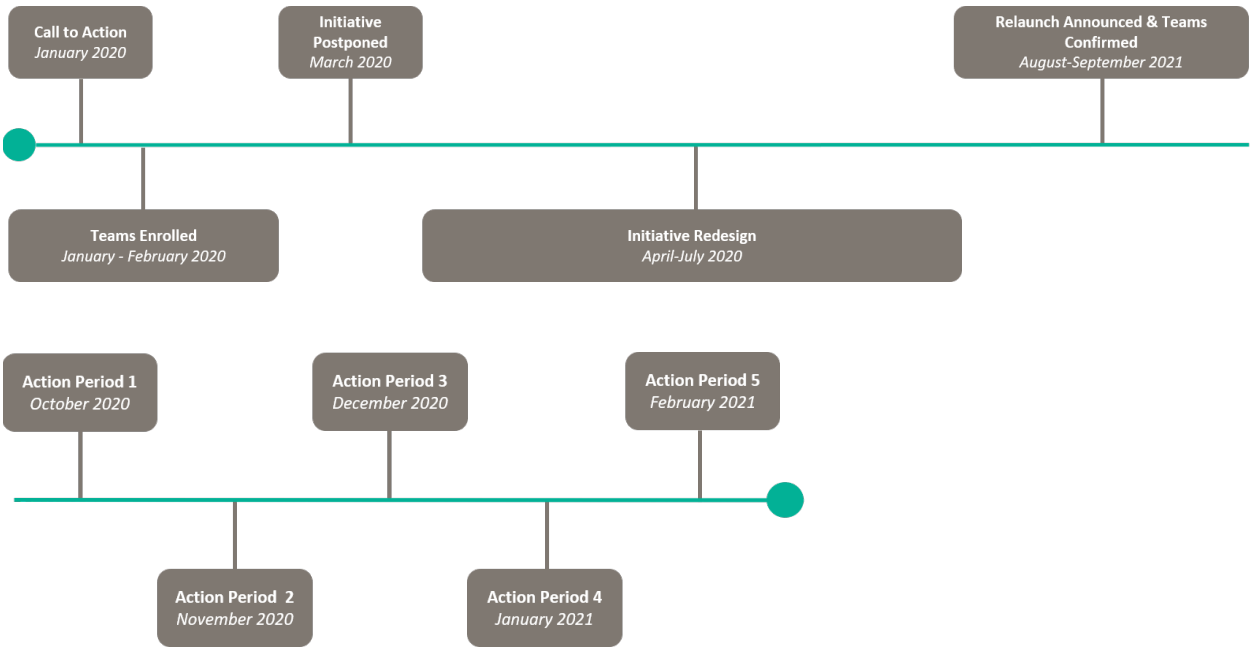


Figure 4 – Timeline of LOUD in the ED

The initiative was redesigned in close consultation with Faculty who provided insight into the capacity of EDs across the province, and under the guidance of leadership from all partner organizations.

Originally, LOUD in the ED was designed as a collaborative, based on the Institute of Healthcare Improvement's (IHI) Breakthrough Series[4], and was scaled down and modified in response to the COVID-19 pandemic. Instead of a collaborative which depends on emergent ideas and high participation from local teams, the initiative was redesigned as a virtual action series which offered more discrete components including learning webinars, coaching sessions and activities for teams to work through as part of their local improvement efforts.

LOUD in the ED was formally launched as an entirely virtual action series with 24 participating teams in October 2020 in the context of concurrent public health emergencies. This transition provided teams with increased flexibility and practical learning activities while they participated in a condensed virtual delivery format.

Virtual delivery offered more adaptability and responsiveness within the initiative. Webinars offered a mixture of didactic learning, coaching and sharing of successes and challenges between individuals and teams, as well as access to shared expert resources. Virtual learning sessions and coaching calls allowed teams to join when they had capacity and recordings were posted and shared. All activities were able to be increased, postponed, or even paused depending on team and system capacity.

Adjustments were made to the initiative timeline for teams to adapt to new COVID-19 protocols, as well as for Faculty to consult on new guidelines and POATSP modules (led by the BCCSU, see Appendix E). This consultation occurred over email communication, Faculty meetings and surveying. The finalized educational modules were refined for ED clinicians and embedded into Action Period 2 of LOUD in the ED. These new modules focused on streamlined education and this collaborative offered sessional support for those clinicians who completed the new stream.

[4] Institute for Healthcare Improvement. Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement. IHI Innovation Series white paper. Boston: Institute for Healthcare Improvement; 2003. Available from:http://www.ihi.org/resources/Pages/IHIWhitePapers/TheBreakthroughSeriesIHIsCollaborativeModelforAchievingBreakthroughImprovement.aspx

LOUD in the ED Virtual Action Series

This section describes the purpose and various components of the revised LOUD in the ED virtual action series. The four main drivers of improvement identified for this initiative are further explored.

Refined Purpose & Learning Objectives

LOUD in the ED was revamped as a virtual action series that was organized by four main drivers of improvement as identified by Faculty:

1. **Recommended Clinical Decision Support Tools:** Implementing recommended practices to inform order sets and guideline development.
2. **Clinical Education and Strategies:** Seizing clinical education opportunities and promoting culture change, focusing on POATSP and Learning Hub modules.
3. **People- and provider-centred care:** Addressing stigma and other barriers to improve engagement and access.
4. **Connection continuum:** Bridging community and ED care.

There was also a fifth action period that focused on celebrating the achievements of teams and concluding any outstanding work related to LOUD in the ED. The primary and secondary drivers of improvement originally developed for this initiative in 2019/2020 are captured in the driver diagram below.

AIM	PRIMARY DRIVERS	SECONDARY DRIVERS
1. Increasing buprenorphine-naloxone (Suboxone®) starts by 20% and ensuring 100% of eligible patients are given information on where and how to access harm reduction supplies; 2. Increasing successful connections to community services by 20%; and/or 3. Improving the experience of OUD care for both people with OUD and providers of care (reduce stigma).	1 Recommended Clinical Practices and Decision Support Tools	• Adapt OUD recommended practices and point-of-care tools that fit into existing workflow. • Enhance clinician decision-making through clinical decision support tools. • Support the ability to consult expertise for additional clinical decision-making support.
	2 Clinical Education and Strategies	• Ensure access to ED relevant education to OUD care and OAT prescribing for providers. • Ensure practitioners are knowledgeable and confident on recommended practices and resources around OUD care. • Support continuous learning on OUD processes in the ED.
	3 People- and Provider-Centered Care	• Ensure practitioners are knowledgeable and confident on best practices for person-and family-centred and trauma-informed care. • Reduce barriers to offering OUD care. • Support increased communication for people with OUD during their ED experience and when they are referred to the community. • Decrease stigma and dispel myths about OUD amongst providers. • Increase empathy across all spectrums of care.
	4 Connection Continuum	• Increase awareness and accessibility of community resources. • Improve connectivity and interorganizational relationships. • mprove access to and development of communication and navigation tools. • Work with pharmacy and administration to ensure Suboxone®/OAT is available in EDs and community. • Increase access to harm reduction supplies (e.g., take-home naloxone, safe injection supplies, supportive information, mental health and social resources) upon discharge from ED.

Figure 5 – Driver Diagram for LOUD in the ED

The action series had several elements that supported teams to affect change at their local sites.

- **Action periods** were defined periods of time themed around an aspect of change and involved learning, networking, resources and activities to identify new approaches and opportunities for improvement.
- **Learning sessions** marked the start of a new action period with an interactive webinar to teach and highlight tools and resources for improving care in the ED. The first and fourth learning sessions were half-day (3.5 hours) to enable participating staff to apply for backfill and enable more in-depth conversation and collaboration with teams. All other learning sessions were one hour.
- **Coaching calls** during the action period were one-hour calls that offered opportunities to have deeper discussions with subject matter experts on specific topics or areas of clinical care.

All calls were recorded and posted on the LOUD website for reference as well as for those unable to attend in real time.

Figure 6 – Overview of components of the LOUD in the ED Action Series

Action Period Objectives & Descriptions

Action Period 1: Recommended Clinical Practice & Decision Support

Learning Objectives

1. Define and apply updated ED Decision Support Tool (DST).
2. Explain the standing clinical orders for their site, in the context of the Decision Support Tool, which reflects the anticipated update with the ED OUD recommendations.
3. Identify team purpose and shared values.
4. Apply principles of clear communication and people centered principles when offering people OUD care.

Action Period 1 launched on October 6, 2020 with a half-day learning session featuring speakers and interactive discussion with teams across the province. Andrew Kestler shared his experience of implementing buprenorphine/naloxone at St. Paul's Hospital; Melissa Allen provided context around

dual public health emergencies and the opportunity for regional groups to connect around the impacts in their respective regions; Guy Felicella and Reija Jean discussed the importance of adopting a people-centred care practice; and Sharon Vipler gave an overview of the new ED DST which was still under review at the time. With over 70 team members calling in from all regions in BC, LOUD in the ED was successfully launched.

Coaching calls for Action Period 1 focused on clinical case studies with Andrew Kestler and Emma Garrod, and a presentation and discussion on micro-dosing with clinical pharmacists Cindy San and Katherin Badke. It also included robust discussion on best practice and resulted in the finalized DST for buprenorphine/naloxone inductions in the ED.

Action Period 2: Clinical Education & Strategies

Learning Objectives

1. Identify available buprenorphine/naloxone education opportunities.
2. Identify incentives and opportunities for ED team members to enroll and complete educational programs.
3. Plan how to leverage these education programs to bolster quality and capacity in the ED setting.

The learning session for Action Period 2 was led by Amanda Giesler, Emma Garrod, and Andrew Kestler and focused on clinical education and strategies. LOUD in the ED teams were presented with the new acute care training within the POATSP and opportunities to participate in Provincial Health Services Authority's buprenorphine/naloxone (Suboxone®) Training on the Learning Hub.

Through coaching calls, teams explored practical suggestions and solutions to bolster education and implement clinical tools such as DSTs and order sets. This action period set the foundation for enhanced learning and clinical upskilling to be further explored in subsequent action periods.

Sessional funding was available for clinicians completing the acute care stream of the POATSP. Recognizing the value of the POATSP and the importance of accessibility of education beyond the LOUD in the ED team members, sessional funding was made available to acute care clinicians who were not participating in the initiative. Through a short survey, acute care clinicians could apply for the sessional funding to complete the acute care stream. This funding opportunity was promoted through the coaching calls, the BCCSU Prescriber Blast and LOUD in the ED networks to encourage uptake of POATSP.

Action Period 3: People- and Provider-Centred Care

Learning Objectives

1. Identify EQUIP Health Care[5]'s three key dimensions of equity-oriented healthcare and apply them in practice.

[5] EQUIP Health Care [Internet]. British Columbia. EQUIP Health Care; 2021. Available from: https://equiphealthcare.ca/

2. Describe departmental strengths that support equity-oriented healthcare, including facilitating factors that enable providers to focus on people-centered care.
3. Evaluate areas for improvement within their department to implement equity-oriented healthcare using the 'Rate Your Organization' activity.
4. Apply trauma- and violence-informed care in daily clinical practice.

Action Period 3, which focused on people- and provider-centred care, began with Vicky Bunga, EQUIP Team Member and a faculty member at UBC's School of Nursing. EQUIP Health Care is a research and implementation program that involves health equity interventions implemented in a range of health care settings. The interventions are designed to enhance organizational capacity to provide equity-oriented health care by incorporating trauma- and violence-informed care, culturally-safe care and harm reduction. Teams participated in rating their organizations on the key dimensions of equity-oriented care and selecting one area of focus for the following action period.

During the first coaching call, Sarah Levine, Amelia Birch and Wendy Stevens from Lion's Gate Hospital shared stories of trauma- and violence-informed practice. In the second coaching call, Reija Jean and Mona Kwong shared dialogue-based therapy approaches of diffusion that can be used to enhance engagement and safety in relationships with patients at the point of care.

Action Period 4: Connection Continuum

Learning Objectives

1. List local and regional resources for community referrals for people with OUD.
2. Identify resources that can be shared during an ED visit with a person with OUD.
3. Discuss challenges that arise during ED visits, or in transition to community, with someone with OUD.
4. Improve transition of care by identifying and refining local referral practices
5. Apply quality improvement measures to test local improvements in referral pathways.
6. Develop a trauma- and violence-informed plan to improve local referral pathways for people with OUD.

Action Period 4 focused on navigating community resources and refining referral pathways for OUD patients being discharged from the ED. The learning session highlighted perspectives on transitions of care from Guy Felicella as well as physicians: Chris Kriek, Aseem Grover, Jason Wale and Vic Jordan. April Price, from the BC Patient Safety and Quality Council provided an overview of the Plan-Do-Study-Act (PDSA) cycles and their application in quality improvement work.

The coaching call for this period continued the conversation using a case study to examine differences between urban and remote/rural transitions of care. Teams examined potential gaps in their local processes through a transitions of care checklist and identified strategies for improvement.

Action Period 5: Celebration & Wrap-Up

LOUD in the ED wrapped up with a final celebration webinar in February 2021. The Project Team reviewed the LOUD in the ED journey and celebrated the work and accomplishments of the participating teams.

Throughout the action periods, the LOUD in the ED initiative:

- Hosted five learning sessions and eight coaching calls with presenters and speakers from various backgrounds and locations across BC.
- Developed the ED DST for use by clinicians in BC.
- Increased capacity and knowledge among ED staff through education programs:
  - 141 physicians and nurse practitioners in acute care settings completed POATSP with sessional funding.
  - 84 nursing staff completed the Learning Hub course on buprenorphine/naloxone in the ED.
- Promoted the principles of equity as well as patient and provider-centred care with specific calls to action at local sites.
- Examined the transition from ED to community care and identified gaps to be addressed.
- Initiated connections, fueled discussions and generated insights on how to move this work forward.

During the last coaching call, Heather Hair, former Executive Director of Alberta's Emergency Strategic Clinical Network, provided an overview of the provincial strategy that was implemented to screen and initiate buprenorphine/naloxone for OUD patients in the ED in Alberta. Discussion among attendees highlighted key learnings to be incorporated into the findings of this initiative.

Team Participation & Engagement

This section highlights the ways and extent to which teams participated and engaged throughout the course of LOUD in the ED.

Team Retention & Participation

LOUD in the ED included five learning sessions (LS) and eight coaching calls (CC) which were all hosted virtually on Zoom. All team members, Faculty and regional supports were invited to attend the sessions live, however, fluctuating schedules and mounting pressures in the ED resulted in limited participation in live sessions. All sessions were recorded, posted on the LOUD in the ED resource page and shared to teams in a weekly email update.

Session	Date	Title/Topic
LS1	Tuesday, October 6 (3.5 hours)	Recommended Clinical Decision Support Tools
CC1.1	Wednesday, October 21	Case Study: St. Paul's Hospital
CC1.2	Wednesday, October 28	Microdosing
LS2	Thursday, November 5	Clinical Education and Strategies
CC2.1	Monday, November 16	Coaching and Culture Change
CC2.2	Tuesday, November 24	Case Study: Penticton
LS3	Tuesday, December 1	People- and Provider-Centred Care
CC3.1	Wednesday, December 9	Dialogue Based Therapies
CC3.2	Tuesday, December 15	Case Study: EQUIP and Lion's Gate
LS4	Thursday, January 14 (3.5 hours)	Connection Continuum: Bridging Community and ED Care
LS5	Wednesday, February 10	Celebration & Wrap-Up
CC5.1	Wednesday, February 17	Case Study: Alberta Health Services

Table 1 – Dates and topics for all virtual events during LOUD in the ED.

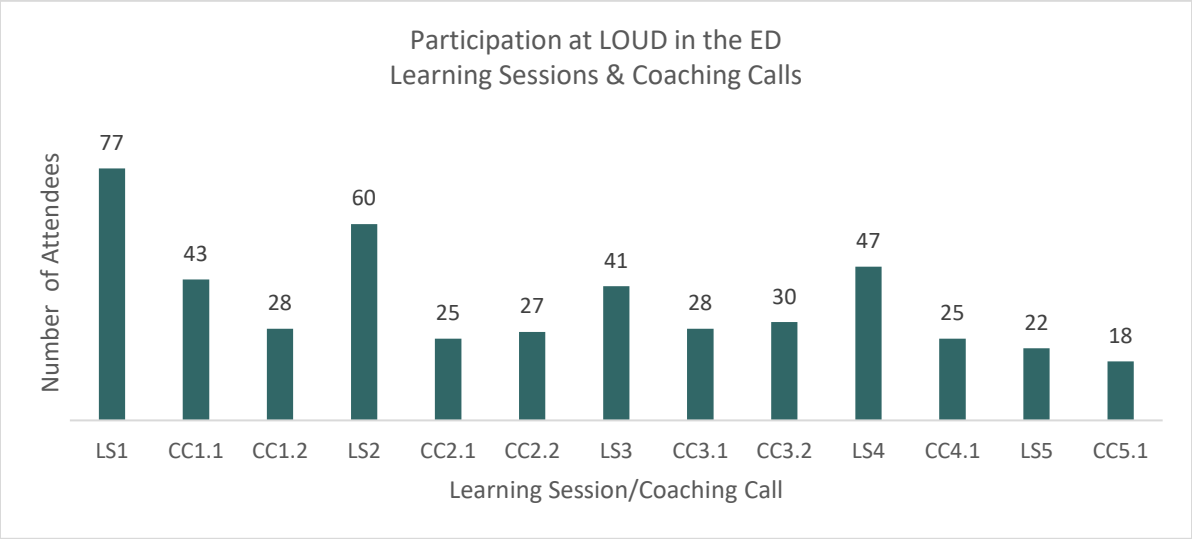


Figure 7 – Participation in learning sessions and coaching calls (note that participation is calculated here by the total number of unique sign-ins as each Zoom meeting).

Notably, poll data indicates high physician engagement during the two half-day learning sessions. In response to the poll question, "What best describes your current role at work?":

- **35% of participants (16/46)** who responded at Learning Session 1 indicated they were a physician.
- **45% of participants (9/20)** who responded at Learning Session 4 indicated they were a physician.

Action Period Homework

Each action period featured an action period guide which provided two to five mandatory and optional activities for teams to complete at their local sites. These activities were meant to build off the learning sessions and offer teams a chance to connect – online or in person – between sessions to analyze areas for improvement and test ideas for change.

Action Period	Activities	# Teams Who Submitted Activities
1	1. Create a Shared Purpose (Required) 2. Decision Support Tool – Baseline Activity (Required) 3. Clear Communication practice – Walking the Cube (Optional) 4. 15% Solutions (Optional) 5. Create a Teamwork Agreement (Optional)	13
2	1. Provincial Opioid Addiction Treatment Support Program (Required for Prescribers) 2. Learning Hub – Buprenorphine/Naloxone Training (Required for Nurses) 3. Case Study (Optional)	POATSP – 10 Learning Hub – 10
3	1. Rate Your Organization (Required - Individual) 2. Discussion & Action Plan – SWOT or SOAR (Required - Group) 3. Equipping for Equity Online Modules (Optional) 4. Activity: Reading the Opioids Survivor's Guide (Optional) 5. Activity: Listening to the Crackdown Podcast (Optional)	7
4	1. ED OUD Transitions of Care Checklist Audit 2. Change Commitment 3. Navigating Community – Exploring Local Referrals (Optional)	7

Table 2 – Summary of recommended and optional action period activities provided to teams.

POATSP Completion & Expansion

Action Period 2 was dedicated to support the education and training aspects of OUD care in EDs including buprenorphine/naloxone implementation. Through the LOUD in the ED sessional funding scheme, a total of 141 clinicians across the province completed POATSP. Fourteen of the 141 clinicians were LOUD in the ED team members. Some LOUD in the ED participants had previously completed POATSP and were thus ineligible to apply for the funding. Below is the breakdown of clinicians who completed POATSP according to HA.

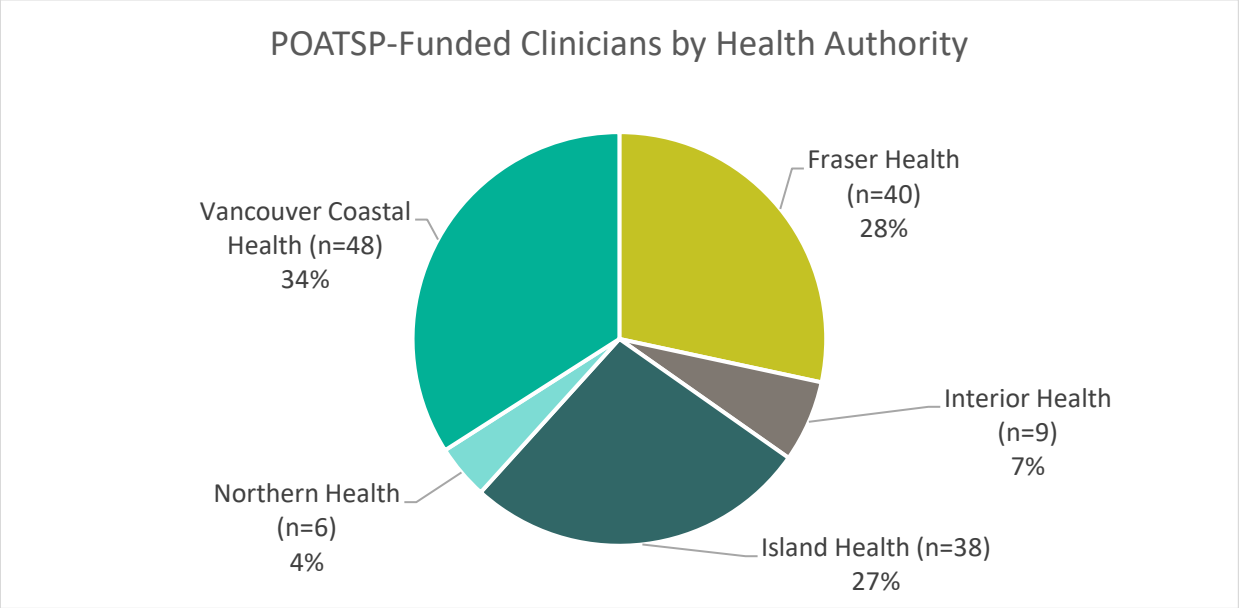


Fig. 8 – POATSP-funded clinicians by HA.

"Great course. Thanks. I think funding should be made available to offer this to all interested ED physicians in BC."

– POATSP Participant

"It is a good course. More information than needed for Suboxone® inductions/initiations in ED but all the same very interesting and an excellent reference."

– POATSP Participant

To encourage uptake of educational opportunities among those who were ineligible for sessional funding (nurses in particular), the Project Team held a prize draw to win one of 10 customizable stethoscopes. To enter the draw, team members had to submit their Certificate of Completion for the Learning Hub course and/or for the POATSP modules. The stethoscope draw was also available to incentivize non-LOUD in the ED team members completing the education opportunities and thereby increasing knowledge capacity across the province's acute care settings. Overall, there were a total of 86 entries for the draw.

Types of Entries	# Entries
Learning Hub Course Completion Submitted	84
POATSP Completion Submitted	2
Submissions from LOUD in the ED Participants	17
Submissions from non-LOUD in the ED Participants	69
Total Completed During LOUD	79
Total Entries	**86**

Table 3 – Summary of entries into the stethoscope draw.

Observations & Outcomes

This section examines the overall outcomes as indicated by a final survey that was sent to participating LOUD in the ED teams to collect feedback and also circulated among ED staff across the province for input on future learning initiatives.

Overall Survey & Results

A final survey was administered to gather data on the overall outcomes of LOUD in the ED.

This survey was shared with all ED staff across BC to assess needs and design for future education on OUD care. Any staff who completed the POATSP using LOUD in the ED funding, attended any LOUD in the ED webinars or participated in any initiative-related activities in their ED were invited to complete the survey. The survey was available online for two weeks from March 10-March 24, 2021.

Overall, there were 59 responses to the survey with representation from all regions of BC, notably:

- Slight overrepresentation from Island Health Authority (VIHA).
- 23 survey respondents participated in LOUD in ED.
- 71% of respondents were ED physicians.

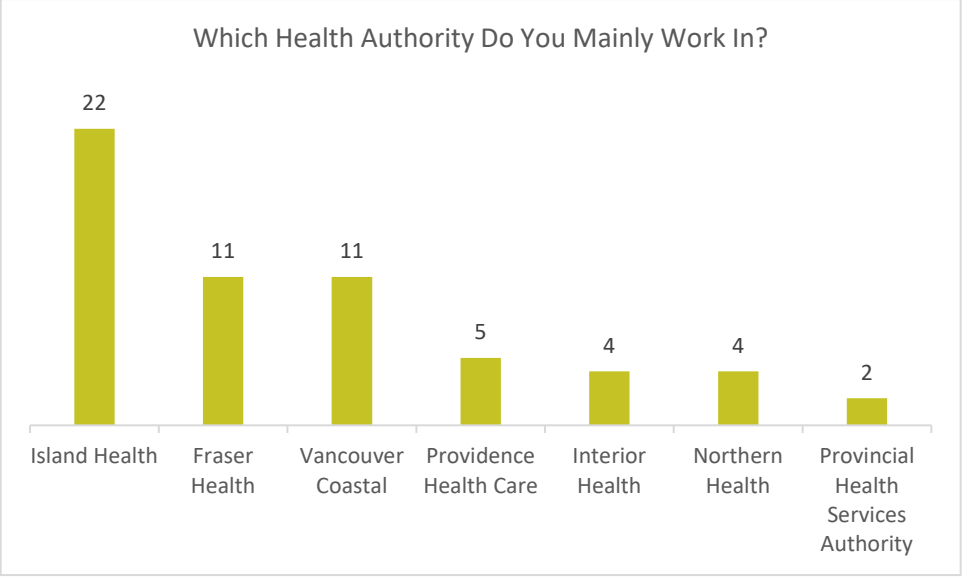


Figure 9 – Demographics of survey respondents.

The survey asked respondents about their participation in the LOUD in the ED activities:

- 80% of respondents had taken the POATSP, or were in the process of completing the POATSP.
- Of those who completed POATSP, 89% accessed the sessional funding to complete the POATSP.
- 38% of respondents attended more than half of the webinars and coaching calls.

The survey also asked respondents about their practice (Figures 11 -13):

- 64% of respondents discuss buprenorphine/naloxone with their patients either weekly or monthly.

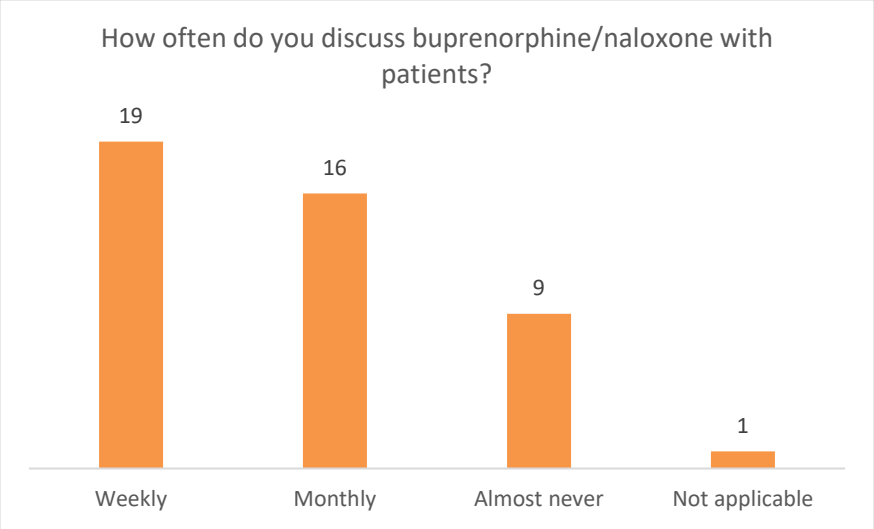


Figure 10 – Final survey results showing how often clinicians discuss buprenorphine/naloxone with patients after LOUD in the ED.

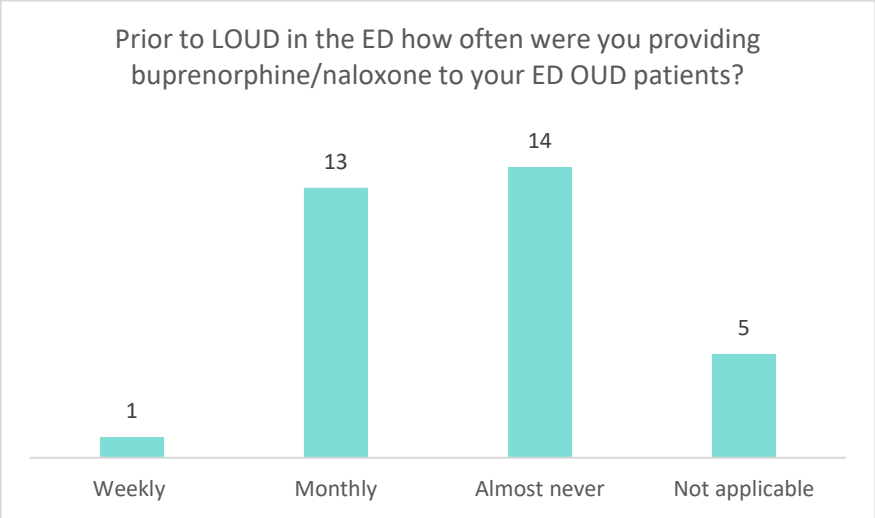


Figure 11 – Final survey results showing frequency that clinicians prescribed buprenorphine/naloxone before LOUD in the ED.

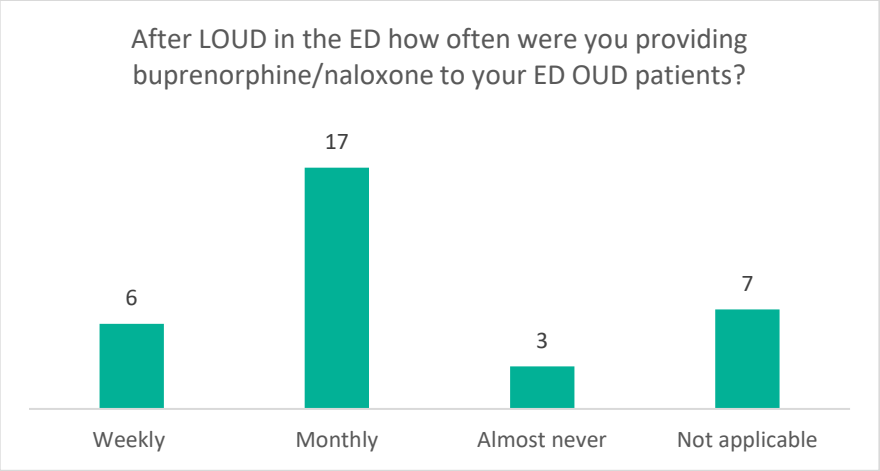


Figure 12 – Final survey results showing frequency that clinicians prescribe buprenorphine/naloxone after LOUD in the ED.

Lastly, the survey also asked respondents about their general impression of the LOUD in the ED:

90% of respondents greatly or somewhat improved their confidence in providing OUD care in the ED as a result of LOUD

77% of respondents indicated webinars were extremely or very relevant, with another 30% indicating they were somewhat relevant. Respondents also preferred an online course (27%) and webinar series (18%) as their preferred learning style.

88% of respondents would recommend participating in LOUD to a colleague

78% of respondents were satisfied or very satisfied with LOUD

Key Learnings

There were some key themes that emerged from the feedback and data collected throughout this initiative that have been captured below and organized below by process learnings (education initiatives within EDs, particularly during the rapidly changing context of COVID-19 and system recommendations (broader learnings highlighted through this initiative).

Process Learnings

Initiative Redesign During COVID-19 Pandemic

There was significant consideration at the onset of the pandemic regarding the bandwidth and availability for teams to participate in a collaborative. Despite these circumstances, only one of the initial 25 registered teams withdrew their participation due to changes in capacity. It should be noted that despite formally withdrawing, this team continued to be involved by presenting at one of the coaching calls to share their knowledge.

The scaled down approach from the collaborative model to an action series was intended to maximize opportunity for clinicians to participate in the learning sessions and activities, without relying on extra capacity to generate improvement ideas and test change ideas as is required for a collaborative. The virtual format worked well, consistently bringing in a representative audience from across the province, with a notably large contingent of physicians. Case studies and clinical topics had the most engagement and liveliest discussions, while activities recommended to complement each action period had lower uptake (30% completion). In part, it is understood that this is due to scheduling and reduced team capacity, however some participants noted that activities felt too abstract or difficult to complete within the current confines of the ED. Additionally, there was a general decline in participation in the second half of the initiative which may have been due to waning capacity to participate in the initiative, staffing constraints around COVID-19, or content interests.

Action Series Model & Delivery

There were requests for recordings of webinar videos; regular views as recorded on the online site indicated that there was interest and uptake in these (27 views). Shorter clips of the videos indicated a higher uptake, reinforcing the idea that 'bite-sized' pieces of information are key to offering digestible content. Feedback around the availability of staff to attend webinars was mitigated by variation in the webinar offerings schedule, as well as recording sessions for later viewings. It was also acknowledged that the longer session offerings had relatively higher attendance than the shorter webinars, and it is postulated that this was likely a result of the backfill provided for teams to attend the two half-day sessions on October 6, 2020 and January 14, 2021. Clinicians who attended the other sessions were often balancing their attendance with a busy caseload and clinical delivery.

Clinical content consistently performed well, as indicated by feedback as well as attendance and viewings of recordings, whereas there was lower interest in action period activities between learning sessions. There is some speculation if the action period model was the right fit for this initiative, as LOUD in the ED focused on providing exposure to and educating on new protocols, rather than adapting and promoting current best practice. An education campaign may have been more appropriate for sharing new guidelines, the POATSP changes and stigma reduction efforts rather than a quality improvement initiative. However, as a step-wise approach, the efforts of this initiative and sustained activities does posit a future quality improvement initiative measured through ED data and analytics.

Delivering this virtual action series to teams that were working and attending sessions in-person together offered opportunities for blended methods of engagement during activities. All virtual sessions were delivered through Zoom as it provided opportunities for breakout discussions. For example, it was important to integrate group work time during which some teams participated in a virtual breakout room, while others were able to mute and have the discussion in-person. There was also a strong interest in grouping participants together to focus on learning at a HA level. Other learnings include identifying and preparing facilitators for virtual group discussions in advance, and encouraging teams to mute and turn off cameras if in the event they had adequate in-person participation to have a discussion offline.

Funding Disbursement for Virtual Initiatives

When LOUD in the ED transitioned from a semi-in person collaborative to an entirely virtual learning series, the budget was adjusted to reflect the virtual model and needs of teams.

Funding for travel was re-allocated to support in-person teamwork at local sites (e.g., renting meeting space, refreshments). There was no uptake on additional funding from participating emergency departments. In part, it was understood that this reflects the constraints of the health care system at the time, as well as the administrative challenges to orchestrate the funds. In future, additional administrative consideration should be provided for this type of support. Broadly, given the shared nature of this initiative among multiple organizations, embedding additional accountability frameworks into the initial funding agreement may help to alleviate some of these concerns. As an example, additional financial management time was later supported through budget readjustments to support the POATSP funding disbursement.

Additional funding for clinicians to complete the new POATSP modules was a key tenet of the success of this initiative. Funding was considered a major enabler, as well as for clinician participation, and should be considered in future.

Faculty Collaboration

At the onset of this initiative, Faculty members from different regions were engaged to create a representative group of experts. Faculty involvement was a key goal of the initiative, however the impacts of COVID-19 – especially in the face of the exacerbation of the overdose crisis and the varied contexts of peer capacity – ongoing involvement proved challenging. Given the large number of other initiatives, work/life commitments of all Faculty, having diversity, as well as additional support is key to ensuring the voice of living and/or lived experience is well represented. Faculty had multiple commitments in related work across the province, and were often seconded to COVID-19 related priorities. The Faculty evolved to a smaller key representative group, bringing in ad-hoc members as adjunct faculty as necessary, offering opportunity to review by email, and additional members were added where possible. Adaptability was necessary and whenever possible, dyad presentations should be promoted (for all Faculty) to account for illness, capacity or emergency issues.

Faculty Involvement

PWLLE offer a different perspective and set of expertise to other clinical faculty. To this extent, thoughtful, strategic engagement should be adapted and built around their particular needs and contributions. For example, regular one-to-one meetings, project/module specific work, and predictable weekly hours all support consistent participation and steady employment. Allowing for one-to-one support builds confidence and relationships over time, and can enable more meaningful participation

and context to larger Faculty meetings. Regular hours also support consistent invoicing and timely remuneration. Additional support to provide more consistent, deeper involvement for PWLLE is recommended, such as more opportunities for peer-driven content creation.

System Recommendations

Systemic Change

One of the key challenges introduced by COVID-19 and the corresponding rapid changes in legislation (e.g., access to safer supply), and focus that emerged to support people with OUD, was that revisions and completion of the provincial education modules were delayed. This enabled additional input from Faculty and leveraged initial work from LOUD in the ED Faculty into new guideline development. However, repeated challenges have been faced across the province and HAs, due to a lack of clear provincial standardization and approaches that have been endorsed by all Colleges and embedded into all clinical practices and HA systems. For example, in some instances, changes on PharmaNet to automatically enable an adequate dosing for induction would require changes to operating practices in hospitals or HA. Work around measures being taken by clinicians remain difficult to adopt and adapt broadly without being endorsed and integrated into a provincial standard of practice.

Faculty identified several key system recommendations:

1. Make buprenorphine-to-go packs (BTG) available in every ED in the province, as has happened for take-home naloxone (THN) kits.
2. Remove any requirement that BTG (regardless of the number of required days of supply, for example up to 5-7 days) be posted to PharmaNet. There is a precedent in that post-exposure prophylaxis (PEP) starter packs are not posted to PharmaNet.
3. Provide provincial production support for BTG packs and education materials, either through direct provincial production like THN kits, or through support for each HA to produce and distribute. This includes increasing awareness of BTG packs among patients.
4. Provide support for microdosing buprenorphine bubble packs (mBTG) to all EDs. There is an acknowledgement that due to drug shelf-life concerns, a provincial manufacturing solution may not be feasible. In that case, the provincial government should financially and logistically support HAs/hospitals in making mBTG accessible. Government should remove all regulatory barriers to mBTG.

Addressing Stigma & Trauma- and Violence-Informed Care

One of the key pillars identified throughout this initiative was around decreasing stigma and increasing the use of trauma- and violence-informed care (TVIC). A growing body of research has looked at the deep-seated nature of stigma, and the growing amount of compassion fatigue in the health care setting – especially during COVID-19. Measuring stigma is a difficult and challenging task due to the nuance of how it can show up in care and the ethical/logistical considerations around data collection, as well as the lack of psychometrically tested tools. Evidence has noted one of the most effective ways of eroding stigma is to employ people with lived and/or living experience of substance use. During LOUD in the ED, effort was made to integrate as much of this perspective as possible through involvement of Faculty with lived and living experience as subject-matter experts who could speak to the experience of accessing care. These poignant moments were specifically noted in group evaluations among participants. However, it was also noted that there was lower attendance for several sessions focusing exclusively on TVIC (could potentially be due to holidays, scheduling or COVID-19). Participants who

were interested in the outcome data that support TVIC generally also have already adopted some elements into their care practices. Practitioners or champions of TVIC were encouraged to spread awareness of this practice across clinician cohorts. With a greater uptake of TVIC among practitioners and prescribers, stigma may decrease as a result. Hence, it is important to integrate these approaches in educational materials, decision support tools and algorithms, language and modelling work in OUD care to ensure patients feel safe while accessing care in emergency departments.

Measurement & Engagement Burden During Dual Public Health Emergencies

Teams indicated that they struggled with the longitudinal relationship of data collection. In part, this arises from the stigmatized nature of data collection in the first place. For example, all incidents of 'Substance Misuse' fall under the same code under the Discharge Abstract Database, making a comprehensive analysis of OUD cases from a provincial or data query difficult. This results on the brunt of data collection falling on the discernment of clerks and clinicians to collect manually, or through chart review (assuming that adequate information has been captured), as well on the disclosure of people with OUD, and in that it is the patient's presenting complaint. Over time, the potential to pull related data from PharmaNet may result in easier data collection. It was also noted that this shift in practices of manual collection and awareness instigated the slow start of system change in many of the sites (e.g., development of Buprenorphine-to-go packs). However, these changes happened late in the initiative for changes in patient health outcomes to be captured. In the future, distribution of printed educational materials, as well as the uptake and distribution of these to-go packs could be tracked as process outcome measures to capture patient experience. Such data would be useful and insightful to create care models that improve OUD care for patients. It is to be noted that COVID-19 restrictions on stocking and distribution of resource materials may further present challenges in tracking this type of data. Staff who would generally be in positions to capture data may be further tasked with screening requirements, which offered additional deterrents to data collection.

Beyond presenting symptoms and Pharmanet data, tools to address stigma are still developing. The ethical and logistical issues working with those receiving care, especially given social distancing requirements during COVID-19 were considered beyond the scope of this report. Additional data, and additional resources devoted to better understanding and collecting information around OUD and this population will further enable program and policy understanding for improvement work in the future and should be addressed at a provincial level.

Sustainability of Networks & Initiative Learning

The final survey included questions devoted to understanding the ongoing and persistent education needs amongst clinicians. Survey responses provided a systems level perspective that webinars and pre-recorded sessions, as well as online coursework were looked to as key preferred modes of education.

Persistent, condensed, supported, accredited educational content targeting their learning to specific elements of OUD care in ED settings remained a key component and request of clinicians. Based on the participant feedback, some form of education offerings was identified as missing between the more extensive POATSP and the short Learning Hub module on buprenorphine/naloxone. As such, BCCSU will be hosting a webinar series that is developed in consultation with Faculty members to address this learning gap. The content will be clinically oriented and aligned to survey responses gathered from LOUD participants.

There is the ongoing need and desire for this community of practice to have ongoing access to new learning resources and programs, as well as a supportive forum for implementing knowledge into practice. This was demonstrated by ongoing requests from Faculty and participants. Resources are currently hosted on the Council website, however a plan for legacy hosting and responding to related questions should be developed moving forward. This could include a clinical provincial group that includes hired people with lived and living experience to address emerging issues and continue to have a dedicated space to discuss challenges and help enact change.

Sustainability

As highlighted throughout this report, the LOUD in the ED initiative has enabled significant strides forward in the expansion of OUD care and services throughout BC. At the start of this initiative, external stakeholders engaged in the project design had stated that many EDs did not want to prescribe or start OAT for patients despite the ED being a key contact point for patients overdosing or seeking treatment. Similarly, while some ED prescribers were willing to initiate OAT, there were many gaps and issues identified to smoothly transition patients to community prescribers who are able and willing to continue the opioid use disorder care. Consequently, this meant patients were leaving the ED either without a prescription entirely, or with a prescription but with no way of continuing treatment or renewing the prescription after discharge, putting them at significant risk. LOUD in the ED focused on addressing these two key issues through its five-part virtual action series among the participating EDs, however, further work needs to be done to help provincialize ED protocols for buprenorphine/naloxone inductions, build practice supports for better connections to accessible community providers (particularly in rural and remote communities), and enable the provision of sufficient carry doses of medication upon ED discharge. Future work will also need to emphasize other OAT options to help ensure that all patients with OUD that utilize the ED can access life-saving treatment that works for them and their treatment goals.

While LOUD in the ED sparked efforts to improve OUD care pathways, much of this work has continued to be highly regionalized, leading to variability and inconsistencies across the province. The LOUD in the ED collaborative recommends further funding supports to help mobilize the systematic change needed to address the imminent risks to patients and enable EDs to play an enhanced role in minimizing future harms. BC has previously modelled a provincial strategy in response to the opioid crisis through the "take-home naloxone" initiative[6], led by the BC Centre for Disease Control. Given the safety profile of buprenorphine/naloxone, provincial ED strategies to address the opioid crisis must include removing policy, financial and logistical barriers to medication dispensation directly at emergency settings. There were also lessons shared from the Alberta provincial health model as to how a harmonized health authority can help break down silos and enact a more provincial strategy to treat substance use in the ED setting.

To support the sustainability of the LOUD in the ED initiative, the BCCSU has convened a small internal working group with Faculty members to generate strategies and a workplan to take the necessary next steps to move forward with systematic changes provincially and nationally. This work will be submitted outside of LOUD in the ED and this final report, but will be in alignment with the key findings and recommendations made. Lastly, the future work and next steps will be done in consultation with the Canadian Research Initiative in Substance Misuse (CRISM), to support sustainability and alignment with national strategies and initiatives.

[6] BC Centre for Disease Control Harm Reduction Services. Toward the Heart: Take-Home Naloxone Program [Internet]. 2021. Available from: https://towardtheheart.com/naloxone

Conclusion

LOUD in the ED was a quality improvement initiative led in partnership by the BC Patient Safety & Quality Council, BCCSU and OERC that aimed to improve ED care for people with OUD across BC. From October 2020 to February 2021, 24 ED teams participated in a virtual action series that provided learning sessions, coaching and activities to drive improvement areas according to four main drivers: clinical best practice, education strategies, person- and provider-centred care, and bridging from ED to community care.

Due to the COVID-19 pandemic, this initiative was postponed and redesigned to be delivered virtually and made to be highly adaptable to the needs of teams as dual public health emergencies continued to unfold. This revised timeline provided opportunity for additional Faculty input to develop the ED DST, a new provincial resource for clinical decision making and standardizing recommended practices. Additionally, the Faculty supported the BCCSU in developing the new POATSP modules for clinicians practicing in acute care settings. Through LOUD in the ED, 141 physicians were funded to complete these modules, thus increasing the OAT prescribing capacity within the province. When the initiative launched in October 2020, participants numbers waned over the course of six months, however there was a core group that remained highly engaged in discussion and sharing.

Lessons learned from LOUD in the ED highlight the importance of designing and delivering an initiative with a model that is appropriate for the context, allocating sessional funding to enable participation for diverse clinicians, and having appropriate resources to support Faculty involvement throughout, particularly for PWLLE. Several key system recommendations were identified as well, including provincial standardization, fostering TVIC and reducing stigma, addressing barriers to data collection and legacy planning to maintain networks and build upon learning in the future.

Following LOUD in the ED, the BCCSU and a sub-committee of Faculty will partner to build upon the learnings captured in this report to develop a plan to move the recommendations forward and continue to push for system change.

Appendices

Appendix A – Faculty

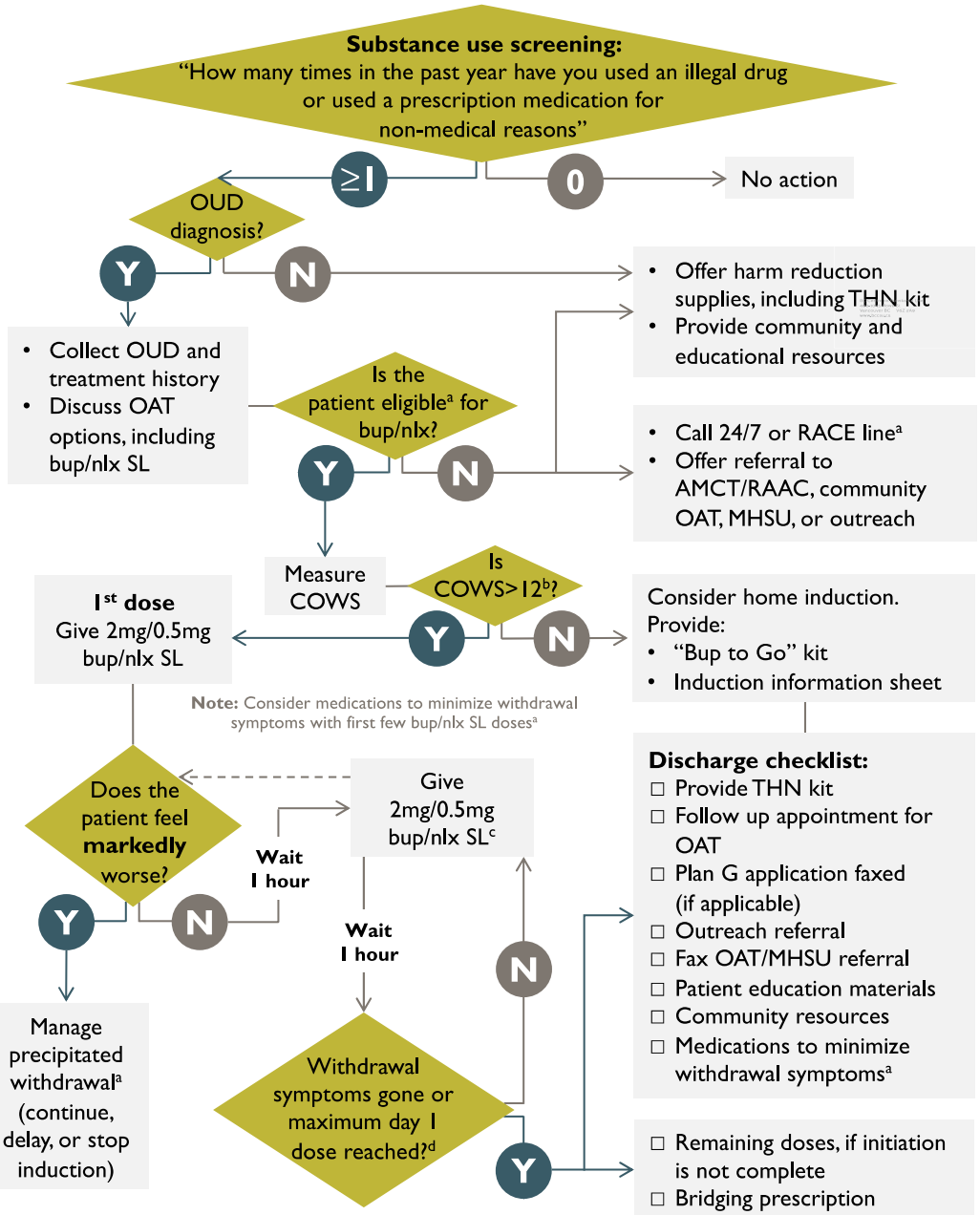
Faculty as recruited to represent expertise from across BC and in Addiction Medicine, Emergency Medicine and Nursing, Pharmacy and People with Lived and/or Living Experience. Faculty members have been listed below in alphabetical order.

- Andrew Kestler, Emergency Department Physician, St. Paul's Hospital, Providence Health Care
- Caleb Siegler, Person with Lived & Living Experience
- Cindy San, Emergency Department Pharmacist, Vancouver Coastal Health
- Emma Garrod, Clinical Nurse Educator, Vancouver Coastal Health
- Erika Kellerhals, Addiction Medicine Specialist/Regional Addictions Lead, Island Health
- Guy Felicella, Peer Advisor, BC Centre for Substance Use/Vancouver Coastal Health/Overdose Emergency Response Centre
- Hanke de Kock, Addiction Medicine Specialist/Regional Addictions Lead, Interior Health
- Jane Mushta, Clinical Nurse Educator, Interior Health
- Jason Wale, Emergency Department Physician, Island Health
- Laura Shaver, Peer Advocacy Navigator, BC Centre for Substance Use
- Melissa Allan, Emergency Department Physician, Fraser Health
- Sharon Vipler, Addiction Medicine Specialist/Regional Addictions Lead, Fraser Health
- Shawn Wood, Person with Lived & Living Experience
- Reija Jean, Peer Advocacy Navigator, BC Centre for Substance Use

Appendix B – Decision Support Tool

Emergency Department Buprenorphine/naloxone Induction: Decision Support Tool

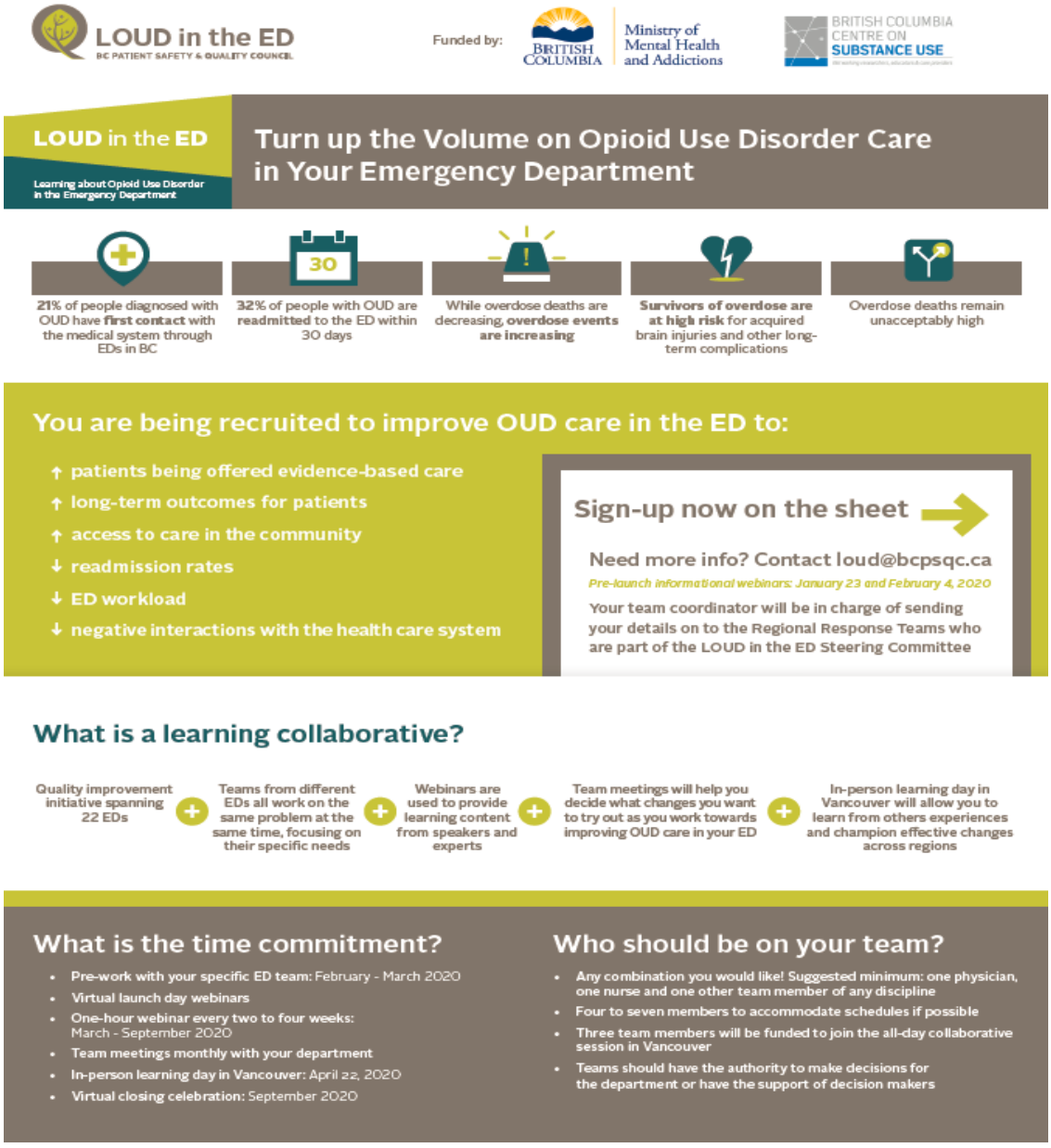
To be used in conjunction with hospital-approved pre-printed order sets for buprenorphine/naloxone induction



Abbreviations on overleaf.

[a]See overleaf; [b]If COWS is approaching >12, consider waiting to allow an ED induction; [c]Once the patient reaches 6mg/1.5mg bup/nlx SL, their COWS has consistently decreased, and there is no sign of precipitated withdrawal, it may be appropriate to increase to 4mg/1mg bup/nlx SL per hour; [d]Bup/nlx SL can be titrated up to a total first day dose of 12mg/3mg to 16mg/4mg bup/nlx SL. In some instances, it may be appropriate to exceed 16mg/4mg bup/nlx SL based on patient comfort and clinical discretion.

Appendix C – Call to Action



Appendix D – Participating Teams

Fraser Health	Interior Health	Vancouver Coastal
Royal Columbian Langley Memorial Surrey Memorial Abbotsford Regional Chilliwack Hope Peace Arch	Williams Lake Vernon Kamloops Kelowna	Lion's Gate Sechelt Squamish Vancouver General
Island Health Authority	**Northern Health Authority**	**Providence Health Care**
Royal Jubilee Victoria General Nanaimo Regional Campbell River Courtney/Comox	Prince George Hazelton Fort St. John	St. Paul's

Appendix E – POATSP Required Modules by Stream

	ORAL OPIOID AGONIST TREATMENT TRAINING	
	COMMUNITY SETTINGS	ACUTE CARE SETTINGS (HOSPITALISTS AND ED)
1: Overview of Opioid Use Disorder	X	X
2: Trauma Informed Care	X	X
3: Triage, Assessment and Treatment Planning	X	X
4: Urine Drug Testing	X	X
5: Harm Reduction	X	X
6: Health Promotion for People with OUD	X	
7: Methadone - Pharmacotherapy	X	X
8: Methadone - Safety	X	X
9: Methadone - How to Write a Prescription	X	X (optional)
10: Buprenorphine + Naloxone - Pharmacotherapy	X	X
11: Buprenorphine + Naloxone - Induction	X	X
12: Home Induction of Buprenorphine + Naloxone	X	X
13: OAT Continuing Care	X	
14: Transitions between Opioid Agonist Treatments (Optional)	X (optional)	X (optional)
15: OAT and Pregnancy	X	
16: Buprenorphine + Naloxone - How to Write a Prescription	X	X
17: Slow Release Oral Morphine (SROM)	X	X (optional)
18: Polysubstance Use while on OAT	X	
19: Comparing Methadone and Buprenorphine + Naloxone	X	X
20: Youth with Opioid Use Disorder	X	
21: Strategies to Prevent Diversion	X	
22: Treating Opioid Use Disorder - Rural Context (Optional)	X (optional)	X (optional)
23: Opioid Use Disorder and Acute Care Hospital Settings		X
24: Buprenorphine/naloxone in Acute Care Hospital Settings		X
25: Injectable OAT (iOAT)	X (optional)	

Upon completion of the new modules, clinicians should be able to:

- Describe the importance of OUD care in acute care hospital settings, including EDs;
- Apply person-centered care to OUD treatment;
- Identify and manage patient needs when admitting patients with OUD;
- Identify and manage patients' OAT;
- Manage acute pain in patients treated with OAT;

- Describe the importance of acute care hospital settings in buprenorphine/naloxone induction;
- Determine whether buprenorphine/naloxone is appropriate for a given patient;
- Determine whether buprenorphine/naloxone induction in an acute care hospital setting or at home is most appropriate for a given patient;
- Safely initiate buprenorphine/naloxone in acute care hospital settings; and
- Plan patients' discharge.

Appendix F – Full List of Session Topics, Presenters & Descriptions

Session	Title/Topic	Speaker(s)	Description Provided to Participants
LS1	Recommended Clinical Decision Support Tools	Project Team Andrew Kestler Melissa Allan Reija Jean Guy Felicella Sharon Vipler	
CC1.1	Clinical Case Study	Andrew Kestler Emma Garrod	Join us for our first Coaching Call as Dr. Andrew Kestler and Clinical Nurse Educator Emma Garrod delve into their process of developing Buprenorphine to Go in the St. Paul's ED. They'll be reviewing lessons learned, from everything around dosing to the logistical challenges of packaging, as well as reviewing some case studies about the refinement of their process.
CC1.2	Pharmacy	Cindy San Katherin Badke	Join us for our second coaching call with Katherin Badke, a Clinical Pharmacy Specialist at Vancouver General Hospital, and Dr. Cindy San, a Clinical Pharmacy Specialist at St. Paul's Hospital. Together they will be covering the intricacies of microdosing in the ED setting, discussing challenges their departments have faced, and providing the information you need to know when providing microdosing in your own department.
LS2	Clinical Education and Strategies	Amanda Giesler Andrew Kestler Emma Garrod	We are excited to walk you through important education pathways that will support you to clinically manage opioid use disorder with buprenorphine/naloxone. We will also discuss funding and prize mechanisms available to support you to complete this education, and our required action period items over the following week
CC2.1		Amanda Giesler Emma Garrod	Want some further support pertaining to the education pathways available to you or how you can encourage members of your team to complete them? Join this coaching call with two of our education experts from the BCCSU to have all your questions answered
CC2.2		Andrew Kerr Christine Rutherford David Stoll	Want to hear from an ED team that has practical experience embedding a Suboxone® program within their ED? Dr. David Stoll, Andrew Kerr, and Christine Rutherford from Interior Health Authority will be sharing their implementation strategy, including PPO development, education initiatives, and important

			medication considerations. You'll also get a chance to ask your own implementation questions to these three experts.
LS3	People- and Provider-Centred Care	Vicky Bungay	Action Period 3 is focused on Person- and Provider-Centred Care and we are delighted to be kicking off this Action Period with Vicky Bunga, EQUIP Team Member and a faculty member from UBC's School of Nursing. EQUIP Health Care is a research and implementation program that involves health equity interventions implemented in a range of health care settings. The interventions are designed to enhance organizational capacity to provide equity-oriented health care, particularly for those who experience significant health and social inequities.
CC3.1		Sarah Levine Wendy Stevens Amelia Birch	
CC3.2		Reija Jean Mona Kwong	For this coaching call, Reija Jean and Mona Kwong will facilitate a discussion about interpersonal effectiveness in clinical care encounters. The goal of this coaching call is to review communication skills that can help teams improve patient and provider safety. Please feel free to come with specific scenarios or questions in mind so we can make the most of our time together.
LS4	Connection Continuum: Bridging Community and ED Care	Guy Felicella Aseem Grover Jason Wale Vic Jordan Chris Kriek April Price	What happens after people are discharged from an ED? Navigating community resources and refining referral pathways are a vital part of an OUD related ED visit. What exists in your community? How can you better integrate the resources you have to ensure transitions happen smoothly? What kinds of questions are you asking? Join us for our second interactive half day learning session as we explore what's working from teams and leaders across the province, as well as working through quality improvement activities in broader regional groups! We hope to see you there!
CC4.1		Aseem Grover Melissa Allan Jason Wale Erika Kellerhals	Join us tomorrow over lunch with LOUD in the ED faculty from across the province. We will be collaboratively facilitating a case study review around someone presenting with OUD. Bring your questions and insights around discharge planning and community referrals. We'll be looking at similarities and differences across the province, as well as exploring the strengths and challenges from all sizes of communities. This is the perfect opportunity to apply and explore learnings to date.

LS5	Celebration & Wrap-Up	Project Team Christina Krause Cheyenne Johnson	
CC5.1		Heather Hair	Leveraging the benefits of the centralized healthcare system in Alberta, a standard care approach for patients who live with OUD care during ED visits was created and implemented in 108/108 ED sites (and both paediatric sites) across the province. A sustainable provincial protocol and referral pathway was created, through engagement of key subject matter experts during the evidence-based program development. Join us Wednesday, February 17 from 1330-1430 with Heather Hair, formerly the ED of Alberta's Emergency Strategic Clinical Network (now ED of Emergency Services at Interior Health) to examine key learnings, and discuss our collaborative key system learnings to be incorporated into our findings of this initiative.

Appendix F – Transitions of Care Planning Checklist

Audit – Transition of Care Checklist

Checklist	In Place	Gap for Future	Priority	Improvement Objectives
Provide THN kit	☐	☐	☐	
Buprenorphine-to-go package	☐	☐	☐	
Follow up appointments for OAT	☐	☐	☐	
Plan G application faxed (if applicable)	☐	☐	☐	
Outreach referral	☐	☐	☐	
Fax OAT/MHSU referral	☐	☐	☐	
Patient education materials	☐	☐	☐	
Community resources	☐	☐	☐	
Medication to minimize withdrawal	☐	☐	☐	

Appendix G – Session Recordings

All LOUD in the ED sessions were hosted virtually using Zoom and were recorded and posted on the LOUD in the ED resource page on the BC Patient Safety & Quality Council website for participants to view at any time.

The following summarizes the number of video views from October 6, 2020 (initiative launch) to March 31, 2021 (six weeks after the initiative ended).

Total Number of Videos	27
Total Number of Video Views	105
Most Watched Video	LOUD in the ED | Session 1 | Decision Support Tool
Total Number of Videos Finished	34
Average % of Video Watched	48%