# Implementation Facilitators and Barriers to the Expansion of a Peer-led Overdose Prevention Program

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In Canada, there has been a substantial increase of opioid overdoses in recent years. PROFAN, a peer-led overdose prevention initiative, was successfully implemented in Montreal, Quebec, for people who use drugs (PWUD), or those likely to witness overdoses. The worsening of the situation during the COVID-19 pandemic sparked the need to expand the program across the province. Individual interviews were conducted with 17 key informants from 12 health regions to identify implementation facilitators and barriers. A thematic analysis was conducted based on emerging themes. Four main facilitators were reported: 1) presence of an active peer network involved with harm reduction in the region, 2) collaboration among community and public health sectors, 3) stakeholders' awareness of opioid situation, and 4) perceived appropriateness of training. Six main barriers also emerged: 1) geographical isolation, 2) existing offer of similar services, 3) difficulty reaching isolated PWUD, 4) stigmatization of PWUD, 5) unwillingness of stakeholders to address situation, and 6) lack of funding stability. The expansion achieved by the PROFAN program highlights the ability of a peer-driven community organization to lead an overdose prevention program when provided with funding and support from government health agencies and partnerships with other organizations such as addiction worker associations.

Keywords: opioids; overdose prevention; facilitators; barriers; implementation; peers

## Introduction

In the wake of the North American opioid crisis, Canada has recorded substantial increases in fatal and non-fatal opioid overdoses in recent years (Public Health Agency of Canada, 2020), rising to 21,174 apparent opioid toxicity deaths between January 2016 and December 2020. In this context, the Canadian opioid overdose prevention strategy was developed, drawing on notions of harm reduction, notably by mobilizing communities around interventions designed to increase the availability and accessibility of medication that can reverse opioid overdoses (naloxone), and to provide education and training on opioid overdose prevention (CDPC, 2013; Leece et al., 2019). These interventions include naloxone training programs, which have been deployed to distribute naloxone kits and provide training to individuals at risk of having an overdose, or those likely to witness and respond to an overdose situation (MacDougall et al., 2019; Perreault et al., 2021). The implementation of these training programs varies according to numerous factors, including the regional need and demand for an opioid overdose prevention response (Perreault et al., 2021). Naloxone trainings have received growing attention from researchers, as many authors are calling for a better understanding of their implementation (Leece et al., 2019). Given the elevated death rates, the number of people trained to detect overdoses and administer naloxone appears crucial (Government of Canada, 2021a). To reduce the occurrence of lethal overdoses, it is therefore important to maximize the implementation of peer-based naloxone trainings in high-risk regions (Hanson et al., 2020).

### *The PROFAN program and its expansion*

Over the years, in the province of Quebec, Canada, opioid overdose deaths also reached elevated levels, especially in Montreal, its largest city (INSPQ, 2021). As a response to this situation, the PROFAN program (Prevention and reduction of overdoses – training [‘formation’] and access to naloxone) was developed in 2015 by Méta d’Âme, a peer-led community organization offering support and services for persons who use, or who used opioids. PROFAN provides training how to identify signs of a potential opioid overdose,

how to intervene in an overdose situation, and how to administer naloxone, an antagonist that reverses the effects of an opioid overdose. The day-long, in-person training is administered by peers, and also includes a specialized cardiopulmonary resuscitation (CPR) course. PROFAN was successfully implemented in Montreal for people at risk of experiencing an overdose, or those likely to witness and respond to overdose situations (Perreault et al., 2021). PROFAN initially targeted people who use opioids (PWUO) and their entourage to provide training on prevention, harm reduction, emergency naloxone administration, CPR, and post-overdose support (Ferlatte et al., 2021 [unpublished report]; Perreault, Ferlatte, Artunduaga et al., 2021), but the program was adapted in 2018 to include a second clientele consisting of community workers (any worker from a local organization likely to witness or respond to an overdose) and was made available to all people who use drugs (PWUD) (Ferlatte et al., 2021). This adaptation was facilitated by a partnership established with the Association des intervenants en dépendance du Québec (AIDQ), an association for addiction workers in Quebec. Since its implementation, there has been an increasing need and demand for this program, not only in Montreal, where it originated, but across the province of Quebec, prompting its expansion into other health regions (HRs).

During the COVID-19 outbreak, the situation worsened in Canada, with an 89% increase in death rates between April and December 2020 compared to the same period in 2019 (Government of Canada, 2021b). In Quebec, from June 2021 to July 2022, it was suspected that there were 490 deaths related to opioid or other drug intoxication (INSPQ, 2022). This further sparked the need to expand the PROFAN program to other HRs within the province. Each HR has its own public health directorate and groups together different community organizations, which are usually more condensed in urban areas (over 2 million people in Montreal), and rather spread out in rural areas, with as few as 90 000 people (Government of Quebec, 2018).

In this study, the facilitators and barriers affecting the implementation of PROFAN are explored in the context of the program’s expansion.

### *Framework for the evaluation of program implementation*

To conceptualize and evaluate program implementation, Proctor et al. (2009, 2011) created a taxonomy of conceptually-distinct implementation outcomes regarding the conditions and processes necessary to put a treatment, service, or program in place. These outcomes can be used to model implementation success and guide researchers to develop strategies and predictors of their attainment (Proctor et al., 2011). Proctor's nomenclature has proven useful in program implementation research (e.g., Meza et al., 2021), and has recently been used to frame the study of naloxone programs (Teeter et al., 2021; Wood et al., 2021; Perreault et al., 2021; Perreault et al., 2022). Overall, the outcomes are said to be interrelated in dynamic and complex ways and are likely to fluctuate, while also having varying saliency among stakeholders (Proctor et al., 2011).

This study draws from Proctor et al.'s taxonomy (2011), to describe the implementation outcomes observed during the expansion of PROFAN. In this context, reference is made to the following outcomes: "adoption," which is the *intention, initial decision, or action to try or employ* a program. Regions were identified as having adopted the program for both clienteles (PWUD and their entourage and community workers), one of these clienteles, or for neither. "Acceptability," or the perception that a program is *agreeable or satisfactory*, "appropriateness," which refers to the *perceived fit, relevance, or compatibility* of the program, "feasibility," the *extent to which a new program can be successfully used or carried out within a given setting* and "penetration," the *integration of a practice within a setting*, were also explored.

### *Facilitators and barriers affecting program implementation reported in literature*

Across literature, several facilitators and barriers that can affect the attainment of implementation outcomes have been identified. With respect to facilitators for naloxone program implementation, having collaborative parternships and being established in prevention efforts was reported by Rudisill et al. in their 2021 study. Another factor that

can facilitate program implementation involves placing emphasis on the importance of peer networks and involving PWUD in initiatives (Wojcik, 2021). Accordingly, Leece and colleagues (2019), suggest that community partnerships can be enhanced by involving people who have lived experience of substance use.

Furthermore, certain contextual factors can also influence the implementation of such programs. Elements such as the demand for naloxone training and need for protection from overdose (Rudisill et al., 2021), accessibility of naloxone (availability, wide distribution, low prices, providing naloxone during training), and being able to offer varied naloxone kits, such as those including both auto-injectors and nasal sprays (Cid et al., 2021; Drainoni et al., 2016; Strang et al., 2019; Young et al., 2019), have been reported.

The main barrier that emerged from the review of literature on naloxone programs was stigma and discrimination toward PWUD (Rudisill et al., 2021; Dwyer et al., 2016, Winstanley et al., 2016; Leece et al., 2019; Martignetti & Sun, 2022; Van hout & McElrath, 2012; Stanojlović & Davidson, 2021; Goodyear et al., 2020).

Studies have also indicated that program implementation can be hindered by resistance from organizational structures and staff (Cid et al., 2021; Bowles & Lankenau, 2019; Drainoni et al., 2016; Eswaran et al., 2020; Rudisill et al., 2021; Strang et al., 2019). Lack of access to naloxone has also been reported (Straus et al., 2013), as well as the inability to secure naloxone for dispensation or the required funding for a supply (Cid et al., 2021; Eswaran et al., 2020; Young et al., 2019).

Additional studies show that certain contextual factors can also negatively impact a program's implementation, such as geographical limitations, limited resources, and the enforcement of certain policies, especially in rural areas (Cid et al., 2021; Young et al., 2019). Furthermore, the cost of naloxone and related training can play a role (Cid et al., 2021; Strang et al., 2019; Salvador et al., 2020, Teeter et al., 2021), as well as regulations surrounding naloxone (prescription-only status in some countries; Eswaran et al., 2020; Strang et al., 2019; Young et al., 2019).

Overall, facilitators and barriers have often been described in literature with respect to the implementation of overdose prevention and naloxone administration programs set forth by governmental instances and due to policy implementation. However, little is known regarding these factors for peer-led programs, which is one of the unique aspects of the PROFAN program. In this article, the facilitators and barriers involved in the implementation of the peer-driven PROFAN training during the expansion of the program are explored.

## Materials and Methods

To inform the decisions of the peers leading the PROFAN program, a participatory evaluation method was selected to guide the expansion of the program. Participatory research involves conducting research with, rather than on, participants, to foster collaboration among all parties (Bussu et al., 2021). As key stakeholders, the PROFAN team was directly involved in key steps of the evaluation process (funding, data collection and interpretation, and dissemination of results) to encourage their empowerment and autonomy. The goal of this approach was to build their ability to monitor the activities associated with their program and evaluate the perspectives of other stakeholders in order to improve it. Their involvement as experiential experts also aimed to improve the content validity of the measurement tools and the interpretation of the results, based on their feedback. In the context of the PROFAN project, the participative method was also retained to optimize their uptake of the findings (Gujit 2014).

A preliminary contact was made by the PROFAN program coordinator with stakeholders from the 17 HRs of Quebec to propose its implementation (Montreal, the 18$^{th}$ HR was not included, as the training was already implemented in this region). Key informants were then identified and contacted to take part in an interview to detail the implementation process in their region. A purposive sampling method was used, which involved selecting participants who were most likely to hold important, useful and appropriate information regarding the situation in their particular HR. They were deemed to be well-informed, willing to participate, and able to communicate their thoughts and experiences in an

articulate and reflective manner (Etikan et al., 2016). They consisted mainly of directors or coordinators of regional community organizations (shelters, proximity community groups, prevention-oriented community groups, members of opioid concertation tables). Among the 17 regions, individual interviews took place with key informants from 12 of these HRs (five regions had two key informants each, and the others had one key informant). Two of the HRs chose to not take part in the research, and the remaining three had not implemented the training at all due to geographical constraints.

An interview protocol was developed by the research team, in collaboration with the PROFAN team. The interview protocol involved three main themes: 1) the local situation regarding opioid use and overdoses (including information specific to each HR, such as substances commonly used in the region, existence of local trainings, perceived collaboration between both community and public sectors in overdose prevention, and stakeholder acknowledgement of the regional opioid situation, as well as implementation data such as the number of training sessions organized and number of participants); 2) perceived implementation facilitators, and 3) barriers when attempting to implement the PROFAN program in their region.

In line with the participatory evaluation method, semi-structured interviews were conducted by the PROFAN project coordinator (a trained anthropologist with experiential knowledge of substance use problems) after receiving additional guidance and preparation from the research team. Each interview lasted between 45 and 80 minutes, and was recorded in order to be fully transcribed. Transcriptions were produced and validated by the research assistant.

Participant responses were examined using thematic analysis (Paillé & Mucchielli, 2016), focusing on facilitators and barriers to the program's implementation in other regions, as well as contextual factors and related outcomes. A content analysis grid was created based on emerging themes, which were identified through the consultations when they were mentioned at least once by key informants.

Qualitative data was synthesized into themes, and the recurrence of these themes was computed. Themes were then classified into categories by the research assistant, and validated by the PROFAN program coordinator who performed the interviews (Paillé & Mucchielli, 2016).

Ethics approval for this study was obtained from the Research Ethics Committee on Addiction, social inequality and public health of the Integrated university health and social services centre of the Montreal South-Centre.

## Results

In addition to Montreal, the PROFAN program was implemented in 13 of the 17 other Quebec regions in which it was proposed. The four remaining regions did not implement the training due to the obstacles reported below. Individual interviews were conducted with 17 key informants from 12 HRs. Four main facilitators were identified by respondents, as well as six barriers.

### *Facilitators to the implementation of PROFAN during its expansion*

Four main facilitators were identified by key informants: 1) the presence of an active peer network involved with harm reduction in the region, 2) the collaboration among community and public health sector partners, 3) the awareness of opioid situation by stakeholders, and 4) the perceived appropriateness and acceptability of the training by stakeholders.

#### *1) Presence of an active peer network involved with harm reduction in the region*

One of the main facilitators to the implementation of the PROFAN program in other HRs was the presence of a strong and active peer network in the community. These consisted of peer networks that supported and were involved with harm reduction strategies, and that encouraged the involvement of PWUD in the implementation of initiatives. Given

that PROFAN is a peer-driven initiative, initiated by a community organization, the team was easily able to connect with other community organizations and peer-led groups in regions with strong peer networks to promote and organize training sessions. As such, the stronger the network of peer-driven and community organizations in the HR, the more visibility was given to the program, making it easier to gather support and partnerships to advance its implementation, notably from governmental instances who could also provide financial assistance for the program. For all HRs that were able to adopt the program for either one or both clienteles, it was reported that the main facilitator was having a solid, active peer network and strong peer involvement. In one interview, a key informant explained that the inclusion of peer trainers within the training was a key element in facilitating the program's acceptability and appropriateness:

> *The delivery is not the same (if it is someone who does not have experiential knowledge). […] If you bring in someone close to the reality, who knows these people, who really says what's actually going on, people are going to listen and feel engaged.* [ID 14]

According to a second key informant, '*A PWUO who has refused services for years will receive the training far more readily if it comes from a friend. The bond of trust makes a big difference, when it is a peer.*' [ID 16]

*2) Collaboration among community and public health sectors*

Having strong collaboration among community organizations was further enhanced by partnerships between the community and public health sectors. Again, for all HR who were able to implement the training for one or both clienteles, key informants reported this as being a key facilitator. According to informants, this helped to foster the adoption of PROFAN and the initial decision as to whether it would be implemented. The adoption of PROFAN was enhanced by strong collaboration among partners, both from the public health and community sectors, which in turn, was facilitated by having the right people acting as bridges among the different organizations, especially in light of the many structural changes taking place within the public health sector at the time:

> *(The collaboration) is facilitated by people first. The structure of the public health sector has changed a lot […] so a couple of service trajectories had to be rebuilt. We have resource people. We know who to contact, and they'll facilitate things for us. Sometimes, we need a medical reference, or someone specialized in substance use, we need an access point to talk to them. We've lost a lot of trajectory services with the fusion, but thankfully, the people are still there.* [ID 14]

*3) Awareness of opioid situation by stakeholders*

Key informants were questioned regarding the situation in their region as it pertained to opioid use and overdoses. They were asked whether they perceived that organizations in their HRs were aware of the current situation and of the presence of PWUO in their clientele. It was reported by 11 key informants that the adoption of the program was often linked to stakeholders and regional organizations being fully aware of the opioid situation. For one HR in particular that had adopted the program for both clienteles, it was reported that stakeholders had a strong awareness of the opioid problem in their area and its impact, and therefore considered the training to be necessary and appropriate for both PWUD and their entourage and community workers. The key informant for this HR reported that the number of annual hospital admissions for opioid toxicity was high in this region, which sparked interest in the development of a prevention initiative. More specifically, opioid use problems in this HR were often related to chronic pain, due to its main source of employment (mine work). The associated physical labor often resulted in work accidents and chronic pain. As mentioned by the key informant, *'We have about 500 hospitalisations a year just for opioids. And the doctors here prescribe a lot of opioids.'* [ID 2]

*4) Perceived appropriateness and acceptability of the training by stakeholders*

Perceived appropriateness and acceptability of the training by stakeholders was another outcome that had a profound impact on the implementation of the PROFAN program in

HRs, according to key informants from the 12 consulted regions. This was in line with whether stakeholders deemed that the training was credible, and whether they perceived it as being a good fit and relevant for their clientele. As such, when stakeholders found the training content to be acceptable and satisfactory, they were more likely to endorse the implementation of the program in their region, according to key informants.
The convenience of having access to relevant, adapted material for two distinct clienteles was a facilitator for two HRs who had already implemented similar initiatives, but for one clientele only. In the case of one of these HRs, a training like PROFAN was already set in place, but only for community workers. The fact that PROFAN included both a training for community workers and PWUD was a facilitator in terms of program appropriateness, since the existing training in this region had not yet been expanded to include PWUD and their family, friends and peers, and the content had not yet been adapted for this clientele, though the need was present. According to the interviewed informant in this region: '*Back in 2016, access to naloxone by community organizations started. We wanted street workers to be able to administer it, but we couldn't expand to at-risk users yet.'* [ID 4] Having access to PROFAN provided training content for this clientele.

***Barriers to the implementation of PROFAN during its expansion***

Six main barriers were reported by key informants with regard to the expansion of PROFAN and its implementation in other HRs. These included: 1) geographical isolation, 2) existing offer of similar services, 3) difficulty reaching isolated PWUD, 4) stigmatization of PWUD, 5) unwillingness of stakeholders to address the opioid problem, and 6) lack of funding stability for overdose prevention initiatives.

*1) Geographical isolation*

Of the 17 HRs, three did not implement the PROFAN program at all, due to geographical isolation. These regions were located in the far north of the province, and had limited access, which did not make it feasible for the training to be adopted. A stakeholder from

one of these regions explained that geographical isolation makes it harder to have community organizations nearby, and since community organizations are one of the main entryways for a program like PROFAN, it makes it difficult to adopt the program across the region: '*That's what is hard with these territories, there are a lot of tiny, tiny villages all spread out and far from one another, and it can be hard to receive services. And the substance use is in those villages, but there's no service available there.'*

*2) Existing offer of similar services*

Aside from the three HRs whose geographical isolation did not allow for the implementation of the PROFAN training, one additional HR did not adopt the program at all. The main barrier to adoption for this HR was the existence of a similar local prevention training initiative, which was already available for both community workers and PWUD. Two key informants were consulted from this HR, and reported that they were already very aware of their region's opioid situation, explaining that they had had the highest number of opioid overdoses during previous years. One of these key informants indicated that in 2018, their largest city had been recognized as having the most opioid overdoses in the province, which alerted the public health sector. Furthermore, according to this key informant, PWUO had been expressing interest for overdose prevention to local peer-networks and community organizations, which had also influenced the development of their training program. *'Users tell us about overdoses, they're worried, they're preoccupied, and we know there are more overdoses taking place than the ones that are accounted for.'* [ID 16] Having already set in place a similar program including training for both clienteles due to these local concerns, the interviewee explained that they did not see the need to implement a new program at the time.

> *There was one patient in 2017 who reported losing eight of her friends to overdoses that summer. She wanted naloxone, and that was before the new laws were official. We developed our THN program in answer to our patients' needs. We have our community clinic, and our own doctors and nurses, which gives us*

> *more knowledge as to the current reality of our patients and flexibility to answer their needs. We don't have a need for another program.* [ID 16]

It was suggested by the second informant that PROFAN was potentially being perceived as a competitive offer that could reduce participation in the local initiative: *'Some may be against it because it would mean less participants.'* [ID 17]

*3) Difficulty reaching PWUD*

An important barrier to the penetration of the program that was identified by key informants involved difficulties reaching PWUD who were located in isolated parts of the region, particularly in First Nation territories. According to a key informant from one HR:

> *We do have a regional particularity, we have isolated territories, and there are PWUO in those zones* [First nation territories] *who cannot be reached. We lack community organizations in these areas to sustain prevention efforts and offer support services for substance use. [ID 4]*

The population density was also quite small for these regions, alluding to potential risk of isolated PWUD, and therefore, increased barriers. Difficulty reaching PWUD was reported by all 11 key informants from HRs having rural areas within the regions. The knowledge of how population density could make prevention efforts harder was a mobilizing factor, according to key informants from two regions. *'We saw what happened in other small regions in Ontario. If the crisis starts here, it will be nearly impossible to stop it.'* [ID 3]

For two other HRs, there were also challenges related to the penetration of the program, as initiatives were mainly developed in sectors having high population densities. One key informant expressed the difficulty of reaching people in more rural territories, preventing them from reaching their target clientele in these areas.

It was also reported that PWUO in isolated areas rarely had support or the means to obtain services. *'There are not a lot of resources for homeless people, for more vulnerable people, and they can't travel to access them. Also, they often use alone. Especially in rural zones.'* [ID 2] *'They're vulnerable, but they have no one to help them; even the community worker has a hard time getting in there or developing contacts with them.'* [ID 14]

*4) Stigmatization of PWUD*

A significant barrier to the acceptability of the program, according to 11 interviewed informants, was the perceived stigmatization of PWUO, and often the reluctance to admit having PWUO among their clientele. *'They don't want to go there. Becoming naloxone distributors means admitting they have substance users in their clientele, and they don't want to do so.'* [ID 4]

It was also expressed that the benefits of training PWUO were not yet established in all HRs. According to one interviewee, this situation had only recently improved: *'I feel like this openness wouldn't have been here 8 years ago. Now they recognize them (PWUD) as people with an expertise who can help. It's really stimulating.'* [ID 7]

*5) Unwillingness of stakeholders to address the opioid problem*

Yet another challenged faced during the implementation process, according to key informants from four HRs, was resistance from organizations due to being unwilling to address the opioid problem. One key informant explained that there was a reluctance on the part of some community organizations to take part in prevention programs related to opioids: *'It is important to refocus on harm reduction, give it more context, so people understand. They're scared, so I think it (PROFAN) would be a good way to sensitize community organizations. […] Some of them are not there yet - it really varies.'* [ID 4]

*6) Lack of funding stability*

In terms of contextual factors, lack of stable funding for overdose prevention initiatives was mentioned as hindering the development and expansion of the program. In total, seven regions reported this as being an obstacle. According to one informant, *'We have a hard time getting money, so we have a hard time developing what we would like to offer [for prevention].'* [ID 11] For another HR, the program was implemented for both clienteles, and organizers wanted to further expand the program, but could not due to lack of stable funds. For many of these HRs, though the training was able to be implemented, the future of the program remained uncertain due to funding that was not stable or recurrent.

## Discussion

In this study, based on interviews with key informants from among the 17 health regions of the province of Quebec in which PROFAN was proposed after being implemented in Montreal, region-specific information, facilitators and barriers affecting the implementation of PROFAN were explored in the context of the program's expansion.

Program adoption was reported to be linked to having an active local peer network involved with harm reduction, as it solidified the involvement of peers within the program, both as trainers and participants. This was consistent with Wojcik (2021), whose scoping review on the inclusion of PWUO in the development and delivery of harm reduction services revealed that this was one of the main factors to ensure high adoption of a harm reduction service by PWUO. Furthermore, Mercer et al. (2021) reported that involving peers in services could increase trust and provide a safer environment. Their involvement could also help to reduce trauma associated with substance use and overdose, and mitigate stigma towards PWUO, according to Pauly et al. (2020). One of the key findings from a study conducted by Leece et al. (2019) was the importance of involving people with lived experience of substance use to enhance community partnerships. Finally, a systematic review conducted by Mercer et al. (2021) revealed that the involvement of peers in overdose prevention interventions supported the creation of trusted services and highlighted the fact that peers play a pivotal role to

enhance the acceptability and feasibility of these services. The fact that PROFAN is a peer-driven initiative helped to solidify partnerships with other peer-led and community organizations in the HRs, leading to higher implementation success. The strength of peer networks in HRs and their positive impact on program adoption is an important result, since although other facilitators have been mentioned in studies, this particular facilitator is less commonly reported, as the majority of documented programs are not peer-driven.

Having strong collaboration between community and public health sectors, and among participating organizations and key actors proved to be an important facilitator for the adoption of PROFAN, an element which proved to be a major barrier in other cases. This was also identified in literature on the implementation of similar programs. Mercer et al. (2021) noted the importance of promoting and enabling localized actors to offer adapted prevention measures, and in a study conducted by Rudisill et al. (2021), collaborative partnerships were reported by stakeholders as being one of the primary facilitators for the implementation of a state-wide naloxone distribution effort. One way of enhancing collaborations among partners would be to identify key individuals who could act as bridges between organizations to encourage communication and provide clear information. These individuals can also act as ambassadors for the program and provide information within their communities. Good communication and collaboration, whether it be between the community and public health sectors, or among partner organizations and key actors, represented a significant facilitator, resulting in the adoption of the program. In accordance with Samuels et al. (2018), regular communication, mutual feedback and collaboration among sites are essential. This confirms the importance of encouraging collaboration and identifying key individuals to help connect organizations and ensure clear communication among institutions and organizations to facilitate the implementation of complementary prevention initiatives. This can also prevent other organizations from feeling that the program being implemented would act as a competitive offer to existing initiatives.

Another important aspect that affected the adoption of the program was the degree of acknowledgement of the opioid problem by stakeholders. This can be explored through

the concept of community readiness (openness to address a problem within a community). According to Ringwalt et al. (2018), this depends on being sensitized about a problem, and how concerned parties (professionals, as well as PWUD in this case) are willing to respond to the problem. For community readiness to grow, the problem must be well-documented locally, including making note of the actors involved, the interventions that can be implemented, the resources that can be involved in terms of workforce, as well as the funding available (Ringwalt et al., 2018). This is consistent with the present study, as being aware of the situation in the region, and the opioid problem in particular, was reported as being an important facilitator in the implementation of the program. Regional stakeholders' awareness and willingness to set in place initiatives helped to make PROFAN's adoption more successful. In these regions, where key actors had a better understanding of the opioid overdose situation in their territories, there was more interest to develop an overdose prevention training before PROFAN's implementation had even started. In this vein, perceived appropriateness and acceptability by stakeholders were also key to support the implementation of PROFAN. It was reported that if stakeholders determined that the program was a good fit for their clientele and that the content was satisfactory, they were more likely to support the implementation of the program.

Of the 17 HRs in which PROFAN was proposed, only four did not implement the program. The main barrier for three of these HRs was geographical isolation. These HRs were situated too far away for the program to be implemented, and the limited access made it too difficult to adopt the training. For the fourth HR that did not implement the program, the obstacle was the presence of a similar program. Stakeholders did not see the need to implement a program when one was already in place for both clienteles. A key informant suggested that PROFAN may have been perceived as a threat, as it could have potentially reduced participation in the existing program.

For all HRs with rural areas, difficulty reaching PWUD in more isolated parts of the region acted as a barrier to the adoption of PROFAN. This has been reported in other studies as well, such as Cerdá et al. (2017) who indicated that outreach to target clientele

outside of urban areas was a challenge (Cerdá, et al., 2017). Organizing specific initiatives or deploying specific resource-persons to reach isolated clientele would be helpful to overcome this obstacle.

Not recognizing or stigmatizing PWUD was reported by key actors as a significant barrier, reducing the adoption of the program. In some cases, the importance of training PWUD had only recently been recognized, whereas for others, it was reported that some organizations were reluctant to become involved with a prevention program for opioid use because they did not want to make it known that they had PWUO within their clientele. Stigma toward PWUD and surrounding opioid use and interactions with healthcare workers has been identified as a main barrier to program access in many studies and has been found to negatively affect the acceptability of a program (Martignetti & Sun, 2022; Cid et al., 2021; Rudisill et al., 2021; Strang et al., 2019; Young et al., 2019; Holland et al., 2020). Raising awareness about the pertinence and importance of training PWUD could help to improve this situation, as well as promoting strategies to reduce social stigma and protect confidentiality (Salvador et al., 2020). In this vein, certain organizations being unwilling to address the opioid problem itself also proved to be a hindrance to the adoption of PROFAN.

Finally, lack of stable funding was reported as being present, even for an HR in which the training was adopted for both clienteles. For this particular region, there was a willingness to expand the program even further that was halted by an absence of funds. This has also been reported in many other studies as being a barrier, along with minimal space to hold trainings, and other programs being prioritized (Levine et al., 2021). As mentioned in Kim & Aks (2022), it is important to secure support and funding that is recurrent, as individual efforts often fail due to an absence of funding, which can lead to significant consequences. The expansion achieved by the PROFAN program highlights the ability of a peer-driven organization to lead an overdose prevention program when provided with funding and support from government health agencies and other organizations such as addiction worker associations like the AIDQ.

### *Limitations*

This study presents some limitations. For one, there was potential for interviewer bias due to the participatory approach used in the study. Given that the PROFAN program coordinator was involved in data collection, which provided the advantage of allowing quick and pertinent adjustments to be made to program content, there was also the possibility of respondents withholding certain details or refraining from formulating more negative comments during interviews in this context. There was also limited data available for three of the regions that did not adopt the training due to geographical isolation challenges.

### *Conclusion*

This study illustrates the determinants likely to facilitate or hinder peer-led opioid overdose prevention training programs such as PROFAN. Given that the PROFAN program was successfully implemented in its initial phase, it became pertinent to examine the factors affecting its implementation as it was being introduced in other regions. An analysis of reported facilitators and barriers from key informants in this study suggests that program implementation depends strongly on awareness and knowledge of the local opioid situation, as well as the willingness of key stakeholders to implement overdose prevention initiatives. Strong collaboration among all involved parties and the presence of an established and active peer-network system to reinforce local harm reduction initiatives and their outreach is also key. This could be facilitated by encouraging clear communication among all partners regarding the goals and objectives of the initiative, to stress the complementary nature of the program and avoid the perception that a new training would represent a competing offer. Finally, the fact that PROFAN was implemented in the majority of Quebec health regions demonstrates the potential for providing funding and support directly to peer community organizations in order to support the successful implementation and administration of overdose prevention programs. Finally, in line with one of the barriers reported by key informants, lack of

funding stability, it is important to note that consistent or long-term funding could promote the development, expansion and longevity of programs.

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Disclosure of Interest

The authors report there are no competing interests to declare.

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