Evaluation of the Haliburton Kawartha Pine Ridge (HKPR) Opioid Enhancement

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May 31, 2019

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Executive Summary:

Introduction:

- In August 2017, The Ministry of Health and Long-Term Care (MOHLTC) provided a targeted grant to health units across the province, called the Harm Reduction Program Enhancement (HRPE), to build on existing harm reduction programs and services and improve the local opioid response.

- The Strategy Design and Evaluation Initiative (SDEI) at the University of Toronto was contracted to evaluate the Haliburton Kawartha Pine Ridge (HKPR) Opioid Enhancement. The evaluation included a series of interviews and a survey to evaluate the three major components of the program: naloxone distribution and training; opioid overdose early warning and surveillance system; and local opioid response.

Naloxone Distribution

- In 2017, there were 118 emergency department (ED) visits, 28 hospitalizations, and 12 deaths reported for opioid overdose-related causes among HKPR residents from any hospital in Ontario. There was an increase in the number of opioid overdose-related ED visits in 2017 compared to the previous 10-years.

- For 2018 January to December, there were 149 opioid overdose-related emergency department visits reported among HKPR residents. From January to Sept 2018, there were seventeen (17) opioid overdose-related deaths reported among HKPR residents.

- The naloxone program was successful in engaging new agencies to distribute naloxone across the three counties in this region. Between December 2017 and December 2018, 19 new organizations came on board to distribute naloxone to their clients. Northumberland County engaged 10 new agencies, City of Kawartha Lakes 7, and Haliburton 2.

- This naloxone distribution approach has been successful in getting naloxone into the hands of at-risk people who are directly connected with service organizations. It is also being widely distributed through peer networks, and is saving lives.

- Reach of naloxone distribution to the following groups is reported to be weak: people living in indigenous communities in the region, people living in rural remote areas, people who are unwilling to connect with service providers, people who use alone, young people who are experimenting with drugs, people using non-opioid drugs that may be unknowingly cut with dangerous substances, as well as seniors and other people using prescription opioids. Weaker reach to these groups may reflect the provincial design of the program including eligibility criteria, as well as local implementation.

- Front-line staffs as well as people with lived experience are reporting that it is beneficial to provide access to both nasal and injectable naloxone because there are pros and cons to both types.

- A large majority of naloxone recipients are using appropriately while a small number are abusing naloxone to engage in dangerous practices.

Local Opioid Response Plan

- Respondents provided input spanning the four pillars to inform the local opioid response plan.
- Almost all respondents indicated that opioid activities led by the HKPR Public Health Unit (eg. needle exchange, naloxone distribution, public awareness) are very important to reduce the harms associated with opioid use in the region.
- Respondents noted that the health unit is playing a critical role brining services to rural areas, bringing together stakeholders across a vast and disconnected region to develop a coordinated approach.
- Most partners surveyed would like to be involved in the development of a local opioid response plan.
- Less than half of all respondents felt that the harms associated with opioids in the region are currently being managed "very well" or "fairly well".

Surveillance System

- All public health staff and most external partners are very supportive of the goals of the surveillance system. While supportive of the goals, one partner is constrained by both time and their privacy obligations to their clients.
- The process of developing a surveillance system in the HKPR region is challenging because of the multiple counties and municipalities in the region and the large number of departments within each area of service (EMS, police, fire).
- While the health unit has been mandated to do this work by the Ministry, it is important to note that other partners such as EMS have not been given any directive to participate.

Introduction:

The Strategy Design and Evaluation Initiative (SDEI) (https://ihpme.utoronto.ca/research/research-centres-initiatives/sdei/) at the University of Toronto was contracted to evaluate the Haliburton Kawartha Pine Ridge (HKPR) Opioid Enhancement. In August 2017, The Ministry of Health and Long-Term Care (MOHLTC) provided a targeted grant to health units across the province, called the Harm Reduction Program Enhancement (HRPE), to build on existing harm reduction programs and services and improve the local opioid response. Three major components included under this program enhancement were: naloxone distribution and training; opioid overdose early warning and surveillance system; and local opioid response.

1) Naloxone Distribution and Training: Public Health Units (PHUs) were mandated to act as naloxone distribution leads to engage community organizations working with high risk populations to distribute naloxone kits.

To implement the naloxone distribution and training component, the HKPR health unit partnered with a local service provider Peterborough AIDS Resource Network (PARN). PARN's role was to engage agencies and provide staff training on naloxone distribution. Following the naloxone distribution protocol laid out by the MOHLTC, PARN focused on engaging front line community organizations that are already working

directly with people at risk of overdose. Each agency that received naloxone was required to develop a memorandum of understanding (MOU) with the HKPR health unit. The Ministry dictated what type of naloxone will be distributed (nasal), and the eligibility criteria for organizations allowed to distribute, as well as individuals allowed to receive naloxone.

The role of distributing agencies was to increase access to naloxone for people at risk of overdose. Distributing agencies were required to conduct trainings with individuals requesting kits, and fill out a checklist of questions before naloxone kits could be distributed. The HKPR health unit public health unit was responsible for administering the program including overseeing MOU's, tracking and storing inventory, and record keeping.

2) Opioid Overdose Early Warning and Surveillance System:

Health units were required to develop early warning systems in their catchment areas to allow for the timely identification of, and response to, a surge in opioid overdoses.

As of May 2019, the surveillance system was in the process of being developed by the HKPR health unit to monitor the opioid problem in the region. The purpose of the enhanced surveillance system is to provide early warning of public health events related to opioid overdoses in the HKPR District by: a) monitoring the incidence of opioid related drug overdose events; b) identifying spacial and/or temporal clusters of opioid-related drug overdose events; and c) strengthening the partnership and collaboration between the HKPR health unit and first responder agencies and other relevant partners.

The benefits of an early warning surveillance system for HKPR are: a) more timely notification of suspected opioid-related drug overdoses; b) additional source of information for opioid-related drug overdoses that are not captured in a timely or accurate fashion through other means or data sources; c) information on cases that meet the syndromic case definition, but who are not ill enough to require an emergency room visit, and who otherwise would not have been captured in a public health surveillance system.

To date, several key partners have been approached to share data related to the harms associated with opioid use, and this will be expanded to additional partners in the future. An epidemiologist at the health unit is responsible for analyzing the data to detect patterns such as clusters and surges. When patterns are detected, the goal is to activate members of the Task Force to ensure an appropriate local response. The Task Force will decide in advance how to activate a local response to possible situations.

3) Local Opioid Response:

Health units were also tasked with developing a local opioid response plan to expand programming based on an assessment of local data and community needs. The HKPR has developed a draft plan based on a situational assessment of the local data and community needs. The plan involves a 4-pillar approach. As of May 2019, the draft plan has only been shared with a small number of external partners.

Evaluation Methods

In collaboration with an Evaluation Working Group made up of key staff and managers at the health unit, the Strategy Design and Evaluation Initiative (SDEI) at the University of Toronto developed an evaluation plan. Members include Robert Schwartz and Emily Taylor (University of Toronto), as well as Pamela Stuckless, Lorna McCleary, Denise Smith, Catherine McDonald, and Vidya Sunil (HKPR health

unit). This group met monthly or as needed to make decisions about evaluation design and approve all drafts.

The Working Group also consulted regularly with community partners to inform decisions, in particular community addictions agencies such as Peterborough AIDS Resource Network (PARN) and Fourcast.

This study is designed as a developmental evaluation to allow for continual data collection which can be used to make improvements to the program. This approach is appropriate for complex interventions and to encourage innovation[1, 2]. A contribution analysis was used to identify a set of measurable outcomes which can be reasonably said to have been influenced by the intervention[3]. The evaluation of the initiative began in November of 2017, and was concluded by May 2019.

The evaluation questions and methods are presented below for each stream of the intervention:

Naloxone Distribution:

Evaluation Questions:

- To what extent is naloxone successfully distributed to meet needs? Why?
- For agencies that are not willing to engage, what are the barriers?
- How well is the partnership with the intermediary organization (PARN) working?
- Are partners well positioned to distribute naloxone when and where people need it? Why? Why not? How could this be improved?
- Are partners increasing access to naloxone for people who need it? Why? Why not? Who is benefiting? Who is not? How can access be further improved?

The first set of interviews (n=19) were conducted to evaluate the naloxone distribution program. The purpose of these interviews was to understand how the naloxone distribution process was working, who is benefitting (who is not), and what could be improved. Interviews were conducted by a University of Toronto staff member between October 2018 and April 2019. The semi structured interviews lasted approximately 45 minutes and were conducted either in person or by phone with the following informants:

- Health unit staff (n=3);
- Staff from the Peterborough Aids Resource Network (PARN) (n=3);
- Agencies that have been involved in distributing naloxone to their clients (n=5);
- A drug and alcohol prevention staff member from an indigenous community (n=1);

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[1] References: Mayne, J. (2012). Contribution Analysis: Coming of Age? Evaluation. Vol. 18 (3). Patton, M.Q. (2006). Evaluation for the Way we Work. The Nonprofit Quarterly. Vol. 13 (1): 28-33. Patton, M.Q. (2010) Developmental Evaluation. Applying Complexity Concepts to Enhance Innovation and Use. Guilford Press, New York.

[2] Patton, M.Q. (2010) Developmental Evaluation. Applying Complexity Concepts to Enhance Innovation and Use. Guilford Press, New York.

[3] Mayne, J. (2012). Contribution Analysis: Coming of Age? Evaluation. Vol. 18 (3).

- Service providers including emergency medical services (EMS), police, and fire departments (n=3); and
- People with lived experience of naloxone (n=4)

The four interviews with people with lived experience explored their perspectives on what worked well and what didn't regarding the process of receiving naloxone, sought feedback on who may not have access, and what could be done to improve the naloxone distribution system, as well as the local response to the opioid crisis. Two distribution agencies (PARN and Fourcast) helped to recruit clients with lived experience of naloxone to participate in interviews. Participants were invited following an invitation script provided by the University of Toronto researchers and based on their relationship with clients (ie. trust), and their perceived willingness and interest to be involved in an interview. Interviews were conducted by University of Toronto staff in person in a private space in an agency office, or by phone. Interviews lasted roughly 15 minutes, and participants were compensated with $20 grocery store gift cards.

All data collection was conducted by University of Toronto staff. All interviews were recorded (when consent was given) and transcribed and analyzed thematically. Ethics approval was provided by the University of Toronto Research Ethics Board.

Local Opioid Response Plan:

Evaluation Questions:

- What is being done in the region to reduce the harms associated with opioid use? How is it working? What are the gaps? How can it be improved?
- What needs to be done to respond to opioid use in the region? What are the equity concerns?
- What is the role of the PHU? What is the role of other individuals and organizations working towards reducing the harms associated with substance use?

As of March 2019, the health unit was in the process of developing a local opioid response plan. The plan had been drafted and shared internally and with very few external partners. In order to evaluate the health unit's opioid activities to date, and inform future iterations of the local opioid response plan a survey was sent out to the members of the HKLN drug strategy. Partners include organizations across the region who work on the four pillars. The survey was sent out by the drug strategy coordinator on March 14, 2019 and 14 respondents completed the survey by the time it was closed on March 29th, 2019. The survey included both closed ended and open-ended questions and was designed to take no longer than 10 minutes to complete via key survey.

Opioid Overdose Early Warning System:

Evaluation Questions:

- Do partners support the goal of a surveillance system? Why? Why not?
- Are partners communicating effectively? Why? Why not? How could this be improved?
- Are partners will to provide necessary data? Why? Why not? How could this be improved?

- How will the data being shared be used for detecting patterns? Why? Why not? How could this be improved?
- How might partners use the data to respond to patterns? How could this be improved?
- What additional information do partners need to respond to patterns?

As of March 2019, when interviews were conducted the surveillance system was in an early stage of development. The health unit was had approached two first responder organizations to develop data sharing agreements, one was signed and the other was still in negotiation. The epidemiologist at the health unit had developed a system for collecting and analyzing local data, and this information was being analyzed and shared internally on a weekly basis.

Interviews (n=7) were carried out with public health manager and staff as well as a small number of external partners who have been engaged in data sharing as part of the local surveillance system. Interviews took approximately 30 minutes and followed a semi-structured interview guide. All interviews were conducted by phone. The purpose of the interviews was to evaluate the process of developing the system to date, what had happened so far, what was working well, what was not, and how things could be improved in the future.

Evaluation of the Naloxone Distribution Program:

What was happening in the region prior to the enhancement?

Respondents were asked to recall what was happening in the region to prevent opioid overdoses prior to the enhancement in August of 2017. Prior to the enhancement in August 2017, police were carrying naloxone for self-protection, EMS was carrying naloxone for treatment, and minimal training and distribution was being carried out by the health unit.

Although pharmacies were distributing, they were providing injectable naloxone only, and participation was limited because it was not mandatory. PARN was doing community outreach across the region, but was not able to provide publicly funded naloxone and most of the training took place in Northumberland with very little happening in Haliburton or City of Kawartha Lakes. According to one respondent, *"(the distribution of naloxone) wasn't even slightly touching the number of people who actually needed the kits".*

Description of the program

Respondents provided a detailed description of the roles and responsibilities of the various organizations involved in rolling out the naloxone distribution program.

The PHU was mandated to distribute publicly funded nasal naloxone to eligible agencies for distribution in the HKPR region. The health unit is the lead agency in implementing the naloxone program, but they partnered with PARN for the training component which includes reaching out to organizations to discuss the program, determine eligibility, and if eligible to conduct naloxone training. The role of the HKPR health unit is more logistical, creating MOUs between the health unit and PARN and between the health unit and each distributing agency. The health unit also played a coordinating role with the Ministry to provide reports and track and order inventory. The health unit remained engaged with PARN throughout the process providing guidance and oversight.

As part of the enhancement, the health unit was also mandated to provide ongoing support to pharmacies (eg. responding to questions and requests for training). The health unit has continued to supply naloxone (for direct use, rather than distribution) to first responders fire departments, hospitals, ambulance and police. Occasionally, the health unit was asked to provide trainings to these organizations. Recently, the health unit has been working with hospitals in the region who are now eligible to be distributing agencies.

The health unit seconded an epidemiologist to the project, and the information technology department was involved in data collection. Due to the high volume of work, the health unit has recently restructured their program which originally fell under sexual health services and now falls under their health promotion team and has a broader team of staff dedicated to the work.

The health unit also provided client trainings and naloxone distribution at each of its health units. Clients can drop into the health unit or schedule an appointment to meet with a nurse. In each appointment health unit staff followed the standard protocol for all distributing agencies including determining eligibility, provide training on how to use naloxone, completing a standardized check-list and practicing naloxone administration on a mannequin. These services are provided anonymously.

In February of 2018, PARN hired two additional staff members with the funding from the enhancement. Under the guidance of the health unit, PARN was tasked with reaching out to organizations in the three counties to educate organizations about naloxone, discuss the importance of agencies distributing naloxone, and the utility of having overdose prevention training. Interested agencies would then begin a process of signing an MOU with the health unit and put in an order for kits. PARN staff would then provide training to agency staff.

The training provided was comprehensive, lasting approximately three hours. The first half of the presentation focused broadly on stigma, fluidity of substance use, and harm reduction policies and practices. The second part focused on the utility of naloxone, how it is used, and introduced staff to the training checklist is completed for data collection purposes each time naloxone is distributed. After bringing agencies on board, PARN would remain in close contact with agencies by answering questions or assisting in internal policy develop to support the program.

PARN also distributed naloxone directly via pop ups in the HKPR region including five pop ups in Northumberland and two in the City of Kawartha Lakes. PARN staff would set up in public places primarily pharmacies but also other locations such beaches and malls to reach the general public as well as at risk people who may not have access through distributing agencies (such as people living in rural-remote locations, youth and seniors). The goal of the pop ups was to normalize naloxone and distribute to as many people as possible.

Once MOU's were signed, distributing agencies would receive a supply of naloxone to distribute to people who are at risk of an opioid overdose or their friends or family. Following the standard protocol outlined above, distributing agencies would offer individual training each time someone requested a kit. Checklists filled out at each visit would be filled out by hand and faxed to the health unit for data collection purposes. Naloxone was distributed free of charge, anonymously, and clients were able to take multiple kits if needed for personal use or to distribute within their networks.

Staff from the three distributing agencies interviewed, took a very flexible approach to their work. This included for example, often physically going to people to provide outreach whether that be at their homes, hospital, doctor's office or a shelter.

One organization has adopted the practice of informing every client who comes through the door whether it is a primary client or a family member that they offer naloxone. In this organization naloxone is also being offered at the point of intake over the phone. Like other harm reduction services, naloxone is available both to people who are clients of the agency and people who are not. Kits are kept in a visible place, and harm reduction supplies are stamped with information about naloxone kits to increase awareness. This organization has recently created several positions focused on community withdrawal management specific to opioids and naloxone distribution is integrated into this work.

Another organization focuses their work on making long term meaningful connections with people and building a supportive community. Naloxone distribution is just one part of working with the whole person. A staff member with lived experience leads naloxone distribution and has deep and long-standing connections with key individuals in the community. This staff member emphasized the importance of these connections, allowing the organization to tap into these effective networks to distribute naloxone.

The third agency interviewed is distributing out of three locations including a youth centre, a downtown centre often visited by people in crisis, as well as a centre that serves people coming directly out of custody. The strategy was to make naloxone available anywhere clients were accessing services.

Reportedly, an indigenous community has had several staff trained to distribute naloxone and some clients have been trained to administer as needed. Naloxone kits are kept in the addiction office and the nurse's office. Other community sources for naloxone include pharmacies and the health unit. This community is not yet receiving publicly funded naloxone from the enhancement because the decision to sign a MOU is sitting with Council for approval.

The representative of a police force noted that they began carrying naloxone in early 2017. Naloxone is now also stored in purposeful locations (eg. property vault where powdered drugs are handled, front counter where vulnerable people come and stay) to carried by police officers for the purposes of saving a life in the community and to save an officer who may have *"an exposure by a member of the community deliberately exposing them to the drug or where they come across it across it accidentally through the course of their duties".*

Partnerships

Interviewees were asked how well their partnerships were working with the Ministry of Health and Long-Term Care (MOHLTC), the health unit, PARN, and/or other distributing agencies.

Overall the health unit had a very healthy relationship with Ministry staff, noting their *"easygoing yet supportive"* approach. It may have helped the health unit's planning if they had more advance notice about the enhancement. Prior to the announcement the health unit had put significant time and effort into trying to find sources of naloxone. Because the Ministry rolled out the enhancement in stages, it was at times difficult for the health unit to keep up with changes related to eligibility and reporting requirements. The health unit suggested that it would be very helpful if the Ministry had provided a universal tool to guide data collection from partner agencies.

The partnership between the health unit and PARN is working well. PARN staff communicates well and have adapted their way of working to fit the program. It took some time for PARN and the health unit to adjust because PARN has a four-county mandate, while the health unit is only responsible for three of these counties. The health unit also noted their partnership with the Haliburton, Kawartha Lakes, Northumberland (HKLN) drug strategy as being very supportive of this work.

PARN developed strong partnerships with distributing agencies throughout the three counties that work with at risk populations. Organizations include family health teams, community health centres, shelters, addictions services, and mental health services. It was reported that distributing agencies that came on board seemed very interested and grateful for the opportunity. Several eligible distributing agencies (a food bank and a mental health services organization) chose not to come on board because they did not have capacity, they felt it was not necessary, and/or did not want to stigmatize their clients.

One distributing agency noted that their partnerships can be difficult; especially when others perceive that community-based organizations are not capable of good work. Additionally, it can be difficult when community-based organizations perceive a lack of urgency in partner organizations. It was also noted that agencies that provide counselling can be somewhat conflicted in the distribution of naloxone because people receiving treatment may feel awkward asking for it. Staff turn-over at PARN and the health unit has been caused some minor difficulties for distributing agencies. Two other distributing agencies indicated that their partnerships are generally good, but one noted that the paperwork mandated by the Ministry was cumbersome for staff and clients.

The staff at the indigenous agency reported that partnerships have worked well. The decision about whether to sign an MOU is now being considered by their Council. The addictions support worker in this community is supportive of naloxone distribution, and was able to make the decision to bring training to the community.

One first responder reported that their organization is not always in agreement with the health unit about harm reduction measures such as distribution of naloxone because they feel there can be many unintended harms associated with naloxone distribution including unintentionally encouraging risky behaviours.

Outcomes

Engaging agencies

The naloxone program was successful in engaging new agencies to distribute naloxone across the three counties in this region. Between December 2017 and December 2018, 19 new organizations came on board to distribute naloxone to their clients. Northumberland County engaged 10 new agencies, City of Kawartha Lakes 7, and Haliburton 2. Other distribution programs exist in the region, through for example pharmacies and corrections facilities but they were not evaluated as part of this enhancement.

In addition, emergency departments at hospitals are now eligible to distribute, and work is underway to begin this process. Engagement of agencies has slowed because saturation of organizations that are both interested and eligible has been reached. In addition to distributing organizations, others are on board to carry naloxone for use by their own staff for self-protection and/or when they encounter an overdose including: hospitals, EMS, police, and fire departments. It is important to note that there are

no agencies on board that focus on distributing naloxone specifically to youth, seniors or indigenous communities.

The following types of organizations have come on board in each county.

County	Withdrawal Management	Shelter	Outreach	Community Health Centre
City of Kawartha Lakes	1	1	4	1
Northumberland	3	2	4	1
Haliburton	1	1	0	0

Overall, respondents spoke very positively about the process of engaging agencies. For example, one respondent said, *"The enhancement was phenomenal because it allowed agencies across the three counties to gain skills to provide education and distribute naloxone at the frontline, building on the trust and connections that they have with clients".*

Distribution to people at risk of opioid overdose

Three out of the four respondents with lived experience said that it is easier for them to get naloxone now, than it was before the enhancement came into place. One respondent said it is about the same as before because he was able to access naloxone easily from a pharmacy in a methadone clinic. The degree of ease and methods of accessing naloxone varied greatly across the respondents who come from four different rural regions. One participant felt that access to naloxone is much improved over the past two years, because there is now a 24-hour dispensary in his area, as well as four other dispensaries. In addition, PARN and Fourcast will deliver supplies. Another participant is only able to access naloxone because PARN delivers to her remote area, otherwise she says she would not have any access to harm reduction services and reports sometimes running out of supplies.

Respondents from distributing agencies were encouraged that this program is getting naloxone into the hands of many people who need it. While the data being collected by the Ministry is showing that distribution is starting to slow down, one agency noted that their distribution is going strong and continuing to pick up. Another organization perceived that the people who need naloxone within their community already have it.

According to front-line staff, client feedback about the program was largely positive. This interviewee reported that he has yet to hear of an instance where the use of naloxone did not revive the client, and that he has heard of more revivals that he could even count.

Remaining gaps

Organizations not yet eligible to distribute: Respondents from distributing agencies spoke about several remaining gaps in the naloxone distribution program. While emergency departments have naloxone available for immediate use, they have only recently become eligible to distribute and as of March 2019 are not yet doing so. According to one respondent, this is a missed opportunity because they are seeing people regularly who have overdosed. Other remaining gaps in this program include participation of organizations serving indigenous people and communities, schools and other youth organizations, and senior's programs. Several respondents emphasized that schools should be able to access publicly funded naloxone for use in their first aid kits, and for distribution.

A respondent added that reach to seniors needs improvement, *"Potentially, the senior population because they could be legit prescribed pain management, and if no one is there to help them administer their drugs they could accidentally overdose. A lot of them live alone too. I don't know that a kit would do them any good. Awareness needs to go out ahead of that. Other alternatives should be done first, and clear information needs to be given at the time of prescription".*

Shortage of access in rural remote areas:

There is also a shortage of distributing agencies in rural remote areas, particularly in the northern part of the region. According to respondents the level of engagement varies not only by region, but also by community within each of the regions. For example, one respondent noted that in one community there are at least four agencies distributing naloxone, whereas in a larger neighbouring community there is only one. To fill these gaps, respondents suggested that naloxone should be available in every first aid kit, kits for the homeless, in schools, in retirement homes. The message conveyed by several respondents was that when you give out an opioid prescription it should come with a naloxone kit.

Respondents perceive that there is a geographical difference in terms of the receptivity of people at risk of overdose about the need for naloxone and willingness to receive training. However, this program has been at least partially successful at getting naloxone out to hubs of people who did not previously have access in the rural regions. One respondent noted that this program is, *"reaching the hard to reach rural community, and the hubs of people that needed it but didn't previously have access".* While there is a van that travels around offering harm reduction services including naloxone in rural areas, it is reported by several respondents to have very poor uptake. Distribution by service providers who have relationships with clients seems to be a more effective approach.

One respondent spoke about this gap in more detail. *"… geographically it's been a little difficult to get Haliburton County engaged in Naloxone and … other harm reduction programming at large so there is kind of a gap there but when we look at like the kind of risk factors and the high prescribing rates for opioids in that county specifically we definitely see there being a necessity and then there's also that hard to reach population as well for instance if you look at like the senior population in Haliburton county… it's not like a lot of them are attending the service agencies that we would normally have a relationship with so it's kind of a hidden population but an at-risk population".*

People with lived experience confirmed that there are significant gaps in access for people who live in remote regions, including some towns that do not even have pharmacies.

Organizations not yet willing to distribute:

Some organizations that were eligible to participate, chose not to come on board as distributers. The reasons cited ranged from lack of capacity to concern about stigmatization. In some cases, organizations did not want their clients feeling stigmatized. "…*our clients don't use that or we don't want to be associated with you know this drug because they think it's a bad thing…".*

Individuals unwilling to access support due to perceptions of stigma:

Even amongst people with lived experience there is stigma associated with naloxone. One respondent from a distributing agency explained, *"There is stigma even amongst clients who are using other substances and don't realize they could be contaminated with opioids".*

All individuals who participated in lived experience interviews are connected with services such as Fourcast, PARN or Northumberland Hills Hospital, and therefore have already overcome fear of stigma and judgement to access these services. All report positive experiences receiving naloxone from these front-line organizations showing a great degree of familiarity and comfort with their key contact in the way they refer to them. Many are receiving supplies delivered to them directly by PARN and Fourcast, and this seems to be a critically important point of access.

At the same time, all lived experience respondents spoke about peers who are unwilling to be connected with services, and therefore do not have direct access to naloxone. According to one respondent, *"They may feel judged. They may want to avoid even Fourcast or PARN. I know I was reluctant the first time you do it. I didn't feel better until my second or third time. It's uncomfortable because you are getting something to prevent drug overdose".*

One individual told a story about going to the pharmacy to get naloxone to treat someone who was experiencing an overdose. According to the participant, the pharmacist refused the request because they could not distribute without being presented with a health card. From the perspective of this participant, there is a still a lot of stigma within pharmacy settings. The respondent explained that it is possible for her to get supplies only because PARN will deliver. That said it would be easier if kits were left out in the open in pharmacies for people to take anonymously and with no questions asked. She noted that this is especially important in rural areas where supplies are harder to access. With the nasal one, she does not think that training is necessary, explaining "… *you just blow it up your nose, poof".*

Another barrier is the reluctance to access services if people are trying to get clean and have relapsed. Those who have children living with them may also be hesitant to make these connections out of fear of losing their kids. Another point of hesitation is fear of losing prescriptions. It was also reported that people who are involved in drug dealing or other criminal activity are unlikely to want other people coming around to drop off supplies.

Challenges and possible solutions:

Accessing both nasal and injectable naloxone

The type of naloxone available, whether nasal or naloxone was a topic of discussion across the interviews. Generally speaking, nasal spray makes it easier for people to use naloxone, and people feel more comfortable and confident. One participant summed up nicely the general consensus on the topic, *"Nasal is better than needles, many people are scared of needles, but it's good to have options".*

Another participant preferred injectable naloxone which is not offered through this program stating, *"I like the control of it".* They explained that with the needle they can see how much they are getting, compared to the nasal variety. One participant described feeling out of control when administering the nasal naloxone because she didn't know if the overdosing individual was breathing it in. She described the lack of perceived control saying, *"I didn't even know if he got the nasal stuff cause he was jumping around so much… The guy was OD'ing in my arms".*

Another respondent indicated that he receives large amounts of injectable naloxone from pharmacies regularly to supply his peers, and is able to do so only using a pseudonym, and reports no problems with

the process. This perspective should be balanced by the perception of stigma in pharmacies described above.

Potential for abuse of both nasal and injectable naloxone

Both interviewees with lived experience and front-line addictions workers described incidents where naloxone was abused to facilitate dangerous practices. According to some respondents these abusive practices can only be facilitated with injectable naloxone, however stories of abuse involving nasal naloxone were also presented. It should be noted that the majority of respondents agree that these abusive practices are in the minority, and the benefits of providing access to naloxone far outweigh the risks.

A participant with lived experience described an abusive situation whereby one individual habitually used nasal naloxone to take away another person's high as a method of controlling that person. According to this interviewee, it is easier to do this with the nasal naloxone because the person is less likely to be aware of what is happening. Apparently, this individual does this *"all the time to people".*

Front-line addictions workers, police, and people with lived experience have also heard stories about clients abusing naloxone to "chase highs" to the point of overdose and "high surf". According to one front-line worker these behaviours are by far in the minority, and can only be done with injectable grade naloxone which is not part of this enhancement. According to this respondent these dangerous practices are facilitated by injectable naloxone because it can be administered with greater control to revive someone but not pull them out of their high. Although there are accounts of extremely reckless behavior, it is a minority and according to this respondent, *"the folks out there who have that kind of mentality are already at risk".* The conclusion by this respondent is that there is no way that access to naloxone is putting any client at higher risk than they would be without it.

This viewpoint was challenged by a first responder who stated that their department has noticed that since public naloxone distribution increased, overdoses have increased. While this is accurate, the increase in overdoses may be due to a number of alternative factors including changes in the local drug supply.

In 2017, there were 118 emergency department visits, 28 hospitalizations, and 12 deaths reported for opioid overdose-related causes among HKPR residents from any hospital in Ontario[4]. There was an increase in the number of opioid overdose-related ED visits in 2017 compared to the previous 10-years (ibid).

For 2018 January to December, there were 149 opioid overdose-related emergency department visits reported among HKPR residents (ibid). From January to Sept 2018, there were seventeen (17) opioid overdose-related deaths reported among HKPR residents (ibid).

According to this interviewee, people that are distributing drugs are selling them with naloxone kits so that people can titrate, and overdose to the point of respiratory arrest. According to this respondent, the availability of naloxone has created a safety net, and that safety net has created a problem of its own. This respondent posited that they are seeing more deaths with a naloxone kit on scene, as a result of people trying to get as close to death as they can get, and because no one was in a state to administer

[4] PHO (2018). Interactive Opioid Tool. Accessed May 31, 2019 from : https://www.publichealthontario.ca/en/data-and-analysis/substance-use/interactive-opioid-tool

the dose. This perspective should be balanced with the viewpoint presented above, and by all front-line workers who have close and consistent relationships with hundreds of people who are using opioids and accessing naloxone.

Because naloxone has a strong effect (especially nasal naloxone because there is less control) people are going into precipitated withdrawal and are unhappy with what they are experiencing. Injectable naloxone on the other hand can be administered to prevent an overdose, without putting the individual into withdrawal which has the benefit of being less upsetting to the individual.

Peer distribution:

Because of gaps and barriers to access naloxone described above, three out of the four interviewees with lived experience reported supplying harm reduction materials including naloxone to others via peer distribution networks. For one individual, this appeared to be genuine, and something that he did with great passion and dedication. He supplies five peers with naloxone (both nasal and injectable), as well as needle exchange supplies. This client does not mind going to the pharmacy to access the injectable naloxone, and he is able to get his supply just using a pseudonym. In addition, he is able to get six naloxone kits per week from Fourcast. He also has the skills to be able to train his peers about how to use the naloxone kits. He advises peers to have someone stay around for 20 minutes after giving them the first injection because they may need a second dose. For the most part his peers do not want to call 911 because they do not want to lose their prescriptions, but he is working on that perception too as he is aware of the Good Samaritan law.

"I tell people that I'm 24/7, it don't matter what time when it comes to getting needles and injections, I tell them they can wake me up, that's all". This individual added that it would be very nice if peer support workers could be paid for providing these types of peer harm reduction services. This individual also uses his apartment as a safe place for people to do drugs, but says it would be great if there were other safe locations.

Another individual supplies to other individuals in her rural remote location. *"I go and get stuff for people… if you come to my house right now, I've probably got enough stuff there for 70, 80 people to do, like I've got shelves and shelving units that's this high… like supplied full of supplies; needles, pipes, everything because you can't get anything in (name of town)".*

One perceived barrier to this network style of distribution is that it can be difficult for the suppliers to get their hands on the number of kits in demand in the community. It is working well, except she reports that she is only able to get two kits at a time and would prefer to have 5 or 6. This perception should be balanced with the official policy of the HKPR health unit which does not put a limit on the number of kits which can be distributed at one visit.

Like the lived experience interviews, front line addictions workers are also hearing that some individuals at risk are not accessing addictions services because of the perceived stigma and that peer networks are at least partially filling this gap. Staff at one addiction agency are trying to address the resulting training gap in various ways. For example, one front line staff brings up naloxone training every time that a site visit is conducted. According to this individual, "*My assumption is that sooner or later, I'll hit everyone".*

Number of doses needed:

Respondents noted that access to multiple kits is important because some people are reporting that it is requiring multiple doses to revive others from an overdose. One respondent with lived experience described a situation where she had given seven doses of naloxone (4 injectable, 3 nasal) to a person experiencing an overdose.

Front line staff are hearing that some clients are needing two and three times the doses of naloxone to stop an overdose. As a result, it is reported that people are going through their supply quicker. It is unclear if this is because the kit is not being used properly (ie. the client is not depressing the plunger and waiting for 30 seconds before administering another dose), or if it is truly required. This respondent indicated that it is very plausible that fentanyl is becoming stronger and more resistant and that a client may need up to three doses to be revived. At the same time, this respondent is feeling constrained to distribute six or seven doses to one client on a single visit because of reporting requirements to the health unit.

911 is not always called:

Front line staff have received feedback from clients that, *"9-1-1 is still not always being called or that people aren't… accepting the kind of medical care that is needed following the use of Naloxone so we, again, kind of drill home that message that it's kind of only the first part of the medical treatment that needs to happen…".* Respondents have also heard anecdotally from one police department as well as an EMS department in the region that they are receiving fewer calls about overdoses, perhaps due to the increase in naloxone availability.

Risks for first responders: From a police perspective it is a lot of the same people who are experiencing overdoses frequently. Police report experience violence when using naloxone to treat overdoses, effectively bringing people out of highs. There are also other concerns related to coming into contact with the drug supply, and the importance of having naloxone available for self-protection.

A police officer explained the safety issues faced in the line of duty and the role of naloxone. *"We encourage our officers to double up their gloves and further when they're handling powdered drug seizures, we make it mandatory that they can only handle a powered drug seizure regardless of whether it's suspected to be Fentanyl carb, Fentanyl cocaine, powdered heroin, anything that appears to be a powdered drug. Sometimes it has to be done with two members and each member has to have Naloxone readily accessible. It can't just be on, like it literally has to be out on the table with them ready to administer should something go wrong".*

Balancing prevention and harm reduction:

A respondent speaking from an indigenous perspective raised additional concerns about the potential harms associated with naloxone distribution. The respondent explained, *"I've always had some issues with the amount of prescribing going on. You need to get to the source. That's part of this harm reduction, because we are constantly giving the forums for people to continue to use and abuse. If we overdo the harm reduction piece we are basically enablers. If they are going to use, you better make it safe. I agree with safe injection etc. Also, I'm a believer in abstinence based, "just say no", then it became "just say know"".* In other words, this respondent felt that harm reduction and abstinence approaches need to be balanced. As far as harm reduction goes, the respondent suggested that there may be an opportunity to distribute naloxone and do pop ups at "pot shops" in indigenous communities.

Possible solutions

Respondents offered suggestions about how gaps in access could be addressed in the future. According to one participant, it would be great if the pharmacy could deliver, and it would also be helpful if Fourcast and PARN were able to deliver injectable in addition to nasal. Another solution would be to have kits in the open, readily available in all pharmacies. Access to better transportation and reduced stigma would also help to break down barriers. Finally, one respondent suggested that the availability of naloxone should be advertised more broadly throughout communities. *"Advertising, would be great. Make signs people can see around, don't have to be big".*

Organizational changes

Involvement in this program, has had the unintended effect of creating change within participating organizations. For example, the enhancement has broadened the health unit's harm reduction work well beyond needle exchange. The health unit has recently re-organized their harm reduction work into a larger team and is receiving increased priority. It was also noted that when people come through the door of the health unit for naloxone, they are able to be linked up with other services (eg. needle exchange, sexual health, oral health).

PARN staff indicated that connections made through this program will be leveraged in future work on substance use throughout the region. Some rural organizations that had been resistant to anything to do with harm reduction in the past (ie. needle exchange) have shown openness to naloxone distribution, so this may be a gateway for future work. It is particularly significant that a First Nations community is now expressing interest in coming on board with this and other work such as possibly joining the local drug strategy.

Process challenges

Respondents spoke about a number of challenges with the process of rolling out the naloxone distribution program, listed below.

Program design

- There was confusion at first because organizations thought that the publicly funded naloxone could be used in their first aid kits, but it is not eligible for this use.
- Lastly another challenge that was that the program being rolled out by the Ministry kept changing, but as one respondent indicated, "*that's the nature of the opioid crisis".*
- As the program rolled out, eligibility became more restrictive disqualifying interested organizations.
- It is hard for this program to address the fact that the majority of overdoses are happening when people are at home alone and unable to self-administer naloxone.
- Pharmacies continue to distribute injectable naloxone, and there are reports of incidents where this is given out without adequate training, and there is not the same opportunity for building human connection.

Program implementation

- Some potential organizations declined the opportunity to come on board due to limited human resources.
- Persistent stigma even amongst organizations working directly with the at-risk population.

- The training guide has been improved from previous iterations, but it is still too long, inflexible, and can be perceived as condescending with questions such as, *"have you ever used drugs before?"*
- There were some hiccups refilling agency supply of naloxone kits, with some gaps in receiving the requested supply.

Data collection

- Data collection has been challenging including the technical limitations of the organizations involved.
- It was difficult to collect data by hand, and onerous to submit it by fax. It would have been nice to collect data electronically, perhaps with an iPad.
- The protocol set out by the Ministry was cumbersome for distributing agency staff and clients, and put limitations on the flexibility to give clients multiple kits when necessary.

Process facilitators

Across the board all respondents highlighted the importance of an open, non-judgmental approach when working with people at risk of opioid overdose. Increased exposure in the media was also a facilitator. The relationship with the HKLN drug strategy has supported all aspects of the enhancement.

Policies such as the Good Samaritan Act has been an important facilitator, put in place to encourage people experiencing an overdose to call 911 without fear of criminal repercussions.

PARN staff who were responsible for engaging distributing agencies shared lessons learned.

- Continuous follow up with distributing agencies was important to build connections and maintain engagement. In particular, the importance of meeting people face to face was emphasized. A helpful technique was to piggyback onto existing meetings to meet a broad range of community partners.
- It was also important to do background research on organizations before approaching them to participate understanding things like culture, capacity, the populations they work with, and a general awareness of how they operate. This was particularly true when engaging a First Nations community.

Distributing agencies noted the following facilitators: the importance of building trusting relationships with clients, the importance of a comprehensive approach, and the benefits of having people with lived experience deliver programming whenever possible.

On the need to develop trusting relationships with clients, one respondent explained *"... if you develop healthy relationship and trust with one person than that person will introduce you to somebody else and probably several somebody else's and that kind of endorsement of one personal has been really helpful".* In the community where this organization works the community is very connected, which provides strong networks for distribution of naloxone.

Distributing agency staff members also emphasized the importance of a comprehensive approach, *"someone may show up looking for food or help with housing, and as you work through that first issue other issues may present".* Respondents noted that the experience and approach of the individual proving programming is critical, and it should be a person with lived experience.

Local opioid response plan

All interviewees (n=19) were asked what the priorities should be for a local opioid response plan. In addition to the interviewees, members of the HKLN drug strategy were surveyed for their input (n=14). The suggestions were wide ranging and spanned across the 4 pillars.

Prevention

- Prescription practices need to change
- From an indigenous perspective, there is a need to address the root causes of addiction, and balance prevention/abstinence with harm reduction (For example, programs like the DARE program should be mandatory for students in grade 7-8 before they go to high school. It should be an integral part of the curriculum).
- Prevention education in schools and youth hubs.
- Stigma reduction amongst the general public, especially in rural, remote areas.
- Advocacy for policy change at the municipal, county, provincial, and federal levels.
- More opportunities for youth and adults to experience the natural "highs" of life (outdoor experiences, travel, community connection, culture etc.)
- There is a need for better access to transportation throughout the region.
- There is a need for housing solutions (eg. trauma informed harm reduction shelter spaces).
- Poverty reduction efforts
- Employment opportunities

Harm Reduction

- Naloxone kits should be given out with every prescription.
- Stigma Reduction is important especially in small towns where people are quicker to isolate themselves. There is a need to move beyond the stereotypes of who is affected by opioids, it can affect anybody in any socioeconomic position.
- People need to be educated about the changing drug supply including how drugs are being cut with extremely dangerous substances, and measures need to be taken to create a safer drug supply.
- RAM clinics and safe injection sites should exist in each County.
- There is a need for more harm reduction services in rural remote areas.
- There is a need for data collection and sharing across the sectors.
- Need to ensure that more needles are coming back, in needle "exchange". Possible solutions might be additional sites where people can drop needles, stigma reduction, and accountability mechanisms to encourage needle return (such as one for one exchange).
- Tweaks to make mobile van more effective (ie. change timing).

Treatment and Recovery

- Approaches should be trauma informed, aimed at harm reduction and based on a model that relapse is part of recovery (ie. not giving up on people even when they have given up on themselves)
- People with lived experience should be providing direct services.
- There is a need for better linkages between addictions services and referral for compassionate medical treatment.

- Additional resources for treatment including safe houses, detox treatment (eg. additional beds) treatment, and on the ground therapy
- mental health therapy, and on the ground counsellors
- Treatment is especially needed in rural and smaller communities.
- Funding of Traditional Chinese Medicine approaches (ie. acupuncture)
- Wrap around support including reintegration

Community Safety

- There should be greater linkages between police and addictions services. This should include building programs to provide support services to people who need them rather than putting them into the criminal justice system (ie. social worker/addictions worker accompanying police to deescalate and refer to services and support).
- It is important to build a community of diverse people where people can feel supported, have different relationships with different people and be seen as a whole person. At the same time new programs should build on existing relationships that already exist between service providers and community members. It can take many years to build strong relationships and rapport.
- Greater emphasis on curtailing dealers.
- Decriminalization to address the toxic drug supply

Appendix A: Evaluation of the Local Opioid Response Plan

Background and methods

As of March 2019, the health unit was in the process of developing a local opioid response plan. The plan had been drafted and shared internally and with very few external partners. In order to evaluate the health unit's opioid activities to date, and inform future iterations of the local opioid response plan a survey was sent out to the members of the HKLN drug strategy. Partners include organizations across the region who work on the four pillars. The survey was sent out by the drug strategy coordinator on March 14, 2019 and 14 respondents completed the survey by the time it was closed on March 29th, 2019. The survey included both closed ended and open-ended questions and was designed to take no longer than 10 minutes to complete via key survey.

Results

Only five respondents felt that the harms associated with opioids in the region are being managed "very well" or "fairly well". The positive factors mentioned include strong education, needle exchange, replacement drug injection, naloxone availability and the mobile van. The rest of the respondents indicated a long list of areas that require further work including: transportation, housing, mental health, persistent stigma amongst community and service providers, more data and helpful analysis of data, need to drive out drug dealers, need to address root causes of use including pain, as well as lack of support from all levels of government. One respondent stated that the main problem in the region is not opioids, but other substances such as cocaine, crack, methamphetamine, and cannabis. Another respondent indicated that the current political environment is particularly challenging.

Members of the HKLN drug strategy (n=14) completed a survey to provide feedback on the opioid activities led by the health unit, as well as provide input into the draft local opioid response plan. Almost all respondents (12) indicated that the opioid response led by the HKPR Public Health Unit including enhancement activities as well as other long-standing activities (eg. needle exchange, naloxone distribution, public awareness) are very important to reduce the harms associated with opioid use in the region.

Among those who chose "very important", respondents said that the health unit provides critical harm reduction services and these services are particularly important in rural areas. Respondents also noted that the health unit is playing a critical role bringing together stakeholders across a vast and disconnected region to develop a comprehensive and coordinated approach.

One respondent selected "slightly important", explaining that they are concerned with the lack of accountability related to the needle exchange program stating, *"I know that there are buckets of needles in crack houses being reused".*

Most respondents (12) were "very supportive" of the goals of the HKPR local opioid response activities (eg. needle exchange, naloxone distribution, public awareness), while others were supportive (2), or slightly supportive (2). Amongst those that only slightly supportive, the rationale was that the resources should be spent on direct treatment.

Most respondents indicated that they would like to be engaged in the development of a local opioid response plan moving forward (9). Those who were most engaged would like to see the plan break new ground, and provide treatment teams in communities that do not yet have them. Amongst the five respondents that chose "don't know" or neutral, this was because of a lack of resources and or lack of geographical proximity.

Participants were asked to reflect on what gaps still exist, as well as short and long-term priorities that could be incorporated into a local opioid response plan. Responses mentioned span across all four pillars, and are summarized the chart below.

	Prevention	**Harm Reduction**	**Treatment and Recovery**	**Community Safety**
Gaps	-stigma reduction for the general population and in particular in rural remote areas. -education. -youth outreach. -policy advocacy at all levels.	-Needles are not being returned -Lack of measures to address unsafe drug supply -Stigma -Inadequate services in rural- remove areas	-Insufficient recovery and treatment services especially in rural remote communities -Lack of availability of alternative treatments such as acupuncture and Traditional Chinese Medicine	-Dealers not being sufficiently curtailed
Short Term Priorities	-Continuous public education to prevent uptake. -Particular focus on two demographics: youth (breaking the cycle) and seniors (high rates of prescriptions).	-Service providers need to have access to naloxone to use to treat overdoses on site. -Continue naloxone distribution -Encourage return of needles -Education and awareness to address stigma, overdose prevention, awareness of the good Samaritan law, importance of testing (HIV, Hep C, Hep B), wound care, and proper injection practices.	-Treatment centres in rural remote communities -Encourage uptake of counselling	-Early warning surveillance system.
Long Term Priorities	-Affordable housing -Transportation -Employment -Life Counselling/Coaching	-There is a need for at least three separate safe supervised consumption sites across the region. -Efforts to ensure a clean drug supply.	-Increased services in rural areas. -More rehab and detox services. -Wrap around support including reintegration	-Policy development in a variety of areas (municipal, local, service provider level)

				-Decriminalization to address the toxic drug supply

Gaps

The gaps were further explained by respondents.

Prevention

Several gaps fell under the pillar of prevention: including stigma reduction amongst the general population and the general public, especially in rural areas and small communities; education for people at risk including community based social marketing, youth outreach; and advocacy for policy change at the municipal, county, provincial, and federal levels.

One respondent added, *"What are people that use drugs saying? My understanding is that many people come to Peterborough to access harm reduction equipment in an effort to preserve their anonymity. This would suggest that more efforts could be implemented to address stigma, particularly in smaller communities".*

Harm Reduction

There is a need to ensure that more needles are coming back, in needle "exchange". Possible solutions might be additional sites where people can drop needles, stigma reduction, and accountability mechanisms to encourage needle return (such as one for one exchange). One respondent suggested, *"You don't get a needle unless you return one should be the rule. Currently the public health personnel are failing on the concept of 'exchange'. One could even say they are enabling the users rather than engaging in harm reduction".* Another respondent noted that there is a need to make the drug supply safer, and tweak the mobile van program to make it more effective.

Treatment and Recovery

Respondents indicated that additional resources are needed for treatment including safe houses, detox treatment (eg. additional beds) treatment, mental health therapy, and on the ground counsellors. This is especially needed in rural and smaller communities. One respondent highlighted the need for funding of Traditional Chinese Medicine approaches (ie. acupuncture).

Community Safety

One respondent pointed out that a major gap is the lack of emphasis on curtailing drug dealers.

Short term priorities

Respondents were also asked what the short- term priorities should be. One respondent noted that short term priorities should be aligned with the local drug strategy. Other suggestions included:

Prevention

- Continuous public education to prevent uptake.

- Particular focus on two demographics: youth (breaking the cycle) and seniors (high rates of prescriptions).

Harm Reduction

- Ensure that service provider organizations have naloxone kits and training to use them with clients when necessary, and organizational policies to reduce harms.
- Continuation of naloxone distribution.
- Encourage the return of used harm reduction supplies.
- Education and awareness to address stigma, overdose prevention, awareness of the good Samaritan law, importance of testing (HIV, Hep C, Hep B), wound care, and proper injection practices.

Treatment and Recovery

- Development of local treatment centres in small communities, including support for reintegration into community life.
- Encourage the uptake of counselling.

One respondent said, *"…right now if someone is ready to get clean they have to travel a great distance for rehab and when they return from rehab it is right back into the environment they left. We need a local support team to provide rehab to patients when they're ready. This team should be available on going. There should be the opportunity for People after they have stopped using to be incorporated into the support team".*

Community Safety

- Timely, effective and local data, and an early warning system.

Long term priorities

Respondents highlighted a number of longer- term priorities including:

Prevention:

- Affordable housing
- Transportation
- Employment
- Life Counselling/Coaching

Harm Reduction:

- There is a need for at least three separate safe consumption sites across the region.
- Clean drug supply and supervised consumption.

Treatment and Recovery:

- Increased services in rural areas.
- More rehab and detox services.
- Wrap around support including reintegration

Community Safety:

- Policy development in a variety of areas (municipal, local, service provider level)
- decriminalization to address the toxic drug supply

Skill sets

Respondents were asked if they had a unique skill set or resource that could support the local opioid response plan. The following skills were mentioned:

- Connections with diverse medical teams
- Harnessing the skills of public health staff trained to support harm reduction practices through program planning, health promotion and evaluation and working collaboratively across sectors. Building on the collaborative work around harm reduction to working in other pillars.
- Experience working specifically with vulnerable women who experienced trauma.
- Direct connections with low income individuals

Opportunities

Respondents were also asked what opportunities exist to contribute to the local opioid plan. While a number of respondents indicated that time and funding are a limiting factor, the following opportunities were mentioned:

- Building diverse medical teams including a doctor, addictions counselor, mental health worker, pharmacist, acupuncturist to support patients through detox and functional return to society.
- Connecting with academics with grants to implement interventions, such as alternative approaches for pain management.
- Connecting with regional planning tables.
- Direct engagement and education for low income individuals.

When asked how organizations could leverage the work they are already doing, respondents indicated the following:

- Set aside a certain number of clinical hours each week to contribute to collaboration. Train a team of health care practitioners and addictions workers to provide a wrap-around approach for each patient.
- Set up a group that is the go-to locally for patients ready for detox and recovery.
- Organizations with direct engagement with low income residents could act as a channel for information and education.
- Adapt resources from Peterborough City and County to meet the needs of HKPR.
- Support clients who are in pre-contemplation and contemplation to navigate the first stages of treatment.
- Become a naloxone distribution site.

When asked what support would be needed to leverage this work, the most common answer was financial support. The organization that would like to channel information to low income residents would need information and communication materials. The organization that would like to distribute naloxone would need training.

Appendix B: Evaluation of the Early Warning Surveillance System

Background and methods

As of March 2019, when interviews were conducted the surveillance system was in an early stage of development. The health unit was had approached two first responder organizations to develop data sharing agreements, one was signed and the other was still in negotiation. The epidemiologist at the health unit had developed a system for collecting and analyzing local data, and this information was being analyzed and shared internally on a weekly basis.

Interviews (n=7) were carried out with public health manager and staff as well as a small number of external partners who have been engaged in data sharing as part of the local surveillance system. Interviews took approximately 30 minutes and followed a semi-structured interview guide. All interviews were conducted by phone. The purpose of the interviews was to evaluate the process of developing the system to date, what had happened so far, what was working well, what was not, and how things could be improved in the future.

Results

Goals of the Surveillance System

The goal of the surveillance system is to identify any aberrations from what is normally seen and start the process of responding to it early in a proactive rather than reactive way. To monitor local trends, the system will aim to collect data from a range of partners, and to alert partner agencies when aberrations are detected. The vision is that all organizations directly involved with substance use (EMS, police, hospitals, fire departments, addictions agencies, as well as people with lived experience) will participate in contributing data, as well as a planned response.

The health unit is also in the process of developing a Task Force which will include opioid leads from the health unit, EMS, police and other partner agencies. These partners will together lead a coordinated response when opioid overdoses increase, as laid out in the local opioid response plan that is under development. If the health unit sees an increase in opioid overdoses, they would connect with the Task Force, and if the Task Force agrees then an alert would be sent out. Possible responses may include alerting addictions agencies about a bad batch of drugs and where to stock up on naloxone, alerting EMS to prepare for potential overdoses, and public alerts if the drug supply is laced with another drug.

Does your organization support the goals?

All public health unit interviewees were very supportive of the goals of the surveillance system.
The interviewee representing the drug strategy said, *"Absolutely. I think this is something that has reached consensus. There is a gap in data entry across the 3 counties. The need for data proceeds response".*
Although the drug strategy is supportive, they explained that there is a challenge with expectations, and are currently unaware of what is required. There is an opportunity for *"the drug strategy to be a conduit for sharing information with the community, alerts or other information, substance use trends".*

The EMS department that has a signed agreement in place has been completely supportive of this initiative since the beginning. The key contact at this EMS department is very personally invested in the issue, saying it is *"very close to my heart".* The workload is above and beyond this individuals job description, but this is not a barrier due to personal commitment to the issue.

The other EMS department that has been engaged explained that while it makes sense to exchange information without personal identifiers it has been a long and arduous process, and that they are constrained by both time and their privacy obligations to their clients.

What has been done so far to develop a surveillance system?

The health unit has direct access to ACES data from the Ministry which includes hospital visit data, including the number of overdose visits. While this data is a good proxy, it is delayed by two weeks and does not capture overdoses situations where the person does not go to the hospital.

The health unit is also working on collecting quantitative data from EMS departments, via formalized data sharing agreements. EMS data is especially important because they have the most direct contact with those who call 911 about an overdose. There is currently one agreement in place with an EMS department, and the health unit is receiving formal data weekly. An agreement with a second EMS department is underway, but delayed. While they do not yet have an agreement in place, they are sharing data informally as much as is possible. There has been no response from the third EMS department in the region.

The health unit has built their model for collection and analysis, and has template for reporting internally and externally. The data is being analyzed daily by the epidemiologist at the health unit for trends. If a trend is detected the first step would be to let the internal health unit group know, and then connect with the Task Force. If more than one agency saw an increase the next step would be to send out an alert. The steps for the response are laid out in the local opioid response plan.

In this future the aim is to triangulate EMS data with formal and informal data from other partners in the region including hospitals, police, fire departments, addictions agencies and people with lived experience of drug use. There are also plans to develop a community reporting website where partners and people with lived experience could input informal information. According to one respondent, people with lived experience are *"…the ones that know if there is a bad batch of drugs, or if people are overdosing and not going to the hospital".* This is especially important to capture the data from people who are using naloxone and not calling 911.

The health unit is also in the process of developing a Task Force including police, EMS, hospitals and the drug strategy coordinator. If a trend is identified, the plan is to notify the Task Force, and determine an appropriate response. This could include direct messaging to service providers, the media or the general public. The ultimate goal of the system is to make sure that information gets to people who use substances to reduce harms.

There is also plan to share information amongst other regions including Durham and Peterborough and Hastings Prince Edward County.

From your perspective are partners communicating effectively? Why? Why not? How could this be improved?

The process of developing a surveillance system in HKPR is challenging because of the multiple counties and municipalities in the region and the large number of departments within each area of service (EMS, police, fire). The result is that there are a lot of partners who need to be at the table to make this happen, each requiring a complex data sharing agreement to participate formally. This process is comparatively easier in other jurisdictions such as Peterborough that is regionalized and therefore requires far fewer players to come on board (ie. one police department, one fire department).

It has been a difficult process to bring partners on board so far. Although some partners are in frequent contact with the health unit, others are not. The main issue seems to be concern about privacy, ownership and the use of data.

One EMS department has signed a formal agreement and another is in the process but has been significantly delayed. The main issue seems to be concern about privacy, ownership ad the use of data. Another factor may be that the health unit works from the bottom up with a coordinator leading the process, rather than for example the MOH who plays a more supportive role connecting directly with the decision maker at the partner organization at the outset.

The EMS department that is currently in the process of developing an agreement has run into some communication challenges. Getting the data sharing agreement in place has required a year of going back and forth beginning with the provincial draft and making local amendments back and forth between the local solicitor for the city and the health unit. Unfortunately, the city made amendments on an old draft, and went back to the health unit and it doesn't fit with the new draft. The legal department for the city is not willing to review another draft because of time limitations. The EMS department is also not willing to put in a lot of additional time, because it has already taken a lot of time out of their system. The other challenge is that, *"The health unit is not within the circle of care, and that's the only reason we should be exchanging information".*

The health unit would like to bring police on board, but there have been challenges in doing so across the province, with the exception of Toronto, because of the sensitivity of information when they are in the process of an investigation and other legal issues. It is also unclear whether hospitals and fire departments will come on board. If these partners are not able to come on board formally, it would be very helpful if they could contribute anecdotal evidence. The hope is that they will sit on the Task Force and share information in that way. The health unit also plans to develop a process where agencies can input data on any overdoses they attend to, to provide anecdotal information.

According to one respondent, *"A lot of time ambulance isn't called…We would like to capture anecdotal evidence shared shortly thereafter…Front line workers are learning things from clients long before we would hear about it. That would be awesome if that information could be fed into the system. When the police hear about tainted drugs, it would be great if that could be fed into system".*

While the health unit has been mandated to do this work by the Ministry, it is important to note that other partners such as EMS have not been given any directive to participate. Other organizations have their own mandates and it is unclear if building this surveillance system will be a priority. Agencies tend to be particularly protective of their data in small rural areas. Another possible reason for hesitation is that agencies in this sector are very stretched right now, and cannot take on the additional work required. The public health unit is continuing to try to reduce barriers and work for agencies to come on board.

Is your organization willing to provide necessary data? Why? Why not? How could this be improved?

Currently, the health unit is preparing internal reports from the health unit opioid team as well as the local drug strategy. In the future health unit plans to prepare weekly reports to share with the Task Force, as well as a publicly available report.

The EMS department that is on board, searches their analytics weekly, and provides the date, time, age, city, gender, overdose, and intervention. According to this respondent the process is working really smoothly, and it only takes 10 minutes per week to pull the data by using a saved search query. *"I punch in the days that I want, I extract the data and put it in the template I made, I log on, I put in my security code and it uploads within two minutes".* There has been no discussion about providing anecdotal information yet, but the EMS department would be willing to share this information.

If the agreement with the other EMS department goes forward they are planning to share deidentified information on all opioid calls, gender, age group, whether naloxone was administered, and if they went to the hospital, as well as gender and age group.

The drug strategy may be able to contribute by sharing anecdotal information. A lot of evidence collected through the drug strategy comes from outreach workers in the community including information about bad batches of drugs, as well as data that isn't being captured by EMS or hospitals. *"A lot of overdoses are being treated in the community, by community without calling 911. This can only be reported by peers, outreach workers, and people in the community who may have witnessed an overdose. Especially in Peterborough, there have been a lot of overdoses happening inside agencies on a weekly basis".* In this case, the community data would provide the landscape, the gravity of the issue, and community perspective to make sense of the hard data.

In addition to what is being planned by the health unit, an external respondent suggested that this anecdotal information could be collected via a dedicated website, a hotline, or perhaps via focus groups.

Is the data being shared useful for detecting patterns? Why? Why not? How could this be improved? What is missing?

Generally speaking, it is too early to see any patterns in the data. The problem of overdoses is not as big in the HKPR region as it is in the neighbouring region of Peterborough, but because of proximity it needs to be watched very carefully.

All information about spikes is anecdotal at this point. Anecdotal observations include:

- A spike in overdoses in the neighbouring city of Peterborough, including 17 overdoses in one week.
- Higher rates of overdoses in urban rather than rural areas.
- Haliburton may be experiencing an increase in overdoses.

What information does your organization need to develop targeted responses? Why?

From the health unit perspective, the most important data to collect is EMS data, including how many overdoses they are attending, when they are occurring, whether naloxone was administered before they got there, and what the results were (ie. revived in hospital, EMS, death). Other information that could be helpful would be possible demographic info, age, gender etc might help with targeting responses or awareness, as well as what substances people thought they took vs. what they actually took. The results of drug testing would also be helpful, to detect for example drugs cut with fentanyl.

The drug strategy needs to know the following:

- how many overdoses are happening
- where overdoses are happening
- trends in the use of naloxone
- whether people are calling 911
- what substances involved in those events
- demographics
- how many people are accessing treatments
- supports in the community
- Who is attending RAMS
- Who is going onto methadone
- Increase in treatment
- Information on social determinants of health (eg. Peterborough can look at housing data, and relate that to their substance use trends).

EMS respondents indicated that it would be very helpful to receive anecdotal evidence from other service providers including police. It would be particularly useful for EMS to receive information about the drug supply if for example police do a large apprehension. It would also be very useful for EMS to learn from addictions agencies about how many NARCAN kits are going out, and how many are getting used to get an idea of how many overdoses are happening without EMS being called. *"Sometimes the health unit and/or police has information that we don't have access to, and they are able to see some trends. We only see the problem two weeks or two months later when there are health effects already".*

How will your organization will be able to use the information being shared via the local surveillance system?

For the health unit, the main purpose will to be to direct immediate responses or alerts. It will also help with health promotion programming.

The drug strategy would like to get an accurate sense of the gravity and severity of the issue in the region. There are well known rising trends in Peterborough and other places, but currently there is not enough data to paint an accurate picture in HKPR. It is especially important to understand what is happening in a rural region, because there is a tendency to always compare to what is happening in urban areas.

"Having the data will be able to tell us more accurately what we are experiencing in the region. A lot of our issues are hidden in the rural, homelessness and substance use, people don't realize how much it is affecting the community. Whether it's a lack of awareness, or residual stigma, having an accurate portrayal, and point at the urgency of the issue, and get ahead of the curve is so important".

For addictions agencies this data may help to validate the trends they are seeing in their services.

The EMS department would be able to use both the hard and the anecdotal information from other agencies to get a better picture of what is happening in the region, and to forecast when an upsurge in medical emergencies may be coming their way. According to one EMS respondent, *"We don't even know how bad it is, we can't even imagine how bad it is".*

Another EMS department noted that they have not yet had a conversation with the health unit about how data would be shared back with them. That said, it might be useful to learn about the drug supply, and the signs and symptoms of particular drugs so that paramedics know what they are dealing with. *"If I go in, are there airborne particulates that I can absorb? The safety of paramedics is a really important information".*

EMS would also benefit from learning more about patterns of naloxone use. Currently the Ministry directed EMS data input system does not allow for the systematic tracking of bystander given NARCAN. We put in a request 6 months ago to the MOHLTC, we wanted a code, we fill out after every patient contact. It would be very helpful if the database could be updated so that this is searchable, so that they could know the numbers. The sealed are coded after the fact. We wanted to track bystander given Narcan.

What actions might other organizations take in response to the surveillance system data? Please describe.

The data may be useful for organizations applying for funding, to justify future interventions. It may also be helpful to build partnerships with other rural regions dealing with similar patterns. It may also be beneficial for schools and youth organizations to have access to data to allow them to be proactive rather than reactive.