EVALUATION REPORT

EVALUATION OF BRITISH COLUMBIA'S FACILITY OVERDOSE RESPONSE BOX (FORB) PROGRAM

towardtheheart.com
BCCDC HARM REDUCTION SERVICES

BC Centre for Disease Control
Provincial Health Services Authority

PREPARED BY:

SIERRA WILLIAMS, NALOXONE PROGRAM OPERATIONS COORDINATOR, MPH
TANIS LEWIS-KING, PRACTICUM STUDENT, MPH
DR. JANE BUXTON, HARM REDUCTION PROGRAM LEAD, BCCDC

MAY 2018

SW CAPSTONE PROJECT (PHASE ONE)
FACULTY OF HEALTH SCIENCES
SIMON FRASER UNIVERSITY

APRIL 2019

TLK PRACTICUM PROJECT (PHASE TWO)
SCHOOL OF POPULATION AND PUBLIC HEALTH
UNIVERSITY OF BRITISH COLUMBIA

To be cited as: Williams, S., Lewis-King, T., & Buxton, JA. (2019). Evaluation of British Columbia's Facility Overdose Response Box (FORB) Program. Vancouver, BC. BC Centre for Disease Control.

CONTACT INFORMATION

BC Centre for Disease Control
Harm Reduction Services
655 West 12th Avenue
Vancouver BC V5Z 4R4

EMAIL: naloxone@bccdc.ca
DATE OF PUBLICATION: JULY 2019

BCCDC acknowledges that this work is completed on the unceded territory of the Coast Salish peoples, including the territories of the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), Stó:lō and Səl̓ílwətaʔ/Selilwitulh (Tsleil-Waututh) Nations.

EXECUTIVE SUMMARY

The Facility Overdose Response Box (FORB) program aims to prevent fatal overdose events at non-profit community organizations by providing naloxone, staff training resources, and support to those that voluntarily respond to opioid overdoses. The program was developed by BC Centre for Disease Control (BCCDC) and implemented on Dec 1 2016. Approved sites are provided with resources and materials to support implementation of an overdose response protocol, policy, and training.

This evaluation includes a descriptive analysis of the program data using administrative records and assessed the feasibility, acceptability and effectiveness of the FORB program and its activities. Phase one aimed to identify strengths and barriers to developing, implementing, and sustaining the FORB program though interviews with key stakeholders. Phase two provides a quantitative assessment of the FORB program logistics through an online survey distributed to executive directors and site coordinators of the participating FORB sites.

RESULTS:

As of March 15th 2019, 570 sites participate in the FORB program and there have been 857 overdose reversals reported from FORB sites. Of those participating sites, 24% also offer harm reduction supplies and 16% offer Take Home Naloxone kits for clients.

Phase one: Paired interviews with BC Harm Reduction Program staff and Regional Harm Reduction Coordinators revealed challenges, barriers and successes, captured participants' beliefs, knowledge and attitudes towards the program and lessons learned. FORB is a highly valued program. A large uptake of the program was observed across the province upon program start. The value and implications of FORB go beyond providing naloxone and harm reduction supplies. FORB is unique in that it requires approved sites to consider their occupational health and safety response, as well as the resources and supports available for staff before and after response to overdoses. FORB training resources and hands-on training help staff at community sites to feel more confident in responding to overdose events. Addressing underlying perceptions about harm reduction principles and drug use is an important part of program training and activities.

Phase two: The site survey was completed by 89 executive directors and site coordinators of approved FORB sites. Findings support simplifying the training and program resources and making it easier to navigate the Towards the Heart website. The availability and use of FORB program resources are important for implementing and sustaining FORB. Utilization of program of resources, ongoing training, and practice drills were associated with staff confidence and length of participation with the program. Enhanced communication between participants at all levels of the FORB program is essential to facilitate ongoing program success.

This report outlines the program evaluation process and results and provides recommendations for program improvement.

ACRONYMS

BC Coroners Service (BCCS)
BC Centre for Disease Control (BCCDC)
BC Harm Reduction Services (BCHRS)
Facility Overdose Response Box Program (FORB)
Take Home Naloxone Program (THN)
Toward the Heart (TTH)
Overdose (OD)
Overdose Prevention Services (OPS)

ACKNOWLEDGEMENTS

Sara Young, Hepatitis and Harm Reduction Programs Manager, BCCDC
Emily Ogborne-Hill, Harm Reduction Project Manager, BCCDC
Margot Kuo, Harm Reduction Epidemiologist, BCCDC
Sonya Ishiguro, Project Manager, BCCDC
Regional Harm Reduction Coordinators, Health Authorities
Facility Overdose Response Box Program Participants
Lauren Mathany, Public Health Manger, BCCDC who developed the initial matrix and logic model

TABLE OF CONTENTS

1. BRITISH COLUMBIA'S OVERDOSE CRISIS

British Columbia's (BC) Provincial Health Officer declared a public health emergency on April 14, 2016 in response to an unprecedented number of illicit drug overdoses in BC. In 2018 more than 1500 drug overdose deaths were reported by the BC Coroners Service. Fentanyl, a synthetic opioid, has been linked to the increase in overdose deaths.[1,2] Fentanyl is 50 – 100 times more potent than morphine and acts more quickly than other opioids to produce an overdose.[3,4,5] The risk of accidental overdose increases when fentanyl is combined with other opioids or respiratory depressants.[4] Fentanyl and its analogues have been detected in heroin, oxycodone (e.g. fake oxy), methamphetamine, cocaine, crack cocaine and in variable amounts and forms.[4,6,7,8]

Criminalisation of illegal drug use may lead to stigma. As a result people who use substances may hide their drug use from friends and family members, use drugs alone, remain unmonitored when injecting drugs, and be less likely to seek medical attention or assistance from paramedics.[9-11] Further, this limits the ability of bystanders to recognize or respond to an opioid overdose event. As reported by BC Coroner's Services, the majority (69%) of people who died of illicit drug overdose between 2016 and 2017 had used their drugs alone.[12]

2. OVERDOSE PREVENTION AND RESPONSE WITH NALOXONE IN BC

Harm reduction efforts and overdose response strategies have been implemented across BC to prevent deaths from overdose including:

1) Community-based naloxone programs reduce overdose deaths by providing training to enable individuals to recognize and respond to an overdose event. The response includes administering naloxone, a medication that can rapidly reverse an opioid overdose.[13,14] The BC Take Home Naloxone (THN) program was developed by BCCDC and implemented in 2012 to provide kits at no cost to those at risk of an overdose.

The BC THN program has expanded over time, with over 1400 sites participating across BC, including all emergency departments, health units, and provincial correctional facilities; many First Nations communities, and since December 2017, some community pharmacies.[15] This program has contributed to many naloxone administration events and successful opioid reversals. As of March 2019, over 140,000 kits have been distributed and more than 39,000 kits have been reported as used to reverse an overdose in BC.[15]

2) Overdose Prevention Services (OPS) opened across the province in December 2016 as part of a provincial response ordered by the BC Minister of Health and are provided as necessary on an emergency basis. OPS provide an observed space for people using substances at community sites to be safer. OPS staff have naloxone on site to respond in the event of an overdose as well as provide education and support to enhance safety.[16] As of March 2019, there are 33 Overdose Prevention Services and Supervised Consumption locations across BC and an additional 25 OPS sites in housing facil-

ities in the Vancouver Coastal Health region. In 2018, there were over 670,000 visits to these service locations and of those, 4,000 overdoses were attended by staff and peer workers.

3) Toward the Heart is a website platform for BCCDC Harm Reduction Services (BCHRS). It provides access to numerous harm reduction resources such as, harm reduction supply and naloxone program resources, tips for safer sex and drug use, infographics regarding overdose awareness, recognition and response, engagement strategies with people who use substances, and initiatives to reduce stigma.[15, 17-19]

3. FACILITY OVERDOSE RESPONSE BOX PROGRAM RATIONALE

Prior to the Facility Overdose Response Box (FORB) program, staff at community sites responding to overdoses reported feeling inadequately prepared to respond. Staff were responding to overdose events off-site and using THN kits, which may not have been restocked in a timely manner. The FORB program was created following the successful implementation of a pilot project involving Lookout Emergency Aid Society, Vancouver Coastal Health, Fraser Health and the BC Centre for Disease Control (BCCDC).[7] In February 2016, Lookout Emergency Aid Society staff members at 24 sites across the Lower Mainland were provided with facility naloxone boxes and were trained to respond to opioid overdoses using naloxone.[17,20] Over a 3-month pilot period, staff successfully reversed 151 overdoses.[20]

The success of the pilot project informed the development the FORB program, which was officially launched by the BCCDC on December 1st, 2016 with the goal of better preparing and supporting individuals at non-profit community-based organizations to respond to an overdose event.[17] FORB provides overdose response boxes that contain naloxone for use by employees of community-based organizations where overdoses may occur.[17] Program participation requires a commitment by sites to have an overdose policy and protocol, train staff, report overdose events, provide post event debriefing, implement repeat training and overdose drills, and ensure timely restocking of the program boxes.

4.
OUTLINING THE FACILITY OVERDOSE RESPONSE BOX PROGRAM

4.1 PROGRAM OVERVIEW

The primary objectives of FORB are to prevent fatal overdoses at community-based organizations by providing naloxone and other harm reduction supplies to support staff who voluntarily respond to opioid overdoses. Resources are provided on the Toward the Heart website to help the implementation of overdose response protocol, policy, training and debrief.[19]

4.2 FORB PARTICIPANT ELIGIBILITY AND PROGRAM SUPPLIES

Eligible sites are non-profit community based organizations that work with clients at risk of experiencing an opioid overdose including: shelters, supportive housing, friendship centres, and non-profit community care facilities. The content of FORB boxes and other resources were informed by an evaluation of the pilot project.

Hard semi-opaque plastic response boxes are provided free of charge by BCCDC to registered sites. Boxes contain: 5, 10, or 20 doses of naloxone and other overdose response supplies and soft cases similar to THN kits but bright blue containing 3 doses of naloxone to carry while working (Image 1).

The OD response boxes come with flip card instructions that outline the steps for responding to an opioid overdose (Image 2).[17] Training modules and overdose education information can be accessed on the Toward the Heart website, including an overdose planning workbook, online training modules, naloxone training manual, training checklists, videos, posters, a quick learn lesson and an online naloxone training application.[19]

IMAGE 1 *FORB plastic response boxes and portable cases*

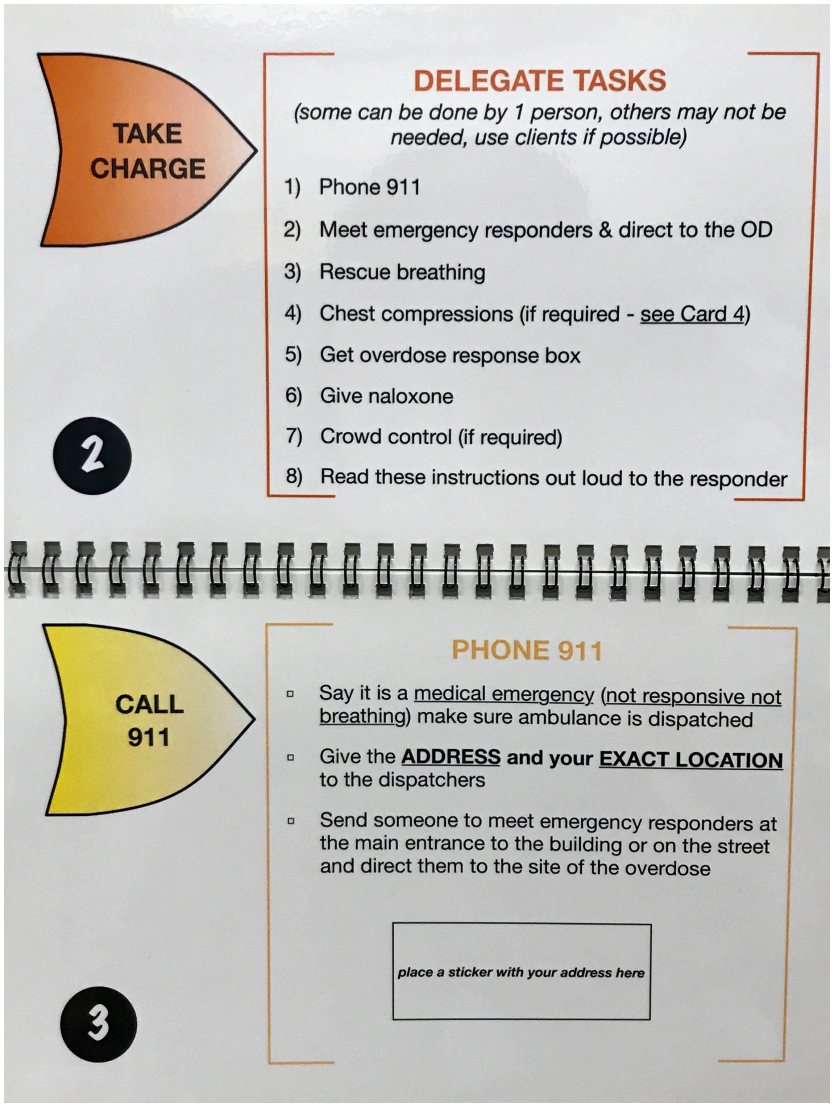


IMAGE 2 *Flip card overdose response instructions*

4.3 FORB PROGRAM REQUIREMENTS

Prior to receiving the boxes, approved sites must (1) complete planning exercises, (2) develop an overdose response policy and protocol for their organization and, (3) create a training plan for staff. Sites must ensure that staff receive appropriate training and that debriefing and support is available for staff following an overdose response. Sites are required to provide ongoing training and drills to maintain staff competency and train new staff to recognize and respond to an overdose event and administer naloxone. Lastly, sites must complete and submit documentation to BCHRS and are accountable for keeping supplies stocked and reporting naloxone use.

5.
EVALUATION PURPOSE AND OBJECTIVES

The purpose of this evaluation is to assess the feasibility, acceptability and effectiveness of the FORB program and its activities to support the successful expansion to other community-based organizations across BC and to identify areas for improvement. The evaluation objectives are outlined below in Table 1.

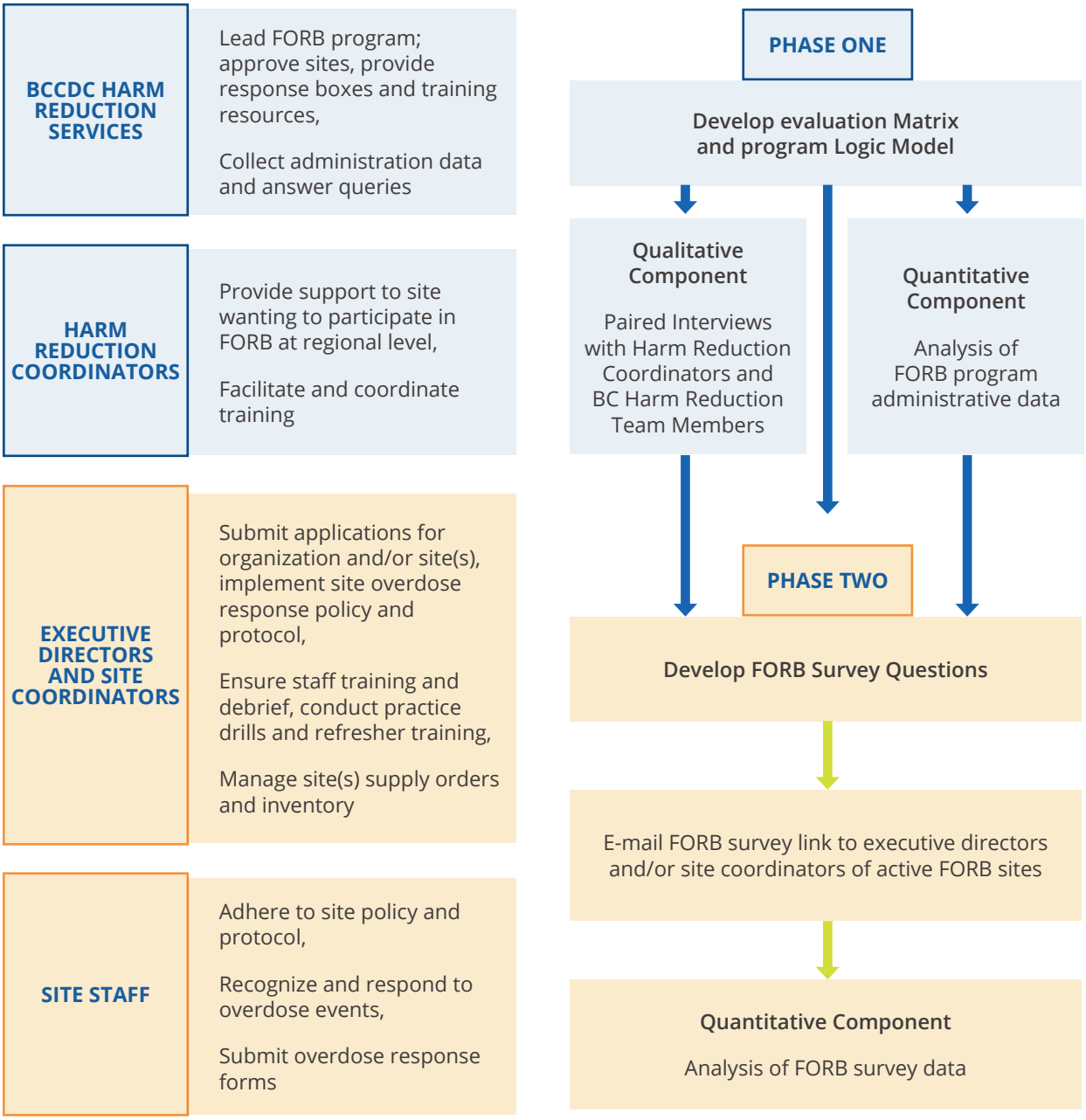
TABLE 1 *Outline of FORB evaluation objectives*

	Objectives
1	Summarize the number of FORB sites and boxes distributed to community organizations in BC and identify any issues with kit design/ordering
2	Identify and describe logistical strengths and barriers to successful implementation of the FORB program at community sites in BC
3	To assess if training, orientation materials and the OD response box provide staff with the knowledge, skills and support required to consistently recognize and respond to overdoses
4	Identify and describe facilitators and barriers to the ongoing success, sustainability and acceptance of the FORB program
5	Describe staff knowledge, perceptions, and attitudes towards the FORB program in community organizations/at community sites
6	Inform the future implementation and expansion of the FORB program to other community organizations in BC and Canada

6.
EVALUATION APPROACH AND DESIGN

This evaluation employs both process and outcomes-based approaches as outlined by Patton (2002).[21] Outcomes focus on changes in comprehension, attitudes, and behaviours that result from a program and its activities. A logic model outlined key program inputs and outputs, and identified immediate, intermediate and long-term outcomes of FORB. An overview of the FORB program roles, responsibilities and program evaluation is shown below in Figure 1.

FIGURE 1. *An overview of FORB program roles, responsibilities and program evaluation.*



In phase one, paired key informant interviews were used to understand the experiences of those participating in FORB. Semi-structured interview guides were informed by the logic model (see appendix) and matrix, as well as previous THN evaluation interview guides. Interviews for this phase of the evaluation include BC Harm Reduction team members and Health Authority Harm Reduction Coordinators.

Phase two of the evaluation consisted of a quantitative analysis of a online survey distributed to executive directors and site coordinators of participating FORB program sites. The survey aimed to gain a better understanding of program perspectives and site-level logistics to identify areas for improvement. This report outlines findings from both phase one and two of the evaluation.

7. METHODOLOGY

Ethics approval was obtained from the University of British Columbia and Simon Fraser University Ethics Review Boards (H12-02557).

7.1 PHASE ONE: PAIRED INTERVIEWS

The FORB program data outlines the number of participating sites, an overview of approved sites by Health Authority, community, and types of service provided. Forms completed by site coordinators and returned to the BC Harm Reduction team are stored in an administrative database. They capture information on ordering of naloxone and supplies such as overdose response box size, loose training and refill supplies, frequency of ordering, number of overdose events reported at the site as well as information regarding the overdose event (e.g. location, naloxone administration, time of day, debrief, rescue breathing).

Paired interviews were conducted during March – April of 2018. Paired interviews collect information from several people at the same time to capture in-depth perspectives and facilitate joint dialogue and comparison among colleagues.[22] Participants included the BC Harm Reduction Program Team and Health Authority Harm Reduction Coordinators involved in FORB. Participants provided written informed consent prior to conducting interviews.

Interviews were conducted in person or via phone and audio recorded. Notes and field notes were taken during and immediately following the interviews to facilitate analysis.[21] Interviews were transcribed verbatim, and analyzed using descriptive qualitative analysis, so that interpretations are low-inference and facts are presented closely to everyday accounts of the events.[23,24] Coding was informed and led by the evaluation objectives and the interview guide. The codes from paired interviews were categorized into major themes that were consistent among stakeholders. Results were shared with participants, and used to inform phase two of the evaluation.

7.2 PHASE TWO: ONLINE SITE SURVEY

The FORB survey was designed using the online platform Checkbox Surveys, which is a survey tool approved for use by the Provincial Health Services Authority (PHSA). To ensure privacy and confidentiality of the FORB survey participants, data is stored securely on Canadian Checkbox Survey servers. The survey was anonymous and individual responses could not be linked to specific FORB sites, executive directors or site coordinators. The evaluation objectives (Table 1), pre-developed evaluation matrix, as well as the planning and execution of the phase one evaluation informed the development of the survey questions. The survey was piloted with BCHRS team members and a student researcher to assess the understandability and flow of the questions. A link to the online survey was sent via e-mail to n=380 executive directors and site coordinators of approved FORB sites on February 7, 2019. Of those 380 e-mail invitations to complete the survey, 50 were returned to sender because the executive director or site coordinator was out of the office or the e-mail address was invalid. Survey participants were given until February 22, 2019 to complete the survey.

Data from the FORB survey were exported from Checkbox Surveys for cleaning and analysis. A data dictionary was created and the variable names were re-coded. Microsoft Excel PivotTable was used to calculate descriptive statistics and two-way relative frequency tables. Missing responses to specific survey questions were excluded from the calculations. Reported statistics are based on the number of survey respondents who answered the particular question.

8. RESULTS

As of March 15, 2019, there are 570 active FORB sites in BC and there have been 857 overdose reversals reported from FORB sites.[25] Of those participating sites, 24% also offer harm reduction supplies and 16% offer Take Home Naloxone kits for clients. During phase one, three paired interviews with a total of six female participants were conducted; four were regional Harm Reduction Coordinators, and two were BCHRS team members. In phase two, from the 330 current e-mails that were sent and received by executive directors and site coordinators of approved FORB program sites, 89 survey responses were collected resulting in a total response rate of 27%. Themes and outcomes of the program that recurred or had the potential to improve and sustain FORB are outlined in table 2.

TABLE 2. *Summary of results from phase one and two: barriers, challenges and successes*

BARRIERS AND CHALLENGES	SUCCESSES
1. Application and Implementation Processes	
• Application, approval and ordering forms and processes seen as complex and repetitive • Challenging to coordinate a centralized distribution system when many sites fall under one organization • Challenging to find program information and resource forms when navigating Toward the Heart website • Lack of standardized overdose response policy and protocol at site level	• Manageable and sustainable from operations and administrative perspectives at BCHRS (i.e. managing applications and orders) • Collaboration between BCHRS, harm reduction coordinators and FORB sites enables successful site implementation and ongoing management • BCHRS combining initial application and registration forms improved registration processes for sites • Site survey participants found application process clear and checklists easy to use • Improved structure of Toward the Heart website • FORB program participation has enabled sites to develop overdose response policy and protocol as part of mandate

BARRIERS AND CHALLENGES	SUCCESSES
2. Training Processes	
• Having online training resources only is not sufficient to meet site needs • Coordinating initial in-person and comprehensive training is challenging in some locations as harm reduction coordinators often do initial training and sites are geographically dispersed • Lack of available training supplies at individual sites impact success of practice drills • Trainers are needed within the sites to facilitate subsequent staff training to be self-sustaining • Lack of a standardized and comprehensive training program with a structured best-practice approach that incorporates: an overview of the OD crisis, harm reduction principles and trauma informed practice, recognition of stigma as a perpetuating factor, along with hands-on naloxone training and "train-the-trainer" model overview.	• Practice drills, role playing and refreshers build competencies, skills and confidence • Online resources facilitate staff training and are adaptable to local context and participant needs • Training prepares individuals to recognize and respond to OD • Comprehensive in-person training facilitates dialogue about harm reduction principles, stigma and discrimination associated with drug use • Most survey participants reported ongoing new staff training • Train-the-trainer models that incorporate the use of a local champion or educator were valued as successful training strategies

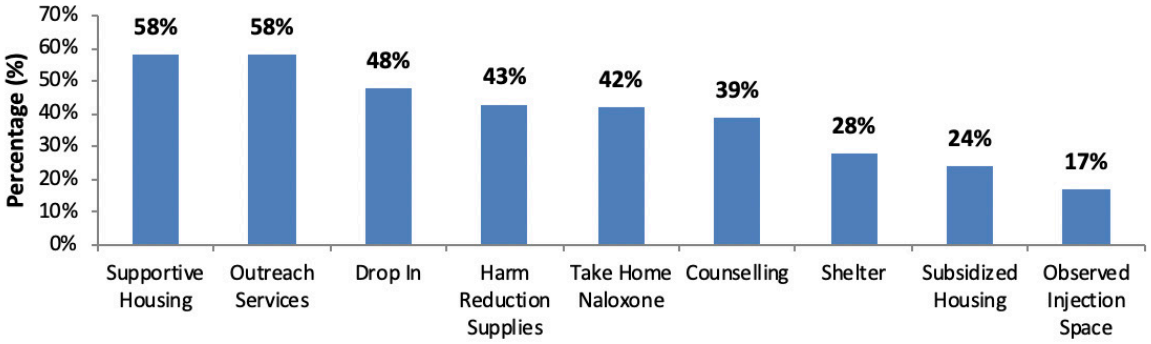
BARRIERS AND CHALLENGES	SUCCESSES
3. Program Resources and Ongoing Activities	
• Frequent staff turn-over may impact site program management for ordering and staff training • Difficulties maintaining ongoing refresher training and ensuring competencies at sites • Confusion between purposes of THN vs. FORB programs especially when sites are applying to both programs • Confusion around eligibility to participate in the FORB program • Difficulties implementing and maintaining sufficient debrief for staff support	• Boxes and supplies are sufficient to meet participants needs • Option for large gloves as preferred • Sites are able to assess their own needs for program management • Resources are adaptable to various sites' needs as sites may vary based on structure, services provided, philosophies and risk of overdose events • Sites that utilized the resources compared to those that didn't felt more prepared to recognize and respond to an overdose event (86%), and more able to continue staff training (86%) compared to those who did not use resources (63% and 50% respectively). • Overdose response forms provide valuable monitoring and surveillance insights regarding overdose events, debrief and staff preparedness • Monitoring and program data also enables harm reduction coordinators to facilitate and maintain follow up with sites in their region
4. Participant Attitudes, Perceptions and Beliefs	
• Ongoing challenge to addressing underlying assumptions and biases towards drug use • Philosophies, processes and experiences may vary between sites and can impact the implementation of FORB and its activities	• FORB program fills an existing gap with services provided through THN • FORB participation increases access to naloxone, training resources and supplies, as well as debrief resources to assist community sites in responding to OD events • FORB program is unique as it prompts sites to implement an overdose response policy into occupational health and safety mandate and to consider the well-being of their staff

8.1 CHARACTERISTICS OF SITE SURVEY PARTICIPANTS

Among the site participants that responded to the FORB survey, approximately 64% had been part of the FORB program for more than 1 year, whereas 8% had been part of the FORB program for less than 6 months. Half (50%) of the site participants reported having naloxone available prior to becoming a FORB site. Two-thirds (66%) of those sites that had prior naloxone also had a formal opioid overdose response policy before becoming an approved FORB site. One-third (33%) of all respondents stated that it took 1 to 2 weeks to develop their overdose response policy and/or protocol and approximately 15% took 3 to 4 weeks.

Figure 2 shows the services offered across the respondent sites; more than half (58%) of all sites offer supportive housing and outreach services, whereas only 17% offer observed injection space.

FIGURE 2. *Services offered at FORB program sites reported on the FORB survey.*



8.2 APPLICATION AND IMPLEMENTATION

Figure 3 shows how site respondents perceive the clarity of application process. Among the respondent sites, 64% agree or strongly agree that the application process for becoming a FORB site was clear while 13% disagree or strongly disagree.

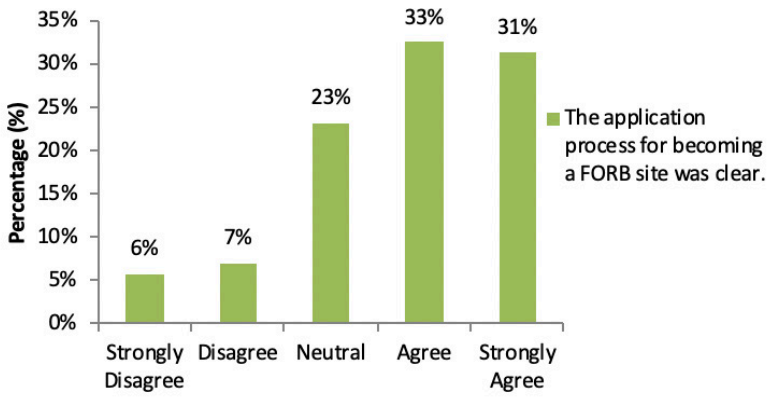


FIGURE 3. *Clarity of application process for becoming a FORB program site.*

Figure 4 shows respondent site feedback regarding the implementation checklist; the majority of sites (78%) agree or strongly agree that the implementation checklist was easy to use and understand and 79% agree or strongly agree that the implementation checklist provided all the necessary information and resources. Similar results were observed for the planning and preparedness checklist, the training checklist, and the implementation checklist. However, in terms of distinguishing between the FORB program and THN program, almost one-third (30%) of respondent sites stated they experienced confusion between the two programs.

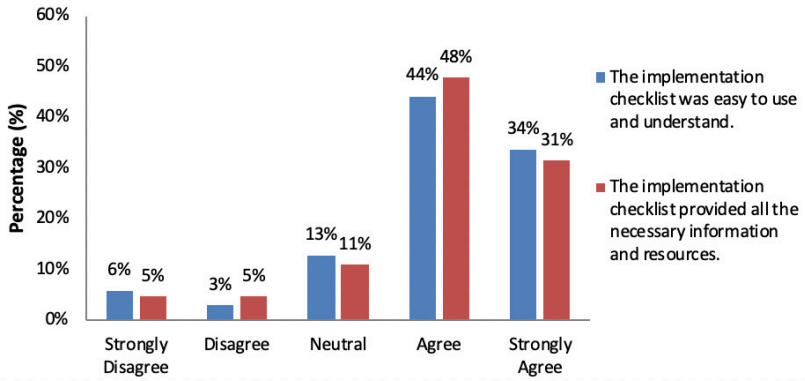


FIGURE 4. *Site feedback regarding the use and content of the implementation checklist.*

The majority (83%) of respondent sites agree or strongly agree that the Towards the Heart website provided useful resources and 73% agree or strongly agree that the website was easy to navigate (Figure 5).

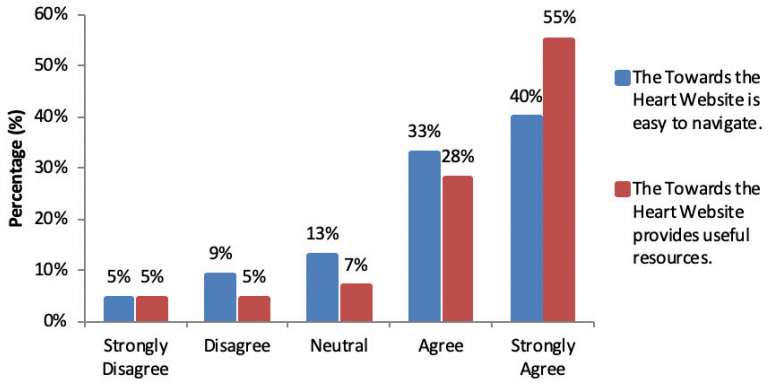


FIGURE 5. *Site feedback regarding the Towards the Heart website.*

8.3 TRAINING PROCESSES, RESOURCES, STAFF PREPAREDNESS AND ONGOING ACTIVITIES

One-third (33%) of the respondent sites took less than 1 month to train their staff, whereas 14% took 1 month and 21% of sites took 2 to 3 months. The majority (80%) of respondent sites used training resources provided by the BCHRS. Among those sites that reportedly used BCHRS resources, 86% were in agreement that they had the resources to continue with staff training. Conversely, among the 20% of all sites that reportedly did not use BCHRS resources, only 50% agreed that they had the resources to continue with staff training. Table 3 shows various training resources and the proportion of respondent sites that use them.

TABLE 3. *Training Resources Used by Respondent FORB Program Sites.*

TRAINING RESOURCE	TOTAL # SITES	% SITES
Naloxone Training Manual	57	64%
SAVE ME Poster	54	61%
Online Training Tool	51	57%
How to Respond to an Opioid Overdose Poster	50	56%
Training Checklist	49	55%
Training Videos	43	48%
Quick Learn Lesson	31	35%
Other	18	20%

Among respondent sites that use BCHRS resources, 86% reported that staff are always or mostly prepared to recognize and respond to an overdose event (Figure 6). In comparison, among sites that do not use the BCHRS resources, 63% reported that staff are mostly prepared to recognize and respond to an overdose event while none of them reported always being prepared. A respondent site that reportedly never completed practice drills and never offered refresher training was the only one to report being rarely prepared to recognize and respond to an overdose event.

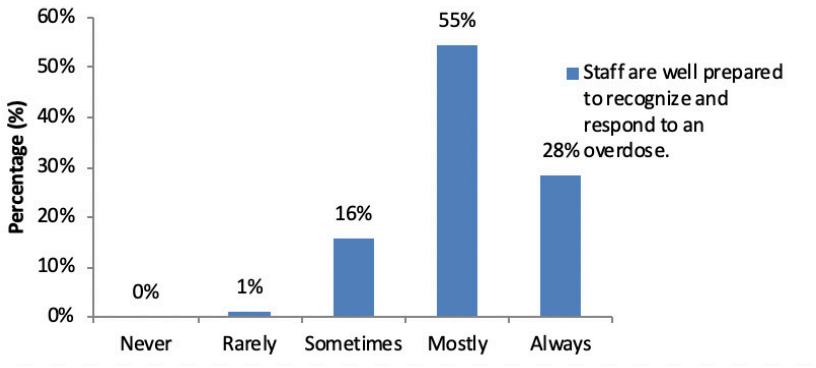


FIGURE 6. *Preparedness of staff at FORB site to recognize and respond to an overdose.*

Ongoing training and practice drills are also an important component of sustaining the FORB program at participating sites. The majority (91%) of respondent sites offer ongoing training sessions for new staff. Among the sites that offer ongoing training, 40% offer it annually while only 11% offer it monthly. Among respondent sites that recently joined the FORB program (less than six months ago), 43% offer monthly refresher training while only 2% of respondent sites that have been with the FORB program for more than one year offer monthly refresher training.

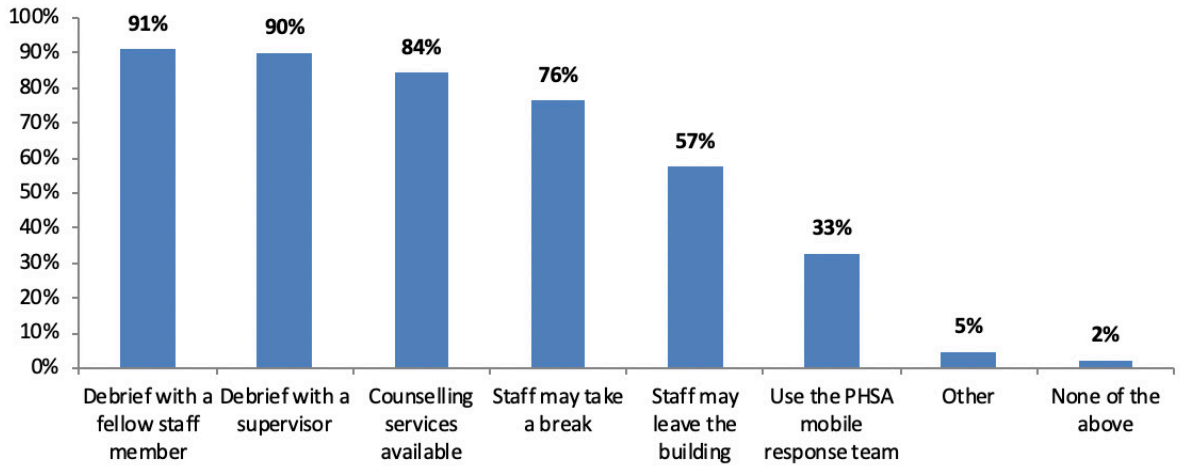
Compared to refresher training, fewer sites (62%) complete practice drills. Among the sites that complete practice drills, almost half (43%) do so annually and one-fifth (21%) semi-annually.

Practice drills are completed less frequently among respondent sites that have been with the FORB program for longer. Among sites that have been with the FORB program for more than 1 year, the majority (39%) never offer practice drills and only 4% offer them monthly. Conversely, among sites that have been with the FORB program for less than 6 months, 27% never offer practice drills and almost half (43%) offer them monthly.

8.4 OVERDOSE EVENTS, STAFF SUPPORT AND PROGRAM SATISFACTION

A breakdown of the types of support offered to staff following an overdose event is shown below in Figure 7. Debriefing with an on-site staff member or supervisor (90%) was most commonly reported whereas the Provincial Health Services Authority (PHSA) Mobile Response Team was the least frequent at 33%.

FIGURE 7. *Debrief supports utilized by FORB sites.*



The majority of respondent sites (91%) reported that they feel satisfied with the services provided by the BC Harm Reduction program and with being a FORB site. Moreover, 86% of sites agreed that the FORB program has helped them prepare to respond to an overdose event.

9. DISCUSSION

In the first phase of the evaluation, interviews were conducted to identify challenges, barriers and facilitators to implementing and sustaining the FORB program. In phase two, an online survey explored site-level information on the provision of services and overdose events as well as FORB program implementation processes, training processes, use of program resources, and ongoing activities. A discussion of the evaluation results regarding key processes and attitudes of the FORB program are outlined below.

9.1 SITE CHARACTERISTICS AND PROGRAM ACTIVITIES

Sites that participate in FORB offer a variety of services and in most instances, more than one service (Figure 2). Less than half of the site survey respondents (41-42%) indicated that they participate in the BCCDC's THN and HR supply programs. Therefore, there is an opportunity for the BCHRS team to consider how to better encourage and support sites that may benefit from participating in all three programs. While results suggest that coordinators at the site level are satisfied with application processes and checklists, some respondents still expressed difficulty. This supports the need to simplify and clarify the program resources with input from sites so that all sites can easily navigate through the process of determining eligibility, application to the FORB program, and implementation.

Confusion between the THN and FORB program suggests that participating sites may not have clarity between the objectives of the programs and more specifically, that FORB provides naloxone for use by staff when responding to an overdose in the workplace. Improving communication (via website and program resources), considering how to discuss all available BC Harm Reduction programs upon initial registration, and further exploration of site eligibility may help to diminish the ongoing confusion.

9.2 TRAINING PROCESSES, RESOURCES AND STAFF DEBRIEF

The integration of comprehensive training and debrief supports enables staff to feel more competent and confident in responding to overdoses. A relationship exists between the use of BCHRS resources and the preparedness of FORB site staff to recognize and respond to an overdose event. Site's that have been with the program longer, or those that more actively respond to overdoses, may feel more prepared to respond to an overdose event. The resources were also important for program sustainability at participating sites. A cited reason for not using the BCHRS training resources was an unawareness of such resources, which further highlights the need to improve communication processes. The program should engage with sites to develop a more defined package of training resources.

A lower frequency of refresher training and practice drills was reported among sites that have been with the FORB program for longer. Further, survey respondents reporting more frequent overdose events also reported completing practice drills less frequently. Although training needs and naloxone usage may widely vary, sites should be encouraged to continue hands-on practice training and refreshers. An annual checklist could benefit all FORB program sites by serving as a reminder to conduct refresher training and practice drills.

Site survey respondents indicated that debrief was available following an overdose event; however there was variation in the types of supports utilized (Figure 8). Having options for staff debrief is crucial for staff, so it is important to further examine why particular types of staff support are more frequently used as well as to if there are reasons some are not as common.

9.3 FORB PROGRAM ATTITUDES, PERCEPTIONS AND BELIEFS

Overall, participants at all levels of the program were very pleased that FORB was created and implemented. Despite program acceptability, underlying attitudes, stigma and beliefs were noted as challenges for the uptake of FORB. For instance, some sites may not have an underlying understanding of harm reduction principles and trauma-informed response. This in turn, will impact what messages are taken away from training, how individuals respond, and how they perceive persons who use drugs. Ultimately, this may influence successful implementation and sustainability of FORB.

Phase one of the FORB evaluation revealed the importance of staff support as well as acknowledging the nature of this crisis and the expectations placed on those taking part in response. Many staff may not be oriented to respond to emergency situations such as overdose events, and this crisis is calling upon people who may not have experience with persons who inject substances and are at risk of an overdose event. The roles of the executive directors and site coordinators are crucial to the success and sustainment of the FORB program; thus, their program feedback captured in phase two and understanding of site needs are crucial to ongoing program activities.

The evaluation has highlighted the importance of developing resources and programs that enable people to respond in a consistent way so that they feel confident and comfortable. By doing so, we ensure understanding of overdose response and protocol. The FORB evaluation has identified areas for program improvement, while highlighting benefits that the program provides to community-based and non-profit organizations across the province.

10. LIMITATIONS

The qualitative component of this evaluation focused on the views of BCHRS staff and HR coordinators and did not interview FORB site staff. The survey used for the quantitative component had a response rate of 27%, therefore, feedback captured may not be representative of all executive directors and site coordinators of participating FORB sites. Selection bias was minimized by sending the survey to all 380 unique site coordinators or executive director e-mails on file in the BCCDC HRS database. Both qualitative and quantitative components were conducted and analyzed by student researchers rather than the BCHRS staff, in order to limit response bias.

11.
RECOMMENDATIONS

The following recommendations aim to improve the FORB program to facilitate increased uptake and ongoing success of FORB as well as sustainability of the program at all levels. The recommendations below are informed by the results (see table 4).

TABLE 4. *FORB program evaluation recommendations*

1. APPLICATION AND IMPLEMENTATION PROCESSES
Collate and simplify administrative forms to ease application, approval and implementation processes
Generate a concise checklist to ensure sites have met all implementation requirements
Re-structure Toward The Heart website to increase ease of website navigation and access to FORB application and ordering forms and resources
2. TRAINING PROCESSES, 3. ONGOING ACTIVITIES, AND 4. PARTICIPANT ATTITUDES AND BELIEFS
Revise training resources with input from the executive directors, site coordinators, and staff at FORB sites to ensure adaptability and develop a concise training resource package
Develop a required standardized and comprehensive training model that incorporates trauma-informed practice, resiliency building, harm reduction principles, and hands-on practice training
Support participating sites to use and develop "train-the-trainer" models
Implement an annual checklist to remind FORB program sites to review their training policies as well as engage in refresher training and practice drills
Improve communication between the BCCDC Harm Reduction Program and FORB program sites to facilitate knowledge and understanding of the FORB program, ongoing collaboration, and program success
Clearly define the distinct eligibility and application processes for the FORB program versus the THN program to reduce confusion between the programs
Continue future evaluations to elucidate the resource and needs of the varying FORB program sites

In November 2018, a monthly infographic was developed and added to the Toward the Heart website.[26] This is updated monthly to provide reporting on the number of FORB sites, overdose reversals, as well as services offered by participating sites. By reviewing the results and recommendations of the phase one and phase two FORB evaluations, BCCDC Harm Reduction Services can now work towards improving: training and program resources, navigability of the Towards the Heart website, and communication. The next course of action involves implementing the recommendations in order to contribute to the ongoing success and improvements of the FORB program.

12.
REFERENCES

1. BC Coroner's Service Report. (2018, May 7). Fentanyl-detected illicit drug overdose deaths. Retrieved from: https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/death-investigation/statistical/fentanyl-detected-overdose.pdf

2. Socias, M. E., & Ahamad, K. (2016). An urgent call to increase access to evidence based opioid agonist therapy for prescription opioid use disorders. Canadian Medical Association Journal, 17(18), 1208-1209.

3. Green, T. C., & Gilbert, M. (2016). Counterfeit medications and fentanyl. JAMA Internal Medicine, 176(1), 1555-1557.

4. Jafari S., Buxton, J. & Joe, R. (2015). Rising Fentanyl-related Overdose Deaths in British Columbia. Canadian Journal of Addiction, 6(1), 4-6.

5. Higashikawa Y, Suzuki S. Studies on 1-(2-phenethyl)-4-(Npropionylanilino)piperidine (fentanyl) and its related compounds. VI. Structure-analgesic activity relationship for fentanyl, methyl-substituted fentanyls and other Analogues. Forensic Toxicology 2008;26:1-5.

6. Banjo, O. Tzemis, D., Al-Qutud, D., Amlani, A., Kesselring, S. & Buxton, J. A. (2014). A quantitative and qualitative evaluation of the British Columbia Take Home Naloxone Program. Canadian Medical Association Journal, 2(3), 153-161.

7. BC Coroner's Service Report. (2018, May 7). Illicit Drug Overdose Deaths. Retrieved from https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/death-investigation/statistical/illicit-drug.pdf

8. Young, M. M., Pirie, T., Buxton, J. A., & Hosein, F. S. (2015). The Rise of overdose deaths involving fentanyl and the value of early warning. The Canadian Journal of Addiction, 6(3), 13-17.

9. Office of the Provincial Health Officer of British Columbia, Coroners Service of British Columbia, British Columbia Centre for Disease Control. (2018). British Columbia overdose action exchange II meeting report. BC Centre for Disease Control. Retrieved from http://www.bccdc.ca/resource-gallery/Documents/bccdc-overdose-action-screen.pdf

10. Ambrose, G., Amlani, A., Buxton, J. A. (2016). Predictors of seeking emergency medical help during overdose events in a provincial naloxone distribution program: a retrospective analysis. BMJ Open, 6(6), e011224.

11. BCMJ News. (2017). Take-home naloxone program marks fifth year; stigma reduction next hurdle. BCMJ News, 59(8), 430-431. Retrieved from: http://www.bcmj.org/news/take-home-naloxone-program-marks-fifth-yearstigma-reduction-next-hurdle

12. BC Coroner's Service (2018, Sept 27). Illicit drug overdose deaths in BC – findings of coroners' investigations. Retrieved from: https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/illicitdrugoverdosedeathsinbc-findingsofcoronersinvestigations-final.pdf

13. Deonarine, A., Amlani, A., Ambrose, G., Buxton, J. A. (2016). Qualitative assessment of take-home-naloxone program participant and law enforcement interactions in British Columbia. Harm Reduction Journal, 13, 17.

14. World Health Organization. (2014). Community management of opioid overdose. Geneva: WHO. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/137462/9789241548816_eng.pdf?sequence=1

15. BCCDC Harm Reduction Services. (2018, Dec 18). Take home naloxone program: BC Centre for Disease Control, Vancouver BC. Retrieved from http://www.towardtheheart.com/naloxone

16. BC Centre for Disease Control. (2017). BC overdose prevention services guide. Retrieved from http://www.bccdc.ca/resource-gallery/Documents/BC%20Overdose%20Prevention%20Services%20Guide-Final%20October%202%2C%202017.pdf

17. BCCDC Harm Reduction Services. (2018, May 5). Facility overdose response box program: BC Centre for Disease Control, Vancouver BC. Retrieved from http://www.towardtheheart.com/forb

18. BCCDC Harm Reduction Services. (2018, May 5). About toward the heart. Centre for Disease Control, Vancouver BC. Retrieved from http://www.towardtheheart.com/about

19. BCCDC Harm Reduction Services. (2018, May 5). Training & resources. Centre for Disease Control, Vancouver BC. Retrieved from http://www.towardtheheart.com/naloxone-training

20. Rac, T., & Lysyshyn, M. (2016). Evaluation of the delegated naloxone pilot project: Jan – July 2016. Internal VCH Report. Accessed March 25, 2019.

21. Patton, M. Q. (2002). Qualitative Research and Evaluation Methods 3rd Edition. Sage Publications Inc, California, United States.

22. Ritchie, J & Lewis, J. (2003). Qualitative research practice: a guide for social science students and researchers. Sage Publications Ltd, London.

23. Sandelowski, M. (2000). Whatever happened to qualitative description? Research in Nursing and Health, 23, 334-40.

24. Sandelowski, M. (2009). What's in a name? Qualitative description revisited. Research in Nursing and Health, 33, 77-84.

25. BCCDC Harm Reduction Services (2018, Dec 17). FORB program infographic. Retrieved from: https://towardtheheart.com/forb-infograph

12.
APPENDIX

FORB PROGRAM EVALUATION LOGIC MODEL

<table>
<tr><th rowspan="2">INPUTS</th><th colspan="2">OUTPUTS</th><th colspan="3">OUTCOMES</th></tr>
<tr><th>STEP</th><th>SITE ACTIVITIES</th><th>IMMEDIATE</th><th>INTERMEDIATE</th><th>LONG TERM</th></tr>
<tr><td rowspan="3">STAFF:
BCCDC Project Manager, Contact Person and Site Coordinators, trained onsite staff, outreach staff, educators, HR Coordinators</td><td rowspan="3">1
Orientation</td><td>Organization meets eligibility requirements</td><td rowspan="3">Organizations who meet the eligibility criteria participate in the FORB program</td><td rowspan="3">Improve staff knowledge and competency of overdose prevention, recognition & response, naloxone and aftercare.</td><td rowspan="5">Reduction in opioid overdose deaths and brain injury in community settings through increased access to naloxone and overdose prevention and response education.</td></tr>
<tr><td>Complete organization and site registration forms</td></tr>
<tr><td>Approval by BCHRS</td></tr>
<tr><td rowspan="3">FACILITY OVERDOSE RESPONSE BOX PROGRAM MATERIALS:
Checklists and Forms</td><td rowspan="3">2
Planning and Preparedness</td><td>Resources, planning, policy/protocol, shift change checklist actions completed.</td><td rowspan="3">Participation of staff in training at each site (OD recognition/ response, and naloxone administration).</td><td rowspan="4">Improved organizational and staff preparedness onsite for overdoses.</td></tr>
<tr><td>New Site Agreement sent to BCHRS</td></tr>
<tr><td>Training plan developed and implemented</td></tr>
<tr><td rowspan="3">COMMUNICATIONS:
Toward the Heart website, site communications</td><td rowspan="3">3
Training</td><td>Training Agreement Records sent to BCHRS</td><td rowspan="5">Sites meet designated competencies required in Facility Overdose Response Program.</td><td rowspan="6">Contribute to supporting the actions of the Public Health Emergency.</td></tr>
<tr><td>Training curriculum and competency assessments completed</td></tr>
<tr><td rowspan="3">FACILITY OVERDOSE RESPONSE BOXES</td><td rowspan="3">4
Implementation</td><td>OD Response Box sent: received, checked and stored</td><td rowspan="4">Site staff respond to and reverse overdoses appropriately and in a timely manner.</td></tr>
<tr><td>Site communication of FORB</td></tr>
<tr><td rowspan="4">TRAINING & TRAINING MATERIALS</td><td rowspan="4">5
Ongoing Activities</td><td>Upkeep skills: practice drills, refresher training</td></tr>
<tr><td>Overdose: Submit Naloxone Administration Information Form, debriefing offered</td></tr>
<tr><td>Monitor supplies and reorder when necessary</td><td rowspan="2">Naloxone available in non-medical, community sites to respond to opioid overdoses.</td><td rowspan="2">Evaluation of Facility Overdose Response Program as a viable model.</td><td rowspan="2">Expansion of Facility Overdose Response Box Program.</td></tr>
<tr><td>FUNDING</td><td>Complete 1 year Evaluation Survey</td></tr>
</table>