



Kraft Center for Community Health

MOBILE ADDICTION SERVICES TOOLKIT



MASSACHUSETTS
GENERAL HOSPITAL

THE KRAFT CENTER
for Community Health

Overview

The overdose epidemic is one of the nation's most acute health crises. From 1999 to 2016, over 630,000 people died from drug overdoses in the US, and 2.5 million Americans meet criteria for opioid use disorder (OUD). OUD is treatable, and fatal overdose can be prevented. Studies have shown that medication for opioid use disorder (MOUD) increases the likelihood that people will stay engaged in treatment and reduces the risk of death. Unfortunately, only 10% of people with OUD receive treatment, and many are not connected to MOUD even following an overdose.¹² Even in areas where people are within a short distance of high-quality healthcare facilities and addiction services, people still miss opportunities for treatment and overdose rates remain persistently high.

Boston is home to The Kraft Center for Community Health at Massachusetts General Hospital. In partnership with Boston Health Care for the Homeless Program, the Boston Public Health Commission's AHOPE harm reduction program, and the GE Foundation, The Kraft Center has developed an innovative mobile health program called CareZONE, the first program under The Kraft Center's **Community Care in Reach™** initiative, which aims to expand access to addiction services through mobile health. This mobile health program provides low-threshold, low barrier clinical care and harm reduction services aimed at increasing access to addiction services for people at highest risk of near-term death. Guided by precise, data-driven hotspotting, CareZONE deploys a mobile unit and a hybrid team of clinicians and harm reduction outreach workers to areas with high rates of opioid use and overdose to engage individuals, initiate and continue MOUD treatment, provide harm reduction services, and link those with OUD to long-term, comprehensive community-based care. By mobilizing critical addiction services, clinical and harm reduction teams can bring care directly to high-risk individuals who are currently disengaged from care due to multiple barriers and stigma. Our goal is to expand on-demand access to patient-centered, compassionate care for a particularly vulnerable population.

The partnership between clinical and harm reduction providers can establish coordinated and complementary services and enhance people's access to comprehensive care.³ The Harm Reduction Coalition defines harm reduction as "a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use." Harm reduction is also "a movement for social justice built on a belief in and respect for the rights of people who use drugs."⁴ The adoption of harm reduction principles in healthcare settings can enhance clinical care by strengthening the provider-patient relationship and empowering patients to feel validated.⁵ The shared decision-

¹ Kleber, H. (2008). Methadone maintenance 4 decades later: Thousands of lives saved but still controversial. JAMA: Journal of The American Medical Association, 300(19), 2303-2305.

² Larochelle MR, Bernson D, Land T, Stopka T, Wang N, Xuan Z, Bagley SM, Liebschutz JM, Walley AY (2018). Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association with Mortality. Annals of Internal Medicine, 169, 137-145.

³ Schafer, P., Calvo, M. The New York Academy of Medicine. *The Integration of Harm Reduction and Healthcare: Implications and Lessons for Healthcare Reform*. 2015. https://nyam.org/media/filer_public/42/31/4231f3da-a58f-4714-ae72-23dc18616ced/harm_reduction-report_rev1119.pdf

⁴ "Principles of Harm Reduction." <https://harmreduction.org/about-us/> Accessed November 7, 2019.

⁵ Hawk, M., Coulter, R.W.S., Egan, J.E., Fisk, S., Friedman, M.R., Tula, M., Kinsky, S. Harm reduction principles for healthcare settings. Harm Reduction Journal. 2017; 14:70.

<https://harmreductionjournal.biomedcentral.com/articles/10.1186/s12954-017-0196-4>



making between the provider and patient can improve patient satisfaction, clinical results, and care costs.⁵ By addressing the needs and desires someone self-identifies, harm reduction cultivates a service environment where people feel respected and valued. People are more willing to return to service providers when trust is built, and autonomy and agency are preserved.³

Having already successfully established a program in Boston, the purpose of this manual is to serve as a guide for other programs interested in replicating the mobile health model. This toolkit outlines guidelines and protocols that may assist organizations in the planning and implementation of a mobile addictions services program that combines harm reduction and clinical care.

Founding Partners

THE KRAFT CENTER *for Community Health*



GE Foundation

The Kraft Center for Community Health at Massachusetts General Hospital aims to catalyze innovative solutions to real world community health problems, execute solutions locally, and make them scalable and ready to spread nationally to improve health outcomes for disadvantaged populations throughout the Commonwealth of Massachusetts and nationally.

Boston Health Care for the Homeless Program's (BHCHP) mission since 1985 has remained the same: to provide or assure access to the highest quality health care for all homeless individuals and families in the greater Boston area. BHCHP believes it has been and continues to be medicine that matters.

Boston Public Health Commission's AHOPE Program was one of the first syringe service programs in Massachusetts and has been providing services to PWUDs since 1994. AHOPE also became the first pilot site in Massachusetts in 2007 to provide overdose prevention education and naloxone distribution to drug users and other potential bystanders at an overdose.

GE Foundation, the philanthropic organization of GE, is committed to transforming their communities and shaping the diverse workforce of tomorrow by leveraging the power of GE. They are developing skills by bringing innovative learning in community health globally and STEM education, scaling what works, and building sustainable solutions.

The CareZONE mobile health initiative was made possible by support from:

KRAFT FAMILY FOUNDATION



Acknowledgements:

Special thanks to Sarah Mackin, Jessie Gaeta, Joe Wright, and Crystal Bloom for their extensive contributions and edits that helped to make this toolkit possible.



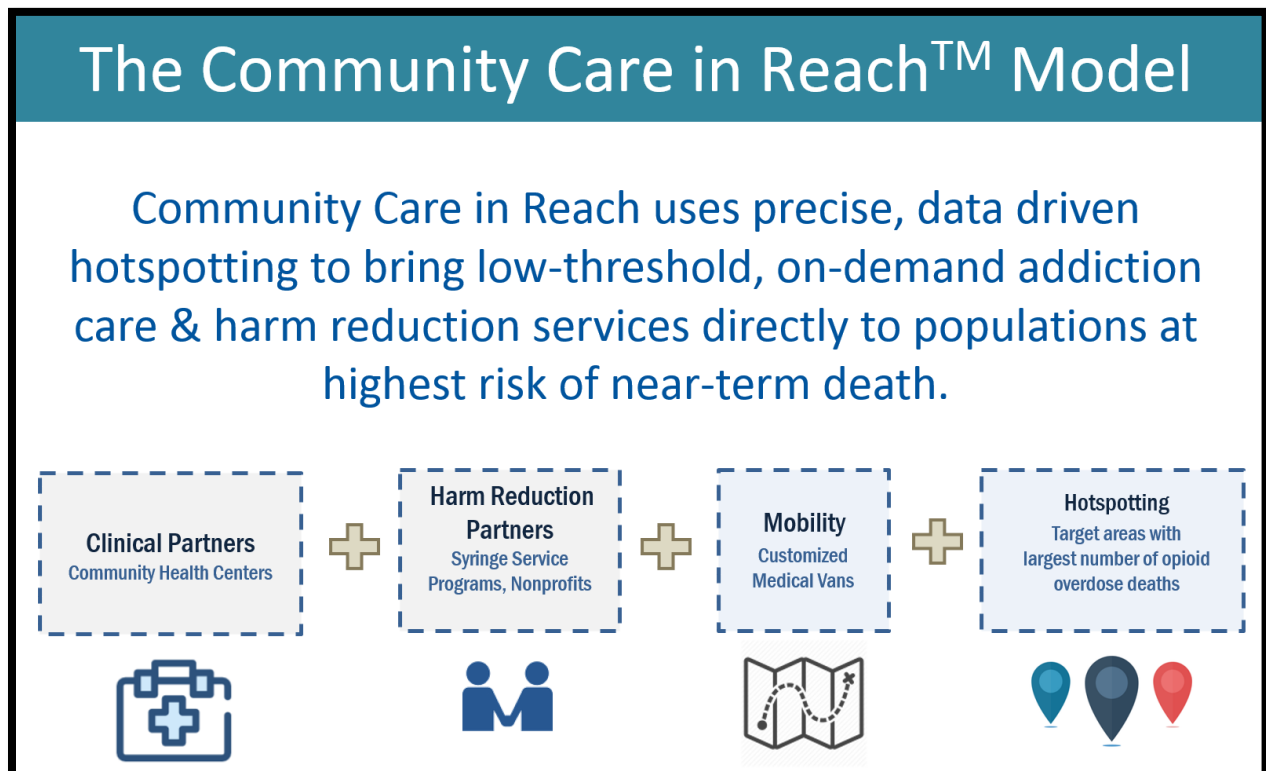
Introduction to Community Care in Reach™

In January 2018, the Kraft Center for Community Health at Massachusetts General Hospital, in partnership with Boston Health Care for the Homeless Program, Boston Public Health Commission's AHOPE program, and the GE Foundation, launched CareZONE, a mobile health initiative intended to expand access to on-demand care for the city's most vulnerable populations. CareZONE is the inaugural program launched under The Kraft Center's Community Care in Reach initiative. The initiative combines harm reduction services, clinical care including medication for opioid use disorder (MOUD), mobility, and data hotspotting to bring essential addiction services to Boston's most vulnerable populations who are not currently accessing care.

The goals of Community Care in Reach are:

1. Expand **harm reduction** services.
2. Use a **patient-centric** approach to facilitate access to **on-demand MOUD** for people with OUD not currently connected to care.
3. Leverage the program's **mobility** to bring essential, **patient-centric** addiction services **directly to people at greatest risk** of near-term death from overdose.
4. Expand **recovery support**.

Figure 1 – The Community Care in Reach Model



The Mobile Unit

Figure 2 - The mobile unit



The Kraft Center for Community Health contracted with Winnebago Industries to design a customized mobile unit for this program. The result was an 8.5' x 24' x 11' mobile medical van (cost of comparable unit ranges from \$165,000 to \$190,000 depending on specifications). Smaller than most mobile medical units produced by Winnebago, the van does not require a commercial driver's license (CDL) to operate. The smaller size provides easier access to narrow Boston streets.

Features of the mobile unit include:

- Volta system – lithium battery that powers the electricity in the back; no need for a generator.

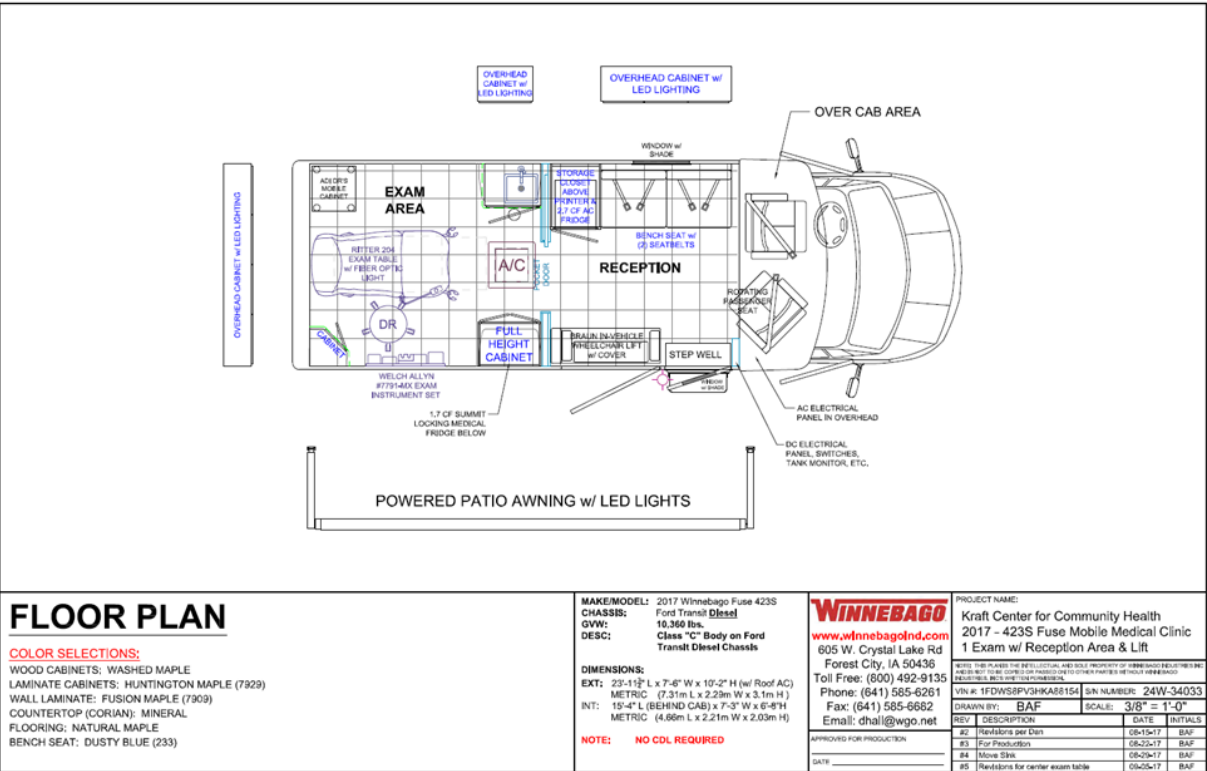


Figure 3 - Floor plan for the mobile unit from Winnebago Industries

- No generator required.
- Plugs in at night and recharges when the motor runs.
- The motor has capability to automatically start if the Volta battery is running low.
- Reception area upon entry.
 - Front passenger seat rotates to make an additional chair for the for the reception area.
- Clinical room in rear.
 - Full-size medical table.
 - Pocket door separates from reception area for privacy.
 - Laptop, Wifi, and printer in lockable cupboard – can log into electronic medical record on site.
 - Sink, but no bathroom.
- Two refrigerators; one for food and one lockable refrigerator for vaccines.
- Wheelchair lift makes it handicap accessible.
- An electric powered awning provides shade during busy clinics.

As with many decisions, choosing a van design comes with several trade-offs. While for the CareZONE team, a smaller sized vehicle was important for navigating Boston streets and allowing for operation without hiring a driver, this means that certain activities such as group visits are not possible. Also, without a bathroom on the van, our clinical team relies of buccal swab testing, which can be limiting. Agencies should weigh the pros and cons of each van design before making a purchase that is most suitable to them.

Community Care in Reach Services

Services available at each clinical session include:

- **Harm Reduction** – The van’s harm reduction services include syringe exchange and naloxone distribution and risk reduction counseling. All harm reduction services also help our staff to remain engaged with clients who may at some point be interested in connecting to other services, including MOUD.
- **Primary Care** – Van clinicians provide myriad primary care services to populations who are not accessing regular care at traditional community-based settings. This includes vaccinations, wound care, screenings for HIV/STI, Hepatitis C, tuberculosis, and cancer, as well as referrals for behavioral health services and specialty care.
- **Addiction Care** – Crucially, patients with addiction have access to immediate



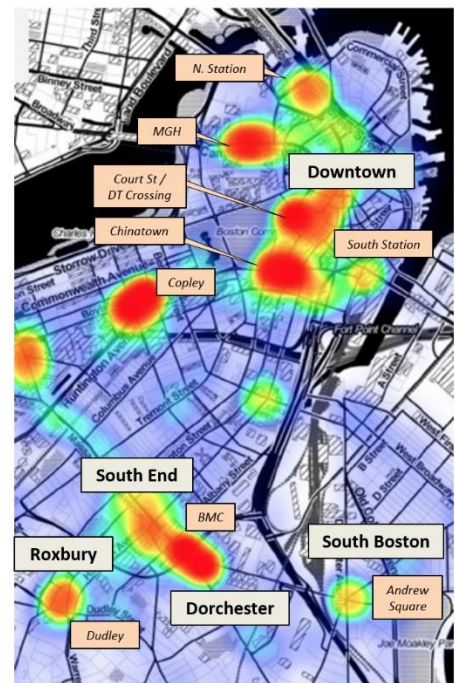
prescriptions for MOUD, providing the lowest barriers possible to the most effective treatment for OUD. Clinicians can prescribe buprenorphine or naltrexone or refer patients for methadone maintenance.

Through the provision of this critical service combination, Community Care in Reach seeks to provide compassionate, judgment-free care and to empower patients to prioritize their health in ways they could not previously. The program's mobility has allowed for the implementation of data-driven rapid deployment of services to areas in Boston requiring a public health response. Using real-time data, the van has rapidly mobilized to other neighborhoods with emergent needs ranging from incident HIV cases in a high-risk network to a persistent Hepatitis A outbreak in the homeless community.

Location Selection

Locations were selected using 2016 narcotic-related incident (NRI) data and 3-1-1 sharps data provided by city partners as well as information from the Boston Public Health Commission's AHOPE program, who have decades of experience outreaching to people who use drugs (PWUD) throughout the city. The data demonstrated that nearly every neighborhood in Boston was affected by the overdose epidemic, driven by the presence of fentanyl in the supply, but certain areas were more significantly impacted than others. A significant number of OUD victims were homeless, and while office-based addiction treatment (OBAT) programs are becoming increasingly available, there were still many service gaps. The substantial need for access to low threshold treatment and harm reduction services for the most marginalized populations was evident. The Kraft Center and its partners prioritized areas of high overdose where available local addiction services were limited. The original pilot sites included West End and Nubian Square (formerly Dudley Square), and have since expanded to include Downtown Crossing and the Fenway area.

Figure 4 - Narcotic Related Incidents (NRI) data 2016, Boston Public Health Commission



Process for Community Engagement

Prior to program launch, the Kraft Center and its partners embarked on a widespread community engagement effort to describe services and solicit feedback from local stakeholders. After presenting the proposed model to Boston's Office of Neighborhood Services (ONS), the team worked closely with ONS to identify potential sites for the mobile clinic. Ideal sites were those experiencing high rates of overdose, a lack of available addiction services, and community support for an intervention.

Once potential pilot sites were identified, The Kraft Center and its partners spent over four months engaging with law enforcement, neighborhood associations, local business associations, community health centers, and other neighborhood leaders. During these meetings, the team

distributed written materials, listened and sought feedback about the proposed program and services, had conversations about the impact of the opioid epidemic on the community, and addressed concerns about how Community Care in Reach might impact their neighborhood. We worked closely with community health centers to familiarize our staff with their current OBAT capacity and helped develop plans to coordinate referrals.

Though some harm reduction strategies such as syringe exchange can be provocative and illicit strong responses from community members, the overall feedback was very supportive. The Kraft Center continues to engage these community partners with program updates and requests for feedback while the CareZONE van maintains a presence in their neighborhood. This community support remains crucial to the program's ongoing success.

Early Results

Evaluation of the program is ongoing, but available data indicate early successes. From January 2018 to September 2019, the harm reduction team made 7,843 contacts with people who use drugs and distributed 2,627 naloxone kits. Van clinicians have had 1,024 total patient encounters, 73% of which were return visits from previous patients. Van clinicians have also provided 632 buprenorphine prescriptions, 79% of which represent patients returning to the van for refills.

Our early findings demonstrate the vast need for the program's services and indicate that Community Care in Reach is filling a clear service gap. Though the vast majority of van clients are accessing harm reduction services, our team has found that it often takes multiple encounters before individuals express interest in receiving MOUD or other clinical services. Relationship- and trust-building have been integral components of our program's success in these historically marginalized communities, resulting in a slow and deliberate ramp-up of service utilization as the program becomes more established.

Qualitative interviews demonstrate a positive reception by patients. One patient said, "I would describe them as pleasant, helpful, and compassionate... It's a good thing, it shows people do care, when you are hopeless and down and out and you feel like no one cares and you can come here, and you realize people do care." Another stated, "I don't have access to my own [medication] at this time because I'm homeless so it's in storage so to be able to come here and not have to show up at the emergency room for breathing treatment is really nice." Another patient highlighted her difficulties in accessing MOUD prior to the launch of the CareZONE van: "The wait was long, the wait was really long. It was like a three month wait, I didn't have three months to get on Suboxone. So, it kept me buying them on the street and stuff until I met the van."

Public response has also been generally positive. One stakeholder said, "We need the CareZONE [program] in our neighborhood long-term to offset the problem... I just hope that CareZONE is there to stay so we can always have a go-to." A local business owner stated, "They're saving lives and giving people a chance to escape the world that they're in." The program also received local and national media attention with a story on [WBUR by Martha Bebinger](#) that also ran nationally on [NPR's Here & Now](#) program. The Kraft Center presented the model at the 2018 Mobile Health

Clinics Forum in Cleveland and was featured as a best practice in the Massachusetts Harm Reduction Commission Report published March 1, 2019.⁶

An evaluation report of the 10-month pilot details these early results (**Appendix A**). Ongoing evaluation includes the following aims:

- Evaluate the effect of the CareZONE van on health service utilization
- Assess cost offsets associated with the CareZONE program
- Determine the acceptability and appropriateness of the Community Care in Reach delivery model among homeless and marginally housed individuals

⁶ “Harm Reduction Commission Report.” Massachusetts Harm Reduction Commission. March 1, 2019.
<https://www.mass.gov/doc/harm-reduction-commission-report-3-1-2019/download> Accessed November 12, 2019



Table of Contents

Environmental scan	12
Assessing available data to determine need.....	12
Involving PWUD in the design of the model.....	14
Community engagement	15
Location selection.....	19
Proposed schedule.....	20
Capital & licensures	21
Van specifications & purchasing	21
Licensures	22
Budget Considerations	24
Staffing & Supplies.....	29
Staffing the van	29
Stocking the van	31
Outreach & Engagement	32
Finding patients	32
Harm reduction strategies	33
Linkages to the mobile unit.....	34
Use of technology	34
Data collection.....	35
Clinical Encounters	37
Enrolling patients.....	37
Patient Privacy	38
Prescribing MOUD.....	38
Other medications offered by the mobile health team.....	42
After hours coverage	43
Referrals to outside care.....	44
Labs and imaging procedures	44
Abnormal labs & imaging.....	44
Communication & outreach	45
Medical record completion	45
Clinical equipment	45
Refrigerator temperatures	46
Safety during mobile outreach	46
Mobilizing a rapid response	50



Examples	50
Expedited community engagement	50
Flexible scheduling.....	50
Mobile health unit cleaning & infection control	51
Cleaning.....	51
Infection control.....	51
Medical waste policy	51
Mobile health unit maintenance and cleaning	52
Mobile unit maintenance	52
Mobile unit parking & siting	52
Exchange and transport of equipment & supplies	53
Evaluation	54
Rationale	54
Potential data points to collect.....	54
Other potential data projects	55
Appendix A.....	56

Environmental Scan



1) **Assessing available data to determine need**

- a) Evaluate existing data sources to determine need for mobile addiction services. The overdose epidemic has spared few communities. Public health data may be helpful in determining which neighborhoods have the greatest need for low barrier access to addiction services and care.
- i) *Data Sources* – Availability of data may vary, but below are potential resources that may help to establish need:
 - (1) *People Who Use Drugs (PWUD)* – See **Section 2: Involving PWUD in the Design of the Model.**
 - (2) *Emergency Medical Services (EMS) data* – Frequency and location of narcotic-related incidents (NRI).
 - (a) Strengths – Provides quantitative and geospatial presentation of data; data updated frequently; allows for quantification of resources allocated to address overdose epidemic; sometimes differentiates overdoses that occur in a residential setting versus a “public” setting (e.g. street, shelter, public restroom, etc.), which allows mobile programs to prioritize highly vulnerable populations.
 - (b) Weaknesses – Incidents captured only if someone called 911 (data incomplete); categorization of incident as an NRI made by paramedics, often with incomplete information (some incidents may be misclassified); data may not be readily accessible and often has delayed release and presented in aggregate form; privacy concerns may limit access to such data; demographic information not always captured.
 - (3) *Data/Metrics from Local Syringe Service Program (SSP)* – SSPs often have information on population needs, service utilization, and health indicators such as overdose history and naloxone rescues from participants.
 - (a) Strengths – Demonstrate service needs and utilization in high risk population; often trusted resource for PWUD with unique and invaluable insights.
 - (b) Weaknesses – Not all regions have nearby SSPs; SSPs may be under-resourced and have difficulty managing data requests; maintaining confidentiality is crucial and could complicate sharing of some data.
 - (4) *3-1-1 data* – Municipal areas that track non-emergency constituent requests may capture indicators of high-risk activity or populations. Useful indicators may include (1) reports of improperly discarded syringes, or (2) homeless encampments.
 - (a) Strengths – 3-1-1 data are often public; may reveal trends traditional data sources miss; data updated frequently.
 - (b) Weaknesses – Less-established or utilized 3-1-1 systems may have few data points; 3-1-1 systems may not be designed for data extraction; neighborhoods more likely to report incidents may not align with the neighborhood who experience the highest number of incidents.
 - (5) *Death data* – Frequency and location of deaths where overdose was the cause.

- (a) Strengths – Robust dataset with a lot of information.
- (b) Weaknesses – Typically very delayed data source, data may be months/years old; privacy concerns may limit access to such data.
- (6) *Involuntary commitments for substance use disorder (SUD)* – Frequency and location of involuntary commitments of individuals who have SUD.
 - (a) Strengths – May be indicative of a high-risk population, but likely most helpful as a supplemental source.
 - (b) Weaknesses – Smaller sampling than other data sources; privacy concerns may limit access to such data.
- (7) *Hospital emergency department data* – Frequency, demographic information, location, and chief complaint data for regional hospitals.
 - (a) Strengths – Timely information about emergency department visits related to drug use/overdose.
 - (b) Weaknesses – Does not account for drug events that do not result in hospital visit; data might not be readily accessible depending on region; chief complaint data may be non-specific, resulting in underreporting and mis-categorization.
- (8) *Arrest Data* – Frequency of drug-related arrests may point to areas of high need.
 - (a) Strengths – Police departments may have robust data sets that allow precision in pinpointing high-risk activity.



- (b) Weaknesses – Data may not be accessible by public; arrests offer incomplete picture.
- (9) *Epidemiologic data around Hepatitis C and HIV* – Incidence and location of Hepatitis C and HIV diagnoses may indicate high-risk activity.

(a) Strengths – Epidemiologic reports and data are typically accessible in any region; provides baseline data which can help demonstrate impact of harm reduction work and unmet needs of PWUD; longitudinal data may provide trends over time.

(b) Weaknesses – Hepatitis C is not reportable in all states; data reports can be quite delayed; health departments may have incomplete data on risk for Hepatitis C and HIV cases; diseases are underreported.

(10) *Meetings/focus groups with stakeholder agencies serving PWUD* – Provide qualitative data on experiences with PWUD including areas of high need, service utilization, and barriers to care.

(a) Strengths – Diverse perspectives and experience; lays foundation for future collaboration on mobile health project.

(b) Weaknesses – Time and resource intensive; number of available stakeholder agencies vary greatly by region.

2) Involving PWUD in the Design of the Model

a) Upon determining there is sufficient need for mobile addiction services, continued input from PWUD is important to ensuring any program is designed and implemented to best serve the needs of those at greatest risk for overdose. The team should consider conducting a survey or otherwise consulting with PWUD to solicit input on:

- i) Acceptability of this type of program by PWUD.
- ii) Program design including location and hours of service.
- iii) Potential barriers to accessing these services.

b) There is no better resource on how to design addiction programming than PWUD. It is highly recommended to include PWUD actively in the design and planning process. Conducting surveys, focus groups, interviews, or other ways of soliciting feedback is crucial to understanding need and an ideal service model. Syringe exchange program staff may be a great resource as they often have established trust in the community.

- i) Strengths – PWUD are the best resource in understanding the desires and needs of this population, and they can be easily engaged in the development of programming in a variety of ways. Ideally, compensation is provided for people's time providing consultation.
- ii) Weaknesses – Stigma and criminalization of drug use may prevent PWUD from sharing information about locations where they stay/use drugs.

3) Community Engagement

a) Engaging with local stakeholders is crucial to the planning and implementation of a mobile health program. The team should consider reaching out to community partners to:

- i) Use existing data to demonstrate the need in target areas.

- (1) Be mindful to protect patients' and PWUDs' privacy when presenting data; when possible, use data in the aggregate, highlight data limitations, and be sure to contextualize when describing trends.
 - ii) Present research supporting interventions which may be controversial, for example, syringe exchange and medications for OUD.
 - iii) Describe the program design and goals, answer any questions, and address any concerns about the proposed program.
 - iv) Solicit feedback on parking location and observed drug activity in the area.
 - v) Establish linkages to local partners including health centers, addiction programming, and other support services, and create a plan for seamless referrals to these services.
 - (1) Consider establishing memoranda of understanding to formalize relationships.
 - (2) Ongoing care coordination with community partners necessary to navigate complex referral.
 - (3) Engagement with local pharmacies is important.
 - vi) Establish an ongoing dialogue and provide consistent updates to community partners during the pilot phase.
- b) Sample list of stakeholders to consider for community engagement:
- i) City Hall officials
 - ii) City Council representatives
 - iii) Neighborhood liaisons
 - iv) Law enforcement
 - v) Homeless services/shelters
 - vi) Community health center leadership
 - vii) Neighborhood coalitions
 - viii) Business owners/coalitions
- c) **Examples of community concerns, and sample responses:**
- *Please note that not all potential responses may apply depending on program design or resources*
- i) **CONCERN:** *Diversion* – Worries that prescribed treatments such as buprenorphine will be sold on the street or otherwise misused.
RESPONSE:
 - (1) Mobile health program clinicians will only be providing short term prescriptions – rarely more than a week's worth of medication.
 - (2) Mobile health program clinicians test (like at any other office-based addiction treatment (OBAT) program) whether a client is using medication appropriately – toxicology testing can identify if a patient is taking the medication – and clinicians are trained to respond to results appropriately.

- (3) Mobile health program clinicians are from *Organization X* and are highly trained in substance use disorder treatment. They have expertise in this field and in handling the associated challenges.
 - (4) Mobile health program clinicians will also use their electronic medical record system, as well as state prescription monitoring programs, to ensure clients are not receiving duplicate prescriptions elsewhere – the same methods that would be used in a brick and mortar clinic.
 - (5) It's worth thinking about some basic education on Suboxone – and that the illicit market that exists for it is because there is a dearth of MOUD programs and services. People generally seek buprenorphine in order to manage cravings and prevent use of heroin/fentanyl.
 - (6) Maybe worth mentioning to stakeholders that the program has and will continue to engage with police and law enforcement and that diversion is always a concern and that tox screens aim to prevent diversion.
- ii) **CONCERN:** *Line of People* – Worries that the presence of the mobile health program would attract unwanted attention, forming lines in the neighborhood of potential clients.
- RESPONSE:**
- (1) The goal of the program is to be a discreet service with effective and targeted outreach.
 - (2) Most outreach would be done on foot – mobile health program clinicians and outreach team plan to park the van and interact with potential clients on foot, only bringing those interested in services back to the van.
 - (3) Mobile health program staff are currently working with the city and neighborhood stakeholders to identify parking spaces that are discreet and would have as minimal as possible an impact on local businesses.
 - (4) The goal of the mobile health program is to ultimately connect clients to permanent medical homes at local brick and mortar facilities after providing them some much needed stability. This type of programming is meant to serve people not connected to care in areas of frequent overdose. The goal is not to become a high-volume program with a large caseload, but to provide stabilization and connect people to existing community health programming.
 - (5) By connecting people with the services they need, the hope is that it will help alleviate issues currently seen on the street.
 - (6) Opioid agonists, like buprenorphine, reduce overdose, illicit drug use, crime, and transmission of infectious diseases.
 - (7) Mobile health program staff will continue to liaise with community stakeholders about concerns as they arise.
- iii) **CONCERN:** *Clients from Outside of the Neighborhood* – Worries that most of the “problem” are from out-of-towners who are drawn into the neighborhood by the city’s or town’s services, and the mobile health program will only serve to draw more people in

and negatively impact the community.

RESPONSE:

- (1) There is a clear and visible overdose crisis in the country and locally, impacting people from all walks of life. As municipalities work to increase capacity for addiction treatment, this innovative program aims to engage individuals at highest risk of death, decrease the harms associated with drug use, and serve as a portal of entry into addiction treatment. The mobile program aims to serve people already in the neighborhood who are at high risk of death. The program does not plan to advertise broadly, but rather, the hope is that information about the program will spread locally by word of mouth. The hope is that this innovative program will play a role in achieving this goal.



- (2) During the pilot phase, mobile health program staff will be collecting data as part of their evaluation and will hopefully get a better understanding of where clients are from and how we can help those communities bolster their efforts to serve those in need.
- (3) Research shows that harm reduction programming such as syringe exchange programs do not increase crime rates.⁷
- (4) In general, PWUD are not likely to travel long distances for addiction services such as a syringe exchange. Research has shown that PWUD are much more likely to use an exchange if they lived within walking distance, and most syringe exchange participants already live in the neighborhood.⁸

iv) **CONCERN: Needles** – Publicly-discarded syringes are a real issue for many neighborhoods, and there are worries that harm reduction services (including SSPs) on the mobile health program van will result in an increase in inappropriately discarded needles.

v) **RESPONSE:**

- (1) Scientific studies have demonstrated the following about SSPs:

⁷ Marx MA, Crape B, Brookmeyer RS, Junge B, Latkin C, Vlahov D, Strathdee SA. 2000. Trends in crime and the introduction of a needle exchange program. *American Journal of Public Health* 90(12): 1933-1936

⁸ Rockwell R, Des Jarlais DC, Friedman SR, Perlis TE, Paone D. 1999. Geographic proximity, policy, and utilization of syringe exchange programs. *AIDS Care* 11(4): 437-442.

- (a) SSPs reduce infections (including HIV and Hepatitis C) among people who inject drugs.⁹
 - (b) Participants in SSPs are more likely to safely dispose of their syringes and in areas where SSPs are implemented, and research shows there are *fewer* discarded syringes.¹⁰
 - (c) Participants in SSPs are more likely to seek treatment for substance use disorders.¹¹
 - (2) Mobile health program staff will be safely disposing of any syringes they come across during outreach and regular walking routes.
 - (3) *Organization X* runs the SSP for the neighborhood and is extremely experienced.
Insert any statistics on syringe collection.
 - (4) Harm reduction services provide multiple options for disposal and incorporate safe disposal education regularly when engaging with participants. All participants are encouraged to return their syringes and are given personal biohazard containers.
 - (5) Mobile health program staff will be communicating regularly with neighborhood partners during the pilot to address any concerns, including increased numbers of inappropriately discarded syringes.
 - (6) Mobile health programs may explore opportunities to stage regular “community clean-ups.”
- **NOTE**** Harm reduction programs that conduct syringe exchange are frequently asked 1) why is a 1:1 exchange rate policy not implemented to reduce syringe circulation, and 2) why retractable needles are not used in needle exchange programs. In fact, both strategies have been associated with increased rates of infection in PWUD and are therefore not regularly used in SSPs.¹²¹³
- vi) “*Why our neighborhood?*” – Perception from target neighborhoods that they are being unfairly singled out, when they consider other neighborhoods to have more issues.
 - (1) Target areas were selected based on a few conditions, including:
 - (a) City/town overdose data demonstrated high rates of fatal and non-fatal overdose.

⁹ Aspinall, E et al, 2014. Are needle and syringe programmes associated with a reduction in HIV transmission among people who inject drugs: a systematic review and meta-analysis. *International Journal of Epidemiology*, 43(1), pp.235-248

¹⁰ M.C. Doherty, B. Junge, P. Rathouz, R.S. Garfein, E. Riley, and D. Vlahov, “The Effect of a Needle Exchange Program on Numbers of Discarded Needles: A 2-Year Follow-Up,” *American Journal of Public Health*, vol. 90 (2000), p. 936

¹¹ Hagan, H., McGough, J.P., Thiede, H., Hopkins, S., Duchin, J. and Alexander, E.R., 2000. Reduced injection frequency and increased entry and retention in drug treatment associated with needle-exchange participation in Seattle drug injectors. *Journal of Substance Abuse Treatment*, 19(3), pp.247-252.

¹² Kerr, T., Small, W., Buchner, C., Zhang, R., Li, K., Montaner, J. and Wood, E., 2010. Syringe sharing and HIV incidence among injection drug users and increased access to sterile syringes. *American Journal of Public Health*, 100(8), pp.1449-1453.

¹³ Kermode M, Harris A, Gospodarevskaya E, 2003. “Introducing retractable needles into needle and syringe programmes: a review of the issues.” *International Journal of Drug Policy*. 14(3) pp. 233-239.

(b) Neighborhoods were not saturated with current street outreach efforts to those struggling with substance use disorders.

(2) One of the advantages of being a *mobile program* would be that if data demonstrate urgency in another neighborhood or demands for services are lacking in the current target areas, the mobile program can adjust accordingly.

4) Location Selection

a) Siting clinical locations is crucial to the success of the mobile health program. Locations should be determined based on the following criteria:

i) *Data* – Neighborhoods and locations where available data indicate persistently high rates of overdose and deaths due to opioids should be prioritized. If data indicate shifting trends in overdose rates and geography, the team should be prepared to mobilize a response accordingly.

ii) *Lack of current addiction services* – The mobile health program should avoid duplicating services as much as possible. If proposed clinical sites have existing addiction services and/or street outreach teams to link homeless or otherwise vulnerable populations, the mobile health program should consider other neighborhoods/locations experiencing service gaps that may benefit more from proposed services.



iii) *Local stakeholder support* – The support of partners and stakeholders in neighborhoods being served can help enhance and expedite program implementation. Selecting pilot sites in areas of demonstrated need that have extensive community backing could give the program the best environment to gain experience and establish best practice before spreading the program to additional sites.

iv) *Logistical considerations* – Logistical considerations that impact the feasibility of establishing an effective clinic might include:

(1) The availability of parking in the vicinity of the proposed clinical site.

(2) The distance of the proposed clinical site from the organizations operating the mobile health clinic (i.e. how far will the staff need to travel?).

(3) Proximity to pharmacies to facilitate rapid prescription fills for patients.

(4) Balancing accessibility with discretion – ideal locations are easy for program participants to travel to, but not so conspicuous as to draw unnecessary attention by onlookers.

****LESSONS LEARNED****

- 1) When possible, work with local stakeholders to establish *dedicated* parking spots for the mobile unit. Stakeholders might include municipal agencies or departments with jurisdiction around city/town parking. Also consider engaging with other partners including business owners or agencies who may own parking spaces that could be used by the vehicle.
- 2) Be sure to determine if the municipality requires specific permitting around mobile health clinics.
- 3) Remember that the physical landscape of a parking space can impact the safety and effectiveness of a mobile clinic. For instance, the team should try to park in a level area and avoid parking spaces with inclines.
- 4) Consider safety when choosing parking spaces. Avoid spaces near frequent high-speed traffic or blind spots.

5) Proposed schedule

- a) The following should be considerations as the clinical schedule of the mobile health program is developed:
 - i) *Reliability/Consistency* – It is recommended that clinical schedules include regular visits to the same sites no less than once per week. This consistency allows for patients and clients to understand when and where they may access services, especially if they have received MOUD and seek regular refills. Many patients served by the program are likely to be facing instability in their lives and would benefit from knowing the van will reliably arrive to the same location at the same time.
 - ii) *Maximize convenience* – Timing of clinics should be such that the target population is available and accessible. Understanding from local stakeholders or from your own organization’s data/observations/experience when people with SUD are most likely to be near a clinical site may be helpful in determining the times of clinics, though understanding that clinical hours may be restricted to business hours.
 - iii) *Flexibility* – In addition to regularly scheduled clinical sessions, the mobile health program should also consider leaving flexibility in the schedule to respond to emerging public health crises. In order to accommodate such flexibility, the mobile health program should consider the following strategies:
 - (1) Don’t over-commit the mobile unit – If the mobile health program schedules some time for the van to be offline, this will allow for flexibility to add clinical sessions and locations to the existing schedule should the need arise.
 - (2) Start with a small number of sites – Focusing efforts on a small number of sites and including multiple sessions at some sites can allow the program increased flexibility. Should data indicate emerging needs in other areas, the mobile health could repurpose or redirect services offered at a site with multiple scheduled sessions to a new site without entirely abandoning a clinical site. The decision to completely eliminate a site from the clinical schedule should be made only after extensive

consideration has been made for existing patients at that site and the team has considered plans for continuation of necessary care and services.

Capital & Licensures

- 1) **Van specifications & purchasing** – Following considerations should be taken into account when identifying a vehicle to purchase or re-purpose for use as part of the mobile health program.
 - a) *Adequate space* – The mobile health model intends for the mobile unit to function as a satellite clinic of an existing clinical organization. Staff should consider space requirements for clinical staff to conduct a patient encounter when considering the size and type of mobile unit.
 - b) *Privacy* – Privacy of patients both during clinical sessions and in waiting for van services should be a consideration when determining the model/design of the mobile unit.
 - c) *Power & Wifi access* – Clinical sessions will likely require power for medical equipment, laptops, and printers as well as internet for EHR access.
 - d) *Climate control* – Heating and cooling systems should be considered to ensure staff and patient comfort. Refrigerators should also be considered for vaccine and food storage.
 - e) *Restrooms* – Restrooms increase options for some lab specimen collection but may also pose a need for close monitoring in case drug use occurs behind the closed doors of a bathroom. Special disposal is also required of bathroom tanks on mobile units. Consider creating protocols that do not require the mobile unit to have a bathroom.
 - f) *Agility* – Consider that size may be an issue in preventing the team from accessing certain locations if the vehicle is unable to navigate certain routes/roads.
 - g) *Driver considerations* – Program resources can be saved if the vehicle does not require the driver to have a commercial driver's license.
 - h) *Available parking* – Be mindful of potential parking spaces that will be able to accommodate the size and other requirements of the mobile unit (e.g. if the vehicle requires an electrical outlet, etc.)
 - i) *Other considerations* – Handicap accessibility is often a requirement of mobile units licensed as medical clinics.
- 2) **Licensures¹⁴**
 - a) The following is meant to provide an overview of the considerations and steps necessary to license a Mobile Unit in Massachusetts for the delivery of organized health services related to the provision of preventive care, addiction services, and harm reduction. Such mobile services are provided for the convenience of patients off the licensed premises of a clinic. We offer the following comments:

¹⁴ Provided by Crystal M. Bloom, J.D. of Barrett & Singal P.C. Edited February 26, 2019.

i) DPH Licensure

- (1) Department of Public Health (DPH) approval of a Mobile Unit requires compliance with all relevant regulations under 105 CMR 140.000: Licensure of Clinics and the provision of quality care in accordance with applicable standards of practice, state and federal regulations and the conditions detailed therein. In order to request DPH licensure approval for a Mobile Unit, the following steps must be followed/documents must be submitted to DPH:

(a) Choice of Entity for Licensee

- (i) An entity must be selected to hold the Mobile Unit clinic license issued by DPH as the “licensee.” This entity and its leadership will operate and be responsible for the Mobile Unit clinic’s activities. It can be an entity that already has a clinic or hospital license (in which case the Mobile Unit can be



added as a “satellite” service to the existing clinic or hospital license), or an entity that is not currently licensed to operate a clinic by DPH.

(b) Licensure Application and Suitability Review

- (i) Prior to operating a Mobile Unit, an applicant must submit a licensure application. DPH has specific forms for this purpose which allow DPH to assess a new applicant’s suitability for licensure and request basic information related to operation, administration, staff, and the nature of the services to be provided on the Mobile Unit (e.g., laboratory, mental health, substance abuse, etc.). Please note that certain supporting documentation listed on these forms as required to be submitted with the forms do not apply to Mobile Units and therefore, do not need to be submitted to DPH (e.g., Fire Safety Inspection Certificate and Certificate of Occupancy).
- (ii) If the proposed licensee entity does not already hold a DPH clinic license, it will be considered a new applicant for a new clinic license. Accordingly, DPH

must conduct a suitability review of the proposed licensee before licensure approval can be issued. As an overview, the suitability application requests such information as corporate ownership, other health care entity ownership, compliance history, background checks, resumes, financial capacity, etc. This suitability process is not required if the licensee entity already holds a clinic license from DPH and chooses to add the Mobile Unit as a satellite under that license.

- (iii) In addition, the applicant must submit a project narrative that describes the services to be provided along with an Attestation Form. Compliance with all applicable requirements must be attested to by an authorized officer, such as the Responsible Physician (e.g. Chief Medical Officer). On the Attestation Form, the clinic must either mark yes if the Mobile Unit is compliant or provide a waiver request if it is not compliant. To this point, certain physical requirements that the state typically requires may be waived for mobile health services. For example, although the Attestation Form requires that a clinic attest to providing a toilet room with hand washing facilities on the Mobile Unit, as appropriate to the services provided by the Mobile Unit, such clinic may remain in substantial compliance with the requirement by delivering services in areas nearby public restrooms, ensuring that patients have convenient access to such toilet facilities, and submitting a waiver request to DPH to this effect.
- (iv) Upon receipt of a complete application, DPH reserves the right to schedule and conduct a survey of the Mobile Unit to ensure compliance with all applicable regulatory requirements. During this survey, a tour of the Mobile Unit will be conducted to verify compliance with the regulations and waivers, as applicable. Additionally, DPH surveyors may request review of documentation, such as contracts and agreements, applicable certificates/registrations, emergency protocols, staff credentials and schedules, clinical records, and written policies and procedures that define the practices of the Mobile Unit. Once it has been determined that the Mobile Unit meets all regulatory requirements, a license to operate will be issued.

ii) **Massachusetts Controlled Substances Registration (“MCSR”)**

- (1) As a supplement to DPH licensure, the licensee entity must apply to the Massachusetts Drug Control Program for a MCSR to possess Schedule VI controlled substances on the Mobile Unit. Schedule VI controlled substances are drugs which are not regulated on the federal controlled substances schedules (i.e. Schedules II-V) but which nevertheless require a prescription. Please note that in the case of Mobile Units whose addiction services are limited to engaging and linking patients with community-based treatment (i.e. OUD treatment is not provided on the Mobile Unit), the MCSR drug approval is only for drugs used in treatment on the Mobile Unit and does not allow for dispensing of controlled substances (e.g. Suboxone). To this point, please note that there is no state approval to provide OUD treatment here as the Mobile Unit does not provide a separate, identifiable program specifically designed to care for persons suffering from OUD.



iii) **Clinical Lab Improvements Amendments (“CLIA”) Certificate**

- (1) In order to offer CLIA-waived laboratory services on the Mobile Unit (e.g. basic glucose, urine dipstick, strep, pregnancy, etc.), the licensee entity must designate a Lab Director and apply to the Massachusetts Clinical Laboratory Program for a CLIA Certificate for the Mobile Unit. The Clinical Laboratory Program will then work with the Centers for Medicare & Medicaid Services (CMS) to process the CLIA Certificate approval. For any laboratory testing services that the Mobile Unit wishes to provide its patients beyond waived testing, it would need to have arrangements by a contract with an outside laboratory.

iv) **Medicare and MassHealth**

- (1) Finally, we note the need to apply to both Medicare and MassHealth in order to bill for Medicare and MassHealth services provided to patients on the Mobile Unit.

Budget Considerations

1) **Introduction**

- a) Though budgets may vary greatly depending on agency salaries, indirect/fringe rates, and vendors, there are several broad categories to be considered when developing a mobile health program.

2) **Capital Costs**

- a) The following are one-time costs to accrue the necessary equipment and licensures for operating a mobile medical unit.
 - i) *Mobile unit* – Purchase of the vehicle itself with a medical buildout to suit the needs of the clinical staff. Also, be mindful of legally required signage and vehicle branding.
 - ii) *Legal support* – Consider engaging with a legal support team to assist with required state and federal licensures to operate a mobile medical unit.

3) **Annual Operating Costs**

Personnel

- a) The following are staffing considerations to operate a mobile unit for six 4-hour clinical sessions weekly.



- i) *Clinical team* – May include buprenorphine-waivered MDs, NPs, PAs, or a combination to serve as medical providers on the van, responsible for the initiation and continuation of MOUD for patients, coordination of referrals for patients, and assistance with outreach efforts and engaging prospective patients. Estimated total of 0.75 FTE.



- ii) *Nurse Care Manager* – In addition to the core clinical team, a nurse care manager can provide administrative support to the development and maintenance of the program as well as assist with coordination of care and referrals. Estimated 0.10 FTE.
- iii) *Outreach Workers* – Provide outreach, harm reduction services, and promote van services among people who use drugs (PWUD). Estimated 1.50 FTE.
- iv) *Harm Reduction Care Coordinator & Navigator* – In addition to participating in outreach and providing harm reduction services, this care coordinator and navigator can help ensure supported referrals for participants and health insurance enrollment. Estimated 1.00 FTE.
- v) *Housekeeper* – To ensure weekly cleanings and sanitation of the mobile unit. Estimated 0.01 FTE.
- vi) *Other potential staff* – Consider adding a behavioral health clinician and/or social worker to support the mental health needs of program participants.

Non-personnel expenses

- a) The following are regular expenses incurred in a mobile outreach program.
 - i) *Medical equipment/supplies*
 - ii) *Naloxone*
 - iii) *Vehicle insurance*
 - iv) *Gas, maintenance, & upkeep*
 - v) *Food for patients*
 - vi) *Patient transportation*
 - vii) *Cell phones*
 - viii) *Sharps/biohazard disposal*

Revenue

a) Incorporate anticipated revenue into budget considerations based on a conservative estimate of average number of clinical visits and reimbursement rates.

4) Potential program enhancements

a) Additional optional programming may be beneficial to enhance services on the mobile health program if feasible.

i) *Tele-behavioral health* – Consider equipment, installation fees, trainings, and funding of staff coverage to allow for remote consultations with behavioral health staff.

ii) *Drug checking* – Consider purchasing of fentanyl test strips and other drug-checking equipment to enhance harm reduction services by testing residue on participant's drug paraphernalia.

The MX908 is a portable high-pressure mass spectrometer that uses swabs to test drug paraphernalia for traces of fentanyl. The AHOPE team are evaluating a pilot that was conducted in its drop-in center as they consider a future rollout in mobile settings.



Figure 5 - MX908 by 908 Devices

Sample Budget

*Cost estimates based on 2019-2020 pricing

1)

CAPITAL COSTS		
Cost Center	Quantity	Cost
Mobile unit w/medical buildout	1	\$193,000
Legal support for licensures		\$15,000
TOTAL		\$208,000

2)

OPERATIONAL COSTS (Covers six 4-hour weekly sessions)		
Staffing		
Cost Center	Quantity	Cost
Physicians	0.5 FTE	\$109,824
Nurse Practitioner	0.25 FTE	\$12,231
Harm Reduction Care Coordinator & Navigator	1.00 FTE	\$50,000
Housekeeper	0.05 FTE	\$2,060
Outreach Workers	1.50 FTE	\$66,000
Staff Total	2.85 FTE	\$240,115
<i>Fringe @25%</i>		\$60,029
Personnel Total		\$300,144
Non-Personnel Costs		
Insurance	1	\$22,191
Gas/Maintenance & Van Upkeep		\$6,300
Medical Equipment/Supplies		\$4,500
Harm Reduction Supplies		\$15,000
Food/Drink for Patients		\$8,000
Patient Transportation		\$600
Cell Phones	2	\$1,200
Non-Personnel Total		\$57,791
<i>Indirect @15%</i>		\$53,690
TOTAL		\$411,625
Estimated Revenue		
MassHealth (estimate at 2 clinical encounters/session over 52 weeks)		\$76,960
TOTAL		\$334,665

3)

NALOXONE		
Cost Center	Quantity	Cost
Naloxone (at \$75 each)	2,496	\$187,200
TOTAL		\$187,200

4)

ENHANCEMENTS		
Cost Center	Quantity	Cost
Telebehavioral Health (Equipment, licenses, installations, & staff time)		\$60,000
Drug Checking (Drug checking device, swabs, training, fentanyl test strips)		\$75,000
TOTAL		\$135,000



Staffing & Supplies

1) Staffing the Van

- a) Though staffing needs will vary depending on locations and circumstance, the following staff specifications are recommended to support both clinical and harm reduction services on the van.
- i) ***Buprenorphine-waivered clinician*** – Crucial to ensuring the lowest possible barriers to medication-assisted treatment (MAT), at least one clinician with the appropriate waiver and training to prescribe buprenorphine and naltrexone should be on the mobile unit during every clinical session. The clinician may be an MD, nurse practitioner, physician assistant, or other qualified health professional depending on the resources available to the program's clinical partner. Schedules for upcoming trainings from Boston Medical Center can be found [HERE](#).

- ii) ***Outreach workers/Harm reduction specialists*** – Harm reduction services are critical to not only engage prospective patients, but also to provide low-threshold access to clean injection equipment, naloxone kits and education about safer injection techniques. Outreach workers should be well-versed in harm reduction strategies. Local SSPs staff would be ideal to serve as the harm reduction partner for the program if the clinical partner does not have staff with harm reduction expertise or lived experience.



(1) Basic competencies for outreach workers:

- (a) HIV/HCV/STI transmission, prevention, & treatment.
- (b) Overdose prevention education.
- (c) Safer injection education.
- (d) Risk reduction strategies around substance use and sexual practices.
- (e) Addiction treatment modalities & linkage to care.

When determining the number of outreach workers to include during clinical sessions, staff should be mindful of 1) limited space on the mobile unit, and 2) available resources. Ideally, outreach should be conducted in pairs, and at least one staff member should be on the mobile unit with the clinician during a medical encounter. The clinician may also conduct outreach with the outreach team during times when there are no patients to be seen on the van. Three outreach workers may be ideal (creating a team of four total on

the van) to ensure the team can work in pairs. Other staffing models should be considered depending on available space and funding.

Sample Job Descriptions:

Harm Reduction Specialist/Outreach Worker description:

- Participate in daily drop-in operations including opening and closing procedures to help ensure van and program spaces are clean, safe, and welcoming.
- Conduct street-level outreach activities for active users in areas or neighborhoods identified as high-risk or high-need within program catchment areas.
- Recruit and engage high-risk, hard to reach people who use drugs or engage in sex work, including injection drug users.
- Provide safer sex and safer drug use education and distribute syringes and other health-related resources and tools (and collect used syringes) in accordance with local laws and public health regulations.
- Promote safe disposal, including collection and disposal of used syringes.
- In a manner consistent with Harm Reduction principles, provide substance use and sexual risk assessments and discuss individualized risk reduction and harm reduction strategies (incl. safer injection practices; safer sex practices; overdose prevention and reversal; drug use management techniques; HIV, HCV and STI prevention; and other topics relevant to people who use drugs).
- Assist with the provision of overdose prevention trainings and Narcan distribution and document incidences of overdose and reversals.
- Provide low-threshold referrals and connect participants with medical care, drug treatment, and other social services. Solicit and track feedback from participants to ensure that the agencies to which we refer are effective and treat participants with respect and in a manner appropriate to harm reduction programs.
- Keep accurate, consistent, complete, and intelligible records and data on all program activities and/or participants; provide program director with reports in a timely manner.

Qualifications:

- At least two years of health, social service, or related experience (including lived experience) with persons who inject drugs in a harm reduction setting.
- Demonstrated current knowledge of HIV/AIDS, STDs, hepatitis and other blood-borne infections, particularly in relation to injection drug use; street life; slang vocabularies; drug use practices; harm reduction concepts and principles; local drug treatment; health care; and criminal justice systems and resources.



- Demonstrated communication skills with the ability to communicate complex information in a culturally appropriate, consistently respectful, and non-judgmental manner
- Strong organizational, interpersonal, written, and verbal communication skills.
- Previous experience implementing support groups and trainings a plus.
- Previous experience with data collection and entry.
- Self-directed, motivated, and flexible with the ability to work independently and as part of a team.

iii) **Optional staff (pending availability)**

- (1) *Nurse Care Manager* – Once a patient base has been established at a clinical site and the need to manage MOUD refills increases, consider adding a nurse case manager to the staff to coordinate refills, toxicology screens, etc.
- (2) *Driver* – Some mobile units do not meet the requirements for a commercial driver's license (CDL), and therefore can be driven by any staff members. Other mobile units require a CDL, and a specially trained driver should be on the staff. A CDL is required when certain weight, passenger volume, or transport material specifications are met. Programs should consult with their legal teams to verify if a CDL is required.
- (3) *Behavioral Health Specialist* – High risk patients often experience multiple comorbidities, and mental illness often plays a role. Access to behavioral health specialists could prove extremely helpful. This additional clinical service may also be considered in a tele-health model on the van.
- (4) *Case Manager/Recovery Coach* – Can be hired to support patients in their recovery efforts beyond their engagement with the mobile health program. Recovery coach staff may operate both on and off the mobile unit.

2) **Stocking the van**

- a) Much of the medicine and supplies that will be used during clinical sessions will not be able to be stored on the mobile unit during off hours, based on DPH regulations. Staff should plan to stock the van prior to every clinical session and to remove the medicine and equipment upon clinic completion. Staff should also consider stocking backpacks/bags to be used during outreach in case clients are in need of services or supplies but are unable or unwilling to visit the mobile unit.
- b) See section 4, "Other medications offered by the mobile health team," under **Clinical Encounters** for examples on what to include in emergency drug kits.



Outreach & Engagement

1) Strategically building an outreach team

- a) New mobile programming will be more successful if members of the outreach team are already recognizable to the people the program aims to engage, in this case people who use drugs (PWUD). It's helpful to partner clinicians – whose faces will presumably be new on the street - with outreach workers who are familiar with the area and who already have relationship and established trust with PWUD.
- b) Consider including potential clients of the program (PWUD) in the process of evaluating applicants for positions on the team.



Figure 6 - Sample Outreach Card

2) Finding patients

- a) Outreach workers disperse into surrounding streets, alleys, and public spaces where homeless individuals and/or PWUD have been known to frequent, using available data to ensure targeted outreach.
 - i) *Characteristics* – Staff will prioritize individuals who:
 - (1) Exhibit signs of addiction and/or homelessness (e.g. open drug use or purchasing, “nodding,” panhandling, etc.)
 - (2) Those already known to the outreach workers to be living with SUD.
 - ii) *Geographical scope* – The team should agree upon a radius around the mobile unit’s parking location, the size of which may vary depending on the characteristics of the neighborhood and the size of the team. In general, the team should try to balance these goals:
 - (1) Cover as broad an area as possible to increase the number of engagements with PWUD.
 - (2) Ensure to remain within a reasonable distance of the mobile unit where potential patients may be willing and able to walk to the unit to receive clinical services.

Teams may consider dropping off outreach teams at various locations en route to the final parking space, who then meet back at the van, to maximize efficiency and geographic reach.

- b) *Staff teams* - Outreach teams may split up into teams no smaller than two people to ensure safety. If time permits, it is recommended that the clinician also accompany the outreach team to help build relationships and trust. Teams that are larger than two people can be intimidating when approaching individuals outside.
- c) *Recruiting peers to help with engagement* – Outreach teams may recruit PWUD to help the team connect with more PWUD, for instance, by having a person introduce the team to members of their network, or by asking a person to let people in their network know about the services offered. A formalized peer to peer program with stipends may be an effective outreach and education strategy.

3) Harm Reduction Strategies

- a) Outreach workers will engage PWUD in harm reduction services and strategies, specifically *syringe exchange*, safer injection techniques, *naloxone*, and fentanyl testing.
 - i) *Syringe exchange* – All outreach workers should carry unused syringes as well as equipment for the safe collection and disposal of used syringes (e.g. gloves & sharps containers).
 - (1) *Distribution* – During engagement, each person engaged will be offered unused syringes and injection equipment. Each person should also be offered a description or informational material on safer injection practices. Outreach teams should consider a ‘needs-based’ model of syringe distribution in which an outreach worker determines a person’s needs based on the frequency of injection and access to syringes when the mobile team is not present (for example, if a person injects 5 times daily and the team anticipates coming back to the area in 3 days, ideally at least 15 syringes are distributed to the individual). Examples of other syringe distribution policies are strict 1:1 exchange, which is discouraged based on less efficacy in preventing transmission of HIV and HCV, or “1:1 plus.” Which strategy a program uses depends on several factors.
 - (2) *Collection* – Outreach workers should also actively collect used syringes. Outreach workers should always be on the lookout for improperly discarded syringes on the street and collect any they see, always using safety equipment and syringe pick-up strategies that minimize risk of a needlestick. Outreach workers might also consider carrying small, portable individual biohazard containers to give to program participants.
 - (3) *Secondary exchange* – As key individuals are identified as central to a network/community of PWUD, the outreach team should consider supplying larger quantities of unused syringes and other harm reduction supplies than typically advised by protocol so the individual can distribute the resources to their own contacts and also bring back syringes for the team to discard.

- ii) *Naloxone* – All outreach workers should carry naloxone kits on their person. Workers should all be trained in naloxone administration and be prepared to administer naloxone if they encounter people exhibiting signs of opioid overdose. In the event of naloxone administration, always call 911.

(1) *Distribution* – Naloxone should be offered during every encounter with PWUD.

Distribution amounts should be agreed upon prior to outreach sessions based on supply and client circumstances. Each interested contact should receive no fewer than one naloxone kit, supply permitting. For some people, it may be feasible for the clinician to prescribe naloxone to be paid for by their health insurance and filled at a nearby pharmacy.

4) Linkages to the Mobile Unit

- a) Engaging PWUD around harm reduction supplies and services is a great way to build a relationship and gain trust. Additionally, outreach workers should:
 - i) Offer the opportunity to see the clinician – People should be made aware of the clinical services offered in the nearby mobile unit, including testing for various infections, immunizations, skin abscess care, addiction treatment, etc., even if only a small proportion express interest in enrolling as a patient.
 - ii) Assess current engagement in medical care – Outreach workers should continually assess participants' medical needs and their current engagement in medical care and try to facilitate access to care provided on the mobile unit whenever possible.
 - iii) Accompany individuals interested in clinical care back to the mobile unit – Individuals often agree to meet with the clinician based on the trusting relationship fostered by the outreach worker. Especially in early clinical visits, individuals may need more support as they build a relationship with the clinician.



5) Use of Technology

- a) Technology can be very helpful for the outreach team and clinicians to both interact with clients (both current and potential) as well as coordinate efforts with other staff. As such, it is recommended that the program have at least one dedicated mobile phone to the mobile program.
 - i) *Phone calls* – It is helpful to have a mobile phone dedicated solely to the mobile health program. The number can be circulated on outreach/engagement materials for people to call if they have questions about services. The outreach team should carry the phone

during outreach when they aren't on the mobile unit so that people can reach them if they arrive at the van and no staff members are currently present (a sign on the door can alert people that the team is in the neighborhood with a number to call and a time the team will return to the vehicle). One designated staff member should carry the phone during mobile unit hours. Keep in mind HIPAA-related issues when speaking with patients.

(1) Off hours – The voicemail on the phone should indicate:

- (a) Clinic hours and locations.
 - (b) An alternate phone number (if available) to connect with staff during business hours when the mobile unit is not in operation.
 - (c) To comply with HIPAA, a reminder that protected patient information should not be left in a voicemail.
 - (d) A reminder that if the caller is experiencing an emergency, call 9-1-1.
 - (e) If the caller needs to speak to a clinician, they should call the answering service for the clinical practice to reach an on-call clinician.
- ii) *Texting* – The mobile program should also consider utilizing text messages to accommodate many people (both current and potential) who would view phone calls as a barrier to communicating. It should be made known to patients that texting is not considered secure by HIPAA, and therefore no protected patient information should be shared via text. One designated staff member should carry the phone during clinical hours.
- iii) *Other Strategies* – Social media and apps may also pose opportunities for promotion of program services and education and warrant further exploration.

6) Data Collection

- a) To demonstrate program reach and impact, outreach and engagement efforts must be quantified.
 - i) *Number of contacts* – Each outreach worker should track the number of contacts they make with people during their outreach. Contacts may range from a brief description/offering of program services (e.g. syringe exchange, MOUD on-demand, access to primary care needs on the mobile unit, naloxone, etc.) to a lengthy engagement that results in the accessing of van services. Time likely will not permit outreach workers to collect additional data (e.g. name, sex, race/ethnicity, age, etc.) and it should be understood this statistic includes non-unique contacts.
 - ii) *Syringe distribution* – Each outreach worker should track the number of syringes distributed during each outreach session. As with the *number of contacts*, time likely will not permit outreach workers to collect additional demographic data.
 - iii) *Naloxone distribution* – Each outreach worker should track the number of naloxone kits distributed during each outreach session. Beyond the number of kits distributed, the

evaluation team should consider what other metrics would be most critical to their evaluation while being minimally burdensome on the outreach team. Depending on the funding source for naloxone, there already may be reporting requirements to funders that include additional variables (e.g. whether the kit is a refill, how the previous kits were used, etc.), though this information reports may not be readily accessible for evaluation as the funder has ownership of the data. Other models of naloxone access, such as through facilitated pharmacy access, will not have formal data collection instruments associated with it.

- iv) *Syringe collection* – The number of syringes collected from the streets and from people with SUD should be quantified. Due to logistical and safety concerns, it is unlikely that each collected syringe can be counted.



Clinical Encounters¹⁵

The following guidelines for clinical encounters are intended to highlight issues that are specific to this setting of mobile van, rather than to repeat or replace existing clinical guidelines for the care of people with Substance Use Disorders.

1) Enrolling patients

- a) During established clinical sessions, the mobile health unit should be made available to patients interested in accessing the medical services and treatment of the program. Wifi on the mobile unit and proper licensing should allow it to operate as a satellite clinic of the clinical partner organization, complete with access to the organization's electronic health record (EHR). Unless your program has the resources to also employ an administrative worker on the mobile unit, physicians should be prepared to enroll new patients using the EHR themselves and should follow these guidelines:
 - i) Patients should be seen on first-come, first-served basis, except in an urgent situation.
 - ii) Patients should be registered by a clinician or a public health advocate who determines reasons for visit. If medical services are needed, a clinician (RN/NP/PA/MD) on the van should assess the patient's needs and conduct a clinical encounter.
 - iii) Urgent cases should be assessed and triaged immediately.



- b) *Consent to Treat* – Each patient must sign a Consent to Treat (CTT) form when initially presenting for medical care at the Mobile Health Unit. Every attempt must be made to ensure that the CTT is signed on the day that care is first provided. Occasional delays in obtaining a CTT from a patient may occur related to emergency or unusual circumstances, including a patient's inability to sign a CTT due to intoxication or other impairment. In these situations, staff must document in the patient's chart the emergency or circumstances

¹⁵ Adapted from Boston Health Care for the Homeless Program "Mobile Health Unit Policies & Procedures." Edited January 11, 2018.

that prevented the patient from signing the CTT and describe the patient's ability to provide informed consent despite the inability to sign the CTT.

Patients who are not yet 18 years of age ("minor patients") may sign the CTT if they are legally emancipated from their parents or if their provider determines that the patient is capable of giving informed consent (patient understands the risks and benefits of treatment) and that the best interests of the minor patient will be served by not notifying his/her parents.

Also be mindful with cross-agency collaborations that release forms may be required to share certain health information between team members in different organizations.

2) Patient Privacy

- a) The mobile unit should include private exam space. This may include barriers that separate the patient from the public or the semi-public areas (such as waiting area within the mobile unit), ensuring both visual and sound privacy. Staff assigned to the mobile unit will also provide outreach and/or harm reduction interventions in public and/or semi-public spaces in and near the van. Staff should make every effort to protect patient privacy even in these non-clinical encounters. For example, staff should first ask patients if they consent to the encounter in public or semi-public areas, i.e., asking the patient, for example, "Is it okay if we talk about X here, or would you prefer to talk privately?" Staff should respectfully end outreach and/or harm reduction encounters when patients decline or express discomfort with speaking outside of private spaces.

3) Prescribing MOUD¹⁶

- a) A clinical encounter on a mobile unit should replicate an office-based visit as closely as possible. There are, however, potential considerations that are unique to the setting.
 - i) *Access to medicine* – Federal DEA regulations render storing buprenorphine on the mobile unit an impossibility, so buprenorphine can be provided by prescription only (paper or electronic) on the van. Strategies may include:
 - (1) Medical courier – Having staff deliver medicine from the pharmacy to the clinical site may be an option, especially for organizations that have onsite pharmacies.
 - (2) Establishing clinical sites near pharmacies – Establish clinical sites near pharmacies where outreach workers and/or clinical staff can accompany a patient to fill his/her prescription immediately in case a patient lacks required identification.
 - ii) *Considering protocols that require no restroom* – Requiring patients to use a restroom for certain labs/procedures (e.g. urine toxicology) could prove challenging. Consider alternative methods (e.g. buccal swabs) that do not necessitate bathroom use.
- b) Evaluation for initiation of medications for OUD (MOUD) is the same as in office-based settings and includes:

¹⁶ Adapted from San Francisco Department of Public Health – Policy Memorandum: "Low Barrier Buprenorphine/Outpatient Medication for Addiction Treatment." November 30, 2016. Revised: June 8, 2018.

- i) A face to face evaluation between the patient and a waived clinician should take place. The following should be assessed and documented:
 - (1) Diagnosis of moderate to severe opioid use disorder
 - (2) Patient's goals of care
 - (3) Challenges to success of treatment including co-occurring disorders
 - (4) Presence or absence of contraindications
 - (5) Presence or absence of concerning activity on review of prescription monitoring program
 - (6) Consent to treatment
 - (7) Documentation entered into electronic health record

- c) Patient education:
 - i) Thorough patient education will be done by the provider and other medical team staff.

- d) Referral of patients to other types of care
 - i) Referrals may include referral to medically supported detox, residential treatment programs, methadone or buprenorphine maintenance in an opioid treatment program (OTP), or other appropriate referrals based on the patient's level of need.

- e) Decision to begin MOUD
 - i) The prescribing clinician (MD/NP/PA) has ultimate responsibility and discretion for prescribing medications.

- f) Initiation of treatment
 - i) Initiation of buprenorphine will take place directly in the mobile setting and is accomplished by prescribing medication at the site where the staff are seeing patients including the van itself, a street or park, or an encampment. If stationed near a pharmacy, staff will accompany the patient to the pharmacy and assist them in filling their prescription, if necessary.
 - (1) If there is no nearby pharmacy, consider establishing a courier service to deliver the prescription to the patient at the clinical site as quickly as possible. If unable to



- promptly deliver the medication to the patient, the medication will be returned to the pharmacy or destroyed.
- ii) Initial prescription typically will be planned for short prescription interval, no longer than 7-days. The patient should be given sufficient supply to last until the next scheduled clinic at the same location.
 - iii) Each patient will be given a personalized initiation plan based on their clinical situation.
 - iv) If necessary, particularly in a patient with no prior experience with buprenorphine, patients will initiate dosing under observation by the clinician to observe for precipitated opioid withdrawal.
 - v) Buprenorphine and naltrexone will never be stored on the mobile unit.
 - vi) Contra-indications for initiation of buprenorphine in the mobile setting:
 - (1) Current methadone use
 - (2) Unable to understand or adhere to proposed initiation plan
 - (3) Heavy or chaotic use of sedative hypnotic drugs
 - (4) Heavy or chaotic use of alcohol
 - (5) Suspected diversion or other inappropriate use based on prescription monitoring program report, toxicology results, or patient history
 - (a) NOTE – Not all instances of suspected diversion shall preclude a patient from accessing treatment. Clinicians should use their best discretion to determine if writing a prescription poses a greater risk to the patient or others than declining to write the prescription would.
 - g) Early Follow-up Care
 - i) Follow-up will depend on clinical situation. For individuals who are initiating treatment in the mobile setting, follow-up in 2-7 days will be typical.
 - ii) Patients should be made aware of the hours of any available office-based addiction care provided by the organization. Other OBAT program schedules should be made accessible to patients.
 - iii) The team should connect on street outreach with those who are unable to come to the mobile unit and seek to make reasonable accommodations to connect them to ongoing treatment.
 - h) Maintenance
 - i) Provider visits
 - (1) Management of ongoing buprenorphine treatment will take place as part of regular primary care visits or addiction medicine visits on the mobile unit.
 - (2) Visit frequency will be determined by patient need and clinical/staffing schedule.

- (3) Care will include all services available through mobile health program including substance use counseling / harm reduction services, care for acute and chronic medical conditions.
- i) Counseling
 - i) Patient counseling needs will vary. Federal regulation requires that additional behavioral health counseling is available for those patients who require this.
 - (1) Patient counseling needs will be assessed often and be based on patient request/willingness, patient functioning, current substance use patterns.
 - (2) Available counseling may include care provided within the office-based practice of the clinical organization by LICSWs/PsyD/psychiatrists, via tele-health platforms, or through collaboration with a partnering agency.
 - (3) Access to counseling outside of the mobile health program should be made available by referral on an as needed basis.
- j) Clinical testing
 - i) Therapeutic monitoring of buprenorphine is an important component to understand patient adherence and efficacy.
 - ii) It is recommended that the mobile health program considers implementing buccal swabs for toxicology given the barriers presented by urine tests, especially since many mobile units are designed without a bathroom on board.
 - iii) Regarding the administration of toxicology tests, interpretation, documentation, and review of results with patients, procedures are the same as in office-based addiction treatment programs.
- k) Record keeping and compliance
 - i) Charting should be done using the practice's usual EHR.
 - ii) Medical Director will keep copy of MD/NP/PA DEA licenses with X number and clinicians will carefully track their number of active prescriptions to make sure they are within waiver limits, just as in office-based practice.
- l) Steps taken to minimize diversion in the mobile setting are exactly the same as in office-based practice.
 - i) Understanding diversion in Massachusetts and beyond:
 - (1) The legal problems of diverted buprenorphine, and risks to the program of being overly permissive around this issue, are of concern, and the DEA requires any program prescribing buprenorphine to have a diversion policy. The medical problems of diverted buprenorphine are probably generally not large, but in general, prescribers should for any medicine (including antibiotics or hypertension medications, or any other) know the person they are prescribing to. Still, concerns about preventing diversion have to be balanced against implementing policies or clinician behaviors that might unnecessarily alienate patients who need the medication for their own survival but may be hesitant to get it in an overly punitive

or rigid setting. One approach is to keep rules to a minimum but clearly enforce them; our OBAT program has tried to reduce this to just two clearly explainable and understandable rules. They are: 1. you have to take your suboxone to keep getting it (and we will conduct testing regularly to make sure that you're taking it); and 2. you have to keep your suboxone supply (meaning, we will not do early fills for lost or stolen medication).

4) **Other medications offered by the mobile health team**

a) *Policy*

- i) The mobile health program should maintain procedures to properly store and maintain any medications used on the van, noting that medications are not to be stored on the unit when the unit is not in operation.
- ii) Medications for MOUD (i.e. buprenorphine and naltrexone) are never stored on the unit.



b) *Procedure*

- i) The mobile unit should utilize Emergency Drug Kits (EDK) to keep a limited number of medications on-hand for use during emergencies. The emergency response medications will include:
 - (1) Naloxone, intranasal and intramuscular
 - (2) Epi Pen, intramuscular
 - (3) Aspirin, oral
 - (4) Nitroglycerin, sublingual
 - (5) Glucagon, intramuscular
 - (6) Diphenhydramine, oral
 - (7) Glucose gel, oral
- ii) During Mobile Health Unit hours of operation, all clinic schedule VI medications will be stored in a sealed EDK container on the unit and may include albuterol, lidocaine (for incision and drainage procedures which may require local anesthesia), and limited count of frequently-needed antibiotics (bactrim, doxycycline and/or clindamycin, PrEP/PEP).
- iii) All Emergency Drug Kits will be labeled with contents, expiration dates noted, and will be easily accessible during emergencies. Contents will be checked after each use as well as monthly by a registered nurse.
- iv) Medications will be tracked in a medication log. All medications that are administered will be documented in the electronic health record.

- v) At the end of each day of the mobile unit's operations, all medications will be delivered to the clinicians' main clinic location, where they will be stored in the locked Medication Room. The supplies will then be taken onto the Mobile Health Unit by staff the next day of operation.
- vi) Medications will be checked for expirations monthly and replenished as needed.
- vii) Disposal of medications will be handled through contracted medical waste service (i.e., Stericycle).
- viii) Staff will hold a Massachusetts Controlled Substances Registration for the mobile unit to maintain these medications.
- ix) Medication storage and security procedures used to assure proper medication temperature, lighting, humidity, and security per regulatory requirements are the same on a mobile unit as in an office-based clinic.

c) *Expiration dates*

- i) Medications will be checked for expiration monthly. Supplies will be checked for expiration quarterly. Expired stock will be removed, disposed, and replaced.

d) *Over-the-counter (OTC) medicines*

- i) A list of medicines and their expiration dates will be checked on all medicines monthly and documented in the log book.

e) *Vaccines*

- i) Vaccines may be administered in the Mobile Health Unit. They will be stored and handled according to office-based vaccine management policies.

f) *Medication Disposal*

- i) All expired or unusable OTC medications should be transported to the clinical partner organization for disposal.

5) After Hours Coverage

- a) Patients should have access around-the-clock, 7 days per week, to an on-call provider (NP/PA/MD) via the clinical partner's on-call system. The on-call providers should have access to the electronic health record, including any encounters which occurred on the mobile unit.
- b) Patients with an urgent medical problem when the mobile unit is closed should go to the closest emergency department.
- c) In the event additional assistance is required, clinical staff and/or the provider on call should be available be reached through the clinical partner's answering service as well as directly by cellphone 24 hours a day, 7 days a week

6) Referrals to Outside Care

- a) Staff should make referrals as needed to health care or addiction providers or other health care specialists via electronic referrals when possible, or via telephone call, directly from the mobile unit.
- b) When possible, patients' providers make initial referrals electronically to schedule outside agency specialty appointments.
- c) If possible, the clinical provider should implement a policy where available referral coordinators are activated in the event of a referral and can follow-up to and ensure accuracy with details and notify the providers and patients as needed.
- d) Any difficulty securing an appointment within a reasonable amount of time should be reported to and followed up by the ordering clinician.

7) Labs and Imaging Procedures

- a) The mobile health program should provide a range of diagnostic laboratory tests. All laboratory specimens obtained on the mobile unit should be handled according to the highest standards and processed by the clinical partner's regular laboratory services and according to their program-wide laboratory procedures policy.
- b) When possible, providers complete lab requests electronically.
- c) Laboratory services, which will be provided directly (for CLIA-waived tests) as well as under arrangement with the clinical partner's regular laboratory, may include the following:
 - i) HIV and HCV blood tests
 - ii) Fecal occult blood
 - iii) Urine HCG
 - iv) Urine analysis
 - v) Buccal and urine toxicology
 - vi) Blood glucose fingerstick
 - vii) Rapid strep test - throat swab
 - viii) Other blood serologies as determined by patient need
- d) Lab results should be entered into the specific patient's electronic health record. Results should be reviewed by the ordering provider who will then discuss results with the patient in follow up.

8) Abnormal labs and imaging

- a) When the laboratory reports abnormal results:
 - i) The provider should contact patients with follow-up plan. In some cases, an on-call provider is notified and should give instructions as to the necessary plans of action to be taken immediately.
 - ii) The provider should outreach to the patient to inform them of any need for further intervention.



- iii) If the patient cannot be located, this should be documented in EHR along with the steps taken to locate the patient.

9) **Communication and Outreach**

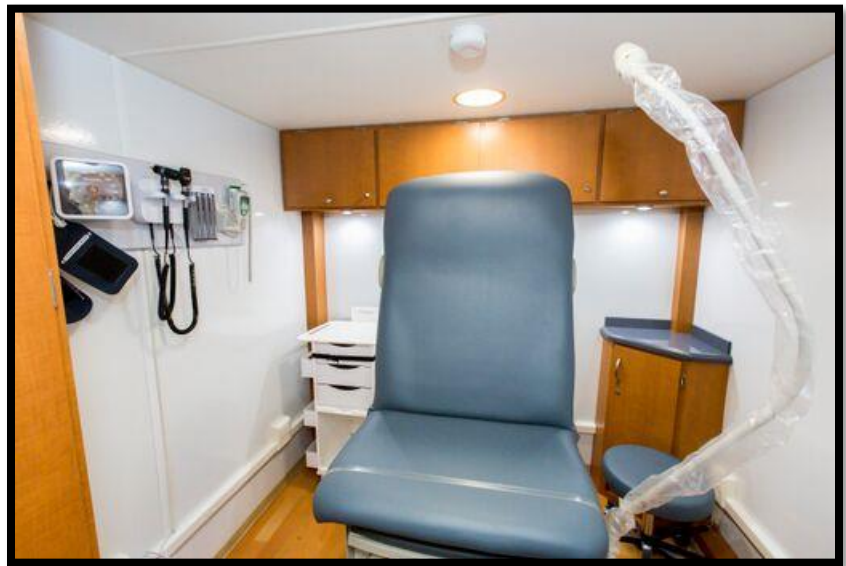
- a) Mobile Health Unit clinical staff should make every effort to ensure that appropriate clinical information is communicated directly to a patient, given available contact information provided in the EHR.
- b) If contact information is not provided, additional patient outreach should be conducted; all outreach efforts will be recorded in EHR.

10) **Medical Record Completion**

- a) All patient interactions that are clinical, either face-to-face and via telephone, should be documented in the EHR on the same day. No paper records of clinical care should be stored on the mobile unit.
- b) All phone interactions (patient/clinician; clinician/clinician) should be documented as soon as possible, but no longer than 48 hours after the interaction.

11) **Clinical Equipment**

- a) Calibration and preventive maintenance of all medical equipment should be completed annually by a contracted medical service company.
- b) Emergency response equipment should be easily accessible during emergencies.
 - i) Contents should be checked after each emergency use and/or on a monthly basis. Missing items should be restocked as used, monthly, or as they expire.
 - ii) The Automatic External Defibrillator should be checked on a monthly basis by a Registered Nurse.
 - iii) The portable oxygen tank should be checked monthly and after each use by a Registered Nurse. At the end of each day of the mobile's operation, the tank should be removed and stored by the clinical partner for appropriate climate control.



12) **Refrigerator Temperatures**

- a) Two refrigerators are recommended for the mobile unit – one designated for vaccines only, and the other for food for patients.

- i) Mobile health program staff should follow any existing protocol from the clinical partner regarding temperature control.
- ii) Temperatures of all refrigerators should be checked and logged at the beginning of each clinical session to ensure they are within the range 35-46 degrees F.

Safety During Mobile Outreach¹⁷

The need to promote staff safety in the outreach setting is clear. Safety guidelines are critical to the effective provision of services. To create a climate of safety, the mobile program aims to assure that outreach workers are well informed about risks of danger and that they consistently exercise safe practices to minimize risks.

Procedures: All workers who staff the mobile unit must consistently exercise safe practices by following the procedures listed below.

- 1) **Training** – All workers who staff the mobile unit work must complete a safety training determined by the operating agency at least every other year. This training will include personal safety techniques, de-escalation techniques, risk assessment, and non-violent crisis intervention.
- 2) **Safety planning and outreach preparation:**
 - a) *Track whereabouts:* The mobile team should always report an outreach plan before they leave the mobile unit to all staff on the van. A designated staff member not onsite should also be informed of planned outreach routes and estimated return times.
 - b) *Pair up:* No one shall conduct outreach or remain on the mobile unit alone. Be sure to conduct all mobile outreach activities in groups no smaller than two people. If the clinician is seeing a patient on the mobile unit, another staff member should also be present on the mobile unit.
 - c) Any deviation from the planned clinical locations or outreach routes must be reported to all mobile team members and the offsite designee immediately by the method pre-determined by the team (either via phone call, text, or email). If a worker does not return to the mobile unit at the planned time and cannot be reached, the mobile team should contact the worker's emergency contact.



3) Risk assessment:

¹⁷ Adapted from Boston Health Care for the Homeless Program "Safety in the Outreach Setting: community and Home Visits." Edited August 11, 2019.

- a) Team members should share risk assessments of program participants at regular team meetings to prepare for upcoming clinics. They must include consideration of both potential safety issues with the particular participants and safety issues ascribed to the particular setting in which the visit will take place. What is the potential for violence with this particular patient or this particular environment?

4) **Dress and valuables**

- a) Consider avoiding items around the neck like scarves, jewelry, which can pose a choking risk; leave valuable bags and jewelry at home; leave mobile unit locked at all times when no team member is aboard and keep valuables out of sight; use of headphones can diminish the ability to hear and may increase vulnerability; agency IDs should be worn at all times (if a lanyard is used, it should be breakaway).
- 5) **Teams of two¹⁸**: All mobile team members should operate exclusively in teams of two or more.
- a) Teamwork requires trust and cooperation. In teams of two, both staff members leave when the either staff person indicates the need to leave a potentially unsafe situation. No one stays behind. Because it may be difficult to leave a potentially dangerous situation without escalating tension and because one staff person may perceive a threat that the other is entirely unaware of, it is important that both agree to leave at any sign the other is ready.



- 6) **Safety equipment** should be provided to staff:

¹⁸ Adapted from Pine Street Inn's Low Threshold Housing Safety Policy from April 2013

- a) Breakaway ID lanyards
- b) Agency issued and/or personal cell phone with safety apps (such as Safe Signal App) installed, the option of a toggle, and staff member trained in its use
- c) Consider personal safety alarms (for example, www.streetdefender.com/MC-231.htm)

7) General safety tips¹⁸:

- a) Use “universal precautions,” meaning that every person and every environment is considered potentially dangerous.
- b) It is important during visits to be friendly and kind but to stay focused on the working relationship and help the program participant reach their goals. Remember, this is a professional relationship, not a friendship.
- c) Trust your instincts. Leave when you sense potential danger.
- d) Stay alert.
- e) Know what behaviors provoke you and ways to respond to those behaviors without placing yourself in danger.
- f) Keep your hands free.
- g) Keep car keys in your pocket or hand.
- h) When indicated, consider developing a contract with program participants to outline appropriate and inappropriate behaviors, establishing clear boundaries.
- i) It is important that program participants either manage their own money or work with a formal payee service. Staff may not ever borrow, save, give, use, or exchange money or other valuables, including ATM or EB cards, with patients. This helps to avoid any possible misunderstandings about financial transactions.

8) Safety during the visit

- a) Never approach a person who is yelling, screaming, or otherwise visibly disturbed.
- b) Be aware of surroundings and ensure clear access to an escape route at all times.
- c) Be aware of personal space – keep at least an arm’s length between you and the program participant.

9) Expectations of supervisors

- a) Keep a list of emergency contacts for each worker who does outreach.
- b) Ensure the workers have agency issued cell phones or personal phones and that workers are trained in the use of any safety apps being utilized.
- c) Develop a safety plan with staff. This plan should be re-evaluated as factors change, according to the need for safety and staff should be supported in order to implement the safety plan.

- d) Address the threat of violence or the aftermath of violence by attending to the needs of the worker, co-workers, and affected patients. Present an open environment for discussion.
- e) Provide ample opportunity for debriefing with all involved and offer trauma counseling.
- f) Document details of any incident in a written record kept by the supervisor.
- g) Immediately communicate with the appropriate agency staff to report any serious incident and consider if, and when, legal action should be taken.
- h) Communicate to other staff instances of work-related violence or significant threats of violence.



Mobilizing a Rapid Response

A key advantage of the mobile health program is its ability to adjust to evolving needs and circumstances. If data indicate that a new overdose hotspot within the mobile health program's catchment area, a rapid mobilization and deployment may be called for. In these instances, the following considerations should be taken.

1) Examples

- a) Scenarios that require a rapid response may include:
 - i) Rapid and/or sustained increase in overdose in an area not currently serviced by the mobile health clinic
 - ii) Outbreak of infectious disease such as HIV, hepatitis B, or meningitis among PWUD
 - iii) Evidence of new tent communities or other homeless settlements, possibly due to displacement in another area

2) Expedited Community Engagement

- a) As previously mentioned, engaging community partners and stakeholders is crucial to successful program implementation. When circumstances require swift action, the need for community engagement must be balanced with the urgency of the response. It is recommended that immediate engagement with the following community partners be prioritized:
 - i) Other frontline staff (e.g. outreach workers from other organizations to coordinate efforts)
 - ii) Local law enforcement
 - iii) Local hospitals/community health centers
 - iv) Local political representatives

Other engagement efforts with local neighborhood associations, business associations, and other stakeholders should be done as is possible over the course of the rapid response.

3) Flexible Scheduling

- a) Resources and bandwidth issues may be factors limiting a team's ability to rapidly respond to emerging crises. Mobile health clinics should also be mindful not to divert necessary resources from a clinical site where there is still need for services. Please refer to *Environmental Scan – Proposed Schedule* for strategies on how to employ flexible scheduling.

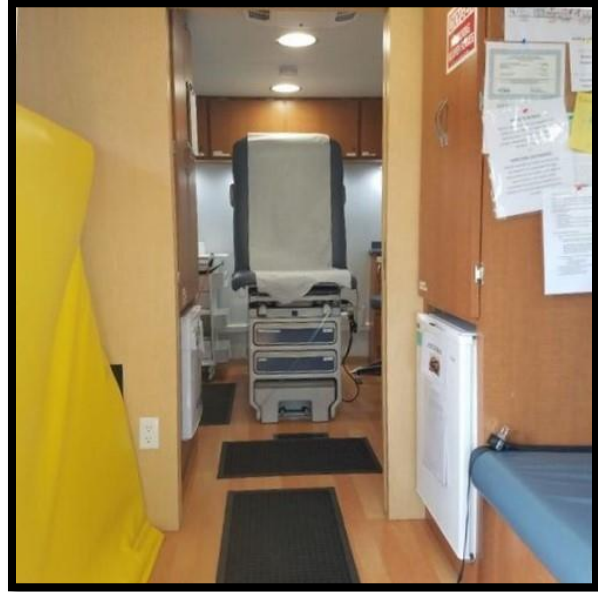
Mobile Health Unit Cleaning & Infection Control

1) Cleaning

- a) After each clinic session, staff on the van should wipe down surfaces and medical equipment with disinfectant.
- b) The mobile unit should receive a comprehensive cleaning on a weekly basis. The mobile health team should ensure to budget for staff time and supplies to clean the mobile unit regularly.
- c) Refrigerators should also be cleaned according to the clinical partner's existing protocols.

2) Infection Control

- a) Standard precautions such as hand-washing before and after each clinical encounter should be followed, and personal protective gear will be donned and doffed as needed.
- b) Office-based policies and procedures regarding infection control should be followed on the van, including for all procedures for identifying, reporting, controlling, and monitoring infections in patients and staff of the mobile unit.



3) Medical Waste Policy

- a) Mobile health team should ensure they have plans and a contracted agency in place to dispose of hazardous materials.
- b) All biomedical waste materials and containers [including sharps] throughout the mobile unit should be collected quarterly or as needed by staff.
- c) The mobile health team should follow the schedule and protocols set forth by the contracted agency responsible for removal of hazardous materials.

Mobile Health Unit Maintenance and Cleaning

1) Mobile Unit Maintenance

- a) The van should be registered and inspected by a private vehicle maintenance company.
- b) The van should undergo routine mechanical maintenance (e.g. oil change, etc.) every six months.
- c) Other mechanical upkeep should be completed as needed by a private vehicle maintenance company.
- d) At any time, if deemed unsafe by van staff or/in consultation with the lead organization's facilities manager, the vehicle will be removed from service until necessary repairs have been made. The applicable manufacturer's recommendations will be used as the basis for deciding when vehicle conditions warrant a vehicle's removal from service. Examples of these conditions may include excessive fluid leakage of vehicle fluids, problems with steering or braking, inoperable wiper blades, or poor tire condition.
- e) Membership should be obtained with an emergency roadside services company to provide mobile unit towing if needed.
- f) Patient care spaces and equipment should be cleaned and sanitized before and after each patient encounter on the mobile unit. The entire van should be cleaned after each day's use, and a deeper, more comprehensive cleaning should occur on a weekly basis. During this weekly cleaning, the condition and inflation of tires should also be checked.
- g) Every other time that the mobile unit is fueled, the oil and coolant levels should be checked.
- h) As needed, but not less than every other month, the exterior of the van should be washed.
- i) OSHA guidelines should be followed when cleaning up blood or bodily fluids.

2) Mobile Unit Parking and Siting

- a) During after-hours, the mobile unit should have a secure, designated parking space that is accessible to the program staff.
- b) Mobile unit operations should only be sited on solid, level parking surfaces. If the mobile unit has wheel stabilizers, those should be deployed to safeguard against movement when parked on an incline of any kind.
- c) Mobile unit siting should maintain a minimum separation of at least 30 feet between the unit and any building outside air intakes or any HVAC or generator exhaust, and at least 20 feet between the mobile unit and any unsprinklered building.

- d) The unit will be located to allow appropriate access to and exit from the unit without interference with adjacent building exits or fire lanes.

3) **Exchange and Transport of Equipment and Supplies**

- a) At the end of each day of the mobile unit's operations, some equipment, including any computers that allow access to the EHR, should be delivered to a secure brick and mortar location. The equipment should then be taken onto the unit by staff the next day of operation.



Evaluation

- 1) **Rationale** – Demonstrating reach and impact of the mobile health program is not only critical for internal decision-making in order to maximize effectiveness, but also for potential funders and other stakeholders. Mobile health programs should endeavor to design evaluations where:
 - a) **Data are maximally useful** – Data collected can effectively demonstrate the impact and/or effectiveness of the program.
 - b) **The burden of data collection in the mobile setting is minimized** – As much of the harm reduction and clinical services taking place will not be conducive to inserting research assistants into the staffing model, much of the onus of data collection will likely fall on the frontline staff. Evaluation design should ensure that any data collecting requirements are reasonable and as minimally disruptive to service provision as possible. When data collection efforts and access or quality to service provision are at odds, the team should always prioritize service provision and re-evaluate data collecting options.
- 2) **Potential data points to collect:**
 - a) Contacts during outreach
 - b) Needles collected/distributed
 - c) Naloxone kits distributed
 - d) Clinical encounters
 - e) Unique patients
 - f) Buprenorphine/naltrexone prescriptions
 - g) Total filled prescriptions
 - h) Unique buprenorphine/naltrexone patients
 - i) Toxicology results with buprenorphine/naltrexone present
 - j) Toxicology results without illicit opioids present
 - k) Returning patients
 - l) Referrals made (where and % successful)
 - m) Patients treated for HIV, HCV (if applicable)
 - n) Patients successfully completing HCV treatment (if applicable)
 - o) Clinical tests: HIV, HBV, HCV, STI
 - p) Positive clinical tests: HIV, HBV, HCV, STI
 - q) PrEP/PEP use

3) **Other potential evaluation projects**

- a) *Quasi experimental trial* – Compare outcomes in neighborhoods/areas where the mobile health unit current serves to similar areas where no similar mobile programming currently exists. Do overdose rates change/differ? Other trends?
- b) *Cost effectiveness analysis* – Analyze the mobile health program’s economic impact on the local health care system; determine whether or not harm reduction services, wound care, and treatment are preventing costly interactions with healthcare services (e.g. emergency department visits for skin infections, etc.).
- c) *Randomized control trial* – Does the presence of a mobile health unit in a region increase access and health of a community compared to similar areas with no van present? Also may compare the same area during clinical days vs. non-clinical days.

***APPENDIX A – The CareZONE mobile outreach initiative: Pilot evaluation,
01/16/2018 – 11/16/2018***



**The *CareZONE* mobile outreach initiative:
Pilot evaluation, 01/16/2018 – 11/16/2018**

January 31, 2019

Travis P. Baggett, MD, MPH

Kamala Smith, MPH

Sanju Nembang

Jessie M. Gaeta, MD

Boston Health Care for the Homeless Program
Institute for Research, Quality & Policy in Homeless Health Care
Boston, Massachusetts

Background

Each day, 91 people die of opioid overdose in the US,¹ including 6 individuals daily in Massachusetts.² No group has been more impacted by this crisis than homeless and vulnerably housed people, whose rates of drug overdose death are 20 times higher than those in the general population.³

In response to this public health crisis, the Massachusetts General Hospital Kraft Center for Community Health, working in collaboration with Boston Health Care for the Homeless Program (BHCHP) and the Boston Public Health Commission (BPHC), began piloting an innovative mobile medical initiative at opioid overdose “hotspots” in greater Boston in January 2018. This initiative, known as *CareZONE*, aimed to deliver harm reduction services, addiction treatment, and primary care directly to marginalized individuals at very high risk for drug overdose and death.

Description of the model

The *CareZONE* model consists of two intertwined components: harm reduction services and clinical care, both of which are provided via street outreach and inside the *CareZONE* van.

The harm reduction component is led by BPHC Access, Harm Reduction, Overdose Prevention and Education (AHOPE) staff. The goal of this component is to focus on *safer* drug use by engaging with people who use drugs directly on the street and providing non-judgmental support based on their needs. AHOPE staff offer anonymous risk reduction options to people actively using drugs, including supplies such as unused syringes, hand-held personal biohazard boxes for used syringes, and naloxone kits for overdose reversal. Harm reduction activities also include disposal of used syringes, education around safer injection practices, naloxone training, HIV and HCV testing, and referrals to all types of substance use treatment. Engagement with people who use drugs by AHOPE staff typically occurs via street outreach, with BHCHP health care providers often accompanying them. Aggregate outreach data were collected by

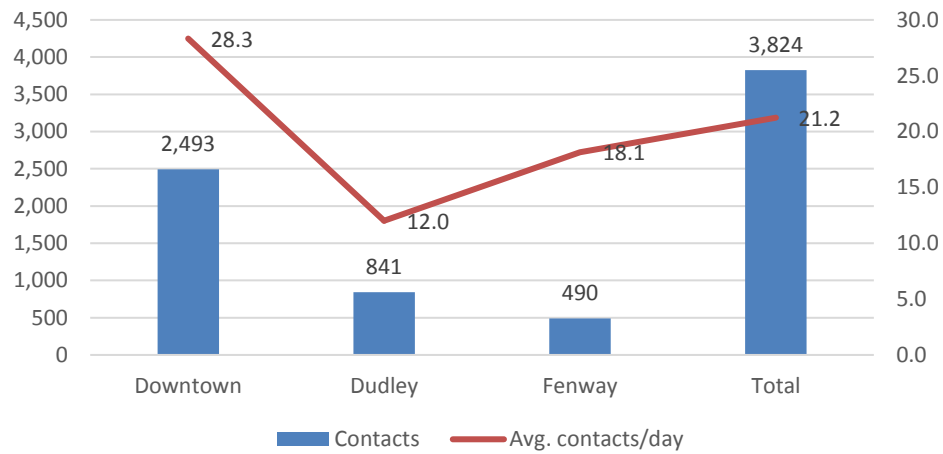
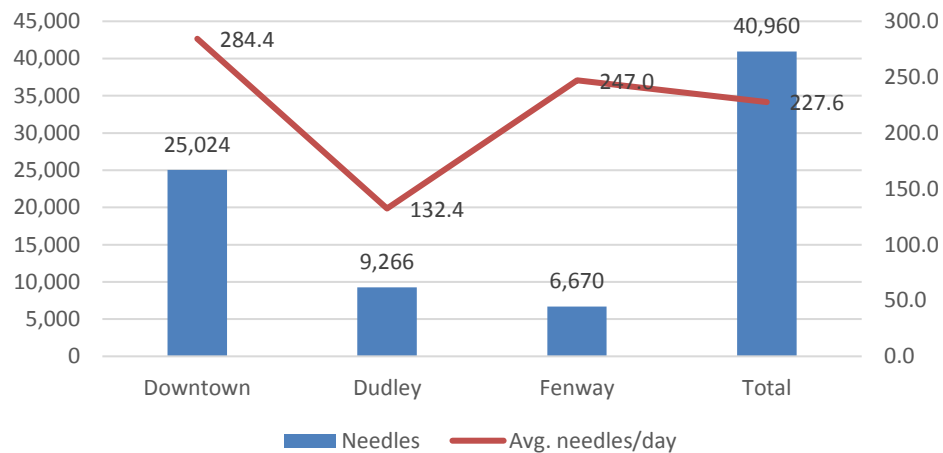
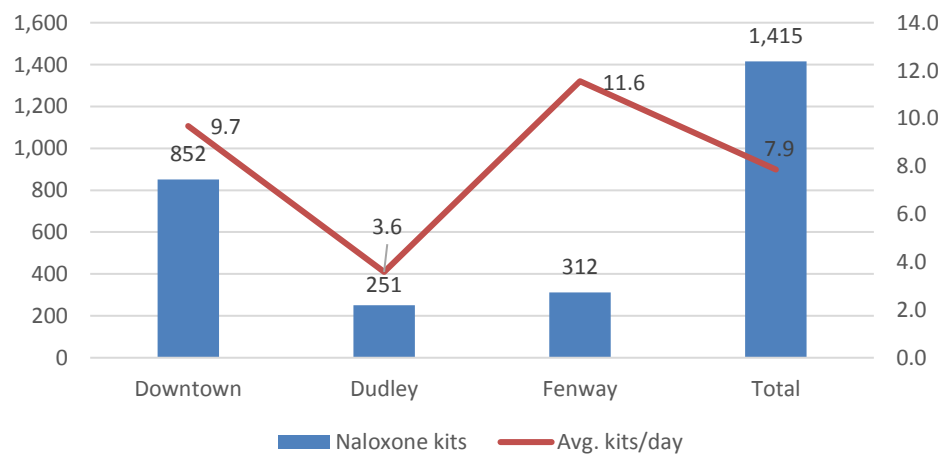
AHOPE staff and reported weekly to the BHCHP Institute for Research, Quality & Policy in Homeless Health Care.

The clinical care component is led by BHCHP primary care physicians, each of whom has additional training in addiction medicine and is certified to prescribe buprenorphine for patients with opioid use disorder. The goal of the clinical component is to provide ultra-low threshold addiction treatment services coupled with primary and preventive care focused on the health needs of people who use drugs. Most clinical encounters take place in a custom-built mobile medical van containing a small reception and triage area in addition to a single exam room with an exam table, a medical refrigerator, a sink, and cabinets stocked with medical supplies.

CareZONE activities initially took place in two locations: Downtown Boston and Dudley Square. In March 2018, an emerging need for services in the Fenway area was identified, and beginning in May 2018, the van started making regular stops in the Fenway area. Clinical encounters were charted in the BHCHP electronic health record (Epic) using a standardized template. Coded encounter data were extracted from Epic and compiled for analysis. The following sections summarize the quantitative findings of this analysis. A concurrent qualitative study of selected *CareZONE* patients elicited perceptions of the services they received through the initiative and provided additional context for the quantitative findings. All evaluation procedures were approved by the Partners Health Care Human Research Committee.

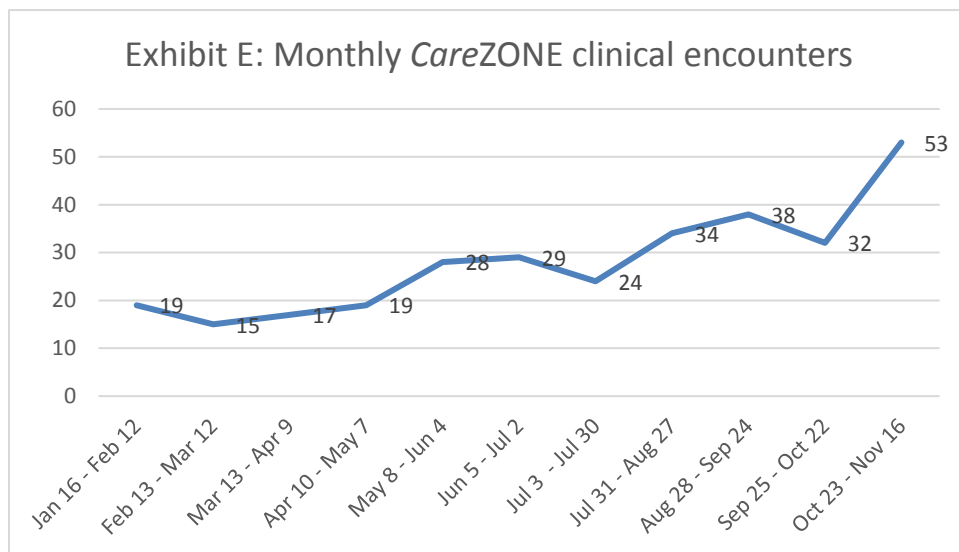
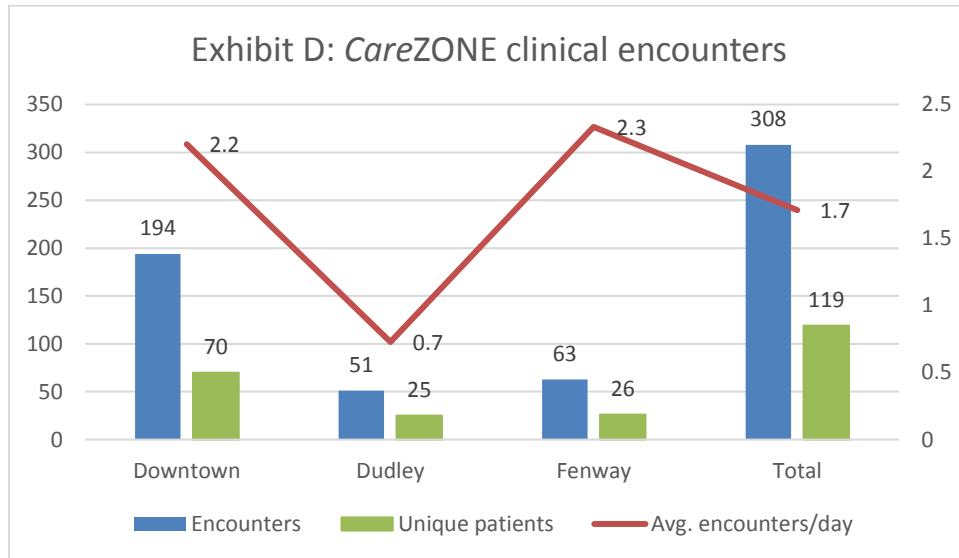
Outreach & harm reduction services

Over the course of 180 service days between January 16 – November 16, *CareZONE* staff logged more than 3,800 outreach encounters across all service sites, averaging 21 contacts per service day (Exhibit A). The majority of these contacts (nearly 2,500) occurred in the downtown area. During these encounters, almost 41,000 syringes (228 per day; Exhibit B) and over 1,400 naloxone kits (8 per day; Exhibit C) were distributed to individuals at high risk for injection drug-related complications and drug overdose.

Exhibit A: *CareZONE* outreach contactsExhibit B: *CareZONE* syringe distributionExhibit C: *CareZONE* naloxone distribution

Clinical encounters

Over the course of 180 service days, 119 unique patients made 308 clinical visits with *CareZONE* medical staff, for an average of 1.7 clinical encounters per day (Exhibit D). Most clinical encounters occurred in the Downtown area. The Downtown and Fenway sites each averaged more than 2 patient encounters per service day, while the Dudley site averaged fewer than 1 per day.



As shown in Exhibit E, the monthly volume of *CareZONE* clinical encounters was initially low but increased steadily throughout the evaluation period. Fifty-three clinical encounters occurred during the final month of the evaluation period, as compared to 15 to 19 per month during the initial four months.

CareZONE patient characteristics

The baseline demographic and health characteristics of the 119 patients seen by CareZONE medical staff are shown in Exhibit F.

Exhibit F: Baseline characteristics of CareZONE patients.

	Overall	Site of initial visit			P value
	N=119	Downtown N=69	Dudley N=25	Fenway N=25	
Demographics					
Age, years, mean (SD)	38.4 (12.0)	37.6 (11.4)	44.7 (14.9)	34.6 (8.3)	0.01
Gender, male, N (%)	79 (66.4)	40 (58.0)	19 (76.0)	20 (80.0)	0.03
Race/ethnicity, N (%)					0.01
Hispanic	12 (10.1)	--	--	--	
Non-Hispanic white	63 (52.9)	35 (50.7)	11 (44.0)	17 (68.0)	
Non-Hispanic black	11 (9.2)	--	--	--	
Other/unknown	33 (27.7)	--	--	--	
Housing status, N (%)					<0.001
Street	81 (68.1)	47 (68.1)	9 (36.0)	25 (100.0)	
Shelter	12 (10.1)	--	--	--	
Doubled up	10 (8.4)	--	--	--	
Housed	8 (6.7)	--	--	--	
Other	8 (6.7)	--	--	--	
Medical conditions					
Hepatitis C, N (%)	50 (42.0)	28 (40.6)	12 (48.0)	10 (40.0)	0.82
HIV, N (%)	7 (5.9)	--	--	--	0.03
Psychiatric conditions					
Depression, N (%)	22 (18.5)	--	--	--	0.59
Anxiety, N (%)	10 (8.4)	--	--	--	0.90
PTSD, N (%)	17 (14.3)	--	--	--	0.27
Bipolar disorder, N (%)	12 (10.1)	--	--	--	0.70
Substance use disorders					
Alcohol use disorder, N (%)	7 (5.9)	--	--	--	0.87
Drug use disorders, N (%)					
Opioid	89 (74.8)	50 (72.5)	22 (88.0)	17 (68.0)	0.22
Cocaine	17 (14.3)	--	--	--	0.10
Marijuana	9 (7.6)	--	--	--	0.71
Sedative/hypnotic	7 (5.9)	--	--	--	0.33
Stimulant	6 (5.0)	--	--	--	0.003

Note: Site-specific values of selected measures are suppressed to ensure patient confidentiality.

Across all sites, the average age was 38 years, two-thirds of patients were male, and

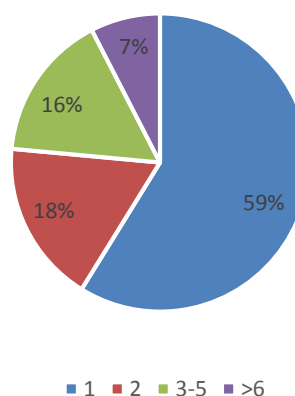
slightly more than half were non-Hispanic white, although race and ethnicity were unknown or not recorded for a large percentage of patients. More than two-thirds were living and sleeping rough on the street (i.e. unsheltered) at the time of the initial evaluation. Notably, these demographic characteristics differed significantly by service site. Downtown-area patients were more likely to be female. Dudley-area patients were older, more heavily male and non-Hispanic black, and had a more diverse mix of living situations. Fenway-area patients were heavily male, predominantly white, and exclusively rough sleepers.

CareZONE patients had a high burden of hepatitis C (42%) and HIV (6%) infection, with HIV being more prevalent among those seen at the Dudley and Fenway sites. Depression (19%), anxiety (8%), post-traumatic stress disorder (PTSD, 14%), and bipolar disorder (10%) were all relatively common and did not vary significantly by clinical site. As expected, drug use disorders were highly prevalent, with three-quarters having opioid use disorder. Fenway-area patients had a higher prevalence of stimulant use disorder than patients at other sites. All of these prevalence estimates are likely conservative since they are based solely on provider-coded encounter data.

Patient engagement

CareZONE patients made a median of 1 (mean 2.6) clinical visits to the van. The breakdown of per-patient clinical visits is shown in Exhibit G. About 41% (N=49) patients made at least one return visit (i.e. two or more visits total). Those who returned did not differ significantly from non-returners with respect to demographic or health characteristics.

Exhibit G: Breakdown of per-patient *CareZONE* visits



Over half (55%, N=66) of *CareZONE* patients were new to BHCHP services. Of these, 30% went on to have clinical encounters at other BHCHP service sites, suggesting that

CareZONE may have been a portal of entry to more conventional “brick and mortar” services for these individuals.

Content of clinical encounters

A list of selected health conditions coded and assessed by BHCHP providers during CareZONE clinical encounters is shown in Exhibit H.

Exhibit H: Diagnostic codes assessed during CareZONE clinical encounters.

<i>Substance use disorders</i>		<i>Neurologic disorders</i>	
Alcohol use disorder	21	Epilepsy	3
Opioid use disorder	259	Other neurologic conditions	4
Cocaine use disorder	14	Chronic pain	3
Stimulant use disorder	5		
Tobacco use disorder	4	<i>Gastrointestinal disorders</i>	
Other drug use disorders	13	Liver disorders	3
		Other digestive system disorders	6
<i>Infectious diseases</i>		<i>Skin conditions</i>	
Hepatitis C infection	28	Rash	6
HIV infection	8	Other skin disorders	16
Skin and soft tissue infections	26		
Mycoses	8	<i>Miscellaneous</i>	
Sexually transmitted infections	5	Musculoskeletal disorders	4
Other infectious diseases	11	Endocrine disorders	3
		Neoplasms	2
<i>Psychiatric disorders</i>		Blood disorders	2
Depression	5	Ill-defined symptoms	10
Anxiety	9	Bone fracture	3
Delusional disorder	3	Other injuries	7
Obsessive compulsive disorders	2		
PTSD	2	<i>Preventive care</i>	
Bipolar disorder	2	General medical exam	19
Other psychiatric disorders	2	Vaccination	24
<i>Cardiopulmonary disorders</i>			
Chronic lower respiratory diseases	7		
Circulatory disorders	8		

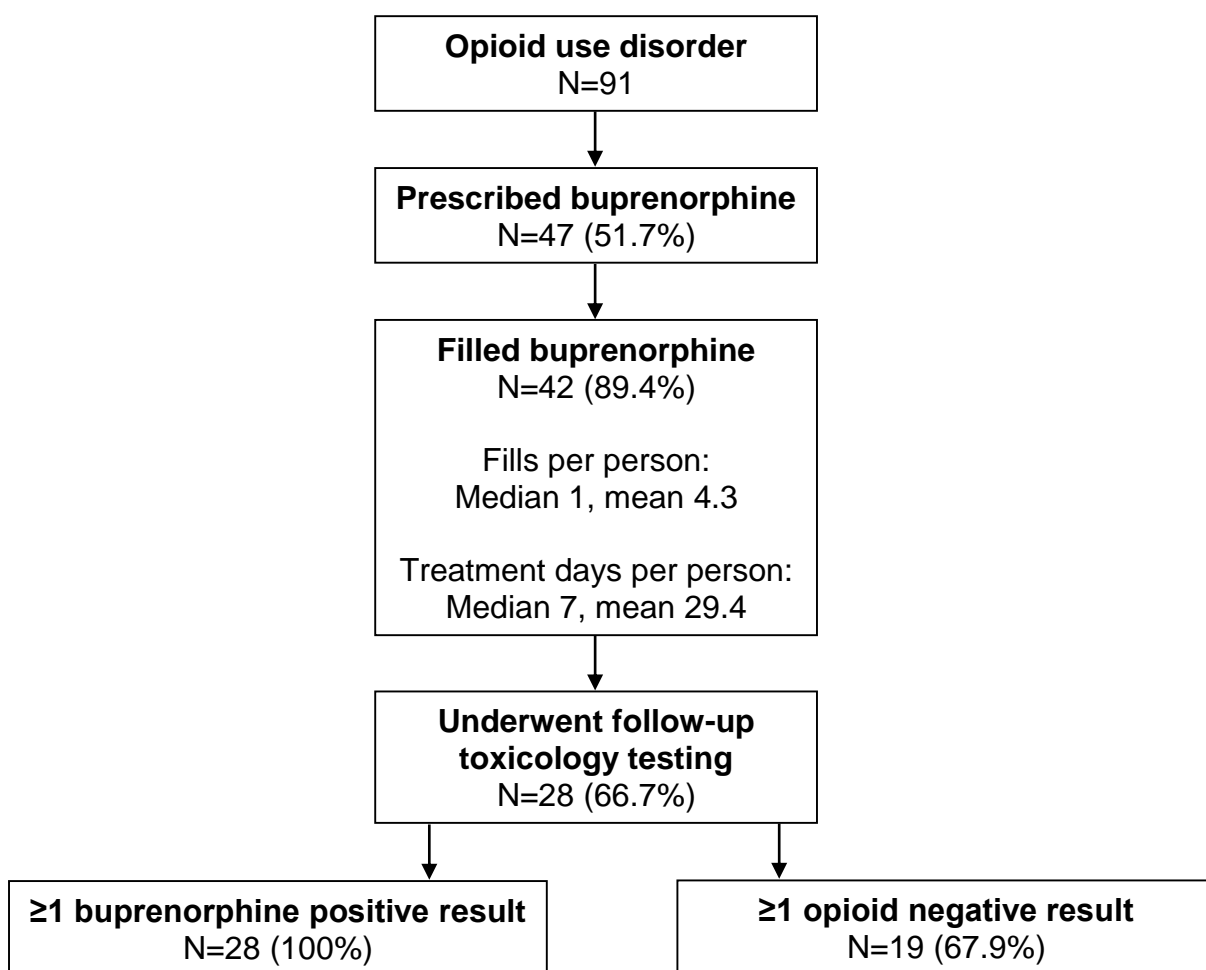
Substance use disorders constituted the bulk of coded diagnoses, with opioid use disorder being far and away most common. Various infectious diseases, many representing complications of substance use disorder, were also common. Other frequently coded conditions included psychiatric disorders and skin disorders. Despite the level of patient complexity reflected in these diagnostic codes, providers were still

able to embark on preventive care measures such as general medical exams and vaccinations.

Buprenorphine treatment cascade

The buprenorphine treatment cascade for *CareZONE* patients with opioid use disorder is displayed in Exhibit I.

Exhibit I: Buprenorphine treatment cascade among *CareZONE* patients



Of 91 *CareZONE* patients with opioid use disorder identified at an initial or follow-up visit, 47 (52%) were prescribed buprenorphine. Patients who received buprenorphine prescriptions did not differ significantly from those who were not prescribed

buprenorphine with respect to demographic, health, or substance use characteristics. Buprenorphine prescribing for patients with opioid use disorder was more common at the Fenway (94%) and Dudley (63%) service sites than at the Downtown site (32%).

Of the 47 *CareZONE* patients who received a buprenorphine prescription, 42 patients (89%) filled at least one based on Massachusetts prescription monitoring program data. These individuals filled a median of 1 (mean 4.3) buprenorphine prescriptions for a median of 7 (mean 29.4) days of buprenorphine treatment. Notably, considerable proportions of these individuals appeared to make interspersed or subsequent connections with either non-*CareZONE* BHCHP providers (38%) or non-BHCHP providers (26%) for buprenorphine treatment.

Of the 42 *CareZONE* patients who filled at least one buprenorphine prescription, 28 (67%) underwent follow-up toxicology testing. Of these, 100% had at least one positive result for buprenorphine (indicating that they took the medication at least once), and 68% had at least one test that was negative for all non-buprenorphine opioids (indicating abstinence at that time point).

Patient experiences with *CareZONE*

“As far as I see it, it’s a damn good thing. I would recommend it to anybody. And I’m gonna keep coming as long as I can and get the help I need.” – Stephen, *CareZONE* patient

To better understand patients’ experiences with *CareZONE* services, BHCHP Institute staff conducted semi-structured qualitative interviews with 7 patients across the three service sites between September and December, 2018. All had received services from the *CareZONE* van and ranged in age from 26 to 61. Five of the 7 patients were receiving addiction treatment through a *CareZONE* medical provider, and 4 of the 7 were rough sleepers. We begin with a brief profile of these patients to shed light on their lived experiences. Names and identifying information have been altered to protect

their confidentiality. We then present key themes and lessons learned from these patient interviews.

Patient profiles

Celeste, a woman in her forties, has been sleeping near Downtown Crossing for the past four years. She reports that she usually goes to the ER when she has a pressing health issue and has been purchasing Suboxone (buprenorphine) on the street to self-manage her addiction. She was approached by AHOPE staff to see if she needed anything and to let her know about medical services on the van. Interested in getting safer, legal treatment for her addiction, Celeste met with the *CareZONE* doctor to discuss options. Celeste reported being relieved to be able to meet with a doctor and get a prescription for buprenorphine as a safer and more secure way to get back on a treatment regimen. She now meets the *CareZONE* van every week around the same time to check in with the doctor and refill her prescription.

Thomas, a man in his thirties, initially heard about the *CareZONE* van through his primary care doctor. He wanted treatment for his addiction but living on the streets made it very challenging to make or keep appointments. Moreover, negative experiences with doctors and staff at other health care facilities in the past often prevented him from setting or keeping appointments. In addition to getting treatment for his addiction, Thomas regularly gets food and treatment for his asthma through *CareZONE*. Thomas refers to the van as a “one-stop-shop” and appreciates not having to fight his way around the city to different appointments and facilities, given his current living situation and limited resources for travel. He reports being very relieved knowing the van will be there each and every week to check up on his asthma, refill his prescription, and go over any health or other concerns he may have.

Jason, a man in his mid-thirties, sleeps outside in the Fens and has worked with the AHOPE staff for several months to exchange syringes and pick-up additional supplies. But, Jason explained, when he sought treatment for a medical condition in the past, he normally faced a lengthy wait, and often they didn’t treat the condition he had come for.

Jason visited the *CareZONE* van for a leg fracture. Later, when a facial wound became more painful, he returned to the van for additional treatment. The provider was able to clean his wound and prescribe an antibiotic to help it heal. Having access to a medical provider who is compassionate, caring, and “vouched for” by AHOPE staff has made all the difference in Jason’s overall health and outlook towards medical care.

Angela, a woman in her thirties, first learned about the *CareZONE* van through AHOPE’s outreach efforts in the Downtown area and was eager to connect with the medical provider due to the disrespectful treatment she had faced when trying to get care at other more traditional health care facilities. She has visited the van almost weekly since she first learned about it and picks up supplies from the AHOPE team and often has a medical issue for the doctor to look at. She reports being very grateful for the van’s non-judgmental approach to medical care and substance use disorders.

Stephen, a man in his sixties, has been using heroin on and off for over 40 years. He learned about the *CareZONE* van through a friend who was getting addiction treatment through the van and decided to give it a try. He had tried methadone in the past but was unable to stop using heroin. He was started on buprenorphine through *CareZONE*. After about a month, Stephen feels that the treatment is helping and expects to return to the van each week for his prescription refill. Today he is committed to not using heroin and is hopeful the *CareZONE* van services will continue to support him in his recovery.

Carlos, a man in his early thirties, sleeps primarily outside and has been using heroin and methamphetamines for over 10 years while also struggling with attention deficit hyperactivity disorder, social anxiety, and PTSD. The AHOPE outreach team found him sleeping in a tent and approached him about *CareZONE* services. He met with a *CareZONE* provider and started on medication treatment for his addiction. Carlos returns to the van each week for his buprenorphine prescription and to get naloxone and other harm reduction supplies from AHOPE staff. He has found it challenging to work with traditional medical facilities because he can’t make appointments due to his

current living situation and lifestyle, so the drop-in nature of the van has been particularly helpful for him.

David, a man in his twenties, was introduced to the *CareZONE* staff through a local outreach program and began receiving both primary care and addiction treatment services on the van. After three months, with help from *CareZONE* staff, David transitioned his care to a BHCHP brick and mortar site to continue addiction treatment. The consistent schedule of the van and the compassionate approach of the staff made receiving care more comforting than through the hospitals he was used to visiting when he had a serious health issue. David is now working with the office-based addiction treatment team at his health center and is grateful for the introduction and transition of care the van staff helped him with. The van has changed David's views on getting medical care for addiction-related issues. He credits *CareZONE* for making it possible, no matter what barriers came up along the way.

Key themes

Several key themes emerged from the *CareZONE* patient interviews.

Substance use disorders. All of the respondents reported a history of substance use, ranging in length from 10 to 40 years. Everyone described multiple experiences with various detoxification and treatment facilities as well as experiences of overdose, both personally and involving others. Many indicated that their experience with overdose dampened their desire to use drugs; however, due to the nature of their addiction, they were unable to stop using despite wanting to and despite recognizing the dangers of drug use. All were familiar with naloxone and had used it before on friends who had overdosed. They typically relied on *CareZONE* to replenish their naloxone supply.

“Yeah, I’ve had a lot of people overdose. Actually, what changed it, I’ve had so many people overdose, and people I liked, but they came back. In the last three years, my best friend he was like my brother passed away from an overdose, and then when my brother overdosed with me there and being in that with somebody so close to

me and feeling responsible, that made me see it differently. And experiencing an overdose myself when a loved one had to be there for me, and I didn't realize their perspective, and realizing their perspective it's a lot more serious than you think it is, it's scary. It's very scary." – Carlos, *CareZONE* patient

"The last time that I used wasn't fun at all. Like I said, I've wanted to stop using and...I had a lot of issues going on. I was homeless, I was living couch to couch, my mother is in the hospital, I gotta support my dope habit. So, it was becoming a snow ball effect, things were just coming at me left and right. It's almost like it was breaking me down. Let me get some dope, at least for this hour or two I don't got to worry about any of that. Sit here and get my high on, but the problems never go away. As soon as the high comes down you're back to square one again." – Stephen, *CareZONE* patient

Mental health conditions. Patients reported histories of depression, anxiety, schizophrenia, PTSD, reflecting the compassionate, stigma-free care needed to effectively work with this hard to reach population.

Physical health conditions. A variety of physical health conditions were reported, including acute issues such as abscesses, fractures, and wounds, as well as chronic conditions like hepatitis C and chronic obstructive pulmonary disease (COPD), highlighting the vast and complex physical health issues of *CareZONE* patients. Despite the multitude of medical centers in the Boston area, patients reported being either unable to access mainstream care or feeling uncomfortable in doing so.

Safe and legal buprenorphine prescriptions. Most patients identified obtaining a buprenorphine prescription as their reason for both initial and subsequent visits to the *CareZONE* van. Safety concerns were cited as reasons for not wanting to continue buying and using buprenorphine illegally. Having a provider explain the correct treatment regimen and in some cases go to the pharmacy with the patient to pick up the prescription were crucial steps in the process.

“To get suboxone. It’s safer, legal. Health-wise, I feel so much better. I feel more secure, I feel more stable, getting back on a regimen, luckily given by a doctor, better than buying them on the street and maybe not taking them properly. Safety wise it’s so much better.” – Celeste, *CareZONE* patient

Compassionate, non-judgmental medical care. All of the patients we spoke with described very positive experiences with *CareZONE*, including the compassionate and non-judgmental approach taken by everyone on the van, often emphasizing the difference in approach from other medical facilities where they felt stigmatized due to their addiction, mental health issues, or physical state. Trust was established as *CareZONE* providers worked with patients to build a relationship, usually after an introduction from the AHOPE staffperson who initiated the engagement efforts.

“I would describe them as pleasant, helpful, and compassionate... It’s a good thing, it shows people do care, when you are hopeless and down and out and you feel like no one cares and you can come here, and you realize people do care.” – Carlos, *CareZONE* patient

“How nice the people are. Some doctors’ offices aren’t very nice.” – Thomas, *CareZONE* patient

“The doctor, she’s great, she really is. She’s a sweet heart. I gotta say, not just her personality, her demeanor, everything. Very proper, very respectful and I trust her, I really do.” – Celeste, *CareZONE* patient

“Much, much better. Because they understand more of the addiction part of my lifestyle and how important to have clean needles and the hygiene, the way I have been living. I know it’s wrong, but they teach me how to continue to be more clean.” – Jason, *CareZONE* patient

“Because I feel comfortable, everybody on there, they are non-judgmental, they give you that warm comfortable feeling. I don’t feel any weirdness.” – Angela, *CareZONE* patient

Accessible, reliable, and convenient medical care. Many respondents mentioned both the enhanced accessibility and convenience of accessing services on the *CareZONE* van, whether for primary care or addiction treatment. Not having to make appointments was seen by many as an important facilitator of access to medical care. The various service locations, the predictable schedule, and the knowledge that the van would show up when it was supposed to were identified by many as reasons for preferring care from *CareZONE*, allowing individuals who have limited ability to travel or unpredictable schedules to access care when they need it.

“I don’t have access to my own [medication] at this time because I’m homeless so it’s in storage so to be able to come here and not have to show up at the emergency room for breathing treatment is really nice.” – Thomas, *CareZONE* patient

“That it wasn’t like... that it didn’t have specific timed appointments, just go and show up. The people that work on the van were all cool.” – David, *CareZONE* patient

“Yeah, I can walk here, and they show up when they say they are going to be here. I like the crew; the crew is good. The van is proper, its clean. But its more economical, more convenient for me, because I’m having trouble with T-passes and trying to get to any other doctor, or proper facility is challenging. Money-wise isn’t is great right now so it helps out, it’s very convenient.” – Celeste, *CareZONE* patient

“I let them know there’s a van that comes on Monday, there’s a good doctor in there, he’ll sit you down and he’ll talk to you and he’ll see what we can do as far as what you need. And you don’t even have to go to BMC, you don’t have to go to Brigham and Women’s, you don’t have to go to Mass General. You can walk right down the street, ten steps, and the van is right there.” – Stephen, *CareZONE* patient

Negative experiences with traditional medical care. The positive experiences described on the *CareZONE* van were contrasted by many respondents with negative experiences at traditional medical facilities, characterized by a lack of trust and respect, poor treatment, geographical and transportation barriers, and long wait times.

“Yeah and they have always been very negative about what my problems are or about what my issues are. They just don’t let me, they just want to do what they think is what I need. And I have problems that I want to talk about and they just don’t want to listen. And these people on the van are willing to listen and give me the time get help.” – Jason, *CareZONE* patient

“It’s like as soon as they turn their back, let’s say in a hospital, they could be talking about your socks smelling. Whereas here, I can be like dude my [expletive] feet smell, do you know what I mean?” – Angela, *CareZONE* patient

“I’ve gotten new works, like needles, and it’s mainly every time I go to the van it’s for the doctor because I don’t like to go to the hospital. I feel more comfortable here... I hate [the hospital]... They weren’t willing to work with me just because I was a drug addict, so they didn’t know how to understand what I was struggling with or what is the help that I needed.” – Jason, *CareZONE* patient

“Yeah it was a little hard. The wait was long, the wait was really long. It was like a three month wait, I didn’t have three months to get on Suboxone. So, it kept me buying them on the street and stuff until I met the van.” – Celeste, *CareZONE* patient

“Oh yeah, I’d get stuck walking to [Boston-area hospital] or [Boston-area hospital] or something like that and wait there for three hours. It’s awful.... I don’t know I just feel like they don’t take the homeless population seriously, they don’t care, they just don’t care.... Just the way that they treat you as a person. They just talk down to me and I don’t like it.” – Thomas, *CareZONE* patient

Because I'm a drug addict and they don't like giving addicts any sort of care there... Well you go in there, they ask you if you're homeless and if you're drug addicted and if the answer to either of those statements is yes then they say alright let me get your discharge paperwork ready... Everything to [Boston-area hospital] is always going to come back to your drug problem. If I have a runny nose they are like 'yup you are dopesick'. Everything has to do with your addiction to them. And the CareZONE isn't like that." – David, *CareZONE* patient

Relationship building is key. All but one participant reported engaging with AHOPE prior to working with the *CareZONE* medical staff on the van. The partnership with AHOPE, a community provider of harm reduction services with extensive in-roads among people who use drugs, proved critical to earning the trust of potential patients. Indeed, when one patient was asked whether she would have sought services on the *CareZONE* van without the preceding link to AHOPE staff, she responded:

"No. It was good that they walked around and let everyone know they were here and what their abilities were, you know, like what their reason was for being out here." – Celeste, *CareZONE* patient

Suggested improvements. The overall feedback about *CareZONE* was resoundingly positive, with all patients stating that the van met their needs. However, there were a few suggestions that might help enhance the lives of *CareZONE* patients and expand access to care. Every respondent suggested that the *CareZONE* van have longer hours of operation and visit their location more frequently. The ease of access to care due to the van's physical location came up as one of the main facilitators to care. One respondent suggested adding the Engagement Center as a service site. Another patient suggested advertising *CareZONE* services with flyers in areas of high drug use rather than relying on word of mouth or AHOPE staff recommendations. Public transportation passes also came up frequently as a potentially useful resource for van patients.

“I know if you were closer to up here [Massachusetts Avenue and Melnea Cass Boulevard intersection] you would get more people. If you were to get the van right outside the Engagement Center you would have more people than you would know what do to with.” – David, *CareZONE* patient

“Well maybe, um, they should put out some flyers. Because I heard it word of mouth. I don’t see anything around Dudley station saying well we have a van...” – Stephen, *CareZONE* patient

Summary and implications

During 180 days of operation, the *CareZONE* initiative successfully distributed nearly 41,000 syringes, issued more than 1,400 naloxone kits, and provided medical care to 119 individuals at high risk for life-threatening and costly drug-related complications. Our evaluation highlighted several important findings and implications for future work.

- ***Low-threshold mobile medical initiatives targeting people who use drugs should be paired with proactive street outreach.*** Partnering with an experienced community provider of outreach and harm reduction services was critical to earning the trust and confidence of highly marginalized patients and to encouraging them to engage in medical services. Even if individuals are not ready to engage in medical care, street outreach provides a vehicle for the widespread delivery of harm reduction supplies (e.g. syringes and naloxone) in a way that appears highly acceptable to the target population.
- ***Mobile medical initiatives take time to ramp up.*** Even with a trusted community partner, launching a new clinical initiative for a highly marginalized population requires time to gain traction and patience to allow individuals to become familiar with services and engage with them on their own terms. By conventional standards, *CareZONE* clinical services were initially slow but showed a steady increase over the evaluation period, particularly in the final month. This underscores that clinical outcomes, and eventually financial returns on investment, are not likely to be seen immediately but rather more likely to accrue over longer periods of observation.

- ***Mobile medical initiatives can be a valuable tool for engaging new patients into care and serve as portal of entry to brick and mortar services.*** Over half of individuals seen for CareZONE clinical encounters were new to BHCHP services. Of these, one-third went on to receive other BHCHP services. Even with initially low clinical volume, bringing these highest-risk patients into care could have a substantial downstream impact on clinical outcomes and cost.
- ***Integrated mobile hepatitis C and HIV treatment should be a future consideration.*** The relatively high baseline prevalence of both hepatitis C and HIV infection among CareZONE patients, coupled with the later emergence of an HIV outbreak in a group of patients served by CareZONE, suggests a potentially important role for van-based clinical efforts directed toward hepatitis C and HIV treatment for individuals unable or unwilling to pursue such care in more conventional settings.
- ***Buprenorphine treatment can be delivered in a mobile outreach unit but efforts at promoting continuity of care may be needed.*** Over half of CareZONE patients with opioid use disorder were issued prescriptions for buprenorphine and most of these were filled. Of those who underwent follow-up toxicology testing, all demonstrated evidence of taking buprenorphine, suggesting high rates of acceptability and potentially adherence among the majority of patients started on buprenorphine. Although many patients were successfully maintained on buprenorphine either through BHCHP or non-BHCHP providers, a sizable proportion were lost to follow-up. While even brief periods of buprenorphine treatment might lower overdose death risk, efforts at promoting longer-term engagement may be needed for selected individuals.
- ***Mobile medical services can provide a more acceptable health care experience for stigmatized individuals.*** In qualitative interviews, patients universally reported negative experiences with conventional medical facilities, prompting them to avoid care for potentially important or treatable issues. Patients appreciated the convenience of mobile services and the non-judgmental approach of CareZONE staff. This paved the way for establishing trusting

relationships with health care providers in a way most had not previously experienced in other settings.

- ***Mobile medical initiatives efforts should combine flexibility with predictability.*** Patients appreciated the convenience and flexibility of the *CareZONE* model while also emphasizing that having a predictable schedule of hours and locations was reassuring. Indeed, patients' principal suggestions for improvement were to expand the number of service sites and the hours of operation at each site, highlighting the high level of acceptability and demand for services like *CareZONE*.

Conclusions

CareZONE delivered harm reduction services to a diverse group of high-risk communities in Boston and engaged many marginalized individuals into primary care and addiction treatment services in a manner that patients found both helpful and humanizing. Future efforts should focus on expanding sites and hours of operation, coupled with efforts to systematically assess both clinical and cost outcomes that may accrue over a longer period of deployment.

References

1. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention. Opioid overdose: Understanding the epidemic. August 30, 2017. Accessed October 10, 2017.
2. Massachusetts Department of Public Health. Number of Opioid-Related Overdose Deaths, All Intents by City/Town, MA Residents, January 2012-December 2016. Massachusetts Department of Public Health; May 2017.
3. Baggett TP, Hwang SW, O'Connell JJ, et al. Mortality among homeless adults in Boston: shifts in causes of death over a 15-year period. *JAMA Intern Med*. 2013;173(3):189-195.

© 2019 *The General Hospital Corporation*



MASSACHUSETTS
GENERAL HOSPITAL

THE KRAFT CENTER
for Community Health