Qualitative Evaluation of HIV Outbreak Response in Philadelphia
Findings Report, 2024

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Disclaimers

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Executive Summary

Since 2018, the Philadelphia Department of Public Health (PDPH) and community partners have responded to an HIV outbreak among people who inject drugs (PWID). Response efforts included expanding access to syringe services, HIV testing, rapid antiretroviral therapy (ART) initiation, pre-exposure prophylaxis (PrEP), and non-occupational post-exposure prophylaxis (nPEP); communication about and coordination of response efforts; and mobilizing one-stop shops of services for PWID. This qualitative evaluation engaged PDPH staff and community partners to identify successes with response activities, note challenges, and inform future directions. This report summarizes findings from two facilitated group discussions, five site visits to community partner venues, and 25 semi-structured interviews with health department staff and community partners.

Key findings

Successes:	Challenges:
HIV testing	
Rapid increase in testing; routine, opt-out HIV testing in key venues; incentives; collaboration to integrate HIV testing with services by trusted providers.	Slow rebound from pre-COVID-19 levels; gaps in awareness of testing venues; barriers to integrated HIV testing; lack of universal integration in clinical settings; community hesitancy and HIV stigma.
HIV prevention	
Expansion of syringe distribution through multiple venues; PrEP integration into wrap around services; nPEP hotline creation.	Unmet need for sterile syringes among PWID; Expansion of PrEP availability not translating into increased uptake.
HIV care and treatment	
Initiation of low barrier HIV care and expansion of case management; same day enrollment; scale-up of injectable ART (covered by Medicaid).	Social determinants of health contributing to inconsistent care and low viral suppression; people with drug resistant HIV unable to initiate injectable ART; loss to follow-up due to involuntary displacement of people living in encampments.
Coordination, collaboration, and communication	
Meetings to review outbreak data with internal partners; distribution of timely health advisories; network of providers serving PWID; community listening sessions.	Siloed work and funding; limited coordination of service delivery operation hours across organizations; PDPH communication not reaching frontline staff

Priority considerations and opportunities

- Address immediate needs of PWID, especially housing, to improve HIV prevention and treatment outcomes.
- Expand opt-out HIV testing in emergency departments, substance use treatment facilities, and community behavioral health (CBH) sites.
- Expand and maintain syringe distribution points throughout city, including neighborhoods experiencing increased HIV or overdose.
- Expand low barrier one-stop care models and funding for case management.
- Host quarterly HIV outbreak response meetings with community partners to coordinate response activities.
- Disseminate health education materials on HIV, harm reduction, and substance use to address intersectional (e.g. HIV, unhoused people, PWID) stigma and dehumanizing treatment of PWID.

Conclusion

Together, data suggest that stable and comprehensive syringe services programs (SSPs) are essential for reducing HIV transmission during an outbreak, preventing increases in HIV in other populations and ensuring people with substance use disorders have access to proven prevention interventions, including sterile injection

equipment and health care.[1] Findings point to continued response activities and considerations for PDPH to maximize HIV reduction and treatment among PWID.

Background

Since 2018, the Philadelphia Department of Public Health (PDPH) has worked with community partners to respond to an HIV outbreak primarily affecting people who inject drugs (PWID). Data published in PDPH's annual HIV Surveillance Report indicate that there were 62 new HIV diagnoses among PWID in 2022 (a 94% increase compared to 2016)and preliminarily, 28 new HIV diagnoses among PWID during 2023.[2] During 2022, new HIV diagnoses among PWID remained predominately among non-Hispanic White individuals (52%), but continue to increase among non-Hispanic Black individuals (24%) and Hispanic individuals (19%).[2] During 2021, PDPH also observed an increasing proportion of PWID with new HIV diagnoses identifying as gay, bisexual, or other men who have sex with men (MSM), with 29% of PWID with an HIV diagnosis in 2021 categorized as PWID/MSM. During 2022, this proportion dropped to 15% during 2022, but rose again to 21% during 2023.[2] PDPH noted that increasing fentanyl use, homelessness, and involuntary displacement from encampment clearings likely contributed to HIV transmission in this population.[3] There was a trend of increases in the number of acute HIV infections reported following three distinct clearings of large encampments from 2017 and 2018.[3]

Outbreak response activities included expanding access to syringe services, HIV testing, rapid ART initiation, PrEP, and nPEP; mobilizing one-stop shops[4]; disseminating information to increase awareness about the outbreak and available resources; coordinating internal and external partners; and monitoring the outbreak using surveillance data. In July 2023, PDPH requested CDC technical assistance with an evaluation of their HIV outbreak response. The evaluation sought to engage PDPH staff and community response partners to identify which response activities are working well, note challenges or barriers to implementation, and inform future directions.

PLEASE NOTE: Evaluation data were collected before reports of cuts to syringe service program funding in Philadelphia were publicized. Funding withdrawal from SSPs results in higher unmet needs and likely increases in HIV across populations including among PWID.[5,6,7]

Approach

The qualitative evaluation included facilitated group discussions and semi-structured interviews with health department staff and community partners involved in HIV cluster response. On November 14–15, 2023, CDC facilitated a two-part group discussion about the multi-year response to an ongoing HIV outbreak among PWID

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[1] https://www.cdc.gov/ssp

[2] Philadelphia Department of Public Health, Health Advisory; June 7, 2022: hip.phila.gov/document/2693/PDPH-HAN_Advisory_14_IncreaseinHIVDiagnoses_06.07.2022.pdf/

[3] MM Kim, et al. Understanding the Intersection of Behavioral Risk and Social Determinants of Health and the Impact on an Outbreak of Human Immunodeficiency Virus Among Persons Who Inject Drugs in Philadelphia, The Journal of Infectious Diseases, Volume 222, Issue Supplement_5, 1 October 2020, Pages S250–S258, https://doi.org/10.1093/infdis/jiaa128

[4] A one-stop shop model of care provides a range of relevant health and social services in one location. In this context, the model incorporates HIV prevention and care services, syringe distribution, and other harm reduction services, wound care, STI and viral hepatitis testing and care, substance use treatment, behavioral health services, and social services (e.g., food pantry, housing assistance).

[5] Handanagic, S. et al. HIV infection and HIV-associated behaviors among persons who inject drugs—23 metropolitan statistical areas, United States, 2018. MMWR, Volume 70, Issue 42, October, 22, 2021,Pages 1459-1465.

[6] Zang, X., et al. The Impact of syringe services program closure on the risk of rebound HIV outbreaks among people who inject drugs: A modeling Study. AIDS, Volume 36, Issue 6, 2022, Pages 881-888, 10.1097/QAD.0000000000003199

[7] Fernandes RM, et al. Effectiveness of needle and syringe programmes in people who inject drugs – An overview of systematic reviews. BMC Public Health. Volume 17, Article 309, 2017. https://doi.org/10.1186/s12889-017-4210-2

and PWID/MSM in Philadelphia. The discussion aimed to understand experiences, successes, and challenges while serving as part of this HIV outbreak response. From November 2023 to January 2024, CDC staff conducted interviews in person or by video-conference, following a semi-structured interview guide. For all interviews, the CDC team worked in teams of two: an interviewer and a notetaker. CDC also visited community partner venues where response activities occur.

Recruitment

PDPH and CDC identified a purposeful sample of potential participants for the discussions and interviews to ensure representation from key staff and organizations involved in outbreak response. Participation was voluntary and all participants provided informed consent. CDC invited 38 people, including staff from PDPH and community partners, to participate in two hybrid (remote or in-person) half-day group discussions. CDC invited 30 people to participate in an interview and completed interviews when saturation was met, or no new ideas were emerging. People could participate in both the discussions and an interview.

Sample

Discussion and interview participants represented PDPH's HIV, STD, Viral Hepatitis, and Substance Use Prevention and Harm Reduction programs; hospitals; harm reduction programs; substance use disorder (SUD) treatment programs; jails; community-based organizations providing HIV case management; and academia. A total of 27 people participated in at least one of the group discussions. CDC conducted 25 semi-structured qualitative interviews.

Site visits

In November 2023, PDPH and CDC visited five community partner venues where response activities occur, including venues for HIV testing, harm reduction services, housing, and mobile services. CDC conducted informal interviews and observations during the visits.

Data analysis

Notetakers recorded detailed notes during each discussion and interview. After each interview, the interviewer and notetaker completed a debrief form to capture key takeaways and topics to probe in additional interviews. A team of five CDC analysts identified key response categories based on the interview guide and deep reading and review of notes: communication, response coordination and collaboration, HIV testing, HIV prevention, HIV care and treatment, additional services for PWID, and inclusion of PWID. Notes were then highlighted by response category and put into a matrix by category. Notes were recaptured in summaries and then synthesized by the analysis team to generate findings in each category focused on successes, challenges, and considerations for future directions. Key findings from group discussions, interviews, and site visits were integrated.

Overarching Findings

There were several topics that emerged across response categories.

Hierarchy of needs among PWID

"It's not something – HIV is not what they are thinking about."

Participants acknowledged that HIV testing and care often fell lower on a person's hierarchy of needs. PWID often are addressing their basic survival needs, such as nutrition, clean water, housing, sanitation, income, and transportation. PWID have co-occurring conditions and may be seeking care for wounds or infections related to substance use. Many PWID are experiencing homelessness, some have limited mobility due to amputation from xylazine wounds.[8] Likewise, providers had competing priorities, with a patient's most urgent health concern

[8] Philadelphia Department of Public Health, Health Update; Dec 8, 2022: https://hip.phila.gov/document/3154/PDPH-HAN_Update_13_Xylazine_12.08.2022.pdf/

(e.g., harm reduction, wound care) a higher priority than providing HIV services. Social determinants of health and basic needs must first be addressed before addressing HIV prevention and treatment.

Displacement of people experiencing homelessness

"When people are shuffled around, they die quietly. Imprisonment leads to death after withdrawal and low tolerance."

Displacement of people who are not housed (e.g., through involuntary displacement) hinders the ability to locate people for HIV testing and HIV care. Displacement often exacerbates the vulnerability of this population.[9,10] Some participants perceived a desire for PWID experiencing homelessness to "disappear." Participants highlighted that involuntary displacement to jail, corrections, or substance use treatment facilities further puts community members at risk upon release in absence of continuity of care including substance use treatment options like long-acting buprenorphine.

Geographic expansion of services

"Kensington has services coming out of its ears."

HIV and additional services for PWID are currently concentrated in two neighborhoods: Kensington and Center City. PDPH and community partners noted concerns that the location of services for PWID likely missed neighborhoods and key populations affected by the HIV outbreak. Participants suggested the design and expansion of HIV service locations and service delivery models (e.g., brick and mortar, mobile) should be tailored to the local community. While mobile services have allowed flexibility in geographic placement and served as stopgap measures, they are unable to have a consistent community presence. Mobile services face challenges in building demand and trust in the community.

Importance of case management and peer navigation workforce

"Patients in Kensington are seen as 'other' and treated as not human."

Case managers, social workers, peer navigators, and peer recovery specialists represent a critical workforce for serving PWID. Case managers provide a holistic approach to the needs of PWID and navigate complex healthcare systems. Community partners provide training, professional development, and compensation to peers. Peer may take patients to their appointments and help fill their prescriptions. Peers are a "lifeline" to clients; they may be more likely to gain trust and counter intersectional stigma (HIV, substance use, housing status) that PWID often face. Participants reported it is important to pay peers a living wage and protect them from potential triggering situations. Notably, peers may not be comfortable in all settings or implementing various interventions (e.g., distributing harm reduction kits in hospitals).

Key Findings by Response Category

HIV Testing

Successes: Successes include PDPH's rapid increase in resources for HIV testing services; routine, opt-out HIV testing in jails, some hospital emergency departments (ED), and other settings; pairing HIV testing with other services by trusted providers (e.g., harm reduction, wound care); use of rapid HIV tests at a community-based organization providing harm reduction services and low barrier HIV care, for timely results; and incentives (e.g., $5-10 gift card, socks) for uptake of HIV testing. Participants noted successful collaboration where a partner organization provided HIV testing and/or navigation services. A high uptake of HIV testing was noted at a respite housing center, mobile suboxone clinics, and through collaboration with partners. Community partners appreciated the distribution of materials to increase HIV awareness and promote HIV testing (e.g., directory of

[9] Chang JS, et al. Harms of encampment abatements on the health of unhoused people. SSM-qualitative research in health Volume 2, Issue 100064, December 2022. https://doi.org/10.1016/j.ssmqr.2022.100064

[10] Qi D, et al. Health Impact of street sweeps from the perspective of healthcare providers. Journal of General Internal Medicine. Volume 37, Issue 14, November 2022, Pages 3707-3714. https://doi.org/10.1007/s11606-022-07471-y

HIV testing locations), specifically as handouts or palm cards for ease of reference and distribution to PWID. Community partners have played an important role in alerting PDPH to increases in new HIV diagnoses.

Challenges: Challenges include COVID-19 pandemic restrictions and the subsequent decline in testing; limited community and provider awareness of organizations offering HIV testing; and barriers to sustained implementation of opt-out testing in EDs, SUD treatment centers, and behavioral health sites. Commonly cited barriers to the integration of HIV testing into other services and hospital emergency departments (EDs) were time burden, limited staff capacity, concerns with obtaining consent, patients leaving before receiving results, responsibility and capacity for linkage to HIV care if someone receives a positive test result, staff knowledge and ability to bill for HIV testing, and lack of resources and leadership buy-in. A lack of universal integration of HIV testing with STI testing in clinical settings was also noted. Some observed challenges with laboratory-based HIV tests included: lower likelihood of returning results, obtaining blood draw from PWID (i.e., "hard stick," need for ultrasound or experience, client preferences), and capability to draw blood on mobile vans. In addition, resistance from some community members has posed a barrier to HIV testing through some mobile and street-based services. Finally, intersectional stigma remains a barrier to persons' willingness to receive an HIV test; participants emphasized that language and how testing is offered matters.

HIV prevention

Successes: Successes are divided into SSPs and PrEP/nPEP topic areas.

SSPs: Participants reported rapid expansion of syringe distribution in Kensington and other parts of Philadelphia was likely the greatest contributor to decrease in HIV. Participants shared other successes at substance use prevention and harm reduction organizations, including ladies' nights to better reach women and pairing prevention with other services (e.g., wound care, testing) through trusted providers. One hospital launched a harm reduction program, distributing syringes and equipment to patients in the ED.

PrEP/nPEP: More PWID were aware of PrEP due to increased communication (between peers and from other communication channels) about PrEP during the outbreak, making communication easier. One substance use prevention and harm reduction program increased access to injectable PrEP, a lower barrier option for this population, and incentivized PrEP use. Other organizations scaled up PrEP enrollment; a low-barrier clinic implemented opt-out PrEP to clients. Expansion of mobile units allowed for wider geographic reach. The non-occupational post-exposure prophylaxis (nPEP) to PrEP program, which transitions people who take nPEP to continue on PrEP, has been a success; PDPH funds a 24-hour hotline for nPEP. Individual-level harm reduction education has been helpful for the PWID population (e.g., encouraging all injection equipment to be clean and that it's not just needles that can lead to HCV or HIV transmission).

Challenges:

SSPs: One substance use prevention and harm reduction organization has been successful at syringe distribution but faces challenges as they have been expected to "do everything for PWID" (e.g., address housing needs, food insecurity, complex medical care). However, there is persistently limited availability of housing and substance use treatment services in the city, imposing additional challenges on SSPs as they try to address those needs. SSPs are not permitted to be needs-based[11] so they are not able to meet people's syringe needs. SSPs are currently focused in Kensington and Center City. Participants reported that smaller organizations face pushback/resistance to distributing syringes from some segments of local communities and city leadership. Working in Kensington can be triggering for staff with lived experience employed at substance use prevention and harm reduction organizations; several participants reported that SSP employees may lack needed support and are vulnerable to relapse. Some hospital staff noted their patients were more interested in testing strips and naloxone than syringe supplies.

[11] Needs-based syringe distribution provides PWID access to sterile syringes with no restrictions, including no requirement to return used syringes. Needs-Based Distribution at Syringe Services Programs (cdc.gov)

PrEP/nPEP: PrEP marketing has focused primarily on MSM. Participants reported difficulty reaching PWID, including people unstably housed for engagement in PrEP/nPEP. Referrals to infectious disease clinic needed for PrEP evaluation/prescription at most EDs. Some hospital ED staff noted PWID turn down PrEP because they are going to get "clean" (i.e., don't need it). They also noted that nPEP referral mostly focuses on people who experienced violence. Participants reported a lack of PrEP and nPEP awareness among disease intervention specialists. Mobile vans allow flexibility for prevention service outreach, but they're not perceived as a consistent community presence (nor do they receive consistent funding) for services like PrEP or nPEP.

HIV care and treatment

Successes: Participants endorsed the importance of HIV care at low barrier clinics that operate as one-stop shops; expansion of HIV treatment services at other low-barrier walk-in clinics; the important role of case managers and peer navigators; and medication lockers at a substance use prevention and harm reduction organization. One low barrier clinic aims to provide same-day ART enrollment, offers support through a medical case manager, and prioritizes injectable ART to improve adherence. This clinic was noted to be a place where people seek care and report feeling safe. One housing-first organization offers street-based care for patients who are unable to obtain care in other permanent locations. Case management and peer navigation are successful in linkage and enrollment in HIV care. In general, the majority of PWID diagnosed with HIV are connected to care. PDPH recently expanded their field services re-engagement team and launched support for a transitional housing-first program.

Challenges: Social determinants of health and hierarchies of needs impact PWID access to HIV care, contributing to inconsistent care and low viral suppression. The complexity of the provider landscape makes it challenging to coordinate care. While one low-barrier clinic has improved HIV care outcomes for many PWID, some barriers persist: awareness of the clinic (mostly word of mouth), high caseloads among HIV case managers, and client preference for location of care.. Case managers at one community-based organization received >300 referrals and are unable to meet the demand for services. Mobile services meet people where they are but are impermanent, so people are hesitant to seek care there. Some participants reported issues with contracted labs not processing blood samples correctly making it necessary to collect samples repeatedly from patients to get viral loads. Participants reported that pharmacies are buying back medications such as ART, which incentivizes people to sell their medication rather than take them. Re-engagement in HIV care is difficult due to involuntary displacement and other community disruptions.

Coordination, collaboration, and communication

Successes:

Coordination and collaboration successes include: PDPH routine meetings to review outbreak data with internal partners; PDPH participation in prison council meetings to discuss HIV testing and treatment in jails; PDPH communication with hospital EDs; PDPH internal collaboration to support a syndemic approach (HIV, viral hepatitis, substance use and harm reduction); PDPH internal leadership collaboration between HIV, viral hepatitis, and community behavioral health program; collaboration across many organizations to respond to the outbreak; and a strong informal network of providers serving PWID.

Communication successes include PDPH's distribution of timely health advisories about the HIV outbreak with resources and clinical recommendations; awareness of PDPH outbreak communications; PDPH's internal quarterly HIV outbreak surveillance reports; and community engagement through listening sessions. Fliers (in English and Spanish) and sharing information through "word of mouth" were most effective in reaching many PWID. Participants described best practices for client-level communication: listening and first addressing the client's concerns; using non-judgmental language; providing messaging in the context of their goals; treating clients with respect and dignity; and being kind and compassionate.

Challenges:
Collaboration and coordination challenges include: silos of work topics and funding; some lack of PDPH internal awareness of PWID reports, meetings, and response activities; limited coordination of service delivery and operation hours across organizations; some lack of awareness of where to refer PWID for HIV services beyond comprehensive one-stop-shop model; information on available beds for SUD treatment; and involuntary displacement occurring with limited or no communication to PDPH DHH. These challenges were framed as a desire for more collaboration to use "data for action" and coordinate services across various partners.

Communication challenges include: outbreak information not reaching all internal and external partners; limited mechanisms to communicate health information about patients across organizations; and lack of HIV prevention marketing tailored to PWID. Partners noted a disconnect such that PDPH outbreak response communication was not reaching frontline staff; likewise, trends seen by frontline staff were not consistently reaching PDPH. There is a need for increased communication between hospitals and community-based organizations serving PWID in the same geographic area.

Considerations

The table presents considerations for PDPH and community partners for future directions in responding to the HIV outbreak by response category. The first column includes possible future directions for response activities, with the second column presenting considerations for practical implementation.

Summary

This evaluation identified successes, challenges, and opportunities related to HIV testing, HIV prevention, HIV care and treatment, coordination and collaboration, and communication in response to an ongoing HIV outbreak among PWID in Philadelphia. Participants highlighted the many challenges that PWID face, including significant health needs (e.g., HIV, substance use, and mental health care) but also basic survival needs (e.g., housing, food, and clean water). Addressing the immediate basic needs for PWID, especially housing, is foundational to efforts to improve quality of life, access to HIV care, and viral suppression. Data from interviews and other sources suggest that there are insufficient resources available in Philadelphia to meet many of these needs (especially syringe services, substance use treatment, and housing). Participants emphasized that comprehensive SSPs with sustained funding are essential for reducing HIV transmission during an outbreak. SSPs ensure people with substance use disorders have access to proven prevention interventions, including sterile injection equipment and person-centered care that incorporates lessons learned from more than 30 years of harm reduction research.[12] SSPs connect people who use substances to other services including housing, substance use treatment, and healthcare. The findings and considerations are intended to serve as a resource for PDPH as they continue to lead critical HIV outbreak response activities to reduce HIV transmission and ensure access to vital health and social services for PWID.

[12] Scoping review of the research on Syringe Service Programs and their role in Ending the HIV Epidemic: Syringe Services Programs' Role in Ending the HIV Epidemic in the U.S.: Why We Cannot Do It Without Them - ScienceDirect

Table: Considerations for future directions for HIV outbreak response in Philadelphia, 2024

Response category	Possible future directions	Considerations for practical implementation
HIV testing	Expand opt-out HIV testing in hospital emergency departments	Identify funding, citywide and hospital champions, and plan for linkage to HIV care (i.e., consider potential role of navigators)
		Can incorporate lessons learned and protocols from previous implementation
	Expand opt-out HIV testing in substance use treatment facilities and community behavioral health sites	Through PDPH HIV and community behavioral health collaboration, can identify opportunities for training and investigate barriers to integration of HIV testing
	Integrate HIV testing with STI testing in hospitals	Can develop or leverage existing provider training and protocols for integration of HIV into STI testing
	Integrate HIV testing into existing street-based and mobile services and grassroots organizations to meet people where they are	Potential to co-locate HIV testing services and navigation with community partners, including homeless shelters (see PDPH STD list of partners)
		Can leverage outreach teams comfortable working with PWID and in encampments
		Examine benefits of having services available after 5pm and on weekends, and of walk-in appointments
		Integrate testing into existing events, including women's and men's nights at substance use prevention and harm reduction organizations
		Consider training or Substance Use Prevention and Harm Reduction grand rounds on National HIV Behavioral Surveillance model of testing for HIV
	Continue review of HIV testing data to monitor outcomes among PWID across settings and locations to inform response	Use data for action (e.g., investigate decline in HIV testing in jails)
		Incorporate additional data sources: NHBS formative and survey data related to HIV testing and to understand PWID experiences with self-testing
	Continue to distribute HIV testing resource list and promotional materials in multiple formats	Consider paper and digital materials
		Remind providers of their role in reporting increases in diagnoses to PDPH
		Assess needs using population size estimate of PWID and additional data

HIV prevention: SSPs	Expand syringe distribution points throughout city, including in other neighborhoods experiencing increased HIV or overdoses (including PWID who are more stably housed)	Examine funding and leverage interested community partners, including hospitals and housing service organizations.
		Conduct a feasibility assessment to examine barriers to uptake in hospital EDs to inform expansion efforts
	Adopt needs-based distribution model or increase syringe volume to adequately meet 1-to-1 syringe distribution	Examine policies in place preventing needs-based distribution and funding for increase in syringes for distribution
	Assess implementation of vending machines and refine rollout to ensure maximum impact	Examine additional funding needs and timeline for obtaining machines
		Assessment of vending machine acceptability, impact, and locations
		Expand supplies available in naloxone towers and examine other items to include in machines
	Continue to engage people with lived experience and ensure programs offer adequate support to staff working in potentially triggering environments	Include behavioral health workers, social workers, and other available mental health staff to provide staff support
		Explore trauma-informed care training approaches for staff with lived experience
HIV prevention: PrEP/nPEP	Increase access to injectable PrEP for PWID, including incentive programs	Identify funding options for PrEP program incentives
		Injectable PrEP training for diverse audiences (e.g. DIS, case managers, peer navigators)
		Education about injectable PrEP for PWID at outreach events
		Examine injectable PrEP models used in other settings for adaption
	Integrate PrEP and nPEP into wrap-around services	Examine venues for integration, including wound care services and community behavioral health sites
	Expand PrEP and nPEP in EDs	Identify funding opportunities, provider trainings, and navigators for warm hand off
HIV treatment and care	Address social determinants of health and immediate needs of PWID to improve treatment outcomes	Working with grassroots organizations and local partners, identify strategies to address the immediate needs such as nutrition, housing, and safety
	Expand brick-and-mortar HIV treatment service options via one-stop shop models	Examine leasing opportunities, funding, and champions in additional neighborhoods throughout the city
	Provide rapid start ART via mobile van clinic	Consult mobile partners about feasibility
		Include providers, behavioral health workers, hospital social workers, community resource managers, law enforcement workers; in-person preferred

Coordination and collaboration	Host quarterly meetings with PDPH staff and community partners to coordinate response activities and collaborate	Establish network of "boots on the ground" staff serving PWID
		Leverage Viral Hepatitis workgroup quarterly meeting
	Identify and collaborate with community-based organizations who are not providing HIV services	Identify funding and place navigators or community outreach workers with organizations to offer services
		Develop list of HIV, health, and social services for PWID available across Philadelphia for network of providers and frontline staff serving PWID
	Continue seeking input of PWID and people with lived experience	Recruit and hire people with lived experience
		Identify funding for and implement incentivized listening sessions with PWID through community partners
Communication	Disseminate information about HIV, harm reduction, and substance use for general public	Consult with CDC to adapt communication materials related to HIV and harm reduction for various audiences (e.g., general public, primary care providers)
		Create tailored print resources and disseminate directly to frontline staff at venues serving PWID.
	Continue communication with PDPH internal partners	Include viral hepatitis and harm reduction data in PWID outbreak summary
	Continue communication with community partners and clinicians	Embed key talking points for partners to share with frontline staff and community audience; address challenges with email distribution
	Adapt and distribute HIV testing, PrEP and PEP marketing materials for PWID	Continue to consult community on messaging and mechanisms
		Consult with social marketing partners and CDC to adapt communication materials for HIV prevention for PWID