Performance Standards for Syringe Services Programs

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Executive Summary

This document calls on jurisdictions impacted by drug use (i.e. *all* jurisdictions) to proactively work to prevent harm for people who use drugs. To this end, it describes best practices in planning and implementing syringe services programs, or SSPs, built upon a strong foundation of harm reduction. While not all programs will perfectly align with the practices outlined in this document, it is important to emphasize the guiding principle that ***all* SSPs save lives** even when they operate under less-than-ideal circumstances. This resource aims to validate a variety of program delivery models and improve service delivery for people who use drugs. It is intended to be supportive as opposed to punitive; it should never be used to prevent a program from opening, nor to close an existing program down. Rather, new programs may use this document to advocate for establishment of best practices from the beginning of service provision. Existing programs can use this document – and the accompanying evaluation tool – for program assessment as a way to target areas to improve and/or set action items for programmatic change.

The high-level key takeaways from each of the topics discussed in this document are listed below, with more detail in the subsequent pages including published research findings, case studies, and sample talking points.

Syringe distribution models

- **Needs-based distribution is the best practice.**
- Safe disposal should be offered on-site in any location where syringes are provided. Provide portable sharps containers to participants if possible.
- Support secondary syringe exchange by providing adequate equipment, training, supervision, and financial compensation that acknowledges the important role of secondary exchangers.

Naloxone training and distribution

- Naloxone is a simple-to-use, lifesaving tool that reverses overdoses and is most effective when distributed directly to people who use drugs, as they are most likely to witness an overdose.
- All SSPs with bathrooms or other private rooms accessible by participants should have bathroom safety and overdose response policies on which all staff have been trained.

Program design

- SSPs can take on a variety of designs such as a fixed site "storefront" model, a van or backpack-based mobile outreach model, or a secondary exchange model powered by participants themselves.
- SSPs are not "one size fits all." It is critical to complete local assessment – not just once but regularly. People with lived experience injecting drugs, especially those who are actively using drugs, should be consulted during the initial design and ongoing evaluation of all SSPs.
- All SSPs should provide needs-based distribution of syringes and injection equipment, safe syringe disposal, and naloxone training and distribution.

Data collection

- **Participation in research or other activities should never be a requirement for SSP participation.**
- SSPs should strive to make data collection as minimal as possible to reduce PWID barriers to access, with more comprehensive data collected via quarterly or annual surveys, if desired.

Participant engagement in implementation

- Involving PWID in service design and delivery improves program reach and effectiveness.
- People with lived experience should be offered a menu of options for different levels and types of participation and compensated for their time and expertise.

Relationships, politics, and advocacy

- Community opposition is a predictable part of SSP life. Health department support for safe disposal and community pickup of syringe litter – along with identification of supportive legal counsel – are important steps in addressing and calming community concerns.
- SSPs need protocols to minimize potential harm resulting from interactions between participants and law enforcement/ICE and child protective services.

Sustainability

- Diversification of funding sources is critical – programs should work to foster relationships with a variety of stakeholders, foundations, local and state agencies.
- Health departments should work closely with independent SSPs to minimize financial accounting burden and cover critical expenses that are difficult to pay for with traditional SSP funding sources.

Glossary of Terms

1:1 exchange – a practice of distributing to a participant only the number of syringes that the participant returns to the SSP for disposal (not a recommended practice – see *Needs-based distribution*).

Booting – an injection practice whereby a person repeatedly plunges and adjusts the volume of substance in a syringe more than once during a single injection episode. Booting has been shown to be preventive against accidental overdose, and can create a more prolonged and pleasurable drug effect. Booting is not possible with retractable syringes, which are not recommended for distribution within SSPs.

Drug testing strips – strips of paper that are coated with a chemical that reacts with specific drugs in a sample. Drug testing strips are a simple way for people to test whether their drugs are contaminated with an unexpected substance (e.g. Fentanyl testing strips).

Evidence-based – programs that make decisions about design or implementation through a review of available, reliable evidence, such as locally-collected data or research published in peer-reviewed literature.

Fentanyl testing strips – see *Drug testing strips*.

Harm reduction – an approach to policies, programs, or practices that aim to reduce the negative health and social impacts of substance use; see *Guiding Harm Reduction Principles* in the box on page 2.

Harm reduction programs – There are a variety of services traditionally considered "harm reduction programs", including but not limited to: syringe access and disposal, overdose prevention, HIV, HCV, and STD testing, mediation-assisted therapy (MAT) initiation, support groups, and case management.

HCV – see *Hepatitis C virus.*

Hepatitis C virus (HCV) – a curable, chronic virus spread through infected blood that attacks the liver and over time can lead to cirrhosis or cancer of the liver if left untreated.

HIV – Human Immunodeficiency Virus; an incurable virus spread through infected blood, semen, vaginal fluids, and breast milk that attacks the immune system. HIV is manageable with medications, but is often fatal if not appropriately treated.

Injection equipment (aka "works") — equipment involved in injecting drugs including cookers, cottons, water, and alcohol wipes. This equipment is typically distributed along with syringes at an SSP in order to prevent bloodborne disease transmission.

Naloxone (Narcan) – a synthetic drug that rapidly reverses an opiate overdose, by blocking opiate receptors in the nervous system. Naloxone can be injected into a muscle or sprayed into the nose, depending on the packaging of the drug. It is non-addictive and safe, and can be administered with minimal training.

Needle exchange – another term for SSPs, less preferred by some because of its focus on needle distribution (less accurate than syringe distribution) and implication of 1:1 "exchange" (not a recommended practice).

Needs-based distribution – a syringe distribution practice that allows participants to take as many syringes as they say they need, regardless of how many syringes they return to the SSP for disposal. A best practice; for contrast see *1:1 exchange.*

Opioid overdose crisis – a term used to describe the substantial increase in overdose deaths attributable to use of opioids in the United States; accidental drug overdose is currently the leading cause of death for people under age 50 in the U.S.

Overdose – a biological response to too much of a substance or mix of substances. Can be fatal.

People who use drugs (PWUD) – PWUD is an acronym used to refer to people who use drugs, and is generally preferred as "person-first" non-stigmatizing language (as opposed to addict, drug user, etc.)

People who inject drugs (PWID) – PWID is an acronym used to refer to people who inject drugs and is generally preferred as "person-first" non-stigmatizing language (as opposed to addict, injection drug user, etc.)

Person with lived experience – while this term can be used more broadly, in the SSP context it is used to refer to a person with current or former experience of substance use, typically a PWID.

Pre-Exposure Prophylaxis (PrEP) – a medication for people at high risk for HIV infection, to prevent them from acquiring HIV when exposed. This currently requires a daily oral pill but other methods are currently in development and testing, including a long-acting injectable.

PrEP – see *Pre-Exposure Prophylaxis.*

PWUD – see *People who use drugs.*

PWID – see *People who inject drugs.*

Retractable syringes – syringes that are designed to be single-use only, primarily created to reduce the chance of accidental needlesticks, e.g. in healthcare settings. These types of syringes are discouraged for SSP distribution due to being less preferred by most PWID, and coming with higher risk of overdose (see *Booting*).

Safer smoking kits – kits containing equipment for safer smoking of stimulants that typically include rubber stem tips (aka sparkplug covers, for use at the end of a crack pipe), Chore Boy (a safer alternative to steel wool for use inside a crack pipe), gum, alcohol pads, and band-aids. Ideally safer smoking kits are available at SSPs.

Safer snorting kits – kits containing equipment for safer snorting or drugs in powder form that typically include a set of different colored straws (to keep them separate), a plastic razor blade, a piece of plastic (clean surface), and sometimes tiny spoons. Ideally safer snorting kits are available at SSPs.

Secondary syringe exchange – a practice through which SSP participants distribute sterile syringes and injection equipment to peers within their social and drug-using networks; often "secondary exchangers" also collect used syringes for safe disposal.

Single-use syringes – see *Retractable syringes.*

SSP – Syringe Services Program. A term for harm reduction programs where syringes are distributed and collected for safe disposal, often with other ancillary services designed to improve the health of PWUD.

Substance use disorder – A condition listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM) that refers to the loss of ability to control the use of a legal or illegal drug. In most cases this term is preferred over the older term "addiction".

Syringe access and disposal – another term for SSPs, less preferred by some because of its focus on syringes and de-emphasizing of other harm reduction services typically incorporated into these programs.

Syringe access services – another term for SSPs, less preferred because of its focus on syringe distribution, rather than safe disposal and/or other harm reduction services typically incorporated into these programs.

Syringe exchange – another term for SSPs, less preferred by some because of its focus on syringes and implication of 1:1 "exchange" (not a recommended practice).

Statement of Purpose

The national opioid crisis has led to significant increases in the negative health consequences related to injection drug use. Since 2010, the U.S. has experienced a 3.5-fold increase in acute HCV infections[1] and a 120% increase in injection-related bacterial infections,[2] while the decrease in HIV infections among people who inject drugs (PWID) has stalled.[3] In an effort to address these challenges, several new syringe service programs (SSPs) have opened in various parts of the country; in fact there has been a 45% increase to the number of U.S. SSPs since 2014.[4] SSPs are an important component of a community response to drug-related harms. However, there is large variability in how SSPs are implemented and what services are offered. This document calls on jurisdictions impacted by drug use (i.e. *all* jurisdictions) to proactively work to prevent harm for people who use drugs. To this end, and in an effort to guide new and existing SSPs, this document will describe best practices in planning and implementing SSPs.

While not all programs will perfectly align with the practices outlined in this document, it is important to emphasize the guiding principle that ***all* SSPs save lives**. This document is intended to be supportive as opposed to punitive; best practices identified here provide an opportunity for existing programs to adjust and improve. This document should never be used to prevent a program from opening, nor to close an existing program down. Rather, new programs may use this document to advocate for establishment of best practices from the beginning of service provision. Existing programs can use this document for program assessment as a way to target areas to improve and/or set action items for programmatic change. The corresponding evaluation tool provides a simple way to apply the concepts described in the following pages to SSP planning and evaluation processes.

This document was built upon a foundation of information stemming from peer-reviewed literature, as well as the expertise of stakeholders who have experience running SSPs in a variety of settings. The literature (see Appendix A) underscores how essential SSPs are in reducing injection-related disease transmission, and the centrality of the role of SSPs in responding to the opioid overdose crisis with evidence-based, peer-powered naloxone distribution programs.

Expert stakeholders (see case studies and included quotes) challenge the reader to think beyond the disease transmission framework and toward a vision of empowerment for PWID, who comprise one of the most stigmatized populations in the U.S. If SSPs can accomplish this, the experts contend, reduction in disease transmission and fatal overdose among program participants will follow.

Guiding Harm Reduction Principles

(https://harmreduction.org/about-us/principles-of-harm-reduction/)

- Accept, for better and or worse, that licit and illicit drug use is part of our world and choose to work to minimize their harmful effects rather than simply ignore or condemn them.
- Understand drug use as a complex, multi-faceted phenomenon that encompasses a continuum of behaviors from severe abuse to total abstinence, and acknowledge that some ways of using drugs are clearly safer than others.
- Establish quality of individual and community life and well-being–not necessarily cessation of all drug use–as the criteria for successful interventions and policies.
- Call for the non-judgmental, non-coercive provision of services and resources to people who use drugs and the communities in which they live, to assist them in reducing attendant harm.
- Ensure that people who use drugs and those with a history of drug use routinely have a real voice in the creation of programs and policies designed to serve them.
- Affirm people who use drugs themselves as the primary agents of reducing the harms of their drug use, and seek to empower users to share information and support each other in strategies which meet their actual conditions of use.
- Recognize that the realities of poverty, class, racism, social isolation, past trauma, sex-based discrimination and other social inequalities affect both people's vulnerability to and capacity for effectively dealing with drug-related harm.
- Do not attempt to minimize or ignore the real and tragic harm and danger associated with licit and illicit drug use.

Notes about Language

There are many different terms to refer to services where people can obtain sterile syringes and dispose of used ones. None of these names are necessarily wrong, but have evolved over time in response to politics and program needs.

Needle exchange was most commonly used during early years of the program, to most simply describe the core portion of the service and its HIV-prevention origins. Shortly afterward many programs evolved to call themselves **syringe exchanges**, reflecting that it was the full syringe – not just the needle – that needed to be new during every use to prevent disease transmission. **Syringe access and disposal** became more common terminology in the last decade, to address a commitment to needs-based syringe distribution and not traditional 1:1 "exchange." **Syringe access services** was another variation used in many settings, to simplify and begin to incorporate the wide range of services (e.g. safer injection education, provision of injection equipment beyond syringes, etc.) provided by these programs. Some have chosen to de-emphasize syringes entirely, opting instead for **harm reduction programs**, which is sometimes easier politically and emphasizes the important underlying philosophy of these programs, centered on overall health of people who use drugs.

In this report, we will use **Syringe Services Programs**, or SSPs, which is the most commonly-used term by the Centers for Disease Control and Prevention (CDC) in 2019. While all SSPs should be grounded in a strong harm reduction approach overall, they should primarily be focused on providing as many syringes as necessary to any person who injects drugs, in a non-judgmental environment. Ideally they would be cohesive programs, where a comprehensive set of services are available to support PWID in mitigating the harms of their substance use, and pursuing the healthiest lives possible.

In pursuit of non-judgmental service provision, it is important to consider words and language beyond just the term used for the program. Stigmatizing language can be one of the primary barriers to PWID accessing life-saving services, no matter how badly they are needed.

The Harm Reduction Action Center provides an excellent guide to using non-stigmatizing, people-first language when referring to SSPs and the people who use them.[5]

- Instead of "drug user" or "IDU" talk about a **person who uses drugs** (PWUD) or **person who injects drugs** (PWID). This helps remind people that all PWID/PWUD are people first, not defined by a single behavior in their lives. Within SSPs you may also use the term **person with lived experience**.
- Instead of "substance abuse" use **substance use** or **substance use disorder** (which is defined as a mental health disorder in the DSM V). Many people actively use substances, and referring to non-problematic use as abuse has been shown to increase stigma and reduce quality of care. Substance use disorder refers to drug use that has in some way become problematic in a person's life; treating this disorder with support, medication, and without stigma is the most effective strategy, like with other disorders.
- Instead of "clean" and "dirty" syringes, refer to **sterile** and **used.** The clean/dirty dichotomy creates a false narrative that PWID are inherently unclean. This is not only false, but extremely stigmatizing.
- Instead of "relapse" use **re-initiating use (after a period of abstinence).** The term relapse is steeped in moral judgment and stigma. People are most at risk of dying when they use alone. Removing stigma from how you refer to someone's experience can be a rapport that allows you to provide meaningful support instead of further adding to the shame they might feel.
- Instead of "hard" and "soft" drugs, use **highly-stigmatized drugs**. The hard/soft dichotomy of drug use is harmful to those using more highly-stigmatized drugs such as methamphetamine, heroin, or crack. This change in language recognizes that people can use any substance responsibly, and problematic/chaotic use depends on the person and situation, not the substance.
- **Never** use words like "junkie", "addict", "substance abuser", "druggie", or "shooting gallery." These words are highly stigmatizing and will undermine your efforts to improve the health of PWID.
- People frequently use less-than-friendly language to describe themselves. That's their prerogative! Do not correct people with lived experience on their preferred way to refer to themselves. No matter what, you should use respectful language to show PWUD that you respect them with your words.

Best Practices

1. Syringe distribution models

Summary

Needs-based distribution is the most effective syringe distribution model, in terms of preventing disease transmission and supporting secondary syringe exchange, which broadens program reach and effectiveness. It also builds a culture of trust and open communication with participants about their needs. Not all SSPs provide a needs-based distribution model due to policy constraints or funding restrictions; however, these programs are most often actively making strides to reduce barriers to implementation of a needs-based model. Expert stakeholders also emphasized the importance of checking with participants regarding the size and type of syringes to be distributed by the program. High-quality syringes not only protect the health of participants (i.e. reducing rate of soft tissue infection or disease transmission) but they also improve uptake of the program.

Key takeaways

- **Needs-based distribution is the best practice.**
- It is important to provide high-quality syringes, of a size and type preferred by participants.
- Syringes should not be retractable, as retractable syringes carry higher risk of overdose[6] and are generally more difficult to use and not preferred by PWID.[7]
- Safe disposal should be offered on-site in any location where syringes are provided. Provide portable sharps containers to participants if possible. This may be difficult for a low-threshold mobile or delivery SSP, but disposal options should be provided whenever possible.
- Support secondary syringe exchange by providing adequate equipment (i.e. do not restrict the quantity of syringes or other materials provided to single participants, whenever funds permit).
- When possible, secondary exchangers should be supported with training, supervision, and financial compensation that acknowledges their important role in SSPs.

What does the research say?

- Limiting the number of syringes an individual may receive reduces the effectiveness of an SSP.[8] Kral and colleagues found that clients of need-based SSPs were about half as likely to reuse syringes than clients at SSPs with more restrictive dispensation policies.[9]
- In addition to improving access to sterile syringes for people who would not visit an SSP, studies have shown that PWID who serve as secondary exchangers can also provide safer injection information and education to their peers who are not coming to SSPs.[10-12]
- Bluthenthal and colleagues found that increasing the numbers of syringes participants receive from SSPs does not result in increased odds of unsafe syringe disposal.[13] Similarly, Quinn and colleagues found that receiving more than 30 syringes in the past 30 days was associated with lower chance that participants disposed of syringes improperly.[14]
- The Harm Reduction consensus report from 2009 notes that single-use syringes may increase the chance of overdose, as “booting”, which titrates the dose being injected, can be protective against overdose. Single-use syringes prevent this practice because a ‘locking’ mechanism activates and retracts the needle after its initial insertion.[15]

Sample talking points

- Research demonstrates that having a needs-based distribution policy does not increase the amount of improperly discarded syringes.
- Needs-based distribution has been shown to be more effective at preventing transmission of HIV and hepatitis C.
- Secondary syringe exchange is an important way to increase the reach of SSPs; there are some PWID who will never walk into the door of a brick-and-mortar program or van, but can be engaged through program participants in their social networks.

2. Naloxone training and distribution

Summary

Naloxone training and distribution is a core service of a strong SSP, and can be a strategy for successful engagement with PWUD if SSPs are not available. Throughout the development of this report, stakeholder emphasized the importance of SSPs distributing naloxone directly to people who use drugs (as opposed to police, health department staff, etc.). One stakeholder explained that programs should aim for high levels of saturation of training and naloxone in communities of people who use drugs, so they know how to respond to an accidental overdose and have the tools to do so. Naloxone is a life-saving tool that should be distributed freely along with a short, simple training, and quantity should not be restricted unless funding scarcity makes this impossible. When restrictions must be imposed, naloxone kits should be prioritized for people who are actively using opioids and their immediate networks, not emergency responders or other non-SSP providers. Overdose prevention and response should also be considered in terms of onsite program safety (see "bathroom safety" case study on the following page).

Key takeaways

- Naloxone is a simple-to-use, lifesaving tool that reverses overdoses and prevents fatalities.
- Naloxone distribution is most effective when focused on distributing it directly to people who use drugs, who are most likely to witness an overdose.
- Overdose is fairly common in SSP bathrooms, and all SSPs with bathrooms or other private rooms accessible by participants should have bathroom safety policies that are followed at all times.

CASE STUDY: PREVENTION POINT PITTSBURGH AND NALOXONE DISTRIBUTION

Prevention Point Pittsburgh (PPP), founded in 1995, is a nonprofit organization dedicated to providing health empowerment services to people who use drugs and provides syringe access and disposal, overdose prevention, case management, health education, and HIV/HCV/STD testing services. In 2005, PPP started distributing naloxone at the syringe exchange, to program participants, in order to prevent overdose deaths. Initially, volunteer physicians prescribed naloxone, individually to every person who received naloxone from PPP. In the first year, PPP provided naloxone to 50 people and documented 8 overdose reversals. In 2015, a state law, allowing for third party and standing order naloxone prescriptions, enabled PPP to significantly expand naloxone distribution to mobile sites and a variety of community settings, maintaining a focus on getting naloxone into the hands of people who use drugs and are the ones most likely to witness and reverse an overdose. In 2017, PPP further expanded naloxone distribution by employing health outreach workers who provide naloxone to their networks, broadening the distribution in drug-using communities. In 2017, 635 overdose reversals were reported using naloxone distributed by PPP. PPP has also worked over the years to advocate for naloxone distribution through hospital emergency departments, the county jail, treatment settings and the development of a naloxone leave behind program through Pittsburgh City EMS. These combined efforts have dramatically increased the availability of naloxone in the Pittsburgh area from around 7,000 doses in 2016, to around 30,000 doses in 2018 and contributing to a decrease in overdose deaths in 2018.

What does the research say?

- Most opioid overdoses occur in private homes or settings, and are witnessed most often by a friend, partner or family member.[16,17]
- Given that criminal penalties as well as stigma and discrimination associated with drug use can deter PWID and their peers from seeking emergency assistance when someone overdoses, the World Health Organization recommends that **community distribution** of naloxone be part of all comprehensive harm reduction programs.[16]

- Community placement of naloxone, including provision of naloxone directly to PWID, has been shown to be effective in preventing overdoses.[8,18,19]
- 5-10 minutes of education is all it takes to train participants to effectively recognize and respond to an overdose with the lifesaving drug naloxone.[20]

CASE STUDY: NORTH CAROLINA HARM REDUCTION COALITION BATHROOM SAFETY POLICY

North Carolina Harm Reduction Coalition (NCHRC) is a comprehensive harm reduction program that was formed in 2004 and incorporated in 2006. In recognizing the possibility of intoxicated program members unintentionally overdosing in the program bathroom, NCHRC decided to be proactive in developing policies to respond to this event should it occur. Instead of starting from scratch, NCHRC checked in with colleagues at the Washington Heights CORNER Project about their policies and procedures and adapted those policies for their own purposes. As part of these policies, NCHRC stipulated there must always be at least two staff (or one staff and one NCHRC consultant) who have been trained in overdose recognition and response onsite when program members had access to the bathroom. The program also proactively alerted members that they had ten minutes total allotted for their time in the bathroom, and that NCHRC staff would check for response every three minutes. If a participant did not respond to the check in, NCHRC would enter the bathroom to check on their well-being. Other safety mechanisms included not allowing the door to be locked, and having sharps containers in the bathroom. NCHRC trained all new and existing staff on these policies, and by implementing them, was able to ensure the safety of both staff and program participants. Contact North Carolina Harm Reduction Coalition for a full copy of their bathroom safety policy.

Sample talking points

- Naloxone saves lives, and studies have shown that naloxone is most effective when provided directly to people who use drugs, they are most likely to witness an overdose.
- The World Health Organization says naloxone distribution is most helpful when it is distributed in the community, not to emergency responders or healthcare providers.

3. Program design

Summary

SSPs can take on a variety of designs such as a fixed site "storefront" model, a van or backpack-based mobile outreach model, or a secondary exchange model powered by participants themselves. Some models are better suited for different environments, e.g. in rural areas, mobile outreach models may be better suited than fixed sites, which can be difficult for people to access from long distances away, without easy transportation options. Some models may also be better suited to provide ancillary services. It is difficult, for example, to offer rapid hepatitis C testing as part of a backpack-based mobile SSP. Determining what program model or models to employ should be a collaborative process that seeks the guidance of the people intended to use the services.

The first advice I would give to new programs is that they need to have at least one…ideally a series of focus groups with active drug using participants or potential participants who can offer insight into exactly what materials people want and need. I really don't think anything else will do…I don't think it's sufficient to pull together a list of local recovery coaches, or people who identify as being in recovery or having a history…Some things change really rapidly. That would be my first advice is do not even think about opening your doors before doing that… in a way that is respectful, and ideally pays people for their time and expertise.

-- Maya Doe-Simkins, Chicago Recovery Alliance

The best interventions are those that are based in evidence, and involve the target population in planning and design. Yet far too often, the practices of SSPs are dictated by instinct, politics, or opinions not based in fact. For over 30 years, researchers have demonstrated the effectiveness and best practices of SSPs, and published the findings; this information should be used to support program design whenever possible. However, SSPs should never be treated as "one size fits all," not only because resources, policies, and politics differ by jurisdiction, but because the needs of PWID are also unique in different locations. Best practices include local assessments of need, and direct involvement of people with lived experience in all planning processes. Furthermore, SSPs are most successful when they are conceived and planned as a community-level public health intervention, not simply an individual-level program.[15]

All stakeholders agreed that the minimal services that must be provided for any SSP were syringe distribution (this should be needs-based), distribution of injection equipment ("works"), safe syringe disposal, and naloxone training and distribution. However, in some SSP settings there is an opportunity to provide many more helpful services in the same location; complementary services could include some or all of the following, either directly provided by SSP staff, or via one or more partnering agencies:

- Education about safer injection, overdose prevention, hepatitis C, HIV, and other issues relevant to drug user health (always offered but never compulsory)
- HIV, HCV, and/or STD testing
- Basic wound care and/or advice, consultation, and referral to wound care services
- Drug testing strips (e.g. Fentanyl testing strips)
- Distribution of sharps containers for safe disposal
- Distribution of safer smoking or snorting kits
- HIV PrEP (Pre-Exposure Prophylaxis)
- Low-threshold buprenorphine and/or suboxone
- Medication management (pill lockers)
- Case management
- Mental health and/or addiction counseling
- Referral or linkage to drug treatment
- Referral or linkage to HIV and/or HCV care and treatment
- Referral or linkage to legal counsel and/or employment services
- Housing assistance
- Identification (ID) services
- Vaccines for HAV, HBV, HPV, and sometimes influenza, pneumococcal, and Tdap vaccines as well
- Provision of condoms, dental dams, and lube

CASE STUDY: SAFE RECOVERY AND DRUG TREATMENT AVAILABILITY

Safe Recovery, a program of the Howard Center in Burlington, Vermont, is the state's largest SSP and has been operating since 2000. Access to buprenorphine, an evidence-based opioid addiction treatment, was limited in Vermont until the impact of the opioid epidemic prompted changes in the drug treatment landscape. The state of Vermont made it possible to offer low-threshold buprenorphine through their "Hub and Spoke" system, in an effort to integrate addiction treatment into the broader health care system and cut waiting times for treatment. Safe Recovery jumped at the opportunity to offer buprenorphine initiation at the SSP. The success of the program lies not only in the number of people who have accessed treatment, but also in the way that Safe Recovery have offered extremely low-threshold treatment in a harm reduction framework. Program staff ensure that participants on buprenorphine are still able to access the SSP if they want to, and that participants aren't in any way pressured to start or continue treatment if they are not ready. One of the program staff at Safe Recovery waited two years to get into the a methadone clinic herself, and now the program staff are able to get people treatment right when they want it. Since October 2018 when they began the service, more than 87 participants have initiated treatment.

What does the research say?

- There are numerous local factors that affect PWID's ability to access SSPs. To be most effective, services must be designed with the local context in mind – both individual-level characteristics of PWID in the region, and the structural (physical and policy) environment.[21-23]
- The "Know your epidemic, know your response" philosophy leads to a decrease in health disparities by truly meeting the needs of unique subgroups in a geographic area.[8,15,24]
- The phrase "nothing about us without us" came from the disability rights movement,[25] and was the title of a manifesto released in 2008 by a broad coalition of PWUD.[26] It means that programs or public policies should never be created without the direction and input of the people who will be affected. This philosophy has been used by

Key takeaways

- SSPs can take on a variety of designs such as a fixed site "storefront" model, a van or backpack-based mobile outreach model, or a secondary exchange model powered by participants themselves.
- All SSPs should provide needs-based distribution of syringes and injection equipment, safe syringe disposal, and naloxone training and distribution.
- Ideally, SSPs will also involve a series of ancillary services that support the health and wellness of PWUD; however, for some types of services (especially mobile and backpack-based outreach SSPs) this can be challenging.
- People with lived experience injecting drugs – especially those who are actively using – should be consulted during the initial design and ongoing evaluation of all SSPs.
- SSPs are not "one size fits all." It is critical to complete local assessments – not just once but regularly – to determine the local needs of PWID and adapt the SSP design accordingly. Sometimes that means taking on project components that aren't traditionally part of SSPs (see case study, left).
- SSPs should be designed based on evidence, either shared by people with local lived experience, or published in peer-reviewed literature or reports by well-reputed harm reduction organizations.

A Word about Participant ID Cards

Some SSPs provide participant ID cards as a way of identifying program members. In some states, law stipulate that only SSP participants can be in possession of syringes and other injection equipment, and identification cards are intended to signal to law enforcement that a person can lawfully possess injection equipment. Some expert stakeholders believe these cards are helpful to participants. Others warn that they could backfire by giving law enforcement license to arrest or harass PWUD not in possession of the card, or participants who did not have their card on them when stopped. SSPs should discuss and carefully weigh the benefits and drawbacks of a card system for their own environment.

many marginalized groups, and has led to substantial change to improve the lives of people who use drugs, have disabilities, are transgender, and/or are living with HIV.[26-28]

Sample talking points

- The best SSPs have adhered to the philosophy “nothing about us without us,” which reduces health disparities and improves the health and wellness of people who use drugs.
- No two regions are the same, and a local needs assessment will help ensure that resources are directed effectively.
- Most often, SSPs provide more than injection equipment, as they often help successfully connect PWUD to testing for infectious diseases like HIV or hepatitis C, drug treatment, housing, and/or case management services.

4. Data collection

Summary

Data collection is a critical part of program planning and evaluation, and all SSPs should collect data. However, data collection should never distract from the primary mission of providing sterile injection equipment for participants. Participation in research or other activities should never be a requirement for SSP participation.[38] Data collection should be as minimal as possible, to gather critical information on trends and program effectiveness, without becoming a barrier to program engagement for PWID.

Data can be collected in a variety of ways, including paper forms that are manually data entered later (using Microsoft Excel, REDCap, or other systems), or electronic data collection where information is securely entered on mobile devices and transmitted over wifi with encryption. Best practices include collecting only the most minimal data at each encounter, including:

- **Number of people coming in for services**. Both number of unduplicated participants and number of duplicated encounters are valuable to collect, as well as number of new people enrolled.
- **Number of syringes distributed**. Some also thought it was important to track the number of syringes collected for disposal, though there was much disagreement among stakeholders, with some thinking this data was inaccurate, biased, and frequently used against a program.
- **Number of naloxone kits distributed.** When applicable, information about drug tracking equipment distributed (e.g. Fentanyl strips distributed, whether used, and results) should also be collected. Many stakeholders considered data about overdose reversals to also be beneficial to collect, though this may not be appropriate to try to collect at each encounter.
- **Number of people participant is exchanging for.** Many participants work as secondary exchangers, whether officially or unofficially, and collecting this information can be useful to a program especially when community politics are pushing for 1:1 exchange, not a best practice.

CASE STUDY: THE WORKS PROGRAM AND DATA COLLECTION

One of the oldest SSPs in the country, the Works Program, run by the Boulder County Public Health, provides outreach, education, and syringe exchange services to reduce HIV and viral hepatitis transmission among drug users who inject and their partners. The Works Program and other SSPs in the Colorado worked collaboratively with the state health department to design a centralized data collection system. In doing so, the programs prioritized keeping encounter data collection minimal so as to ensure efficient, low-threshold services for their participants. At each encounter, the Works Program collects the date, location, number of syringes collected and provided, and if someone is picking up for others in addition to themselves. On an annual basis, the program requests that participants fill out a longer survey that details participant demographics and information about drug use practices. The annual surveys provide a fuller picture of who is being served by the program and can measure shifts in drug use patterns from year to year, while not overburdening participants at each visit.

This minimal data collection can be supplemented with quarterly or annual surveys that collect information on a more comprehensive level, to identify changes in trends or newly-emerging needs. In general, stakeholders also stressed the importance of routinely collecting **demographic data, especially age, race, ethnicity, and gender.** This allows programs to know whether they are serving the right people, and who is *not* accessing services. However, this need not be a part of active data collection at each encounter. It could be collected on a periodic basis through point-in-time surveys, or for programs using a unique code identifier, these demographics can potentially be incorporated into the code, making it easy to track them each time without a separate effort to gather the information each time a participant comes in.

Key takeaways

- **Participation in research or other activities should never be a requirement for SSP participation.**
- SSPs should strive to make data collection as minimal as possible to reduce PWID barriers to access.

- If more comprehensive data is desired, this can be collected via quarterly or annual surveys, supplementing the bare minimum data collected during each SSP encounter or shift.
- Data review should occur periodically as a means to assess the effectiveness of the program in reaching vulnerable subpopulations of PWID (people of color, women, trans individuals, etc.).

What does the research say?

- Marginalized groups of people – including PWID – experience numerous real and perceived barriers to service access, including stigma and discrimination, invasive questions about their behavior, logistical challenges, waiting periods, and poor physical health. To truly meet the needs of this population SSPs must provide low-threshold services, including reducing any burden related to data collection at intake or during each encounter.[29]
- There are multiple "thresholds" that people who use drugs must overcome to successfully access services, especially if they also have a mental health disorder. These include the **registration threshold** (their experience with staff and intake, including data collection), the **competence threshold** (their ability to communicate needs and requests in a way staff will hear and be able to act upon), the **efficiency threshold** (the amount of time and resource required to access the service – which can apply both to the participant and the SSP), and the **trust threshold** (whether they feel they can be open and honest about their needs with staff, and will continue to be respected, welcomed, and comfortable). A "low-threshold" service – as all SSPs should strive to be – will work to reduce barriers related to all of these thresholds.[30]

Sample talking points

- Our primary mission is to provide sterile injection equipment to PWID. While we want to learn information about changing trends and the needs of our participants, it is our highest priority to ensure that data collection is never a barrier to access to SSP services for PWID in our area.
- The evidence is clear that beyond basic demographics, the number of people served (directly by the SSP or through secondary exchange), and the number of syringes and naloxone kits distributed, everything else is less critical on a daily-basis, and can be collected during quarterly or annual surveys.
- If we require participation in data collection or ask invasive, large numbers of questions, we increase the barriers for PWID and they are less likely to access sterile syringes from our SSP, and are less likely to come here to dispose of their used syringes safely.

> *We want people to be able to walk in and out within 60 seconds if they want. So we're really focused on making sure that any information we're collecting is worthwhile, that there's a point. We don't want people to have to feel burdened with having to give up anything extra we honestly don't need."*
>
> --Robert Childs, Technical Expert Lead at JBS International, and former Executive Director of the North Carolina Harm Reduction Coalition

5. Participant engagement in implementation

Summary

In addition to involving people with lived experience in the *design* of programs, best practices include actually involving them as part of the program as well. Research clearly shows that involving PWID in service provision pays dividends, when people with lived experience are: a) offered a menu of options for different levels and types of participation, b) compensated appropriately for their time and expertise, and c) set up for success, with thoughtful support and supervision on a regular basis.

Depending on the setup of the SSP and skills and needs of the PWID, there may be a wide range of opportunities for participant involvement that should be considered. In any case, it is a best practice to create options for community participation that encourage participant ownership over aspects the program and its sustainability;[31] rather than tokenizing participants or co-opting their work, meaningful engagement must be created. This could range from short-term or limited-role volunteer opportunities, to asking people with lived experience to serve on a community advisory board, to inviting them to participate as incentivized secondary exchangers. At a minimum, participants could be regularly asked to complete client satisfaction surveys or participate in service feedback groups. Ideally, some of the most skilled participants would be encouraged to join the organization as regular employees, and supported for success in that role. Meaningful engagement in service delivery for PWID/PWUD can be challenging for traditional human resources departments, but is a vital way to improve services and empower those the program is designed to serve.

Importantly, people with lived experience should be engaged in service provision *without* the use of a two-tiered system (i.e. peers vs. professionals). Peers *are* professionals, with expertise and experience that is invaluable to the program. As such, it is best practice to pay "peers" for their time as would be done for any other employee; those asked to provide insights and expertise for program design or evaluation should be paid just as a consultant would be. SSP program budgets should plan ahead and account for these necessary expenses accordingly.

The Open Society Foundations published an excellent manual in 2010[32] that details evidence-based rationale and best practices for supporting people with lived experience with substance use in the workplace; the Harm Reduction Coalition also produced a toolkit with guidance on this topic.[33] More information about this best practice is available in those resources.

> *I want to be very clear that peer is not a level of a position in an organization. Peer – peer educator, being a peer drug user, post-drug user, it's a vantage point, or positioning that this person has vis-à-vis drug use, sex work, homelessness, whatever. Peer is a vantage point, not a position. I just want to make sure I take a position on the…many times peers are seen as, that's the lowest position, a peer, and then you graduate to being an outreach worker, and then a coordinator. No, ours are peer outreach workers. Like an outreach worker with a peer perspective. Hopefully someday we'll have a peer Executive Director.*
>
> --Rafi Torruella, Intercambios, Puerto Rico

Key takeaways

- Research clearly shows that involving PWID in service provision pays dividends, when people with lived experience are: a) offered a menu of options for different levels and types of participation, b) compensated appropriately for their time and expertise, and c) set up for success, with thoughtful support and supervision on a regular basis.
- It is a best practice to employ people with lived experience in SSP service provision; this requires a "set up for success" with appropriate policies, procedures, and supports for all staff.
- Do not implement a two-tiered system, where people with lived experience are asked to "give back" or only receive a small stipend, and other employees receive regular wages. Compensate *all* people for their time, experience, and expertise!
- Review the OSF manual[32] or a similar guide to learn best practices for successfully employing people with lived experience in substance use.

What does the research say?

- In multiple studies, consumers of substance use or mental health-related services have described a more favorable experience when interacting with people whom they perceive to have a shared lived experience. Participants report better treatment, greater satisfaction, deeper engagement, and better health outcomes as a result of interaction with their peers.[34,35]
- Engagement of people with lived experience in service provision has also been shown to foster connections to their community,[36] build confidence and empowerment, and improve wellness.[37,38]
- When PWUD are *fully* paid for their work, skills, and knowledge, it has been shown to reduce their perception of stigma, in addition to increasing social connections and sense of purpose. Just providing small stipends also has benefits, but they are notably constrained by competing needs.[39]

Sample talking points

- Research shows that SSPs – both staff and participants – have better experiences when effort is made to employ and support people with lived experience at all levels of the organization.
- Other people have put together excellent materials that will help us to successfully employ people who use substances at our SSP, improving their health and wellness and benefitting us as well.

6. Relationships, politics, and advocacy

Summary

Ultimately, the success of SSPs often depends on their relationships. Despite the public health evidence supporting the effectiveness of SSPs, these services continue to be controversial and politically challenging in many jurisdictions. Perhaps the biggest barrier to SSP program implementation is objections from members of the surrounding community, especially around fears of syringe litter. Stakeholders were clear that s*yringe litter can be mitigated but there needs to be funding* for safe disposal and community pickup, which health department allies can help secure. Related to this, it is a best practice for SSPs to identify legal counsel – either independently or through their city health department or other structures – who can help when inevitable legal challenges arise.

Stakeholders throughout the project were clear: it is the responsibility of SSPs to minimize harm that law enforcement, ICE, and child protective services can cause to participants. This includes identifying advocates who can support participants when problems arise, keeping logs of incidents, and reporting inappropriate action by law enforcement. It is also a best practice to try to find and use a law enforcement champion, since people are more likely to listen to peers than someone they see as "other".

Especially in response to the opioid crisis, many new programs are being instituted that do not necessarily embrace the true fundamentals of harm reduction. Gently educating about these limitations and providing trainings to proactively build good relationships not only improves knowledge and awareness about harm reduction but also builds good will. Relationships with other SSPs and harm reduction staff can be hugely beneficial; stakeholders throughout the project described creative ways of leveraging resources with other SSP providers, and using strong interpersonal relationships to gain support through hard times, and keep up with changes in the field. Partnering with researchers can also be beneficial, leading to opportunities to learn new information and test new interventions; however, it is a best practice to insist on research partnerships that a) are aligned with the mission and philosophy of the SSP, and b) involve some form of adequate compensation (financial or otherwise) for the SSP and participants' participation.

Inviting community members, policymakers, students, and others to come to the SSP and view the orderly, important work within can be a major tool for advocacy. However, it is a best practice to only invite non-participant visitors to come one at a time and insist on respect; law enforcement or similar authorities should only come to the SSP when participants are not seeking services. Respect for participants and their privacy is paramount.

CASE STUDY: HARM REDUCTION ACTION CENTER WORKING WITH UNSUPPORTIVE MEMBERS

Harm Reduction Action Center (HRAC) in Denver, Colorado has committed itself to serving Colorado's public health by working to reduce the harms associated with drug use since its establishment in 2002. In 2012 the program secured a lease in a new neighborhood two blocks away from its former program site. HRAC Executive Director Lisa Raville went to a neighborhood association in their new neighborhood prior to HRAC's move. At the time HRAC's new neighbors were so anxious about having a SSP in the neighborhood that they spent the meeting yelling and making unreasonable demands of the program. For the next meeting, Lisa came prepared by bringing a police officer that was a supporter of HRAC to help ease concerns and speak on the program's behalf. HRAC also entered into a Good Neighbor Agreement with the neighborhood association. This process involved both parties sitting down with a mediator and making their needs and concerns explicit, and negotiating operating agreements that were manageable for all. HRAC successfully provided services in this neighborhood for 3 years, before moving to their current location across the street from the Colorado State Capitol. They are currently in two Good Neighbor Agreements and recently was awarded a Good Neighbor Award by the Capitol Hill United Neighborhoods, Denver's oldest and largest neighborhood association.

We needed a big brother from time to time. We needed the State, and we needed our partner organizations. The LGBT Center came out and fought with us when we were going to lose the site. They created a space for us…we were working out of their parking lot when we couldn't set up anywhere else because of community opposition. Having the City AIDS Coordinator come out and stand next to us in meetings in a supportive way when things were going south was really, really important… Finding a way to stick with programs that are experiencing the totally predictable community opposition that comes up from time to time, and being a real partner in this, is really important. It's normal to the process, and you have to have a system that treats this opposition and the need to respond as a normal part of the process and not as a program failure.

--Shoshanna Scholar, formerly of LA Community Health Project

Key takeaways

- Community opposition is a predictable part of SSP life. Health department support for safe disposal and community pickup of syringe litter – along with identification of supportive legal counsel – are important steps in addressing and calming community concerns.
- SSPs need protocols to minimize harm that law enforcement/ICE and child protective services can cause to participants.
- SSPs should insist on research partnerships that a) are aligned with the mission and philosophy of the SSP, and b) involve some form of adequate compensation (financial or otherwise) for the SSP and participants' participation.

What does the research say?

- The overwhelming majority of U.S. court cases have affirmed the legality of SSPs, as a public health imperative in the face of the HIV epidemic.[40]
- Multiple studies have demonstrated that law enforcement have substantial impact on the willingness and ability of PWID to participate in SSPs. In Vancouver, Wood and colleagues found that police "crackdowns" designed to control illicit drug use actually had the unintended effect of increasing unsafe syringe disposal.[41] Similarly, Davis and colleagues found that both number of SSP participants and number of syringes accessed declined after every police intervention designed to disrupt open-air drug markets in Philadelphia – importantly, SSP participation by black participants declined twice as much as whites, and use by males declined twice as much as females, exacerbating health disparities.[42]
- However, research has also shown that with proper training and understanding, law enforcement officials can play an important role as public health partners by directing people found with illicit drugs to treatment programs rather than arresting and detaining them.[8] Davis and colleagues reported on the implementation of a brief police training intervention in three U.S. cities designed to increase officer knowledge of and positive attitudes towards SSPs by bundling the training with officer concerns about infectious diseases and occupational safety (needlesticks).[43] Beletsky and colleagues also reported that trainings that combine police officers' concerns about occupational safety with public health's harm reduction goals can help improve attitudes about the benefits of syringe access and SSPs.[44]
- Despite numerous studies that have documented that community-acquired needlestick injuries are perceived as a vital concern by community members and politicians,[14] in an 8-year national study, only an estimated 0.0007% of the U.S. population had sought emergency medical care for a needlestick acquired in the community (i.e. outside of a healthcare setting). At the time of that study there had only been 4 reported cases of non-occupational hepatitis B or C transmission and no cases of no cases of non-occupational HIV transmission worldwide, from an accidental needlestick.[45]

Sample talking points

- Research shows that syringe litter is at its greatest when law enforcement action against drug use interferes with SSP participants' ability to access SSPs.
- By working together and supporting a strong, organized, well-run and well-funded SSP, the broader community will benefit.

7. Sustainability

Summary

There were two clear themes from all discussion of funding for stakeholders during this project: 1) Diversification of funding sources is critical, and 2) Program directors are often working with sparse and/or highly restrictive funding. Stakeholders described funding sources from CDC (typically for HIV prevention), SAMHSA (typically for mental health services or low-threshold buprenorphine), HRSA/Ryan White (Early Intervention Services funding, which can be used to pay for almost everything but syringes), and various federal, state, local, and private grant opportunities. Some have had success with funding from churches, beer and cannabis clubs, and rotary clubs. These sources of funding all usually come with "strings attached," not all of which are aligned with best practices, or benefit participants. Many funding sources do not pay operating costs, and most do not allow for purchase of supplies, especially syringes, naloxone, and drug testing kits (e.g. Fentanyl strips).

Advocating for appropriate funding is important for SSPs. Stakeholder recommendations to improve money flow included:

- Health department funding should not be reimbursement-based, if possible, or health departments should offer to assist SSPs by providing support for the reimbursement process. All funders should minimize the financial accounting burden on SSPs, recognizing how much is done for so little.
- Cities and counties should consider paying for medical waste transport, which is a large drain on resources for many SSPs. Some jurisdictions do this and it is very beneficial for SSPs.
- SSPs should not change programs in response to funding opportunities; however, they can adapt their narrative to bring in new opportunities (e.g. frame their work as housing retention or violence prevention, rather than drug user health or HIV prevention).
- Funders should fund mental health support for SSP workers experiencing workplace trauma, which is common and typically unaddressed due to lack of funds for professional intervention.

Key takeaways

- Diversification of funding sources is critical – programs should work to foster relationships with a variety of stakeholders, foundations, local and state agencies.
- Health departments should work closely with independent SSPs to minimize financial accounting burden and cover critical expenses that are difficult to pay for with traditional sources of restricted SSP-related funds.

What does the research say?

- While the federal ban on funding SSPs has been lifted, there is still a ban on using funds to pay for some supplies, including syringes.[46]

CASE STUDY: DIVERSIFICATION OF FUNDS AT HOMELESS YOUTH ALLIANCE

The Homeless Youth Alliance (HYA) was founded in 2006 and is the only grassroots harm reduction coalition designed by and for the marginalized and underserved youth experiencing homelessness of the Haight Ashbury district in San Francisco. HYA reaches 13,000 at-risk youth annually, providing harm reduction interventions, case management, and medical and mental health services. Initially, HYA was fully funded by foundations and donations, and over time took on local government funding to support its SSP. Executive Director Mary Howe's philosophy is that diversified funding is necessary in order to provide integrated, holistic services. Over the years, as its government funding stream stabilized, HYA also consistently and successfully competed for private foundation grants around violence prevention, food insecurity, and creative arts—all issues and interests that touch the lives of the homeless youth the program serves. In HYA's experience, these private funding streams often offered a greater degree of flexibility and creativity in programming. In 2018 HYA took on a housing contract from the city that enabled several of its program participants to be housed. This shifted the ratio of government/private funding to be more heavily government, but HYA's goal is to have an overall funding portfolio of 60% government funds and 40% private funding to ensure diversity and sustainability.

- Creativity and diversification with funding streams can be used to provide a wide range of services at SSPs, even in political or policy environments that are not particularly supportive.[47]

Sample talking points

- I need an ally who can support me financially in providing SSP services according to best practices, without "strings attached" that are barriers to my participants. Can you work with me on this?

Resources

Toolkits and Guidance

Syringe Service Programs

- NASTAD Syringe Services Program (SSP) Development and Implementation Guidelines for State and Local Health Departments
- https://www.nastad.org/sites/default/files/resources/docs/055419_NASTAD-SSP-Guidelines-August-2012.pdf
- Harm Reduction Coalition's Guide to Developing and Managing a Syringe Access Program: http://harmreduction.org/issues/syringe-access/tools-best-practices/manuals-and-best-practice-documents/syringe-access-manual/
- CDC Program Guidance for Implementing Certain Components of Syringe Services Programs, 2016: https://www.cdc.gov/hiv/pdf/risk/cdc-hiv-syringe-exchange-services.pdf
- Comer Family Foundation Guide to Establishing a Syringe Services Programs in Rural, At-Risk Areas: http://www.comerfamilyfoundation.org/img/A-Guide-to-Establishing-Syringe-Services-Programs-in-Rural-At-Risk-Areas.pdf
- AIDS United The Right Hit. Developing Effective Media Strategies at Syringe Services Programs https://www.aidsunited.org/resources/therighthit

Overdose Prevention and Response

- Harm Reduction Coalition's Guide to Developing Overdose Prevention and Take Home Naloxone Projects https://harmreduction.org/issues/overdose-prevention/tools-best-practices/manuals-best-practice/od-manual/
- AIDS United Post Opioid Overdose: Linkage and Care for People Who Inject Drugs https://www.aidsunited.org/resources/post-overdose-care?docid=121

Working with People Who Use Drugs

- Harm Reduction Coalition's Peer-Delivered Syringe Exchange Toolkit https://harmreduction.org/issue-area/issue-drugs-drug-users/pdse-toolkit/
- Open Society Foundation's Harm Reduction at Work: A Guide for Employing People Who Use Drugs https://www.opensocietyfoundations.org/reports/harm-reduction-work

Assessment

- SAMHSA's state needs assessment tool (includes staffing assessment): https://www.samhsa.gov/section-223/certification-resource-guides/conduct-needs-assessment

Outbreak Response

- CDC HIV/HCV cluster outbreak response toolkit: https://www.cdc.gov/hiv/pdf/programresources/guidance/cluster-outbreak/cdc-hiv-hcv-pwid-guide.pdf
- NACCHO Community Preparation for a Response Guidance: https://www.naccho.org/programs/community-health/infectious-disease/hiv-sti/infectious-diseases-the-opioid-epidemic

Policy Tools

- MMWR on State Policy Assessment: https://www.cdc.gov/mmwr/volumes/66/wr/mm6618a2.htm
- Other Policy assessment tools:
    a. LawAtlas: http://lawatlas.org/datasets/syringe-policies-laws-regulating-non-retail-distribution-of-drug-parapherna
    b. CDC website: https://www.cdc.gov/hepatitis/policy/AccessLawsByState.htm
- County-Level Vulnerability Assessment for Rapid Dissemination of HIV or HCV Infections Among Persons Who Inject Drugs, United States: https://journals.lww.com/jaids/Fulltext/2016/11010/County_Level_Vulnerability_Assessment_for_Rapid.13.aspx

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Appendix A: Literature Review

Syringe Service Programs

The following is a summary of the literature focusing on Syringe Service Programs (SSPs). Topics covered include evidence of SSPs effectiveness in reducing unsafe injection practices and incidence of bloodborne pathogens, as well as SSPs programmatic best practices including facilitators of and barriers to success. In addition, topics specific to SSPs implementation and processes including syringe distribution policies, retractable syringes, syringe disposal policies and practices, the effect of law enforcement practices and drug paraphernalia laws on access and use of SSPs, efforts and opportunities to integrate other health care services with SSPs, and recent efforts and challenges associated with expansion of SSPs into the rural United States were searched and summarized.

The following key terms were used to identify articles on SSPs: needle exchange programs (NEPs), syringe exchange programs (SEPs), needle syringe programs (NSPs), syringe access programs (SAPs), syringe service programs (SSPs) and harm reduction programs. This review uses the term SSPs unless directly quoting from an article that uses another term.

Overview and Effectiveness of Syringe Services Programs

The primary goal of SSPs is to provide clean needles and syringes at no charge to people who inject drugs (PWID). Numerous studies have shown that SSPs are effective at reducing unsafe injecting practices [1-5] and reducing the incidence of HIV and other bloodborne pathogens such as hepatitis B and hepatitis C among PWID and their communities. [6-12] Additional benefits of SSPs include access to PWID who may not utilize other health care services and/or who are difficult to reach and offer and provide substance use treatment, overdose prevention services and other mental health, medical and support services to them. [6,13-14]

Outcome: Reduction in HIV infections among people who inject drugs

Since the first needle exchange programs opened in the 1980s to address the raising HIV epidemic, numerous studies have found that exchanging used for new injection equipment at SSPs is associated with reduced HIV incidence and associated risk behaviors. [7-8, 15-16] Furthermore, SSPs have been shown to be safe and effective in reducing HIV transmission in diverse settings including North America, Europe, Asia and Australia.[17-18]

Hurley and colleagues conducted a study of the effectiveness of needle-exchange programmes for HIV prevention in 81 cities worldwide. They found that HIV infection rates increased by 5.9% per year in 52 cities without SAPs and decreased by 5.8% per year in 29 cities with SAPs. [9] Des Jarlais and colleagues found that between 1990 and 2001, HIV prevalence among PWID in New York City fell from 54% to 13% following the introduction of SAPs. [19]

Outcome: Reduction in other bloodborne pathogens including hepatitis C and hepatitis B

Evidence on the effect of SSPs on preventing HCV incidence among PWID has been mixed. [20] Citing these mixed results, Davis et al conducted a systematic review with meta-analysis to examine the association between NEPs and HCV prevention. [21] They concluded that the overall findings were mixed and suggest that NEP could either increase the risk of HCV infection in PWID or have no effect. This is likely due to substantial differences in study design, inclusion criteria, intervention definition, outcome assessment and differences in statistical analyses. Also of note was the relative lack of studies in rural areas that are currently experiencing large increasing in HCV incidence.

Platt and colleagues also conducted a Cochrane systematic review and meta-analysis to assess the impact of NSPs with and without opioid substitution therapy (OST) treatment on the incidence of HCV infection among PWID. [22] While they found that current OST was strongly associated with a reduced risk of HCV acquisition, weaker evidence was found for high NSP coverage (RR=0.79, 95% CI 0.39 – 1.61) with high heterogeneity (I^2=77%, P=0.002). After stratifying by region, high NSP coverage in Europe was associated with a 56% reduction in HCV

acquisition risk (RR=0.44, 95% CI 0.24 – 0.80) with low heterogeneity (I^2=12.3%, P=0.337), but not in North America (RR=1.58, I^2=89.5%, P=<0.001). They recommend improved transparency and consistency in reporting of observational studies of NSPs, improved and consistent measures of NSP coverage and reporting of study conduct to allow for assessment of confounders and consistent measurement of the impact of NSPs.

Analysis of Tacoma syringe exchange participants between 1985 and 1992 by Hagan and colleagues found that syringe exchange use protected against hepatitis B infection. [23] PWID who did not use the syringe exchange were significantly more likely to acquired hepatitis B (AOR 2.1, 95% CI 1.1 – 4.2) than those using the exchange. In a similar case control study of PWID, nonuse of the Tacoma syringe exchange was associated with a sixfold greater risk of hepatitis B (OR = 5.5; 95% CI 1.5 - 20.4) and a sevenfold greater risk of hepatitis C (OR = 7.3; 95% CI 1.6 - 32.8). [12]

Outcome: Reduction in injection risk behaviors

The fear of unintended negative consequences, such as inadvertently increasing illicit drug use, has frequently been voiced in opposition to SSPs. However, Wodak et al reported that those fears have been unfounded [16] and participation in SSPs has been shown to reduce injection risk behaviors. [7,16] A review of the literature by Palmateer et al found 'consistent evidence across multiple robust studies, as well evidence in support of a positive effect of NSP on self-reported injection risk behaviors from two core reviews of the effectiveness of NSP in reducing self-reported injection behaviors. [24]

Comparing pre- and post-first use of the Tacoma syringe exchange study, Hagan and colleagues reported significant declines in unsafe infections among exchange users. Fifty-eight percent of exchangers reported any unsafe injections, including borrowing used syringes, during pre-exchange use, compared to 33% of exchangers while participating (POR=0.36, 95% CI 0.26 – 0.49). [23]

Additionally, Broadhead and colleagues reported an increase in reuse and sharing of syringes after the closure of an NSP. [25] Self-reported rates of sharing syringes significantly increased from a pre-closure rate of 16% to a post-closure rate of 34% (p=0.031) and reuse of syringes increased by 118% after closure from a mean of 3.5 uses to 7.7 uses (p<.001). [25]

Vlahov reported a significant reduction in high-risk drug use behaviors following enrollment in a Baltimore needle exchange program. [5] Comparing baseline, 2-week and 6-month follow up visits, fewer people reported using a previously used syringe (21.6%, 11.0%, 7.8%, respectively) and lending one's used syringe to a friend (26.7%, 18.4%, 12%, respectively), (p<.01). Significant reductions were also reported in the mean number of injections per syringe and the mean number of injections per day (p < .001).

Outcome: Access to additional health services including substance use treatment

The protective impact of SSPs reaches beyond the provision of sterile needles and syringes. Nearly all SSPs provide additional services; as of November 2007, SSPs in the U.S. provided, in addition to syringes, alcohol pads (99%) and male condoms (97%); referrals to substance-abuse treatment (86%); counseling and testing for HIV (81%) and hepatitis C (56%); vaccinations for hepatitis B (39%) and hepatitis A (37%); and 29% offered other on-site medical care. [6]

Current best practices and harm reduction guidelines recognize the opportunity SSPs have to reach PWID who are otherwise hard to reach and missed by traditional referrals, and provide or coordinate provision of other health and social services. [15] Other studies and prior research has noted that community SSPs are particularly good settings to identify severely impaired and otherwise hard-to-reach opioid users. [26-28] The majority of injection opioid users in the U.S. are not in substance use treatment; therefore using SSPs to increase and sustain participation in treatment programs could increase the public health benefits of the SSPs. [15, 22] Kidorf and colleagues report that SEPs can be used to increase treatment interest and enrollment and even re-enrollment following discharge. They conclude that their study supports conceptualizing SEPs and substance abuse treatment as a continuum of community-based health services. [15] The CDC Evidence-Based Strategies for Preventing Opioid Overdose report notes that this approach is successful. They reported that SSP participants were five times more likely to enter drug treatment and 3.5 times more likely to stop injecting compared to those who do not utilize those programs. [29-30]

Outcome: Reduction in fatal overdose as a result of naloxone distribution direct to people who use drugs

It is estimated that 69,000 people worldwide die each year from opioid overdose [31] and, since 1999, the number of fatal drug overdoses in the U.S. has more than doubled. [32] Additionally, most opioid overdoses occur in private homes or settings and are witnessed, most often by a friend, partner or family member. [31, 33] The WHO Community Management of Opioid Overdose report states that since opioid overdose is treatable with naloxone, increased access to naloxone for people likely to witness an overdose could significantly reduce the number of opioid overdose deaths. [31] Community placement and access to naloxone is particularly important given that criminal penalties as well as stigma and discrimination associated with drug use can deter PWID and their peers from seeking emergency assistance when someone overdoses. As such, the WHO recommended that 'community distribution of naloxone should be added as an element of the comprehensive harm-reduction package." [31]

Even though community placement of naloxone has gained acceptance and has become more common [34], CDC reported that in 2010, 19 of the 25 states with drug overdose death rates above the 2008 median did not have a naloxone distribution program. [35] Needle exchange and distribution programs were early adapters of naloxone training and distribution [34] and have continued to be successful sites for participant education, instruction and recruitment. In a study of the effect of overdose education and nasal naloxone distribution (OEND) offered at SEPs and other sites in Massachusetts, Walley and colleagues found reduced death rates in communities where OEND was implemented. [33]

Community placement of naloxone, including provision of naloxone directly to PWID, has been shown to be effective in preventing overdoses. [36-37] Rowe and colleagues found that, among participants enrolled in the Drug Overdose Prevention Education Project (DOPE) in San Francisco, those with prior experiences with overdoses and those who used heroin or methamphetamines were more to likely to return for naloxone refills and were also more likely to report overdose reversals. [36] Most DOPE activities were based at needle exchange sites. They concluded that "these results emphasize the impact, with regard to utilization of this medication, of directly reaching drug users with lay naloxone programming." Similarly, Keane and colleagues examined the effect of increasing the number of naloxone distributions sites and the number of naloxone kits distributed. They found that community-based naloxone distribution and 'arming' laypersons with naloxone to reverse overdose could significantly reduce deaths and stated that their research underscores the 'need to increase support for naloxone distribution via harm reduction sites, such as SEPs, since these sites are more likely to engage people at high risk for overdose deaths, that is, people who use opioids." [37]

Facilitators of successful SSPs and uptake by PWID

Since the first needle exchange programs opened in the 1980s, consensus among syringe service providers and experts regarding best practices for the successful implementation and operation of SSPs has been developing. [38] Best practice guidelines compiled by harm reduction agencies, the CDC and other public health and community agencies have generally agreed on key principles and underlying programmatic elements of a successful SSP. [29,38] In addition, barriers to SSP effectiveness have also been identified and agreed upon. Barriers are discussed below.

Facilitators of a successful SSP include the following:

1) Allowing clients to choose the numbers of needles they need and receive. This approach, in addition to being most effective in preventing infections and enabling PWID to protect their own health, also increases the participants incentives to visit the program and interact with staff and counselors. [29,39] See dispensing policies below.
2) Learn, address and accommodate the needs and concerns specific to the local drug using community. Maximize responsiveness to the characteristics of the local IDU population. Adapt planning activities and services to subgroup needs. [29,38]
3) Offer assistance in accessing appropriate care for substance use disorders or for other physical or mental health concerns. Provide and coordinate provision of other health and social services. [29,38]
4) Refocus public responses to drug use away from criminal justice approaches to public health approaches. A criminal justice approach can discourage safer drug use behaviors and requests for help and a strong public health approach can decrease police occupational exposure to contaminated syringes. [40,41] See Law Enforcement Policy and Practices below.

5) Work to gain community support and understanding of the goals of the SSP prior to implementation. Include diverse community stakeholders in creating a social and legal environment supportive of SEPs.
6) Ensure low threshold access to services. Maximize access, number of locations and available hours; ensure anonymity and confidentiality of participants; minimize the administrative burden of participation. [38]
7) Promote secondary syringe distribution.
8) Train and support peer educators. [38]
9) Minimize Data Collection. Data collection should not distract from the primary mission of providing sterile injection equipment. Participation in research or other activities should not be a requirement for SSP participation. [38]

Furthermore, SSPs should be planned, implemented and evaluated as a community-level public health intervention, rather than an individual-level program. [38]

Barriers to PWID and community uptake of SSPs and practices to avoid

Significant barriers to SSPs uptake among PWID and opposition among community members have been reported. [40,42] Most, if not all, of these barriers can be addressed if the best practices outlined above are addressed and implemented prior to SSP initiation in a community. Barriers include:

1) Lack of model programs for smaller communities/rural communities. [40]
2) Law enforcement and police policies. [38]
   - Paraphernalia laws that lead to confiscation and/or arrest of PWID for possessing syringe and needles including ones received from SSPs.
   - Law enforcement confusion regarding action to take upon discovery of drug paraphernalia and/or about observing persons accessing services at SSPs.
   - PWID confusion about whether or not needles and syringes from SSPs can be possessed legally.
3) Location of SSPs can be a barrier. Particular problems have been reported in rural areas where travel distance to a SSP can be significant, money needed for public transportation, and location near places PWID do not what to be seen (e.g. near police stations or community settings that would compromise their anonymity.) [38]
4) Concerns over increasing amounts of discarded needles in community. See disposal practices below. [38]

Practices to avoid include:

1) Supplying single-use syringes.
2) Limiting frequency of visits and number of syringes; requiring one-for-one exchange.
3) Imposing geographic limits (limiting program access to individuals who live within specific boundaries).
4) Requiring identifying documents.
5) Requiring unnecessary data collection or the requirement to participate in research.

Single Use, Retractable or Difficult-to-Reuse Syringes

Although single use or difficult to reuse (DTR) syringes have been considered as a way to reduce HIV transmission among PWID, there is limited literature on the use of DTR syringes among PWID attending harm reduction programs or SSPs. Most published literature focuses on using DTR syringes to prevent needlestick injuries in health care setting. [43] The Canadian Working Group on Best Practice for Harm Reduction Programs in Canada reported no NSPs in the U.S., Australia and Canada using DTR injection equipment in 2013. [43] Des Jarlais reported that providing PWID with DTR injection equipment 'reveals multiple problems.' [44] In addition, PWID have raised concerns about using DTR equipment including the inability to inject easily and the lack of ability to repeatedly plunge and adjust the volume of substance in a syringe more than once during a single injection episode (booting) which creates a more prolonged and pleasurable drug effect. Des Jarlais noted that all designs can be defeated and that if sufficient supplies of easy to reuse injection equipment can be provided, then DTR equipment would not be necessary. [44] The Harm Reduction consensus meeting on SEPs best practices agreed and listed single-use syringes as a counterproductive policy. [38] The consensus report states that booting, which titrates the

dose being injected, can be protective against overdose. Single-use syringes prevent this practice because a 'locking' mechanism activates and retracts the needle after its initial insertion. Other harm reduction organizations have also published cautions against using these types of syringes as part of harm reduction among PWID. [45]

Syringe Dispensing Policies

SSP best practices uniformly recommend against limiting the number of syringes available per visit or enforcing a mandated syringe exchange ratio such as an "one for one" dispensing policy. [38] Limiting the number of syringes an individual may receive reduces the effectiveness of the SSP intervention and undercuts its' own effectiveness. [29] Kral and colleagues studied the effects of different syringe dispensation policies on injection-related HIV risk among clients of 23 SSPs in California. [39] Three types of distribution policies were examined: 'one-for-one' giving clients the same number of sterile syringes as were turned in, 'one-for-one plus' where a few more than were turned in were given and a 'distribution' policy giving the clients as many syringes as they needed or requested. They found that clients at distribution policy SSPs were less likely to reuse syringes (OR=0.43 95% CI 0.27 - 0.71) than clients at SSPs with more restrictive dispensation policies. However, no significant differences were found in either receptive (using a syringe/needle used by someone else) or distributive (give or loan a used syringe/needle to someone who then used it) syringe sharing or in sharing filters or cotton by dispensation policy. [39.] The U.S. Public Health Service recommends a having a clean syringe for every injection. [46] Directly related to this recommendation, Bluthenthal and colleagues measured adequate syringe coverage, defined as receiving at least as many syringes from SEPs as the self-reported number of injections in the last 30 days, in a study of 24 California SSPs in 2006. [47] They found that an unlimited needs-based distribution policy resulted in the highest syringe coverage (61%) for SSP clients and concluded that SEPs should adopt syringe dispensation policies that provide PWID sufficient syringes to attain adequate syringe coverage. In a similar study addressing the importance of adequate syringe coverage, Bluthenthal and colleagues found that SSP clients reporting syringe coverage (defined as having a sterile syringe for every injection) at <50% had significantly higher odds of syringe reuse (AOR=2.6, 95% CI 1.8 – 3.9), receptive syringe sharing (AOR=2.3; 95% CI=1.4 - 3.6), and distributive syringe sharing (AOR=1.6 , 95% CI=1.1 – 2.5) in the last 30 days compared to those with coverage 100-149%. [48] Clients with coverage >150% had significantly lower odds of syringe reuse, receptive and distributive syringe sharing and sharing cookers (AOR=0.5, 95% CI 0.3 - 0.7; AOR=0.5 95% CI 0.3 - 0.8; AOR=0.5 95% CI 0.3 – 0.7; AOR=0.6 95% CI 0.4 – 0.9, respectively). Additionally, safe syringe disposal was not significantly different by syringe coverage or the number of syringes distributed by SSPs (see below). [48]

Syringe Disposal Policies and Practices

Appropriate disposal of syringes distributed through SSPs has been a persistent concern among policymakers and communities in the U.S. and elsewhere. [49-51] In particular, unlimited syringes based on need as per SSPs best practice guidelines [29,38] raises community concerns about disposal practices. Numerous studies have documented that community-acquired needlestick injuries are perceived as a vital concern by community members and politicians [52] and that the prevention of secondary transmission of HIV and other bloodborne pathogens is a critical public health goal. Thus, proper disposal of syringes and efforts to understand reasons for and predictors of safe vs unsafe disposal are an important public health issue.

Quinn and colleagues studied the syringe disposal practices of PWID to gauge the scope of the problem and offer potential solutions. They compared syringe disposal practices among PWID who acquired their syringes from SEPs compared to pharmacy acquired syringes in Los Angeles. [52] Overall, PWID reported proper disposal (return to a SSP, public biohazard container, etc.) of 83.1% of syringes used in the last 30 days. Source of syringe was also significantly associated with proper syringe disposal. Having received syringes at a SSP was associated with a significantly lower odds of improper syringe disposal compared to those who received syringes from other sources (AOR=0.51 95% CI 0.26 - 0.98 from a SSP at all and AOR=0.44 95% CI 0.26 – 0.75 primarily from a SSP).

Coffin and colleagues also evaluated the effect of syringe acquisition on syringe disposal among PWID in Baltimore, New York City and San Francisco. Safe acquisition of syringes was defined as receiving syringes from a SSP, hospital, drug store or outreach worker and unsafe acquisition included syringes from street dealer, picked up off the street or 'found it.' Safe acquisition was significantly associated with safe disposal (AOR=7.3, 95% CI 3.8 –

14.2). They concluded that expanding SSP sites can improve safe syringe disposal practices and that safe syringe disposal initiatives should target PWID who do not access SEPs. [53]

Bluthenthal and colleagues found no differences in safe syringe disposal by syringe coverage. Safe disposal was defined as returning used syringes to the SSP as opposed to unsafe disposal which included selling or giving away used syringes or disposing in a trash can or toilet, or leaving them in a public place such as a park. [48] They concluded that increasing the numbers of syringes received from SEPs does not result in increased odds of unsafe syringe disposal. Similarly, Quinn and colleagues found that receiving more than 30 syringes in the past 30 days was also associated with lower odds of improper syringe disposal. [52]

The finding that higher syringe coverage was not associated with unsafe syringe disposal underscores one of the values of SSPs – the safe removal of harmful waste materials from communities. It also suggests that increasing the number of syringes exchanged per visit can be accomplished without increasing unsafe disposal of syringes.

Integrating SSPs with other health and promotion services

SSPs provide a unique opportunity to increase access to integrated health promotion and prevention services among PWID, particularly hard to reach PWID who are not receiving care and services elsewhere. [54] SSPs best practices now recognize this opportunity and recommend providing or facilitating access to care for substance use disorders and other physical or mental health conditions to PWID who access SSPs. [29,38] As such, an integrated approach to service provision has been successful implemented in numerous settings reaching diverse subpopulations of PWID worldwide. Services provided vary and include primary health care, substance use treatment, overdose prevention services, testing for bloodborne pathogens, and other mental health, medical and support services. [6,13,14]

Burr and colleagues described the Access to Reproductive Care and HIV Services (ARCH) program in five New Jersey cities. This program approach demonstrated how a wide range of services can be provided at SSPs by integrating existing programs and funding streams available through the state health department. [54] The ARCH program is a nurse-led and was initially designed to reduce perinatal HIV transmission by targeting women of childbearing age. Overtime, the program expanded to include hepatitis screening, adult immunizations, gonorrhea/chlamydia testing and treatment, and tuberculosis testing for both men and women. [54]

Bachhuber and colleagues described results from a program that expanded buprenorphine maintenance treatment to a Philadelphia syringe exchange program. [55] They reported that this was the first study of a buprenorphine maintenance treatment program directly integrated into a SSP. Despite high rates of polysubstance use, as well as medical and psychiatric comorbidities, many patients demonstrated sustained retention in treatment and reductions in heroin use indicating that providing this treatment 'within SEPs is possible and has the potential to address gaps in access to treatment.' They reported that the patients' prior relationship with program staff and familiarity with the organization, prior experience with either illicit or prescribed buprenorphine, and linkage to all other social services programs at the SSP as well as linkage to additional community resources were likely factors contributing to the success of the treatment program. [55]

The outcomes of HIV and HCV testing services at syringe exchange programs throughout California were described by Heinzerling and colleagues. They reported that both HIV and HCV testing were available at 62% of the 24 programs included. Twenty-one percent offered HIV testing only and 17% offered neither. Programs administered by health care or social services providers were more likely than independent programs to offer HIV and HCV testing. Additionally, clients of illegal syringe exchange programs were significantly less likely to utilize HIV and HCV testing services than clients at legal syringe exchange programs. [56]

Islam published a commentary on the advantages and disadvantages of operating NSP-based primary health care centers. [57] He noted that the major advantages of a NSP-based primary health care center were the opportunistic offer of health care, increased spatial and temporal availability of health care, trust among PWID, a cost-effective mode of care, targeted and comprehensive service, and normalizing need-based syringe distribution and exchange. Nevertheless, he cautioned that this approach may have the following disadvantages: may consume funding used for NSP coverage, may provide a wrong notion (i.e. that PWID are better taken care by NSP-based health care

centers or that these are specialized services for PWID) and also that the quality of services might not always be adequate. [57]

Law Enforcement Policy and Practice: Effects on PWID and use of SSPs

Law enforcement and policing practices have had a substantial impact on PWID, their injection practices and their risk of acquiring HIV and other bloodborne infections. [42] The threat of arrest for drug possession and the lawful or unlawful confiscation of syringes can influence where, with whom, when and how PWID consume drugs as well as discourage them from carrying their injection equipment with them or injecting in a rush, in an unsafe situation or in less visible sites on their body. Each of these injection behaviors have the potential to increase risk of infection. Additionally, needlestick injuries are common among police in some jurisdictions (ranging from reports of a needlestick among 29.7% of police officers in San Diego, [58] 8% in Baltimore, 4% in North Carolina [59] and 14.3% among police officers in Tijuana Mexico [60]) and police concerns about these occupational safety hazards influences their attitudes about SSPs and dispensing syringes. [61]

Laws that criminalize the possession of drug paraphernalia threaten the ability of PWID to follow public health advice and place significant obstacles in the way of public health authorities and community activists who are encouraging the use of and exchange for sterile injection equipment. Even as local communities have authorized SSPs and legalized SSPs and syringe exchanges, many law enforcement officers are unaware of the legal status or unsupportive. Consequently, they continue to treat possession of injection equipment as illegal and the participation in SSPs as a marker of illegal behavior. Studies have documented the effect that police activity has on the willingness of PWID to participate in SSPs. For example, Wood and colleagues evaluated the effects of a police crackdown designed to control illicit drug use in downtown Vancouver and found that the crackdown had the unintended effect of increasing unsafe syringe disposal and significantly reduced the proportion of syringes being returned to the city's largest needle exchange site. [62] Similarly, Davis and colleagues analyzed the numbers of participants and numbers of syringes dispensed in four time periods before and after a police intervention designed to disrupt open-air drug markets in Philadelphia. They found that overall SSP use declined across all measurement categories and time periods following the police intervention. Additionally, SSP use by Blacks declined at more than twice rate of Whites; differences were also seen by gender with declines among men nearly twice as high as among women. [63]

Burris and colleagues recommend that local authorities work to improve the legal environment for PWID syringe possession to support and promote the success of local SSPs. [64] Ideally, state-level syringe paraphernalia laws would be repealed to prevent the need for distinctions between legal and illegal syringe possession. In some states, however, it may be easier to initiate legislative change by amending syringe possession laws to exempt PWID from arrest and/or prosecution for the possession of syringes. They reported that the overwhelming majority of U.S. court cases considering SSPs have affirmed their legality as a public health imperative for reducing the incidence of HIV/AIDS. These cases can serve as legal guidance for establishing and supporting SSPs in jurisdictions where state-level syringe paraphernalia laws remain. In addition, they recommend that the state-level criminal code be amended to allow the possession of used syringes for return to SSPs and other safe syringe disposal options. [64]

Even without repeal of drug paraphernalia laws, localities that have engaged local law enforcement in trainings regarding SSPs have had some success with officers receptive to the trainings and an increased understanding of public health activities for PWID. Davis and colleagues reported on the implementation of a brief police training intervention in three U.S. cities designed to increase officer knowledge of and positive attitudes towards SSPs by bundling the training with officer concerns about infectious diseases and occupational safety (needlesticks). [61] They concluded that trainings that bundle 'strategies for increasing officer occupational safety with information about the legality and public health benefits of SAPs can be well received by law enforcement personnel and can lead to better communication and collaboration between law enforcement and harm reduction actors.' [61] Beletsky and colleagues also reported that trainings that combine police officers' concerns about occupational safety

with public health's harm reduction goals can help improve attitudes about the benefits of syringe access and SSPs. [65]

Harm reduction best practices suggest that with proper training and understanding, law enforcement officials can play an important role as public health partners by directing people found with illicit drugs to treatment programs rather than arresting and detaining them. [29]

Rural America and Access to Syringe Service Programs

The U.S. is currently experiencing an opioid overdose crisis. It is estimated that every day more than 130 people in the U.S. die after overdosing on opioids. Driven in large part by prescription opioid misuse and expanding to the increased use of injection street drugs, particularly heroin injected by contaminated syringes, incident HCV cases have increased more than 2.9 fold in the U.S. between 2010 and 2015. [40] Much of this increased HCV incidence is attributed to increases among PWID in nonurban areas that are generally underserved by SSPs. [66] Paquette and colleagues conducted a systematic review of articles published on injection drug use, HIV/HCV, and related services in nonurban area of the U.S. between January 1990 and June 2016. They identified only nine studies on syringe access, confirming limited access to syringe exchange programs and pharmacies for PWID in rural America during this period of increasing injection drug use and HCV incidence and highlighting the need for more research on the uptake and experiences of SSPs in rural America. [66]

Between 2010-2015, the Central Appalachian region had a 364% increase in acute HCV cases among persons ages <=30 years. In response, localities in the U.S., especially in rural areas and southern and midwestern states that have previously been opposed to needle exchange or were at least needle exchange-naïve, began to open SSPs. [67] Bixler and colleagues reported on expansion of SSPs in Kentucky, West Virginia and North Carolina from 2013 through August 1 2017. Prior to 2013, only one SSP operated in West Virginia and SSPs were illegal in Kentucky and North Carolina. By August 2017, there were 53 SSPs operating in these three states. Visits to these SSPs also increased during this time period. In addition to needle and syringe exchange, the majority of these 53 SSPs offered screening for and linkage to treatment for HIV and HCV, education on safe injection practices and naloxone administration, substance abuse medication assisted treatment, among other services. Bixler et al concluded that 'increasing access to SSPs is possible with community support using a variety of models if SSPs are not prohibited by law.' [67]

Davis and colleagues conducted a qualitative case study among people affiliated with two NEPs in West Virginia including PWID, law enforcement officers, police chiefs, and NEP program directors to assess barriers and facilitators to implementing and operating NEPs. They reported that both West Virginia communities were overwhelmed by the need and participant volume. They had looked for model programs to guide NEP implementation and found that there was an absence of experience relevant to 'small town USA' to draw upon. [40] Additionally, the impact of drug paraphernalia laws and the fact that injection of illicit substances was an illegal activity were identified as major barriers to effective implementation and use of NEPs and created confusion among both law enforcement officers and NEPs participants. Funding was also identified as a major barrier. While the federal ban on funding NEPs has been lifted, there is still a ban on using funds to pay for syringes. As a result, both West Virginia NEPs had to rely heavily on private fund-raising and donations from local pharmacies for syringes which limited the number of syringes that could be distributed. Nevertheless, both NEPs reported wide community support and success. Community meetings were held where 'testimony after testimony from families who had lost people or who were recovering from addiction' was heard, bolstering an understanding of the need for and acceptance of the proposed NEPs. Efforts are continuing to ensure that continued success is not compromised by drug paraphernalia laws and lack of resources to meet the high demand and need for services. [40]

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