Vending machines:

A tool for distributing harm reduction equipment

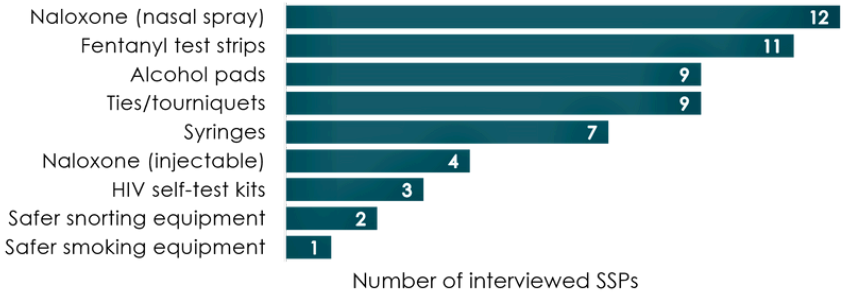
Vending machines are increasingly used to provide communities with access to equipment that can reduce harm and save lives.[1] For people who use drugs, this may include syringes to prevent transmission of infectious diseases and naloxone to reverse opioid overdoses and prevent death.[2,3] Via the National Survey of Syringe Services Programs, 16.8% of 529 syringe services programs (SSPs) reported providing syringes, naloxone, or both through vending machines in 2023.[4] After accounting for other characteristics, SSPs offering syringes through vending machines distributed syringes at a 28% higher rate than those that did not (p=0.02) and SSPs offering naloxone through vending machines distributed doses at a 12% higher rate than those that did not (p=0.08).

Staff members from 12 SSPs (ranging in organizational type and region) shared their experiences planning, implementing, and stocking vending machines. ***The lessons they learned are summarized here in hopes they will be helpful to SSPs and other harm reduction organizations interested in implementing vending machines.***

- All 12 SSPs and their partners implemented electronic vending machines (1 to 13 machines); 2 of the SSPs also set up refurbished newspaper stands, which are a less resource-intensive option.
- All SSP staff who mentioned their implementation timeline said it took about 1 year to plan and launch their machines.
- SSPs stocked their vending machines with a variety of equipment to prevent transmission of infectious diseases and overdose deaths (**Figure 1**).
- Most vending machines included additional items such as hygiene supplies, condoms, detergent, snacks, drinks, and informational packets to "round out" the contents of the machines to help build buy-in from the community.
- Although a valuable tool to distribute equipment, vending machines cannot replace face-to-face engagement that can result in connections to other important services.

Electronic naloxone vending machine.

FIGURE 1. Types of harm reduction equipment distributed via vending machines.



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HOW IT WORKS

Vending machines can be set up to require different levels of information to access contents:

- **Require registration.** Some SSPs had vending machines that required registration with personal information (e.g., name, date of birth) to turn into a unique ID. Individuals could register in person, over the phone, or online to receive a code or swipe card to access the contents. If needed, this can limit how much an individual can take in a day, week, or month.
- **Require some information.** Some vending machines required individuals to enter limited information (e.g., zip code) before accessing the contents.
- **Require no information.** Half the SSPs had low-barrier vending machines that could be accessed without providing any information, which may be important for building trust and encouraging engagement with other services. Two SSPs had naloxone-only machines that operated like this, though registration was required for their machines with other harm reduction equipment.

Refurbished newspaper box containing naloxone.

WHO TO ENGAGE

- **SSPs implementing vending machines.** SSPs networked with other vending machine–implementing SSPs to gain insights and lessons learned.
- **SSP staff and participants.** SSPs engaged their staff in the planning and implementation process and discussed machine content preferences with participants to ensure buy-in and support successful implementation.
- **Implementing partners.** SSPs identified, met, and occasionally signed formal agreements with implementing partners (e.g., methadone clinics, jails, libraries, or other community-based organizations) to host or manage the vending machines.
- **Research partners.** SSPs participated in evaluations with or received supportive data from research partners.
- **Community partners.** SSPs fostered additional support by meeting with public health officials, opioid task forces, and law enforcement as well as through press releases to the public.

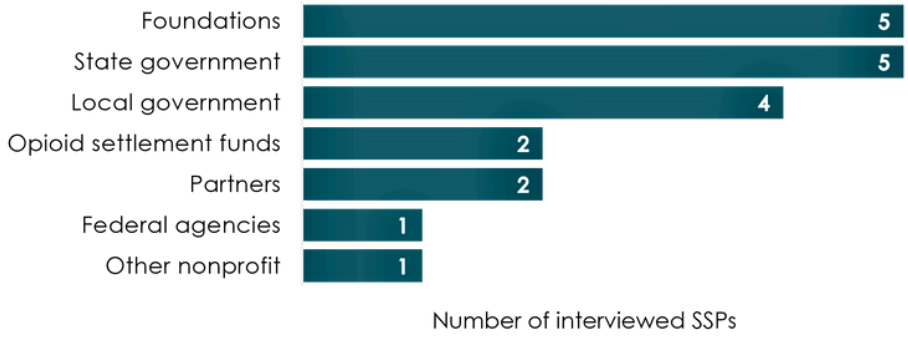
> *"We really had to meet as a group with stakeholders, clients, and funders and create messaging about how this is a public health tool, because it is. It's not just a 'needle machine.' It gives out HIV tests. It's an overdose prevention machine. Hygiene items are in it."*
>
> **—SSP manager from a community-based organization in the South**

Philbrick S, Ballantyne B, Smith J, Christopher M, Selick M, Erickson E, Ray B, Lambdin BH, & Patel SV (2025). Vending machines: A tool for distributing harm reduction equipment. RTI International. https://doi.org/10.5281/zenodo.14502579.

FUNDING SOURCES

SSP staff identified a variety of funding sources to cover the allowable costs of their vending machine, its contents, and personnel time for managing and stocking it (**Figure 2**). More than half the SSPs had to combine funding sources. Some SSPs also leveraged donations.

FIGURE 2. Funding sources used to cover vending machine costs.



DONATIONS IN ACTION

One SSP received a donation of several electronic vending machines—many of which were implemented locally in partnership with community (e.g., nearby Tribe, library) and some that were transferred to other SSPs across the U.S.

CHALLENGES & OPPORTUNITIES

- **Finding an implementing partner.** Despite having a supportive network, some SSPs had trouble identifying a host for their vending machine. Continuing to engage potential partners through open conversations and sharing data can help build buy-in.
- **Partner preferences.** Partnerships (e.g., with host organizations or funders) influenced where vending machines were located and what items were offered. Many SSPs were limited in what they could include because of partner perceptions and policies. For example, two SSPs with vending machines in detention centers could not include syringes as they were prohibited. SSPs can explore partner education and advocacy or find new implementing partners.
- **Community pushback.** Half the SSPs did not face a lot of pushback. SSP staff who noted verbal pushback said it had minimal impact on implementation. Once the vending machines were set up, some SSPs had challenges with minor damage inflicted on machines by unknown individuals. Strategic promotion of services to trusted allies could reduce community pushback.
- **Logistical challenges.** Nearly half the SSPs faced logistical challenges, including issues accessing compatible electrical outlets, navigating temperature control, preventing machine malfunction, and orienting users on software associated with the machine. SSPs can anticipate and prepare for logistical challenges through peer learning with SSPs implementing vending machines.
- **Unexpected uses.** Two SSPs experienced non-participant use of the machine to access naloxone for training purposes. One SSP staff member identified this as a barrier to maintaining a stocked machine while the other saw the benefit of increased training and distribution happening through other organizations.
- **Attention and time required.** SSP staff are already stretched thin, and vending machines require oversight to ensure timely restocking. Software (e.g., VendNovation) can help manage electronic machines and streamline the restocking process by informing SSP staff when a machine's contents are running low.

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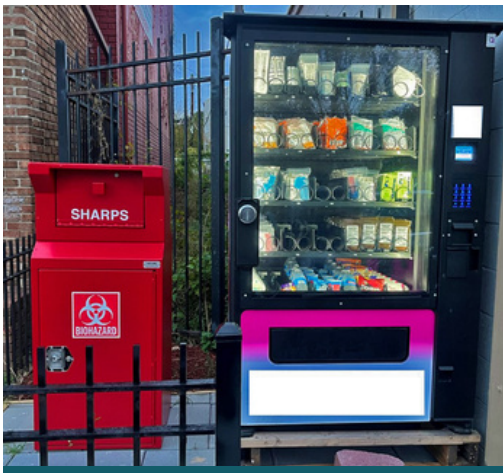
ADVANTAGES

SSP staff noted vending machines:

- increased distribution of public health and safety equipment, including syringes and naloxone;
- made extended service hours possible;
- provided a more convenient and preferred delivery method for some participants;
- served as a connection to further support by advertising SSP services; and
- enhanced community support through positive media coverage.

Additionally, one SSP saw more syringes returned for disposal than syringes distributed when implementing a sharps collection box alongside their vending machine.



Electronic vending machine dispensing harm reduction equipment, located next to a sharps collection box.

"The way I see it — it has allowed people to feel comfortable. Rather than just coming here and picking up their bag and leaving, it has created a community of people. The vending machine has been the catalyst for people coming here, talking to one another, talking to us, talking to other service providers, eating some food. Sometimes there's a line for the vending machine, so people network and talk to each other and share resources. It has turned our SSP into something more than just stop and get your supplies."

—SSP manager from a community-based organization in the Midwest

ADDITIONAL RESOURCES

This resource shares findings from the Strengthening Syringe Services Programs project and was made possible by U.S. Centers for Disease Control and Prevention (CDC) cooperative agreement NU52PS910232. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC. Email nsssp@rti.org to find out more about the project. For more information on how to bring vending machines to your community, email training@harmreduction.org.

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