Establishing Community Medical Sharps Programs

A GUIDE FOR MUNICIPALITIES, PHARMACIES, HEALTH CLINICS, AND NONPROFITS IN OKLAHOMA

June 2023
The Product Stewardship Institute

The Product Stewardship Institute (PSI) is a policy advocate and consulting nonprofit that powers the emerging circular economy to ensure products are responsibly managed from design to end of life. In 2000, PSI pioneered product stewardship in the United States by convening diverse stakeholders to build extended producer responsibility (EPR) policies, programs, and laws. Drawing on global best practices and expansive multinational relationships, our expert testimony and model legislation have helped enact 127 EPR laws in 33 states for 16 product categories, including packaging. Our members include state, local, and tribal governments in 48 states, and we partner with more than 120 businesses, academic institutions, environmental nonprofits, and international governments. Together, we advance scalable solutions that protect people and the planet. Join us at www.productstewardship.us.

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1. Purpose of this Guide

The Oklahoma Meds & Sharps Disposal Committee (OMSDC), a statewide work group facilitated by the Product Stewardship Institute (PSI) with grant support and collaboration from the Oklahoma Department of Environmental Quality (DEQ), has determined through research and stakeholder engagement that disposing of medical sharps (e.g., needles and syringes) in household trash is not best practice. However, there are currently few alternatives for Oklahoma residents to dispose of home-generated medical sharps safely.

This guide was developed to provide step-by-step support to Oklahoma communities, pharmacies, public health clinics, and non-profits to facilitate the establishment of home-generated medical sharps collection programs for residents. The guide contains information on the need for safe disposal options, the different types of programs available, criteria for designing a program, cost estimates, vendor information, and best practice recommendations. The guide also features case studies illustrating community sharps collection programs operating in Oklahoma.

2. Importance of Safe Disposal

Medical sharps, such as needles and syringes, are indispensable devices used by millions of consumers to safely self-inject medications outside of health-care settings, often to treat conditions like diabetes. More than 7.8 billion injections are administered annually outside of a health-care facility in the U.S., resulting in home-generated medical sharps waste.

The Problem

After use, home-generated medical sharps are often unsafely disposed. Seven percent of needles are flushed down toilets, and an estimated 3 billion sharps enter the U.S. municipal solid waste stream each year as trash. The U.S. Food and Drug Administration (FDA) and the U.S. Environmental

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Protection Agency (EPA)\(^4\) both advise residents never to flush or throw away loose sharps. When medical sharps are flushed, put in the garbage or recycling bin, or littered in public areas, they pose grave health and safety risks to residents, sanitation workers, sewage treatment plant operators, waste management personnel, and hospitality workers, who are at risk of being stuck by the needles. Even if sharps are packed in containers according to FDA guidelines, those containers can be crushed by solid waste management equipment (i.e., compactors), releasing loose sharps into the solid waste stream and creating safety hazards and costly operational interruptions.

In addition to prescription self-injections, PSI estimates that thousands\(^5\) of Oklahomans use syringes to inject controlled substances. Inclusive disposal options, such as needle take-backs that accept these syringes in addition to home-generated prescription sharps, help to capture needles that might otherwise end up in the trash or littering public streets and parks, reducing the risk of needle sticks to sanitation workers and anyone using public spaces. In early 2021, the Oklahoma State Legislature legalized privately funded (not state-funded) syringe service programs (SSPs),\(^6\) which capture used syringes and have been found to reduce or stop injection drug use and significantly increase instances of drug users seeking treatment.\(^7\) However, with the anticipated increase in SSPs around the state, there is expected to be an even greater need for safe, affordable disposal options.

**Potential for Injury and Infection**

For decades, unsafe sharps disposal has been identified as creating the potential for injury or the transmission of infectious diseases to sanitation workers, sewage treatment plant operators, and waste management personnel at transfer stations, recycling facilities, and disposal facilities. In addition, unsafe sharps disposal has also been identified as creating costly maintenance problems when loose sharps become jammed in equipment, posing a potential hazard to anyone trying to remove them or to the equipment itself.\(^8\) According to a 2018 survey by the Environmental Research and Education Foundation, 53% of materials recovery facilities observed needles in household waste at least weekly and over half reported one or more needlestick injuries in 2016.\(^9\)

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Costly Maintenance Problems

Loose sharps can become jammed in waste sorting equipment, resulting in equipment damage and posing a hazard to workers who must remove them.10

Convenient, safe, and cost-effective medical sharps collection programs, such as those provided by some municipalities, are critical to addressing these issues. Unfortunately, throughout most of the U.S. — including Oklahoma — there are only limited, costly options for residents to safely dispose of their medical sharps.

Limited Options for Residents in Oklahoma

As in many other states, there are currently limited options for safe sharps disposal in Oklahoma. Yet the need for programs is great; based on national statistics, PSI estimates that more than 108,000 Oklahoma residents use sharps to manage medical conditions at home, generating between 20 and 50 million needles per year.11

According to state law,12 residents are permitted to place medical sharps in the trash if they are sealed in a rigid plastic container. However, this does not fully protect workers from injury or transmission of infectious diseases, nor does it protect waste processing equipment. PSI, the OMSDC, and the DEQ, among others, recommend this option only as a last resort after exhausting safer options, such as drop-off, mail-back, or home-collection services designed specifically for medical sharps management. The FDA also recommends that residents seek out these safer disposal options, depending on community guidelines.13 For more details on PSI, DEQ, and OMSDC’s recommendations for safe sharps disposal, see OMSDC’s fact sheet.

Limited Collection Programs & Events

To address the needs of residents in their communities, Midwest City and the City of Durant each developed a permanent, ongoing medical sharps collection program (described in more detail in the “case studies” section of this guide). Other Oklahoma municipalities offer occasional or annual sharps take-back events, such as in the cities of Muskogee and the City of Norman. For example, Norman collected 275 lbs. of sharps waste in 2020 at collection events at their household hazardous waste

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Medical Sharps Collection in Oklahoma
(HHW) facility. In Tulsa, a grassroots organization, the Oklahoma Harm Reduction Alliance (OKHRA), held a sharps collection event in Spring 2021. Additionally, a limited number of hospitals and medical clinics accept sharps from their patients, and a limited number of businesses accept sharps from their employees in keeping with OSHA regulations. However, these collection opportunities often are not available to the general public.

In response, OMSDC, Oklahoma Department of Environmental Quality (DEQ), and PSI carried out a 6-month sharps disposal pilot project with five sites during the Spring of 2022. In May of 2022 these sites indicated they were looking for funding to continue the service beyond the pilot. In 2023, three new sharps take-back were established in Oklahoma City and Norman as part of continued sharps disposal infrastructure expansion. An EPA grant created 15 additional sites in Choctaw Nation clinics, Indian Health Service clinics, and the Iowa Tribe of Oklahoma Perkins Health Clinic.

Map 1: Locations of medical sharps take-back sites and OMSDC pilot sites.

14 Occupational Safety and Health Administration, Bloodborne Pathogens Standard, 29 CFR 1910.1030.
There are currently no other permanent, conveniently accessible programs in the state. Municipalities, pharmacies, health clinics, and non-profits with available funding can begin to fill the gap in sharps collection infrastructure and services by establishing and operating safe, convenient home-generated sharps collection programs. This guide outlines options, costs, and case studies to support program development. It was informed by research conducted on existing sharps collections programs in the region and supplemented by interviews with over 20 professionals with sharps program experience located throughout the United States.

3. Building a Community Program for Home-Generated Medical Sharps

Step One: Understand Your Community’s Needs

The first step to designing a home-generated medical sharps collection program is understanding the needs of your community. Your community’s needs will influence your decisions about the following program elements:

- **Your Program Model**: How will the program operate? How will residents access the program — what level of convenience do they need?
- **Your Partnerships**: Are your facilities and programs the best way for residents to access the service? Should you consider partnering with a municipality, public health clinic, pharmacy, or local non-profit?
- **Your Budget**: How much can you spend each year to operate your program? What is the most cost-effective program model for your community?
- **Your Vendor**: What company or companies will provide program supplies and services?

Appendix 1 summarizes key considerations for assessing the needs of your community.

Step Two: Select a Program Model or Models

Program Model Options

There are five main program models for communities interested in creating a home-generated medical sharps collection program, though variations exist for each of these options. Program model options include mail-back, drop-off/kiosk, door-to-door pickup, and HHW facility/collection events. In Oklahoma today, Midwest City operates a mail-back program and Durant operates a door-to-door
pickup program, but all five models should be considered when developing a new program. Models can also be combined into a customized program.

For example, the new program at Choctaw Nation clinics allow patients to choose between mail-back or drop-off at kiosks. An important consideration when providing disposal services, especially in rural communities, is the specific shipping carrier a vendor uses. Additional fees may be incurred for larger mail-back disposal systems (for example, mail-back kiosk liners) if the area is not regularly serviced by the shipping carrier.

Figure 1 provides a summary of the advantages and disadvantages of each of the four program types. Each program is described in further detail below the table. See Figure 2 for a detailed comparison of the five program models across key criteria.

**Figure 1: Comparison of five sharps take-back program models.** Note: There are many considerations when choosing a program model. Please see Appendix 1 for more details on the factors that might influence selection of a program model.

<table>
<thead>
<tr>
<th></th>
<th>Mail-Back</th>
<th>Drop-Off/Kiosk</th>
<th>Door-to-Door Pickup</th>
<th>HHW Facility/Collection Event</th>
<th>Health Network Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>• Convenient, esp. for Lightly Populated Communities</td>
<td>• Highly Cost-Effective</td>
<td>• Convenient</td>
<td>• Cost-Effective</td>
<td>• Convenient</td>
</tr>
<tr>
<td></td>
<td>• Minimal Labor</td>
<td>• Best for Large Volumes (Large Populations, High Usage Rates)</td>
<td>• Accessible (e.g., Home-Bound Individuals)</td>
<td>• Uses Existing Infrastructure</td>
<td>• Disposal location, material distribution, and education during routine care</td>
</tr>
<tr>
<td></td>
<td>• Safest</td>
<td></td>
<td>• Community Interaction with Municipal Staff</td>
<td></td>
<td>• Information provided to patients from trusted source</td>
</tr>
<tr>
<td></td>
<td>• Accessible (e.g., Home-Bound Individuals)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Challenges</strong></td>
<td>• Less Cost-Efficient</td>
<td>• Less Accessible for Home-Bound Individuals</td>
<td>• Costly</td>
<td>• Less Accessible for Home-Bound Individuals</td>
<td>• Requires greater preparation and planning to coordinate materials and establish multiple sites</td>
</tr>
<tr>
<td></td>
<td>• Mail service coverage in rural areas</td>
<td>• Less Convenient in Lightly Populated Communities</td>
<td>• Most Labor</td>
<td>• One or Few Collection Points</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Challenging in Larger Populations and/or Dispersed Communities</td>
<td>• With Collection Events, No On-Demand Access to Take-Back</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mail-Back Programs

In a sharps mail-back program, residents receive a personal sharps container, prepaid shipping label, and shipping box. Residents may submit a request (by phone, email, or web form) for a sharps container and shipping materials, which are either mailed directly to the resident or shipped to the municipality and dropped off to the resident. In some communities, sharps containers are shipped to the municipality and picked up by the resident on an as-needed basis from a central location such as a household hazardous waste (HHW) facility or municipal office. In other cases, municipalities partner with convenient, accessible locations within the community such as a pharmacy or hospital to provide sharps mail-back supplies to residents. When the resident’s container is full, they bring their shipping box with the prepaid shipping label to the post office to mail the container directly to the vendor for safe disposal.

Door-to-Door Pickup Programs

In a door-to-door pickup program, residents submit a request (by phone, email, or web form) for a sharps container to be delivered to their home by the municipality. Once they have filled the container, the resident leaves the container outside their home to be collected by the municipality. Sometimes door-to-door programs require residents to schedule a pickup (by phone, email, or web form) when the container is ready. Other programs operate on a regular collection schedule. After the container is collected, the municipality arranges for disposal through a program vendor.

Drop-Off/Kiosk Programs

In a drop-off/kiosk program, residents will take used sharps to a designated drop-off location, such as a pharmacy, law enforcement agency, health department, doctor’s office, hospital, park, or library. Residents will either deposit their container in a kiosk or bring it to an employee at the drop-off location who will store it.

Often, residents are required or strongly encouraged by the collection site or vendor to store and transport their sharps in an approved sharps collection container and deposit the entire container into the kiosk to protect workers. In this case, residents may be required to pick up a sharps container from a designated location. Some programs may allow for needles to be disposed of individually. For example, the Denver Safe Needle Disposal Program in Colorado does not provide or require containers for sharps disposal. Sharps are placed in kiosks that contain large, rigid containers with liners to ensure workers collecting the sharps are protected. Kiosks are placed at parks and libraries where they are located.
accessible 24/7 to individuals who may be using sharps for any purpose.\textsuperscript{16} Regarding the placement of these kiosks, it is important to consider which populations the kiosks will best serve and how they can be most accessible to individuals who may need them. If the container is dropped off at a municipal facility such as a law enforcement agency, the municipality arranges for disposal through a program vendor. For kiosks located at private facilities such as hospitals or pharmacies, the kiosk host may coordinate directly with the vendor for disposal pick-ups.

\textit{This was the first of any sort of drop off type program that we had like this. It took a little selling from me to my program directors and people above me, but so far there hasn’t been any sort of hiccups [or] issues at all... We are a heavily Native American population in a town in which diabetes is very prevalent.}
Marcus Buchanan, Activities Coordinator, Cherokee County Health Services Council

\section*{Household Hazardous Waste (HHW) Facility / Collection Event}

In an HHW sharps collection program, residents bring their sharps-filled containers to a regular HHW collection event or to a permanent HHW facility during regular operating hours. As with other drop-off programs, residents are often required or strongly encouraged to store and transport their sharps in an approved sharps collection container and return the entire container to protect workers. In this case, residents may be required to pick up a sharps container from the HHW facility. After the container is collected, the municipality arranges for disposal through a disposal vendor.

\section*{Health Network Model}

A network of clinics within an established healthcare system provides the opportunity to roll out a program simultaneously across multiple clinics. In a Health Network Model, a program director or the individual clinics may choose to provide drop-off kiosks, mail-back containers, home collection containers, or a combination of the three. Clinics may individually determine which particular option will best meet their patients’ needs. This method involves healthcare providers, (such as pharmacists, nurses, and diabetes educators) distributing containers and educating patients about proper disposal methods. If ordering materials in bulk, it can be helpful to choose a central location to store collection materials and designate an individual to oversee the program. Utilizing an existing healthcare network is an effective way to provide disposal to communities on a wide scale. There are two important elements needed for

this model to have the greatest impact: 1) provider motivation to distribute containers and educate patients, and 2) a robust plan to promote the program ahead of implementation.

**Figure 2**: Detailed comparison of the five program models across key criteria. To select the best fit for your community, reflect on which of these factors are priorities for your municipality and residents based on your community’s needs.

<table>
<thead>
<tr>
<th>Cost/ Person Range</th>
<th>Mail-Back</th>
<th>Drop-Off/Kiosk</th>
<th>Door-to-Door Pickup</th>
<th>HHW Facility/Collection Event</th>
<th>Health Network Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher</td>
<td>Lowest</td>
<td>Highest</td>
<td>Lower</td>
<td>Lower (determined by collection method)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supplies Required</th>
<th>Mail-Back Boxes</th>
<th>Prepaid shipping labels</th>
<th>Resident sharps containers</th>
<th>Kiosk/storage containers, protective liners depending on container</th>
<th>Resident sharps containers</th>
<th>Kiosk/storage container, protective liners depending on container</th>
<th>Resident sharps containers</th>
<th>Kiosk/storage containers, protective liners depending on container</th>
<th>Educational materials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Resident sharps containers</td>
<td>Provide kiosk(s); regularly check kiosk(s) and empty as needed; safely transport and dispose of sharps</td>
<td>Provide kiosk(s); regularly check kiosk(s) and empty as needed; safely transport and dispose of sharps</td>
<td>Provide large storage containers to municipality; pick up full storage containers regularly; safely transport and dispose of sharps</td>
<td>Provide a kiosk or provide for safe transport and collection of residential containers; safely dispose of sharps</td>
<td>Provide kiosk(s); regularly check kiosk(s) and empty as needed; safely transport and dispose of sharps; provide information, sharps containers, and/or mail-back supplies</td>
<td></td>
</tr>
</tbody>
</table>

| Services Required  | Provide mail-back supplies to residents or municipality; receive and safely dispose of sharps | Provide kiosk(s); regularly check kiosk(s) | Provide large storage containers to municipality; pick up full storage containers regularly; safely transport and dispose of sharps | Provide a kiosk or provide for safe transport and collection of residential containers; safely dispose of sharps | Provide kiosk(s); regularly check kiosk(s) and empty as needed; safely transport and dispose of sharps; provide information, sharps containers, and/or mail-back supplies |

<p>| Municipal Labor Required | Distribute containers to residents if needed (if not mailed directly to residents) | Distribute resident containers, arrange for disposal for municipal kiosks | Distribute and collect resident containers, and arrange for disposal | Distribute and collect resident containers, and arrange for disposal | N/A |</p>
<table>
<thead>
<tr>
<th>Geography</th>
<th>Mail-Back</th>
<th>Drop-Off/Kiosk</th>
<th>Door-to-Door Pickup</th>
<th>HHW Facility/Collection Event</th>
<th>Health Network Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenient option for residents in all geographies, especially rural areas or those with home-bound individuals</td>
<td>Good option for high-volume collection (large populations, dense communities)</td>
<td>Most cost effective in smaller and densely populated communities</td>
<td>Good option for high-volume collection in communities with existing, permanent HHW facilities or events</td>
<td>Good option for communities with no existing sharps disposal options and high-trafficked, centralized healthcare clinics</td>
<td></td>
</tr>
<tr>
<td>Collection Points</td>
<td>Container delivery: home delivery or pickup at central location(s) Return: mail-back from home or post office</td>
<td>Receipt and return of container (exchange full for empty): retail pharmacies, police stations, city halls, hospitals, long-term care facilities</td>
<td>Container delivery: home delivery Return: home pickup</td>
<td>Receipt and return of container (exchange full for empty): household hazardous waste facilities and events</td>
<td>Container deliver and return: Healthcare facilities, pharmacies, hospitals, medical clinics</td>
</tr>
<tr>
<td>Consumer Convenience</td>
<td>High</td>
<td>Medium to low, depending on community</td>
<td>High</td>
<td>Medium to low, depending on community</td>
<td>High</td>
</tr>
</tbody>
</table>

**Implementation Variations and Logistics Details**

Implementation of the above program options can vary in several ways, resulting in additional considerations beyond the general program type. Regardless of which program model you select, the following questions can help you determine the details of your program logistics.

**How will you determine which model works for your community?** Consider conducting a survey to determine what type of collection program your residents prefer, how much they are willing to pay for a program, and how many would be interested in participating.

**How will residents receive their home sharps containers?** Residents can either pick up containers from a central location, receive them at home via mail directly from the vendor, or have them dropped off or mailed by the municipality. In many programs, residents must request a sharps container via an online form, call the municipal program coordinator, or physically visit a municipal building or facility.

**Will the program operate as an exchange?** In many programs, residents can return a full container and receive a new, empty one in the same visit or by mail. For example, in San Francisco, CA,
residents drop off full containers at the pharmacy and can receive a new, empty one in the same trip.  

**If residents will drop off sharps containers at kiosks, where will the kiosks be located?** Most programs use some combination of pharmacies, law enforcement agencies, city halls, community hospitals, clinics, and long-term care facilities as drop-off locations. HHW facilities can also be used. For example, the Oklahoma Harm Reduction Alliance partnered with Trinity Episcopal Church in Tulsa, OK to provide an outdoor kiosk with 24/7 drop off access (see image 3) and with Pill Box Pharmacy in Sapulpa, OK to provide sharps disposal in a pharmacy setting. Consider which locations would be most convenient for your community members. Keep in mind that residents may be uncomfortable with or inconvenienced by law enforcement locations compared to retail pharmacies, hospitals, or other options.

**Will residents need to pay an additional fee to participate in the program?** Most often, communities will fund their programs through existing residential solid waste disposal fees or through their general fund, not by setting a fee to participate in the program. If residents are required to pay a separate fee to use the program, they could pay online, in person, with cash, with credit, or through electronic funds transfer. The fee could be a flat rate per year, or it could depend on the number of sharps containers used. Keep in mind that fees can deter participation, especially from low-income individuals who may be most in need of the service.

**How will you educate residents about the existence of the program and how to use the program?** Using existing communication channels, such as websites, social media, newsletters, and flyers, can be effective to reach residents. You may need to develop new initiatives to reach new audiences or to foster more interest. Ensure that your messaging deters residents from disposing of medications or other non-accepted program materials in using the sharps containers and kiosks.

**Will your program coordinate with any existing syringe service programs (SSPs)?** With the recent passage of SB511, there is likely to be an emergence of new SSPs in Oklahoma that may be looking to incorporate sharps collection and safe disposal. Consider whether your program might partner with these existing programs to capture additional sharps.

### Case Studies

The following five case studies from Oklahoma demonstrate how door-to-door, mail-back, and drop-off programs are currently providing crucial sharps disposal services to their communities.

Note: The per capita cost for each program is calculated based on total population in the community served, including individuals and households that do not use the sharps disposal program.

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17 M. Johnson (personal communication, June 1, 2021). Program information: [https://www.sfdph.org/dph/alerts/syringe.asp](https://www.sfdph.org/dph/alerts/syringe.asp)
18 Oklahoma Harm Reduction Alliance (OKHRA). Program information: [https://www.okhra.org/](https://www.okhra.org/)
19 M. Allen (personal communication, April 27, 2021). Program information: [https://swancc.org/component/content/article/332-frequently-asked-questions](https://swancc.org/component/content/article/332-frequently-asked-questions)
Case Study One: Durant, Oklahoma

Program Type: Door-to-Door Pickup

Years of Operation: 25 Years

Vendor: Stericycle

Containers Distributed: 200 to 400 one-gallon containers/year

Total Population: 18,673

Total Cost: $12,000/year ($1,300 for sharps containers + $10,700 for disposal services; $0.64 per capita); participants do not pay a separate fee

Cost Per Estimated Program User: $120

How does the program work? Once each year, the Durant Solid Waste Department orders 200 one-gallon “Sharps-A-Gator” containers from Stericycle, which cost about $6.45 each (this cost does not include disposal.) When a resident needs a container, they call the Department to request one and the Department delivers the container to the residence. The Department also picks up the full container upon phone request from the resident. The Department stores the sharps containers in cardboard boxes with a red plastic protective liner bag, which Stericycle provides. Stericycle collects the boxes from the Department once per quarter (four times per year).

Image 4. Jared Dillingham, Solid Waste Superintendent in Durant, OK, holds a one-gallon residential sharps disposal container.

Image 5. With an increasing number of U.S. residents using sharps at home, ensuring that home-generated medical sharps are securely disposed of is key to protect both public health and the environment.

Image 6. Examples of used sharps storage containers for residential use.
**Case Study Two:** Midwest City, Oklahoma

**Program Type:** Mail-Back  
**Years of Operation:** 19 Years  
**Vendor:** Sharps Compliance  
**Containers Distributed:** 240 two-gallon containers in 2020  
**Total Population:** 57,407

**Total Cost:** $14,000/year (sharps containers, shipping boxes, pre-paid shipping label, and disposal services; $0.25 per capita); participants do not pay a separate fee  
**Cost Per Estimated Program User:** $60

**How does the program work?** Midwest City orders two-gallon USPS Sharps Recovery System mail-back kits from Sharps Compliance, which cost $58.57 each and include the cost of the container, pre-paid shipping label, and disposal services. When a resident needs a container, they call the Midwest City Sanitation Services office and request one. Sanitation Services delivers a sharps container in a box with a tracking number to the individual who ordered it. The department is required to deliver it in-person to an individual rather than leaving it on a doorstep to ensure that the person is a Midwest City resident. Once the resident has filled the container, they put it back into the box, which has a pre-paid addressed shipping label, and mail it directly to Sharps Compliance.

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**Case Study Three:** Pawnee Indian Health Services

**Program Type:** Mail-Back  
**Years of Operation:** .5 Years  
**Vendors:** Stericycle  
**Containers Distributed:** 70  
**Total Population:** N/A  
**Total Cost:** $2,610  
**Cost Per Estimated Program User:** N/A

**How does the program work?** The Pawnee Indian Health Services Pharmacy was selected to participate in the 2022 OMSDC Medical Sharps Pilot program. The Pharmacy dispensed mail-back sharps containers to patients that were prescribed sharps. Staff found that coordinating with providers (doctors) enabled the best education for patients. The mail-back containers, education from providers, and convenient access to containers from patients’ pharmacies made this program extremely successful during the pilot. Almost all mail-back kits were dispensed within the first month of the program.
Case Study Four: SHOTS

Program Type: Collection Event

Years of Operation: .5

Vendors: Capital Waste Solutions

Containers Distributed: 120

Total Population: N/A

Total Cost: $3,195

Cost Per Estimated Program User: N/A

How does the program work? SHOTS is a syringe service program started in 2018 in Tulsa, OK. SHOTS was selected to participate in the 2022 OMSDC Medical Sharps Pilot program. SHOTS staff dispersed 2-gallon collection containers to syringe service clients and participated in local HHW collection events. Returned containers and sharps collected at events were placed in 96-gallon medical sharps totes provided by Capital Waste Solutions (CWS). SHOTS staff called CWS staff when totes were full and in need of service.

We have a very high population of diabetic patients on insulin and so, therefore, we’ve just sent a lot of sharps going out into the Community and into the homes and we’ve never really had a program or opportunity for our patients to utilize a sharp take back.

Kaileen Skidgel, Pharmacist, Pawnee Indian Health Clinic

We have a lot of patients who are on insulin pens, so they don’t produce a whole lot of sharps as far as the size. They’re not putting insulin syringes into these most of the time. Majority of the time, it’s just the needle tip that goes on to those insulin pens, so it may take them a good 3 to 6 months or longer to fill one of those [1.4-quart containers] up before they bring them back in. But they’re very grateful to be able to have something as an option to pick up there at the clinic. Most of them that I’ve talked to have been using either milk jugs or laundry detergent bottles, which is a good option, if that’s their only option.

Justin Wilcox, Choctaw Nation, McAlester Clinic

Image 9: Members of SHOTS at a community collection event.

Image 10: A variety of containers full of sharps collected at a sharps collection event facilitated by OKHRA.
Case Study Five: Choctaw Nation Health Services

Program Type: Kiosk and Mail-back

Years of Operation: .5

Vendors: Covanta

Containers Distributed: 600 home sharps containers, 162 mail-back kits, 45 kiosk liners, 5 collection kiosks

Total Population: 200,000+

Total Cost: $22,450

Cost Per Estimated Sharps User: N/A

How does the program work? The Choctaw Nation Health Services network of clinics provides medical care to over 200,000 tribal members. All clinics that participated in the 2023 EPA R6 Medical Sharps Expansion project received 1.4-quart home collection containers and mail-back containers to distribute to patients. Five sharps collection kiosks were installed in the Talihina, Durant, McAlester, Idabel, and Poteau clinics. Clinic staff incorporated sharps disposal education during patient appointments and community health fairs. When kiosks were full, clinic staff prepared the red kiosk liners for shipment with provided shipping boxes. UPS fulfilled shipment for destruction, and added the boxes to existing service or scheduled additional pickups as needed.

Step Three: Estimate Costs and Select a Vendor

Once you have identified a program model or models for further consideration and determined some of the operational logistics, you can estimate your program costs, obtain vendor quotes, and select a vendor to provide services.

Estimate Costs

Sharps take-back program costs are comprised of three cost categories: collection and operations, transportation and disposal, and education and outreach.

Collection and Operations Costs

Collection and operations costs include supplies (home sharps containers) and labor. Figure 3 displays published prices for home sharps containers, which you can use to estimate costs for your kiosk/drop-off, door-to-door, or HHW facility/collection event program model, as well as mail-back containers. Note that the price of mail-back containers typically includes shipping and disposal costs, whereas transportation and disposal services for other program models are calculated separately (see Figure 4). You may be able to negotiate lower unit costs if you purchase in bulk or through a
vendor with whom you have an existing contract. Contact your chosen vendor directly for the most accurate cost information.

**Container Costs**

Containers for home-generated sharps come in several sizes, including one-quart, 1.4-quarts, one-gallon, and two-gallon containers. We estimate that one-quart containers hold about 50 to 60 1-cubic-centimeter (cc) syringes or 25-35 3cc syringes. One-gallon containers are estimated to hold about 200-240 1cc syringes and 100-140 3cc syringes. We estimate that the average sharps user generates about 2 one-gallon containers per year based on national statistics.\(^{20}\)

**Figure 3:** Comparison of prices for individual residential containers and mail-back containers, shipping boxes, and prepaid shipping labels.

<table>
<thead>
<tr>
<th>Containers for All Except Mail-back</th>
<th>Mail-Back Containers, Shipping Boxes, and Prepaid Shipping Labels</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Quart Containers</td>
<td>$4-7 each</td>
</tr>
<tr>
<td>One-Gallon Containers</td>
<td>$12-20 each</td>
</tr>
</tbody>
</table>

**Staff Oversight and Management Costs**

Most municipalities incorporate program activities into the duties of existing staff and do not track labor costs by program. You will need to determine whether you will need to hire a part-time or full-time employee to manage the program, or if the program activities can be absorbed by existing staff.

**In each of the case studies above, no additional staff were hired to run the program;** program duties are covered by existing staff. For each program type, labor may include the following:

- **Drop-Off/Kiosk Program**
  - **Prior to Program Launch:** Staff will need to secure a vendor, determine how often the vendor will pick up sharps waste, and work with the vendor to secure a kiosk or drop-off box. Staff will also need to determine the drop-off location(s) for the program, which may include recruiting willing pharmacies, hospitals, doctors’ offices, and other privately operated locations, and installing the kiosks or drop-off boxes. Staff will need to purchase containers and establish a distribution system to provide the containers to residents or arrange for residents to pick them up at kiosk sites.

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• **Ongoing Labor:** Staff will need to promote the program, purchase and distribute empty containers at municipal sites, accept full containers from residents at municipal sites, and store full containers until the vendor collects them. If drop-off locations are privately operated locations such as pharmacies and hospitals, the municipality will need to support operations at these locations by coordinating with the vendor and drop-off location to ensure that empty containers are being distributed and full containers are stored and disposed. Staff will need to evaluate the success of the program at least yearly to understand any necessary changes to the program promotion, budget, or logistics.

• **Door-to-Door Pickup Program**
  o **Prior to Program Launch:** Staff will need to secure a vendor and determine how often the vendor will pick up sharps waste from the municipality. Staff will also need to determine how residents will contact the municipality to request containers and let the municipality know when the containers are ready to be picked up. Staff will need to set up that line of communication (phone calls, online form, or email) and advertise it. Employees will need to purchase containers and develop a system of distributing the containers to residents’ homes as needed. They will also need to develop a system to monitor and respond to pick-up requests from residents.
  o **Ongoing Labor:** Staff will need to promote the program, distribute containers to residents, collect containers from residents’ homes, and store containers for pickup by the vendor. They will need to evaluate the success of the program at least yearly to understand any necessary changes to the program promotion, budget, or logistics.

• **Mail-Back Program**
  o **Prior to Program Launch:** Staff will need to secure a vendor, purchase prepaid shipping labels and shipping containers, and, depending on how the program works, develop a system of distributing the containers to residents. This may include ordering and distributing mail-back supplies to residents’ homes upon request, providing information so that residents can order supplies directly from the vendor, or having residents pick up supplies at a central location.
  o **Ongoing Labor:** Staff will need to promote the program; purchase containers, shipping boxes, and prepaid shipping labels; and distribute these if necessary. They will need to evaluate the success of the program at least yearly to understand any necessary changes to the program promotion, budget, or logistics.

• **HHW Facilities / Collection Events**
  o **Prior to Program Launch:** The labor for this program would be integrated into existing HHW operations and might borrow elements, such as kiosks, from the other three program types. Staff will need to secure a vendor and determine how often the vendor will pick up sharps waste. Staff will need to purchase containers and establish a distribution system to provide them to residents, likely by having residents pick them up at the HHW facility. For collection events, staff will need to ensure outreach
about the event notifies the community that sharps will be accepted, and that used sharps must be safely stored in approved containers. Communications about these events should be shared regularly in multiple languages to reach a wide audience.

- **Ongoing Labor:** Staff will promote the program, purchase containers, distribute them, accept full containers from residents, and store the containers until the vendor picks them up. They will need to evaluate the success of the program at least yearly to understand any necessary changes to the program promotion, budget, or logistics.

- **Healthcare Network Model:**
  - **Prior to Program Launch:** Staff will need to secure a vendor and identify a central location to store sharps collection containers. Designating an individual to oversee the program, order supplies, and ensure supplies are distributed throughout the healthcare system will facilitate a smooth rollout. If utilizing a drop-off program, staff will need to secure kiosks and identify clearly visible locations to install kiosks. If using a mail-back program, staff will need to confirm that the mail carrier offers services in the area being served by the program. Staff will need to develop a system to distribute containers to patients (e.g., via pharmacy department, during regular appointments, etc.). Staff will need promote the program via word of mouth, providing educational materials to patients (see: Appendix 2, Example 2), and/or through including information about the program in newsletters and websites.
  - **Ongoing Labor:** Staff will promote the program, distribute supplies to patients, educate patients on how to use the program, monitor inventory, and re-order supplies. Staff will need to monitor kiosks and coordinate pick-up of full containers with vendors. They will need to evaluate the success of the program at least yearly to understand any necessary changes to the program promotion, budget, or logistics.

**Transportation and Disposal Costs**

Transportation and disposal costs are often combined in a sharps disposal program. In mail-back programs, the container as well as the shipping and disposal costs are included in the cost of the mail-back supplies. An important consideration for rural areas is the shipping carrier used for mail-back programs, as additional fees could be incurred if a carrier does not regularly provide service to an area. In kiosk/drop-off programs, door-to-door programs, or HHW programs/collection events, the vendor will often transport and arrange for safe disposal of collected sharps. Vendors will also typically provide a storage container or kiosk and liners for use at drop-off facilities. Disposal costs vary among municipalities based on size, number of pickups needed, individual vendors, and the number of program participants. Transportation and disposal costs, as well as collection and operation costs, may change with increased usage rates. For example, while unit costs might fall with a larger bulk order, transportation and disposal costs may increase. See “Hypothetical Cost Estimation Example” below for more detail.
Education and Outreach Costs

Education and outreach are crucial to developing a sharps collection program that is well used by the public. In the three case studies presented above, a variety of educational methods are used but contacts at each location indicated the need for increased resident education. All three locations post information on their webpages. In Durant, information about the program is included with residential water bills. In Midwest City, information about the program is occasionally distributed to doctors’ offices and pharmacies. In Pawnee Indian Health Services and Choctaw Nation Health Services, outreach is conducted via posters and printed materials displayed in health clinics, and healthcare providers speaking with patients about safe disposal. Additional public outreach is conducted via newsletters and websites. However, all case studies stressed that ongoing education efforts were needed year-round using a variety of media platforms (i.e., newspaper, radio, Twitter, Facebook) to reach demographics of all ages. None of these locations tracked the costs of their education and outreach for this program separately from other program components.

A resident survey could help inform outreach strategies for your program. Other options for promoting the program include flyers, fact sheets, social media campaigns, and newsletters. Determining how much staff time you plan to devote to communications will help you estimate costs. In take-back programs for paint, PSI estimates that education expenses are often about 10% of total program costs.21

Image 12: Program promotion poster displayed above the collection kiosk at Choctaw Nation McAlester Clinic.

Image 13: Educational program promotion postcards displayed on the medication safety tips table at Choctaw Nation Idabel Clinic. See: Appendix 2, Example 2, for the full image of both sides of the postcard.

21 Based on an examination of PaintCare reports across active state programs for the most recently reported two years. [https://www.paintcare.org/paintcare-states](https://www.paintcare.org/paintcare-states)
**Figure 4: Case study cost comparison.** The table below summarizes program costs and containers distributed from the five case studies. The Solid Waste Agency of Northern Cook County (SWANCC), Illinois sharps disposal program is used for comparison.

<table>
<thead>
<tr>
<th></th>
<th>Durant (Door-to-Door Pickup)</th>
<th>Midwest City (Mail-Back)</th>
<th>Pawnee IHS (Mail-Back)</th>
<th>SHOTS (Collection)</th>
<th>Choctaw Nation Health Services</th>
<th>SWANCC (Drop-Off)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>18,673</td>
<td>57,407</td>
<td>15,000</td>
<td>Urban Area</td>
<td>200,000</td>
<td>750,000</td>
</tr>
<tr>
<td>Total Annual Cost</td>
<td>$12,000</td>
<td>$14,419</td>
<td>$10,000 - $15,000</td>
<td>$6,000 - $8,000</td>
<td>$13,000 - $22,500</td>
<td>$32,000 - $35,000</td>
</tr>
<tr>
<td>(Estimated; Not including education or labor)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Container Costs</td>
<td>$1,300</td>
<td>$14,419</td>
<td>$10,000 - $15,000</td>
<td>$1,000</td>
<td>$2,689</td>
<td>$20,000</td>
</tr>
<tr>
<td>Annual Disposal Costs</td>
<td>$10,700</td>
<td>N/A</td>
<td>N/A ($7000</td>
<td>N/A</td>
<td>N/A ($12,000 - $15,000</td>
<td></td>
</tr>
<tr>
<td>Containers Distributed Annually</td>
<td>200 (1-Gallon)</td>
<td>240 (2-Gallon)</td>
<td>70 mail-back containers</td>
<td>N/A</td>
<td>260 1.4 qt containers (Program Ongoing)</td>
<td>3,700 (1-Quart &amp; 3,456 (1-Gallon)</td>
</tr>
<tr>
<td>Capacity Distributed Annually (Gallons)</td>
<td>200</td>
<td>480</td>
<td>24.5</td>
<td>N/A</td>
<td>91 (as of June 2023)</td>
<td>4,381</td>
</tr>
<tr>
<td>Estimated Number of Program Users</td>
<td>100</td>
<td>240</td>
<td>70</td>
<td>N/A</td>
<td>6,000+</td>
<td>2,190</td>
</tr>
<tr>
<td>Estimated Usage Rate among Potential Program Participants (i.e., Sharps Users)</td>
<td>20%</td>
<td>15%</td>
<td>N/A</td>
<td>N/A</td>
<td>20%</td>
<td>11%</td>
</tr>
<tr>
<td>Annual Cost Per Capita</td>
<td>$0.64</td>
<td>$0.25</td>
<td>$1</td>
<td>N/A</td>
<td>$0.11</td>
<td>$0.04</td>
</tr>
<tr>
<td>Cost Per Estimated Number of Sharps Program Users</td>
<td>$120</td>
<td>$60</td>
<td>$37</td>
<td>N/A</td>
<td>$86</td>
<td>$15</td>
</tr>
</tbody>
</table>
Hypothetical Cost Estimation

The following hypothetical example will help you understand the factors to consider while estimating costs. Use the information in this report only as a preliminary tool to evaluate your options. Contact vendors to receive an accurate cost estimate.

**Hypothetical scenario:** An urban community of about 80,000 residents is interested in a medical sharps collection program. They decide to do a drop-off/kiosk collection program because their community is densely populated, but they would prefer not to invest labor in door-to-door service due to the large population size. Municipal collection locations like city hall, police stations, and libraries are very accessible to residents.

According to national statistics, about 2.94% of the U.S. population uses sharps, so the community estimates about 2,352 of their residents use sharps.

\[
80,000 \text{ residents} \times 2.94\% = 2,352 \text{ estimated sharps users}
\]

The community looks at the usage rates of SWANCC and Midwest City, because they are most similar in size and program design. Since they will also be launching a rigorous education and promotion campaign, they anticipate an 18% usage rate, slightly higher than Midwest City. Using this goal, the community estimates that there will be 423 program participants.

\[
2,352 \text{ sharps users} \times 18\% = 423 \text{ program participants}
\]

PSI estimates that a sharps user may use about 2 one-gallon containers per year. Therefore, this community estimates that they will need to purchase 846 containers. The community estimates that the one-gallon containers will cost about $7 each.

\[
423 \text{ program participants} \times 2 \text{ one-gallon containers} = 846 \text{ containers per year}
\]

\[
846 \text{ containers per year} \times 7 \text{ each} = 5,922 \text{ per year}
\]

They estimate that disposal costs will be between those of Durant and SWANCC because their population is between the size of these communities. They make an initial estimate that disposal will cost $11,000.

The community plans to devote some of their communications staff's time to this project and will have one existing employee devote a quarter of their time to facilitate the operations of the program.

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PSI Product Stewardship Institute | June 15, 2023
Medical Sharps Collection in Oklahoma

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These estimates allow the community to determine whether their program design is viable and compare it to other options. They then contact vendors to get a quote tailored for their community.

<table>
<thead>
<tr>
<th>COST TYPE</th>
<th>ANNUAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTAINER COSTS</td>
<td>$5,922</td>
</tr>
<tr>
<td>DISPOSAL COSTS</td>
<td>$11,000</td>
</tr>
<tr>
<td>TOTAL OPERATIONS COSTS</td>
<td>$16,922</td>
</tr>
<tr>
<td>LABOR AND EDUCATION COSTS</td>
<td>0.25-0.5 FTE</td>
</tr>
</tbody>
</table>

*Obtain Quotes and Select a Vendor*

The table on the following page (Figure 5) contains a list of vendors that offer sharps disposal services in Oklahoma, along with the type of service they provide, region serviced, and contact information. Examine the services that a vendor provides to determine which option might be best for your intended program design.

Be sure to look for a vendor that provides the services you need for your chosen program design in your region. Depending on your needs, determine whether the vendor provides mail-back containers, prepaid shipping labels and boxes, local pickup services, and sharps containers for residents. Some vendors will provide the smaller (one-quart or one-gallon) containers for residents to use, whereas others might only offer larger reusable containers, which are better for the environment but may not work for your program design. It is possible to use multiple vendors, as one case study community (SWANCC) did, to provide different equipment and services. Also, take into consideration whether your vendor has a permitted disposal facility in Oklahoma. Reducing transportation distances may reduce costs and will also reduce greenhouse gas emissions, while supporting jobs in the state.

Figure 5: List of sharps disposal vendors that service Oklahoma. The following table lists current vendors available to municipalities in Oklahoma. It is best practice to reach out to multiple vendors and compare quotes to determine which is the best fit for your community. Consider contacting local medical clinics, veterinarians, or animal shelters and inquiring about their providers to see who is already serving the area. Contact vendors directly for up-to-date information.

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Website</th>
<th>Phone</th>
<th>Mail-Back?</th>
<th>Pick-up/Transport Services?</th>
<th>Supplies Containers?</th>
<th>Final treatment in-state?</th>
<th>Facility Type and State Permit Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Waste Solutions</td>
<td><a href="https://cwsmed.com">https://cwsmed.com</a></td>
<td>877-967-2389</td>
<td>No</td>
<td>Yes</td>
<td>Yes — Residential &amp; Large storage</td>
<td>Yes. Medical waste collection &amp; transfer station. Transfer Station — Permit No. 3572058</td>
<td></td>
</tr>
<tr>
<td>Covanta</td>
<td><a href="https://www.covanta.com">https://www.covanta.com</a></td>
<td>862-345-5000</td>
<td>Yes</td>
<td>No</td>
<td>Yes — Large storage</td>
<td>No. Medical waste processor. Processing completed out of state.</td>
<td></td>
</tr>
<tr>
<td>Daniel's Health</td>
<td><a href="https://www.danielshhealth.com/sharps-disposal">https://www.danielsh health.com/sharps-disposal</a></td>
<td>855-251-2655</td>
<td>No</td>
<td>Yes</td>
<td>Yes — Residential &amp; Large storage</td>
<td>No. Processing completed out of state.</td>
<td></td>
</tr>
<tr>
<td>CYNOTOX</td>
<td><a href="https://cyntox.com">https://cyntox.com</a></td>
<td>877-963-3277</td>
<td>Yes; sister company SharpAssure (855-974-2777)</td>
<td>Yes</td>
<td>Yes — Residential &amp; Large storage</td>
<td>No. Medical waste collection &amp; transfer station. Transfer Station — Permit No. 3572056</td>
<td></td>
</tr>
<tr>
<td>OK Medical Waste Disposal</td>
<td><a href="http://okmwd.com">okmwd.com</a></td>
<td>405-309-7693</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes. Medical Waste Processing Facility. Processing Facility — Permit No. 3555068</td>
<td></td>
</tr>
<tr>
<td>Sharps Compliance</td>
<td><a href="https://www.sharpsinc.com/medical-waste">https://www.sharpsinc.com/medical-waste</a></td>
<td>800-772-5657</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes — Residential &amp; Large storage</td>
<td>No. Processing completed out of state.</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td><a href="https://www.stericycle.com/service-locations/oklahoma">https://www.stericycle.com/service-locations/oklahoma</a></td>
<td>866-783-6275</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes — Residential &amp; Large storage</td>
<td>Yes. Medical Waste Processing Facility &amp; Transfer Station. Processing Facility &amp; Transfer Station — Permit No. 3541014 &amp; 3555049</td>
<td></td>
</tr>
</tbody>
</table>
Step Four: Implement, Promote, and Evaluate

The final step toward building a successful program is implementing, promoting, and evaluating your program. Implementing your program will require working closely with your vendor and staff, and being flexible and willing to adjust your program design. Promoting your program is also critical to ensure it is well used. In this section, we have compiled some tips and best practices for implementing your program from experienced practitioners.

Tips for Preparation and Implementation

Sharps Containers

- Ordering sharps containers directly from a vendor on an as-needed basis can help your program run smoothly and stay within budget.
- Having sharps containers available for residents at the same location as container drop-off sites and where containers are picked up for disposal can allow for a streamlined process that is convenient for the resident.
- Minimize your staff’s exposure to sharps by keeping them in containers, using mail-back, and/or having clear protocols for dealing with loose or unsafely disposed sharps.

Drop-Off Kiosks and Programs

- If using drop-off kiosks, consider the potential benefits of placing kiosks outdoors to reach more participants who may be more likely to use the site off-hours and outside of a municipal building or business.
- If placing drop-off kiosks outside, consider also placing a trash and recycling receptacle near the kiosk to ensure that residents can clearly see disposal options. In addition, consider coordinating with relevant municipal staff about appropriate logos and colors to align with existing infrastructure in the vicinity of the kiosk.
- For any program, but especially if placing drop-off kiosks in non-monitored locations, be sure to alert residents to exactly what can and cannot be disposed of through the program. Clearly identify sharps devices that cannot be accepted by the program, such as devices that may contain unused medication (e.g., epi-pens) or batteries (e.g., electronic diabetes devices).
- Having residents drop off containers “over-the-counter” to employees at pharmacies can help preserve floor space in a small/crowded store because no kiosk is needed. It can also make it easy for residents to exchange a full container for a new, empty one. However, staff

We have a main recycling Center here in the city of Stillwater, we’ve had it since 2008. And so we decided to put that bin at that location, because we have many people every day, every week, every month, that come up to do their normal recycling and just thought that was a great place to put the bin.

Chris Knight, Solid Waste Director, Stillwater Recycling Center
will need to spend more time servicing residents, which may be more costly for the pharmacy.

**Funding and Vendor Selection**

- Keeping the program free for residents (i.e., allowing residents to participate without paying a separate fee) is important for encouraging participation and keeping your community safe.
- If you are having trouble finding a vendor for sharps disposal, consider contacting local medical clinics, veterinarians, or animal shelters and inquiring about their providers to see who is already serving the area.

**Tips for Promotion and Education**

- Use existing communication channels where residents already get information from you.
  - *Examples:* Durant, OK, puts information on their sharps program onto residents’ yearly water bills. SWANCC uses existing municipal newsletters and websites.
- Reach different demographics with different promotional methods.
  - Social media is good for reaching millennials and younger generations. Consider various social media platforms, such as Facebook, Instagram, Twitter, Snapchat, and more, to reach different segments of the population.
  - Advertising at community organizations and in newspaper ads can help reach older residents.
  - Education and materials in assisted living communities, pharmacies, and doctors’ offices can help reach the elderly and anyone with chronic conditions.
- Consider the benefits of educating department staff within the municipality who may have some engagement with the program. Individuals may have misconceptions about who may be using these collection programs and trying to dispel any doubts about the importance of these collection programs early will be key to success.
- Coordinate with municipal communications staff early when developing the program to identify strategies to engage and educate the public quickly.
- Develop educational and promotional materials in multiple languages to ensure that all residents can easily access information about the program.
- If you have both sharps and medications collection programs, clear and frequent education for residents about the need to dispose of these two products separately is imperative.

**Sample Promotional Materials**

PSI has compiled several sample promotional materials from our case studies and other programs across the country. See Appendix 2 for the following examples:

- PSI/DEQ, OK, Promotional Materials for 2022 Pilot Project
- PSI/EPA R6/OMSDC, OK, Promotional Postcards for 2023 Infrastructure Expansion Project
- PSI/EPA R6/OMSDC, OK, Promotional Poster for 2023 Infrastructure Expansion Project
- Durant, OK, Promotional Flyer
Data Collection and Evaluation

It is important to collect data and evaluate your program so that you can improve it, help determine your future budget, and prioritize communities for promotion. More broadly, you can support a growing compilation of information about sharps collection programs across the state and country — for which there is currently sparse data — and be part of a movement to inform national best practices. We recommend that you collect data for your own use and start locally by sharing your data with the OMSDC who can distribute it to interested members of the community.

At a minimum, we recommend that you collect the following data:

- **Number of residents who are taking advantage of the program**: Ideally, keep track of the number of residents who are participating in the program if possible (e.g., track the number of residents who pick up mail-back supplies or request curbside pickup, partner with a participating pharmacy to track the number of residents who pick up sharps containers over the counter, etc.) so that you can estimate how much of the sharps user population you are reaching. At the very least, keep track of how many containers are being distributed. Work with your local health department to estimate the number of sharps users in your community, how many are taking advantage of the program, and why some may not be. A resident survey may be necessary to obtain this information.

- **Number of containers that are being returned**: Using a tracking number or a simple count, keep track of the number of containers that have been distributed and how many are being returned or mailed back. This will help you understand how often the program is being used.

- **How residents learned of the program**: Using a tear-off survey, mailed survey, anonymous online survey, or similar mechanism, determine how residents have learned about your program so that you can concentrate promotion through those method(s).

- **Identify gaps in outreach**: Using surveys or other tools, identify the communities that are not being reached through your promotion or who are not participating in the sharps return program. These gaps could be demographic or geographic segments of the population. Concentrate your promotion in those areas and tailor your promotional methods to those segments of your community.

- **Annual costs**: Keep a record of your annual costs, and, to the extent possible, break down those total costs by collection and operations costs, transportation and disposal costs, and education and promotion costs. Having an accurate record of the costs of containers, labor, disposal, education, incidentals, and overhead can help you plan for the future and provide crucial information for other municipalities that are interested in starting a program.
4. **Summary**

The need for a safe needle disposal program to reduce the potential for injury and infection and costly maintenance problems is clear and increasing as more people use sharps to manage medical conditions in their homes. Municipalities can help address this need within the context of existing programs. The information laid out in this guide can help you become one of the municipalities that provides a sharps take-back service to residents, removes sharps from the waste stream, and protects its community and waste processing infrastructure.

There are examples of municipal medical sharps collection programs in Oklahoma and across the U.S., but many communities do not collect data on their programs. Several programs we interviewed did not have the resources to make an informed decision about which program model was best for them, and simply chose the first program model they came across. In creating your own medical sharps collection program, not only will you be making your community a safer place, but you can also contribute to a growing compilation of data about sharps collection program best practices so that other municipalities can make their communities safer, too. You can start by sharing information locally, and by joining the OMSDC and sharing your experiences with the group.

To establish a municipal home-generated sharps collection program, it is crucial to remember these four key steps:

1. Understand your community’s needs
2. Select a program model or models
3. Estimate your costs and select a vendor
4. Implement, promote, and evaluate your program

With a proper understanding of your community’s needs and the options available to you, these four steps will set your community up for a successful roll-out of your new sharps program. Your new sharps collection program will promote safety in your community and help inform a broader movement towards safe disposal across the country.

*First, I would say, they need to learn how to safely handle sharps. That is probably the number one thing, and then really having a well thought out like plan of how we are going to get people to engage in the service and use it. And then incorporating those people into that process.*

Andrea Haddox, Executive Director, Oklahoma Harm Reduction Alliance
Join OMSDC!

The Oklahoma Meds & Sharps Disposal Committee (OMSDC) is a coalition of professionals working on a statewide solution for the safe disposal of medical sharps and leftover pharmaceuticals for Oklahoma residents.

Funded by the Oklahoma Department of Environmental Quality with facilitation and technical support from the Product Stewardship Institute, we meet periodically to share information and to develop solutions.

To join and learn more, check out our website:

oksafemeddisposal.org
5. **Appendix 1: Considerations for Selecting a Program Model**

The following table summarizes considerations for municipalities interested in establishing sharps take-back programs.

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Key Questions</th>
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| Population           | How large is your community? How many people within your community are likely to use medical sharps? How many of the medical sharps users in your community do you expect to participate in the program?  
*Buying sharps containers in bulk will result in a smaller unit cost, but the total program cost will be higher for larger populations. A larger population with high program utilization rates may make door-to-door pickup programs more challenging to implement, for example, because of the high per capita cost or if labor demands to run the program exceed your available staffing.* |
| Geography            | How rural or urban is your community? How spread out are the residents?  
*A dispersed community poses challenges for convenience and costs. Longer transportation times may make door-to-door pick-up programs more costly and therefore less attractive to the municipality. Drop-off programs may be less accessible for residents owing to long travel time. Mail-back programs may be the best fit for rural communities where drop-off and door-to-door programs are infeasible.* |
| Age Demographics     | What are the demographics of the population you serve?  
*Populations that skew older may have increased need for medical sharps to manage a variety of medical conditions, including diabetes. Other populations at greater risk for diabetes — for example overweight populations and low-income communities — may also have increased needs.*  
*Younger populations might be more easily educated about the program through social media and internet sources, whereas older populations might be reached more effectively through print media or community organizations.* |
| Collection Locations  | What collection locations are there for residents to drop-off their sharps containers? Consider retail pharmacies, HHW facilities, city halls, police stations, |

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| **Existing Solid Waste Collection Programs** | What existing pharmaceuticals, medical waste, or household hazardous waste collection programs are there in your community? How do these programs operate? Who are the program vendors? Are there opportunities to integrate sharps collection into these programs using the same vendor or drop-off locations?

*Utilizing existing infrastructure (e.g., existing communications, existing collection locations, existing vendors) can help integrate a new program more easily and more cost effectively into your ongoing operations. It can also make it easier to educate and promote program adoption among residents.*

*Existing pharmaceuticals take-back programs offer a unique opportunity to provide simultaneous collection services for medical sharps. However, clear and frequent education about the need to deposit medication in the medication kiosk only and sharps in the sharps kiosk only (rather than mixing them in one container), is absolutely imperative.* |

| **Funding** | What are your options for funding this program? What is your total budget? Will residents need to pay an additional fee to participate?

*Knowing your available budget or budget range will help you understand how heavily to weigh cost among program selection criteria and to evaluate your programs options.* |
6. Appendix 2: Sample Promotional Materials

Example 1: Stillwater, Tahlequah, & Tulsa Promotional Flyer

FREE MEDICAL SHARPS CONTAINERS & SAFE DISPOSAL!
(No questions asked.)

Protect your family, community, sanitation workers, and the environment by safely disposing of your used needles, syringes, lancets, and other sharps at one of these pilot locations now through mid-May 2022:

**Stillwater Convenience Collection Center**
807 S. Perkins Road (8th Avenue and U.S. 177), Stillwater, OK 74074
T-F, 10am-6pm
Sat, 8am-4pm
Contact: Chris Knight (405) 533-8424

**SHOTS at the H.O.P.E. Testing Clinic**
3540 E. 31st Street, Suite 3, Tulsa, OK 74135
M-TH, 9am-5pm
Contact: Jennifer Sharp (918) 640-6596
Alexia Bottoms (214) 995-1925
hopetesting.org

**Cherokee County Health Services Council**
135 N. Muskogee Ave., Tahlequah, OK 74464
M-F, 8:30am-4:30pm
Contact: Marcus Buchanan (918) 506-4058

**Oklahoma Harm Reduction Alliance (OKHRA)**
3rd Sat. of each month
1420 E. Dewey Ave., Sapulpa, OK 74066
501 S. Cincinnati Ave., Tulsa, OK 74103
Contact: Andrea Haddox (539) 302-7213
@oklahomahra on social okhra.org

Questions about this project? Visit bit.ly/OKsharpspilot or contact the Product Stewardship Institute (PSI) at 617-236-4771.

This six-month pilot is supported by a solid waste management grant from the Oklahoma Department of Environmental Quality.
Example 2: OMSDC Medical Sharps Collection Infrastructure Expansion Project, Promotional Postcard: Side One

Don't get stuck.
Medical sharps are life-savers, but in the trash or drain, they can harm people and the environment.

Ask about sharps mail-back or drop-off programs.

Example 2: OMSDC Medical Sharps Collection Infrastructure Expansion Project, Promotional Postcard: Side Two

How to safely dispose of sharps.

1. Request a free sharps disposal container (available while supplies last through May 2023).
2. At home, fill the container with used sharps. Once full, snap on the permanent locking lid and adhere the security tape across the top.
3. Bring the container back to the collection site, place it in the tote or kiosk, and request a new container.

Mailing in?

1. Place the locked and secured container into a zippered plastic bag and remove as much air as possible.
2. Place it into the postage-paid, mail-back box and secure with the adhesive liners.
3. Schedule a pick-up with UPS or drop off at a UPS store.
Don't get stuck.
Medical sharps are life-savers, but in the trash or drain, they can harm people and the environment.

Ask the Community Health Department about sharps drop-off programs.
Example 4: Durant Promotional Flyer
(Sent to residents with their water bill)

**Polycart Rules**

**DO**
- Place all trash inside the cart & keep lid closed at all times
- Household waste must be bagged
- Use water and household detergent to sanitize the cart as needed
- Place only household trash inside the cart

**DO NOT**
- Place hot substances such as charcoal or firewood embers in the cart
- Place flammables such as gasoline in the cart
- Place dead animals in the cart
- Place construction materials in the cart
- Overload the cart or place items outside of the cart
- Leave the cart curbside after collection

**ADDITIONAL RULES**
- Set cart at curb with arrows on lid pointing toward the street for collection not more than 24 hours prior to the day of collection and not later than 6:00 am on the scheduled day of collection
- Be sure cart is within 2 feet of the curb and 10 feet away from mailboxes and vehicles
- The resident is responsible for safekeeping of the cart and must promptly report damage, loss, or theft to the utility office
- Cart shall be moved off of the right-of-way to the appropriate storage area before the end of the day of collection
- The resident may be charged for replacement or repair beyond normal wear and tear (varied amount)
- All carts remain the property of the city of Durant and are to remain at the residence to which they are assigned – do not move them if moving to a new address
- If a holiday falls on an assigned pick up day, trash will be picked up on the Wednesday of that week (see holiday pick up schedule for dates observed)
- An extra cart can be requested at an additional cost of $11.45/month by authorized persons on utility account

**Extra Hauling**

Free extra hauling is a monthly service for residential utility customers designed to keep miscellaneous debris from collecting and cluttering the city. It is limited to 6 cubic yards per month. Household garbage is not picked up on extra hauling days.

1. Free extra hauling begins at 6am on the first Saturday of each month. If the first Saturday of the month falls on a holiday, collection will occur the following Saturday
2. The resident must contact the Sanitation Department (931-6656 or 931-6660) at least three days prior to the collection date to schedule collection
3. Items may not be placed at the curb for collection greater than 24 hours prior to the scheduled collection day
4. Items for collection must be placed curbside no later than 6:00 AM on the scheduled day of collection
5. Leaves, grass clippings, and other debris must be placed in bags
6. This service is curbside only
7. Tree limbs must be stacked neatly and cut no longer than 6 feet in length and 2 inches in diameter
8. Branches and brush must be separated from other debris for chipping
9. Remodeling and commercial debris as well as dirt, rocks, bricks, concrete, etc. will not be picked up by the city
10. Tree stumps, trunks, and larger branches can be hauled with a special truck but must be identified to Public Works when scheduling collection

Additional Extra Hauling is available for a fee and must be scheduled with the Sanitation Department

(931-6656 or 931-6660)

**Sharps Containers**

The City of Durant offers pick up of sharps for disposal at no additional charge. Customers needing the service should call Public Works at (580) 924-8358. An empty container will be delivered to the customer’s address and will be picked up upon request. It is not necessary to explain the contents or reason for disposal. Loose needles in household trash are a potential hazard to waste department employees, the public, and the environment. The city will collect and store these items for proper disposal.
Example 5: Alameda County, CA, Promotional Posters
(Provided by MED-Project)