

Establishing Community Medical Sharps Programs

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

June 2022



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 (ODEQ), has determined through research and stakeholder engagement that that disposing of medical sharps (i.e., 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 convenient 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.,¹ resulting in home-generated medical sharps waste.

The Problem

After use, home-generated medical sharps are often unsafely disposed of. Seven percent of needles are flushed, and an estimated 3 billion sharps enter the U.S. municipal solid waste stream each year as trash.² The U.S. Food and Drug Administration (FDA)³ and the U.S. Environmental 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

¹ Environmental Research & Education Foundation (EREF). "Household Needles in Municipal Solid Waste (MWS) Report." 2018. <https://erefdn.org/product/household-needles-in-municipal-solid-waste-msw-report-pdf/>.

² Markkanen, Pia et al. "Understanding sharps injuries in home healthcare: The Safe Home Care qualitative methods study to identify pathways for injury prevention." *BMC public health* vol. 15 359. 11 Apr. 2015, doi:10.1186/s12889-015-1673-x <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4414288/>.

³ U.S. Food and Drug Administration. "Safely Using Sharps (Needles and Syringes) at Home, at Work and on Travel." 30 August 2018. <https://www.fda.gov/medical-devices/consumer-products/safely-using-sharps-needles-and-syringes-home-work-and-travel>

⁴ U.S. Environmental Protection Agency. "Protect Yourself, Protect Others." June 2006. https://www.epa.gov/sites/production/files/2016-02/documents/med-home_0.pdf

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 thousands⁵ 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

Costly Maintenance Problems

⁵ Substance Abuse and Mental Health Services Administration (SAMHSA). "National Survey on Drug Use and Health: Summary of Methodological Studies, 1971–2014." 2014. <https://www.ncbi.nlm.nih.gov/books/NBK519735/>

⁶ Oklahoma Senate Bill 511. Approved by Governor Kevin Stitt April 20, 2021. <http://www.oklegislature.gov/BillInfo.aspx?Bill=SB511&Session=2100>

⁷ Hagan et al. (2020). "Reduced injection frequency and increased entry and retention in drug treatment associated with needle-exchange participation in Seattle drug injectors." *Journal of Substance Abuse Treatment* (3):247-52. <https://pubmed.ncbi.nlm.nih.gov/11027894/>

⁸ Product Stewardship Institute (PSI). "Product Stewardship Action Plan for Medical Sharps." 2008. https://www.productstewardship.us/global_engine/download.aspx?fileid=6A39CF16-E24F-4B8A-A595-CA627D8E209F&ext=pdf

⁹ Environmental Research & Education Foundation (EREF). "Household Needles in Municipal Solid Waste (MWS) Report." 2018. <https://erefdn.org/product/household-needles-in-municipal-solid-waste-msw-report-pdf/>

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 Oklahoma 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, OK 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 (HHW) facilities. 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

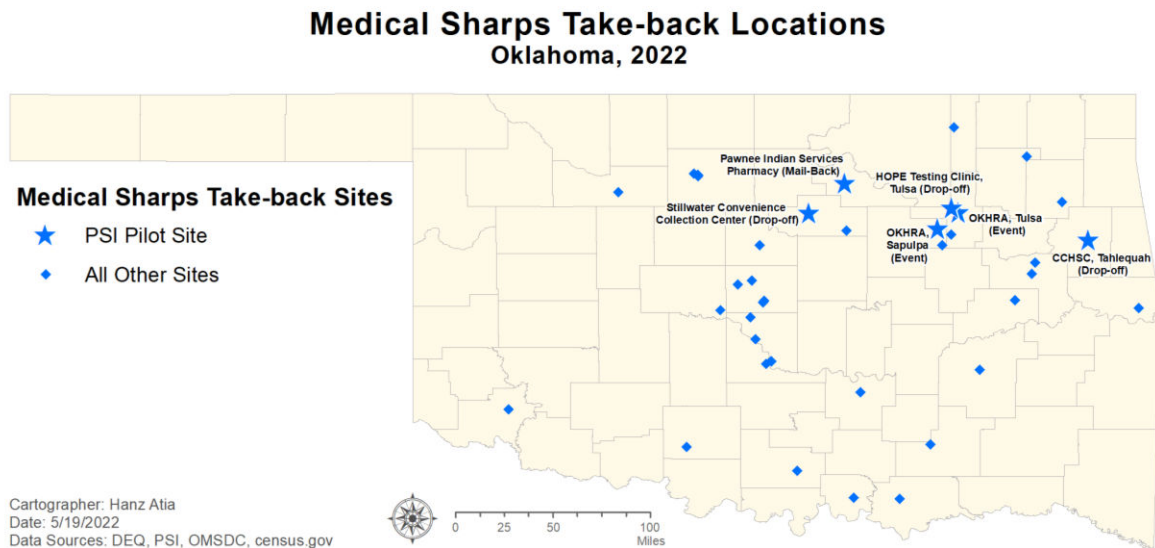
¹⁰ Environmental Research & Education Foundation (EREF). “Household Needles in Municipal Solid Waste (MWS) Report.” 2018. <https://erefoundation.org/product/household-needles-in-municipal-solid-waste-msw-report-pdf/>

¹¹ Markkanen, Pia et al. “Understanding sharps injuries in home healthcare: The Safe Home Care qualitative methods study to identify pathways for injury prevention.” *BMC public health* vol. 15 359. 11 Apr. 2015, doi:10.1186/s12889-015-1673-x <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4414288/>.

¹² Oklahoma Administrative Code, 252:515-23-4: Treatment. <https://www.deq.ok.gov/wp-content/uploads/deqmainresources/515-1.pdf>

¹³ U.S. Food and Drug Administration. “Best Way to Get Rid of Used Needles and Other Sharps.” 28 April 2021. <https://www.fda.gov/medical-devices/safely-using-sharps-needles-and-syringes-home-work-and-travel/best-way-get-rid-used-needles-and-other-sharps>

clinics accept sharps from their patients, and a limited number of businesses accept sharps from their employees in keeping with OSHA regulations.¹⁴ However, these collection opportunities are not available to the general public. In response, OMSDC, Oklahoma Department of Environmental Quality, 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.



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

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.

¹⁴ Occupational Safety and Health Administration, Bloodborne Pathogens Standard, 29 CFR 1910.1030.

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.

"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

There are four 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 four models should be considered when developing a new program. Models can also be combined into a customized program. For example, the San Francisco Safe Needle Disposal Program in California uses both volunteer pharmacies and HHW facilities as drop-off sites,¹⁵ and Santa Cruz County, CA, allows residents to choose between mail-back or drop-off at kiosks in

¹⁵ M. Johnson (personal communication, June 1, 2021). Program information: <https://www.sfdph.org/dph/alerts/syringe.asp>

local pharmacies.¹⁶ 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 four program models across key criteria.

Figure 1: Comparison of four 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.

	Mail-Back	Drop-Off/Kiosk	Door-to-Door Pickup	HHW Facility/ Collection Event
Strengths	<ul style="list-style-type: none"> Convenient, esp. for Lightly Populated Communities Minimal Labor Safest Accessible (e.g., Home-Bound Individuals) <p><i>*Existing Program in OK (Midwest City)</i></p>	<ul style="list-style-type: none"> Highly Cost-Effective Best for Large Volumes (Large Populations, High Usage Rates) 	<ul style="list-style-type: none"> Convenient Accessible (e.g., Home-Bound Individuals) Community Interaction with Municipal Staff <p><i>*Existing Program in OK (Durant)</i></p>	<ul style="list-style-type: none"> Cost-Effective Uses Existing Infrastructure
Challenges	<ul style="list-style-type: none"> Less Cost-Efficient 	<ul style="list-style-type: none"> Less Accessible for Home-Bound Individuals Less Convenient in Lightly Populated Communities 	<ul style="list-style-type: none"> Costly Most Labor Challenging in Larger Populations and/or Dispersed Communities 	<ul style="list-style-type: none"> Less Accessible for Home-Bound Individuals One or Few Collection Points With Collection Events, No On-Demand Access to Take-Back

¹⁶ T. Goncharoff (personal communication, May 25, 2021). Program information: <https://www.cityofsantacruz.com/government/city-departments/public-works/environmental-compliance/pharmaceuticals-and-sharps-disposal-program>

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.

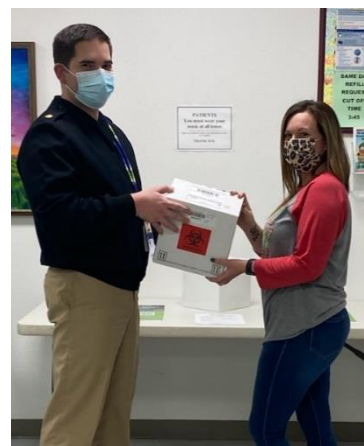


Image 1. Pharmacist provides resident with mail-back container for sharps collection in Pawnee, OK.

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



Image 2. Drop-off bin located at a collection site in Stillwater, OK.

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 accessible 24/7 to individuals

who may be using sharps for any purpose.¹⁷ 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.

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.



Image 3. Large outdoor drop-off kiosk near an HHW facility in San Mateo County, CA.

¹⁷ M. Rorke (personal communication, June 8, 2021). Program information: <https://www.denvergov.org/Government/Departments/Public-Health-Environment/Community-Behavioral-Health/Behavioral-Health-Strategies/Substance-Misuse-and-Overdose-Prevention>

Figure 2: Detailed comparison of the four 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.

	Mail-Back	Door-to-Door Pickup	Drop-Off/Kiosk	HHW Facility/ Collection Event
Cost/Person Range	Higher	Highest	Lowest	Lower
Supplies Required	Resident sharps containers Mail-back Boxes Prepaid shipping labels	Resident sharps containers Kiosk/storage container, protective liners depending on container	Resident sharps containers Kiosk/storage containers, protective liners depending on container	Resident sharps containers Kiosk/storage containers, protective liners depending on container
Services Required	Provide mail-back supplies to residents or municipality; receive and safely dispose of sharps	Provide large storage containers to municipality; pick up full storage containers regularly; safely transport and dispose of sharps	Provide kiosk(s); regularly check kiosk(s) and empty as needed; safely transport and dispose of sharps	Provide a kiosk or provide for safe transport and collection of residential containers; safely dispose of sharps
Municipal Labor Required	Distribute containers to residents if needed (if not mailed directly to residents)	Distribute and collect resident containers, and arrange for disposal	Distribute resident containers, arrange for disposal for municipal kiosks	Distribute and collect resident containers, and arrange for disposal
Geography	Convenient option for residents in all geographies, especially rural areas or those with home-bound individuals	Most cost effective in smaller and densely populated communities	Good option for high-volume collection (large populations, dense communities)	Good option for high-volume collection in communities with existing, permanent HHW facilities or events
Collection Points	Container delivery: home delivery or pickup at central location(s) Return: mail-back from home or post office	Container delivery: home delivery Return: home pickup	Receipt and return of container (exchange full for empty): retail pharmacies, police stations, city halls, hospitals, med. clinics, long-term care facilities	Receipt and return of container (exchange full for empty): household hazardous waste facilities and events
Consumer Convenience	High	High	Medium to low, depending on community	Medium to low, depending on community

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.¹⁸

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, Folsom, CA, uses pharmacies and fire stations,¹⁹ Northern Cook County, IL, uses city halls and police stations,²⁰ and San Francisco, CA, uses pharmacies and an HHW facility.²¹ 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.

¹⁸ M. Johnson (personal communication, June 1, 2021). Program information: <https://www.sfdph.org/dph/alerts/syringe.asp>

¹⁹ M. Santiago (personal communication, May 24, 2021). Program information: <https://www.folsom.ca.us/government/fire/services/public-sharps-collection-program>

²⁰ M. Allen (personal communication, April 27, 2021). Program information: <https://swancc.org/component/content/article/332-frequently-asked-questions>

²¹ M. Johnson (personal communication, June 1, 2021). Program information: <https://www.sfdph.org/dph/alerts/syringe.asp>

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 three case studies, two from Oklahoma and one from Illinois, demonstrate how a mail-back program, a door-to-door program, and a drop-off program are currently providing crucial sharps disposal services to their communities.

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); participants do not pay a separate fee

Cost Per Estimated Sharps User: \$120 (\$0.64 per capita)

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.

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); participants do not pay a separate fee

Cost Per Estimated Program User: \$60 (\$0.25 per capita)

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.



Image 5. Two-gallon container that is packed in shipping box and mailed for disposal when full.



Image 6. 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 7. Residential storage containers from SWANCC (see Case Study 3).

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 Sharps 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 containers were dispensed within the first month of the program.



Image 8: Sharps mail-back container and box

Case Study Three: 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 Sharps User:



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

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

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.²²

²² Markkanen, Pia et al. "Understanding sharps injuries in home healthcare: The Safe Home Care qualitative methods study to identify pathways for injury prevention." *BMC public health* vol. 15 359. 11 Apr. 2015, doi:10.1186/s12889-015-1673-x <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4414288/>.

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

	Individual Containers for All Except Mail-back	Mail-Back Containers, Shipping Boxes, and Prepaid Shipping Labels
One-Quart Containers	\$2-7 each	\$20-40 each
One-Gallon Containers	\$6-10 each	\$35-60 each

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.
 - **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**
 - **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.

- **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**
 - **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.
 - **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**
 - **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.

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. 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 SWANCC, some public outreach is conducted via newsletters and websites. However, all three mentioned that funding for education was insufficient, and 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.²³

Figure 4: Case study cost comparison. The table below summarizes program costs and containers distributed from the three case studies.

	Durant (Door-to-Door Pickup)	Midwest City (Mail-Back)	SWANCC (Drop-Off)	Pawnee IHS (Mail-Back)	SHOTS (Collection)
Population	18,673	57,407	750,000	Rural Area	Urban Area
Total Annual Cost (Estimated; Not including education or labor)	\$12,000	\$14,419	\$32,000-\$35,000	\$10,000 - \$15,000	\$6,000-\$8,000
Annual Container Costs	\$1,300	\$14,419	\$20,000	\$10,000 - \$15,000	\$1,000

²³ Based on an examination of PaintCare reports across active state programs for the most recently reported two years.
<https://www.paintcare.org/paintcare-states>

	Durant (Door-to-Door Pickup)	Midwest City (Mail-Back)	SWANCC (Drop-Off)	Pawnee IHS (Mail-Back)	SHOTS (Collection)
Annual Disposal Costs	\$10,700	N/A (included in container costs)	\$12,000-\$15,000	N/A	\$6,000 - \$7000
Containers Distributed Annually	200 (1-Gallon)	240 (2-Gallon)	3,700 (1-Quart) & 3,456 (1-Gallon)		
Capacity Distributed Annually in Gallons	200	480	4,381		
Estimated Number of Program Users	100	240	2,190		
Estimated Usage Rate among Potential Program Participants (i.e., Sharps Users)	20%	15%	11%		
Annual Cost Per Capita	\$0.64	\$0.25	\$0.04		
Cost Per Estimated Number of Sharps Program Users	\$120	\$60	\$15		

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,²⁴ so the community estimates about 2,352 of their residents use sharps.

$$80,000 \text{ residents} * 2.94\% = 2,352 \text{ estimated sharps users}$$

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.

$$2,352 \text{ sharps users} * 18\% = 423 \text{ program participants}$$

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.

$$423 \text{ program participants} * 2 \text{ one-gallon containers} = 846 \text{ containers per year}$$

$$846 \text{ containers per year} * \$7 \text{ each} = \$5,922 \text{ per year}$$

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.

²⁴ 8-9 million Americans are estimated to use medical sharps to manage conditions at home. Markkanen, Pia et al. "Understanding sharps injuries in home healthcare: The Safe Home Care qualitative methods study to identify pathways for injury prevention." *BMC public health* vol. 15 359. 11 Apr. 2015, doi:10.1186/s12889-015-1673-x <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4414288/>.

COST TYPE	ANNUAL COST
CONTAINER COSTS	\$5,922
DISPOSAL COSTS	\$11,000
TOTAL OPERATIONS COSTS	\$16,922
LABOR AND EDUCATION COSTS	0.25-0.5 FTE

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.

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.



Image 8. Stericycle individual containers for sharps medical waste disposal.

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.**

Vendor	Website	Phone	Mail-Back?	Pick-up/ Transport Services?	Supplies Containers?	Facility Type and State Permit Number
Capital Waste Solutions	https://cwsmed.com	877-967-2389	No	Yes	Yes — Residential & Large storage	Transfer Station — Permit No. 3572058
Covanta	https://www.covanta.com	862-345-5000	Yes	No	Yes — Large storage	<i>N/A (processing completed out of state)</i>
Daniel's Health	https://www.danielshealth.com/sharps-disposal	855-251-2655	No	Yes	Yes — Residential & Large storage	<i>N/A (processing completed out of state)</i>
MedAssure	https://www.medaassureservices.com/oklahoma.html	877-963-3277	Yes; sister company <u>SharpsAssure</u> (855-974-2777)	Yes	Yes — Residential & Large storage	Transfer Station — Permit No. 3572056
Medical Waste Services	https://medicalwasteservices.us/eco-guard-sharps-recovery-program/	866-355-7094	No	Yes	Yes — Residential	Transfer Station — Permit No. 3555067
OK Medical Waste Disposal	okmwd.com	405-309-7693	No	No	No	Processing Facility — Permit No. 3555068
Sharps Compliance	https://www.sharpsinc.com/medical-waste	800-772-5657	Yes	Yes	Yes — Residential & Large storage	<i>N/A (processing completed out of state)</i>
Sooner Medical Waste Management	https://www.soonermedicalwaste.com/	918-336-7000	No	Yes	Yes — Residential	Processing Facility — Permit No. 3568010
Stericycle	https://www.stericycle.com/service-locations/oklahoma	844-239-4325	Yes	Yes	Yes — Residential & Large storage	Processing Facility & Transfer Station — Permit No. 3541014 & 3555049

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

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

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/OK DEQ, OK, Promotional Materials for 2022 Spring Pilot Project
- Durant, OK, Promotional Flyer (Sent to residents with their water bill)
- Folsom, CA, Promotional Flyer (Available at City Hall)
- San Luis Obispo County, CA, Promotional Flyer

- Alameda County, CA, Promotional Posters

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.

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

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.

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:

<https://bit.ly/OKsharps>



5. Appendix 1: Considerations for Selecting a Program Model

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

Consideration	Key Questions
Population	<p>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?</p> <p><i>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.</i></p>
Geography	<p>How rural or urban is your community? How spread out are the residents?</p> <p><i>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.</i></p>
Age Demographics	<p>What are the demographics of the population you serve?</p> <p><i>Populations that skew older may have increased need for medical sharps to manage a variety of medical conditions, including diabetes.²⁵ Other populations at greater risk for diabetes — for example overweight populations and low-income communities — may also have increased needs.</i></p> <p><i>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.</i></p>
Collection Locations	<p>What collection locations are there for residents to drop-off their sharps containers? Consider retail pharmacies, HHW facilities, city halls, police stations,</p>

²⁵ Centers for Disease Control and Prevention. "Prevalence of Both Diagnosed and Undiagnosed Diabetes." 24 June 2020. <https://www.cdc.gov/diabetes/data/statistics-report/diagnosed-undiagnosed-diabetes.html>

	<p>hospitals, doctors' offices, parks, and libraries. Which are most accessible for your community?</p> <p><i>Consider which facilities might be most conveniently accessible for most potential program participants. Think in terms of hours of operation, physical accessibility, and proximity to residential areas. Consider areas that may currently receive high traffic and may be most convenient for individuals using sharps for different purposes, such as controlled drug use. Geographic Information System (GIS) technology can help ensure there are enough locations within a reasonable distance from most residents' homes. As a rule of thumb, some take-back programs, such as paint take-back programs in Vermont and Washington, use 15 miles away from 90% of residents as a convenience metric for drop-off locations. Others specify a number of sites within an area, such as each county in a state.</i></p>
Existing Solid Waste Collection Programs	<p>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?</p> <p><i>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.</i></p> <p><i>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.</i></p>
Funding	<p>What are your options for funding this program? What is your total budget? Will residents need to pay an additional fee to participate?</p> <p><i>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.</i></p>

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 Contacts: Jennifer Sharp (918) 640-6896 Alexa 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
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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 1: Pawnee Promotional Flyer



**FREE MEDICAL SHARPS CONTAINERS &
SAFE MAIL-BACK 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.
Ask your pharmacist for a sharps mail-back container at the following location:

**Indian Health Service
(IHS) Pharmacy**

1201 Heritage Circle
Pawnee, OK 74058

M-F, 8am-4:30pm

Contact: Kaileen Skidgel
(918) 762-6555

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

*Free sharps mail-back service runs until all available mail-back containers
are distributed or until mid-May 2022, whichever is earlier. This six-month pilot is supported
by a solid waste management grant from the Oklahoma Department of Environmental Quality.*



Example 2: 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 3: Folsom, CA, Promotional Flyer

(Available at City Hall)

SHARPS TAKE-BACK		RETAIL TAKE-BACK FOR PAINT	
<p>Sharps, such as home-generated needles, MUST BE KEPT OUT of your residential waste and recycling containers.</p> <p>The Folsom pharmacies and fire station listed below accept sharps FREE of charge. Sharps must be in an approved container, which may be supplied to you at no cost by the take-back locations:</p>		<p>State law requires paint manufacturers to provide for recycling paint in California. PaintCare, Inc. has established paint drop-off sites at these retailers in Folsom where residents and businesses can drop-off paint free of charge. Call ahead for details and restrictions.</p>	
Rite Aid	526 E. Bidwell St. (916) 984-7749	Kelly-Moore	435 Blue Ravine Rd. (916) 983-5186
Safeway	1850 Prairie City Rd. (916) 608-2455	Sherwin-Williams	306 E. Bidwell St. (916) 983-2207
Innovative Compounding Pharmacy	820 Wales Dr., Suite 3 (916) 984-9222	For acceptable products, go to www.paintcare.org .	
Revolutions Naturopathic	230 Blue Ravine Rd. (916) 351-9355		
Fire Station 35	535 Glenn Dr. (916) 461-6300		

SMALL BUSINESSES

We accept Universal Waste including electronics, batteries, and fluorescent lamps. Call (916) 461-6730 for a pick up.



NEIGHBORHOOD CLEAN-UP


Three times per year, the City will collect (non-hazardous) bulky items that won't fit into your trash can. These may include appliances, lumber, toys, etc. To schedule an appointment or for information about other recycling programs call (916) 461-6730.





CITY OF FOLSOM
PUBLIC WORKS DEPARTMENT
550 Natoma Street • Folsom, CA 95630

folsom.ca.us/hazmat



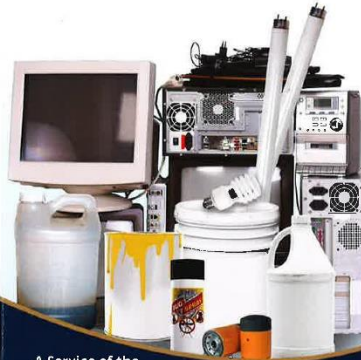
CITY OF FOLSOM
DISTINCTIVE BY NATURE

Give Your HHW

HOUSEHOLD HAZARDOUS WASTE

A Proper Send-off

IN THE CITY OF FOLSOM



A Service of the
City of Folsom
Department of Public Works
Hazardous Materials Division
(916) 461-6730

folsom.ca.us/hazmat

Example 4: San Luis Obispo County, CA, Promotional Flyer: Side One

The Problem

According to California State Law it is **illegal** to throw away Sharps into your garbage, recycling, or green waste cans!



What Are Sharps?

They include hypodermic needles, pen needles, intravenous needles, lancets, and other devices used to penetrate the skin for the delivery of medications at home.

Do

- **Do** pick up a **FREE** Sharps container from your local pharmacy.



- **DO** use an approved Sharps container to put used sharps in (see photo above). When it is full, **seal it** and return it to any San Luis Obispo County pharmacy for **FREE** disposal.
- **DO** use this program for home generated Sharps.

Don't

- **DON'T** put Sharps containers in your recycling, garbage, or green waste cans.
- **DON'T** flush Sharps down the toilet. Sharps that are flushed down the toilet may end up on our beaches and riverbanks.
- **DON'T** use this program for Sharps from medical facilities.
- **DON'T** put Sharps in bleach bottles, soda cans or bottles, juice bottles, glass containers or milk cartons.

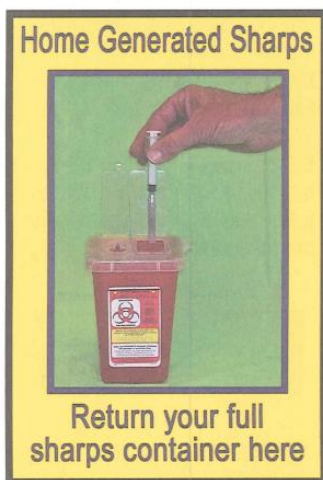


Example 4: San Luis Obispo County, CA, Promotional Flyer: Side Two

Take-Back Locations

Take back full Sharps containers to your local pharmacy for FREE disposal.

Look for this window sticker at your pharmacy.



Or visit us online at www.iwma.com for a location near you.

Brochure Sponsored by

The San Luis Obispo County Integrated Waste Management Authority and funded by a grant from the California Integrated Waste Management Board.



Zero Waste – You Make It Happen!

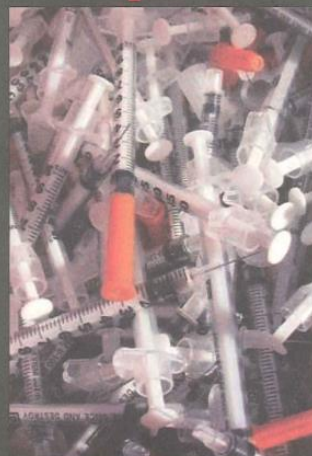
Please feel free to call or e-mail us if you have concerns or questions about Sharps Disposal inside the County of San Luis Obispo.

San Luis Obispo County IWMA:
(805) 782-8530
E-mail: iwma@iwma.com

**You Can Help
Prevent Needle
Stick Injuries!**

Printed on Recycled Paper 

Sharps Disposal



**How do I Safely Dispose
of My Home Generated
Needles and Syringes?**

Example 5: Alameda County, CA, Promotional Posters

(Provided by MED-Project)

