

Roadmap to Safe Disposal of Pharmaceuticals and Medical Sharps in Oklahoma

REPORT
June 2020



PSI | June 2020

Prepared by the Product Stewardship Institute, Inc.

1 Beacon Street
Boston, MA 02108

(617) 236-4855
www.productstewardship.us

The Product Stewardship Institute

The Product Stewardship Institute (PSI) is a national, membership-based nonprofit committed to reducing the health, safety, and environmental impacts of consumer products across their lifecycle with a strong focus on sustainable end-of-life management. Headquartered in Boston, Mass., we take a unique product stewardship approach to solving waste management problems by encouraging product design changes and mediating stakeholder dialogues. With 47 state environmental agency members, hundreds of local government members, and nearly 100 corporate, business, academic, non-U.S. government, and organizational partners, we work to design, implement, evaluate, strengthen, and promote both voluntary and legislative product stewardship initiatives across North America.

Acknowledgements

PSI prepared this report for the OK PSI would like to thank Oklahoma's Department of Environmental Quality for funding this project.

We thank the DEQ team (Fenton Rood, Patrick Riley, Amanda Scofield, Amber Edwards, and Kasie Stambaugh) for their involvement and expertise.

We also acknowledge the many members of the Safe Disposal of Pharmaceuticals and Medical Sharps Workgroup (see Appendix for full list of Workgroup members and committee members).

Project Contact

For more information, please contact Rachel Perlman, Senior Associate for Policy and Programs, at rachelp@productstewardship.us.

Contents

1. Project Overview	4
2. Full Stakeholder Workgroup	4
3. Committee Overviews and Accomplishments	5
Stakeholder Involvement Committee.....	5
Education Committee	6
Infrastructure Committee	9
4. Next Steps Toward a Cohesive Statewide Program.....	16
Barriers and Strategies	16
Future Research Opportunities	17
Appendix A: Workgroup and Committee Members	18
Appendix B: Script for Stakeholder Outreach	23
Appendix C: Project Workgroup Fact Sheet	24
Appendix D: Pharmaceuticals Disposal Fact Sheet	25
Appendix E: Sharps Disposal Fact Sheet	26
Appendix F: Script Calling Pharmaceutical Collections Sites	27
Appendix G: Workgroup Webpage	28
Appendix H: Summary of Educational Materials on Pharmaceutical Disposal....	29
Appendix I: Summary of Educational Materials on Sharps Disposal	32

1. Project Overview

On May 21, 2019, the Oklahoma Department of Environmental Quality (ODEQ) and the Product Stewardship Institute (PSI) convened a one-day multi-stakeholder meeting in Oklahoma City. The stakeholder meeting was designed to educate stakeholders about the need for the safe management of waste medications and medical sharps, take-back challenges and solutions, the current landscape in Oklahoma, and take-back best practices around the country. Those attending also began to design a drug take-back strategy for Oklahoma (OK). More than 55 people registered for the meeting, including local, state, and federal government officials, tribal representatives, recyclers, reverse distributors, water quality professionals, university representatives, retailers, and other key stakeholders.

Based on the results of the stakeholder meeting, ODEQ contracted with PSI to conduct the following work:

- (1) In conjunction with the Workgroup, define goals, priorities and actions related to safe disposal of medical sharps and pharmaceuticals in OK.
- (2) Develop baseline data on existing collection and disposal locations.
- (3) Describe and synthesize existing education efforts in the state, including who is delivering what messages and information through which means.
- (4) Identify needs for a cohesive statewide program. Specifically:
 - a. Identify gaps in existing collection infrastructure.
 - b. Determine the need for pilot programs.
 - c. Evaluate existing education efforts in terms of audiences, messages, consistency, and needs.
 - d. Define specific barriers to safe disposal and a strategy to reduce barriers.

To develop the Roadmap, PSI and ODEQ established a multi-stakeholder workgroup, which subsequently developed three committees to meet its goals.

The following are the primary deliverables completed in this work:

- Contact list of Workgroup and Committee members (Appendix A)
- Project Workgroup Fact Sheet (Appendix C)
- Fact sheet on the safe disposal of pharmaceuticals in OK (Appendix D)
- Fact sheet on the safe disposal of medical sharps in OK (Appendix E)
- Webpage for the Workgroup and resources hosted by PSI (Appendix G)
- Map of pharmaceutical collection sites in OK (Section 3)
- Database of pharmaceutical collection sites in OK (Attached Excel spread sheet)

2. Full Stakeholder Workgroup

The Pharmaceuticals and Medical Sharps Safe Disposal Workgroup (also known as the Workgroup) is an ongoing forum for stakeholder discussions with the overarching goal of developing a statewide safe disposal program. PSI convened conference calls with the full Workgroup as well as three committees: Stakeholder Involvement, Education, and Infrastructure (See Appendix A for a list of all stakeholders who participated in the Committees).

PSI | June 2020

Roadmap to Safe Disposal of Pharmaceuticals and Medical Sharps in Oklahoma

The full Workgroup met four times during 2020: in January, March, May, and June. Meeting were mostly conducted over Zoom. Each meeting typically had 30-40 participants. The full contact list of Workgroup members can be found in Appendix A. In total, there are 103 members on the distribution list.

PSI facilitated the Workgroup meetings, which were used to engage with the full group on its direction and work-in progress. Meetings were also used to update members on decisions and resources generated by the committees, as well as to provide additional oversight and input on the committee work. The Workgroup meetings allowed for inter-committee sharing, provided group cohesion, and as sustained momentum and engagement within the full group.

As part of the project, PSI created a Workgroup webpage, hosted by PSI, which can be found at: <https://www.productstewardship.us/page/safe-disposal-pharms-medical-sharps-oklahoma>. The webpage serves as a landing point for groups and individuals looking to know more about OK's efforts related to the disposal of pharmaceuticals and sharps. It also provides general information about the Workgroup (and how to join). Lastly, the educational and infrastructure resources generated by the Workgroup are also published on the site.

3. Committee Overviews and Accomplishments

Given the large size of the full Workgroup and the amount of work to be performed, we formed the following three committees with specific focus areas: (1) Stakeholder Involvement, (2) Education, and (3) Infrastructure. A description of each of the committees, completed work, and intended future work is provided below.

Stakeholder Involvement Committee

The goal of the Stakeholder Involvement Committee was to ensure that membership in the Workgroup was representative of all relevant stakeholder groups. This committee, which met two times over the project period, expanded and enhanced the representation of stakeholders in the Workgroup. The process used to increase engagement was to have committee members reach out to their contacts to inform them about the Workgroup and invite them to join. Word of mouth and personal outreach proved to be the most successful method for member recruitment. PSI created an outreach template email to facilitate contacting new individuals to invite them to join the Workgroup (see Appendix B). The recruitment method seemed to work relatively well, given the interest we received from contacted individuals. One of the first deliverables from this group was a one-page description of the Workgroup that we used to recruit additional members (see the Project Workgroup Fact Sheet in Appendix C). When committee members sent out emails to invite new individuals, they attached this one-page description. We hope to increase membership even further next year through expanding the network and utilizing other OK networks and email lists.

We also ensured diverse representation on the full Workgroup and the Education and Infrastructure committees. PSI updated the distribution list for the OK Workgroup, including adding additional stakeholders recruited in 2020. This list can be found in Appendix A.

PSI focused on recruiting individuals the following stakeholder groups because they were underrepresented in the Workgroup:

- *Medical professionals* – can speak to the role clinics play in education and provision of safe disposal of prescribed medications, including medications that use sharps
- *Pharmacists* – can provide insight on kiosks located in pharmacies and may be up-to-date on the latest regulations
- *Additional wastewater treatment professionals* – knowledgeable about the impact of flushing medication
- *Representatives from retail pharmacies* – knowledgeable about kiosks located in pharmacies
- *Environmental organizations* – knowledgeable on educational resources and water quality issues

As of June 2020, the Workgroup is relatively balanced; however, among the subset of the “active” Workgroup members that regularly attends meetings, there are some underrepresented stakeholder groups. Future work should aim to increase the attendance of these stakeholders or recruit other representatives from these groups. Namely, these stakeholders groups are retail pharmacists, doctors, and individuals from the cities of Durant and Midwest City (where sharps collection programs exist).

Because the Stakeholder Committee succeeded in recruiting members and established resources to make future recruitment easier, the committee was able to dissolve after two meetings. Most of the members joined one of the other two committees. Going forward, PSI intends to continue to maintain the distribution list and have new stakeholder recruitment as a standing agenda item for Workgroup meetings.

Education Committee

The goal of the Education Committee was to recommend a unified message in Oklahoma for the safe disposal of each of the two product types: pharmaceuticals and medical sharps. The Education committee met twice over the project period.

Fact Sheets

A major accomplishment of this committee was to reach consensus about the recommended methods for disposing of pharmaceuticals and medical sharps, respectively, and then to distill these into fact sheets that contain readable, clear instructions for what residents should do with these materials. We worked with the group to determine best practices for disposal, as well as “last resort” options. The group created two fact sheets – Pharmaceuticals Disposal Fact Sheet (Appendix D) and Sharps Disposal Fact Sheet (Appendix E).

The major decisions made in designing the **Pharmaceuticals Disposal Fact Sheet** were the following:

- (1) Emphasizing that residents should not flush medications.
- (2) Including a message about how to safely store medication.

- (3) Highlighting drop-off of medications as the best-practice, given that is the lowest-cost option to consumer.
- (4) Classifying the disposal of medication in the trash as a last resort option that should only be used if there are no drop-off sites or mail-back programs available.

The major decisions made in the designing the **Sharps Disposal Fact Sheet** were:

- (1) Emphasize that residents should never put loose sharps in the trash, recycling, or toilet.
- (2) Highlighting the best practices as using city-wide programs, drop-off locations, and mail-back programs.
- (3) Categorizing at-home disposal of containerized sharps as a last resort. Given the risk sharps in household trash poses to waste haulers and processors, we highly discourage this disposal method.

In creating messaging on safe disposal, we also considered the diversity of the OK audience who might be reading these fact sheets. We ensured that the educational fact sheet addressed as many different populations as possible, including those most vulnerable (e.g., low income) and often overlooked populations (e.g., pet owners).

Existing Educational Messaging

Before deciding on the message and language of these fact sheets, PSI first wanted to understand the current landscape of educational messaging on pharmaceuticals and medical sharps within the state. PSI searched for existing educational materials and published resources on the safe disposal of pharmaceuticals and medical sharps in OK. Specifically, we looked for local, state, and federal organizations and agencies that provided instructions for how to dispose of these materials. We created a list of these agencies and organizations, reviewed the materials, and identified inconsistencies among them. Table 3 in Appendix H and Table 4 in Appendix I summarize these resources.

Messaging on Pharmaceuticals

We found there were several important inconsistencies and/or limitations to the existing resources. For pharmaceuticals, most organizations encouraged disposing of medications at drop boxes as the first choice or asking a pharmacist for information. However, we did find that the Food and Drug Administration (FDA), the Drug Enforcement Administration (DEA), and the Environmental Protection Agency (EPA), and other federal agencies have different recommendations and public messaging on safe disposal.

Generally, among different organizations, there was a mixture of messaging on when (if at all) residents should flush medications that are especially dangerous or addictive (such as fentanyl). We found little messaging that explicitly instructed residents to avoid flushing medication – most organizations either did not mention flushing or mentioned it as an acceptable way to dispose of medication on the “FDA Flush List.” The resources that provided instructions on how to dispose of medication in household trash consistently suggested mixing the medication with an undesirable substance like kitty litter or used coffee grounds.

In addition to these inconsistencies, we found that organizations often did not co-locate educational resources with searchable databases of pharmaceutical take-back sites. The databases of drop-off sites, such as Dispose My Meds or Safe Trips for Scripts, provided a list of locations, but did not provide other educational resources on the topic of medication disposal. Furthermore, none of the resources

aggregate or acknowledge the full set of OK drop-off locations that exist (ranging from law enforcement sites, pharmacies, senior centers, and health clinics). Consequently, PSI developed a “one-stop” resource that acknowledges the full set of disposal options and prioritizes the best practices for pharmaceutical disposal.

Messaging on Sharps

The agencies and organizations with educational materials about medical sharps also had varied messages. Many resources encouraged the use of FDA-certified sharps disposal containers, but only some mentioned take-back programs or what residents should do with their container full of used sharps. It should be noted that all organizations agreed that residents should never throw loose sharps into the trash or toilet. One major weakness of the websites for some of sharps take-back providers (e.g., MedPro) is that there was no easy-to-find information on the cost of mail-in disposal systems for sharps. The more transparent cost information is, the more easily a resident can identify a feasible disposal option for their sharps.

In contrast to many of the sharps resources we found, the sharps fact sheet PSI helped the committee create recommends disposal of sharps in a heavy-duty, rigid container in the trash as a last resort solution. The Workgroup came to this decision based on input from the waste management industry, which view this issue as a worker safety problem. The fact sheet emphasizes that the best practices for sharps disposal are using city-wide programs if available, dropping off sharps at a collection site, or using mail-back containers.

Next Steps

The most important next step is to disseminate the fact sheets state-wide and promote the unified messages the Workgroup has agreed upon. PSI recommends working with the following types of entities to encourage the adoption of a consistent message and, if possible, assist in the dissemination of these fact sheets:

- State agencies (e.g., [OK State Board of Pharmacy](#))
- Local governments
- Tribal governments
- University health system
- Doctors, other health professionals
- Veterinarians
- Pharmacists
- Non-profits
 - Organizations that work with people experiencing homelessness
 - Organizations working on rural water issues
- Drug treatment facilities
- Water treatment facilities
- Insurance companies

Future work might also consider creating different fact sheets that are designed to provide more specific information and resources to a few different audience segments (such as tribal communities or rural residents).

Infrastructure Committee

The goal of the Infrastructure Committee was to map existing collection locations and options, as well as identify gaps in collection infrastructure. The Infrastructure Committee met three times over the project period.

One major accomplishment of this committee was the creation of a database of current pharmaceutical collection sites and a list of all medical sharps collection sites. The database for pharmaceuticals is quite large, and therefore can be found in the attached excel file: “2020.06.30 Existing OK Pharms and Sharps Sites.xlsx.” Because so little medical sharps infrastructure exists in OK, the list for sharps is much shorter, and can be found below in Table 1.

Table 1: Medical Sharps Disposal Sites and Companies in Oklahoma

Disposal Sites or Companies	Site Category	Service Provided	City	Phone
Stop Harm on Tulsa Streets (SHOTS)	Non-Profit	Exchange	Tulsa, OK	(918) 809-7134
Midwest City	Local Government	Offers free service for the disposal of syringes and other sharps.	Midwest City, OK	(405) 739-1066
Durant	Local Government	Offers pick up of sharps for disposal at no additional charge. An empty container can be delivered to the customer's address and will be picked up upon request.	Durant, OK	(580) 931-6660
Muskogee	Local Government	Annual drop-off event	Muskogee, OK	(918) 683-4600
Stericycle, Sharps Management Service (SMS)	Take-Back Service and Product Company	Stericycle offers sharps mail-back container options for residents. For sharps disposal at facilities, SMS delivers, picks-up and proactively exchanges sharps collection receptacles of all sizes.	National Service	(844) 282-1689
Sharps Compliance Inc., Complete Needle Collection & Disposal System	Take-Back Service and Product Company	Sharps Compliance offers sharps mail-back container options for residents. The container can be purchased at chain retail pharmacies, and an optional mail-back label can be ordered online.	National Service	(800) 772-5657
Triumvirate Environmental, Inc.	Take-Back Service and Product Company	Triumvirate delivers and picks-up reusable sharps collection containers of all sizes for commercial needs.	National Service	(617) 715-9055

To create the database of pharmaceutical collection sites, we aggregated collection site locations from sources such as “My Old Meds,” the Safe Trips for Scripts program, and the Walgreens Safe Medication Disposal Program. We also learned from Workgroup members about many collection locations that were not on such lists; for instance, many Chickasaw Nation kiosks were unlisted. Local knowledge of OK kiosks allowed us to create a more comprehensive list of pharmaceutical collection sites than had previously existed. We believe this list and corresponding map will be highly useful to residents seeking responsible disposal solutions for unwanted medication.

In total, we identified 479 pharmaceutical collection sites within the State of Oklahoma. More specifically, 274 of these are law enforcement sites, 130 are pharmacies, 59 are part of health services, and 16 are other types of sites. A breakdown of the number and types of collection sites can be found in Table 2.

The data attributes collected for each site were the following:

- Site Category
- Site Type
- Group Accessibility
- Vendor Name
- Address 1
- Address 2
- City
- Zip Code
- State
- Phone
- Latitude
- Longitude
- Notes

We used the database of pharmaceutical collection sites to create a few maps, which are more user-friendly and easier to process due to their virtual nature. We worked with ODEQ to create an interactive, web-based map, which can be found here:

<https://deq.maps.arcgis.com/apps/webappviewer/index.html?id=14c3f70ed8214ab9ac86633b009ea9ab>.

PSI also created a map of these same locations (using Tableau) to show political boundaries and population.

Geographical Distribution of Sites

As shown in Figure 2, every county within OK appears to have at least one law enforcement site collecting pharmaceuticals. However, many counties have no pharmacies with collection kiosks. The majority of pharmacy sites are located near Oklahoma City and Tulsa (Figure 1).

There are 25 locations in tribal community health centers (Indian Health Services); these sites are mostly in Central and Eastern Oklahoma, with few to no sites in Western Oklahoma counties.

The areas with the least access to pharmaceutical collection sites are the Northwest region of the state (including Oklahoma’s Panhandle), along with the counties that make up the western border with Texas.

Namely, these counties are Cimarron, Texas, Beaver, Harper, Ellis, Woodward, Woods, Major, Roger Mills, Beckham, Greer, Harmon, and Kiowa counties.

Collection Volumes Remain Unknown

The quantity of unwanted medication and used medical sharps that are collected within the state of Oklahoma is still unknown, for the most part. It is a larger, but worthwhile, project to determine the quantity of medication being collected in total or by location. It would be useful to know what types of sites are most highly utilized, so that the state could increase the number of sites in that area or replicate that model in other parts of the state.

One known collection statistic is the quantity of medication collected during Drug Enforcement Administration (DEA) take back days. According the DEA, during the 18th National Take Back Day (October 26, 2019), the DEA collected 2,194 pounds (lbs) of unwanted medication from a 34 collection sites in Oklahoma.¹ When compared to the neighboring state of Texas, this is a relative small quantity of collected medication, even when normalizing for population. During this particular event, Oklahoma collected 5.5 lbs per 10,000 people, while Texas collected 24.9 lbs per 10,000 people.

Assessment of the Need for Pilots

We determined there was no need for pilot programs for *pharmaceutical* collection programs, since these programs are already well-established in the state. In contrast, we determined there is a compelling need for a pilot program for *sharps* collection. Ideally, pilot programs for medical sharps would be located in areas where the need for safe disposal options has already been identified. Such locations could be identified using surveys of residents and health professionals, expertise of local organizations, or demographic information. In an effort to serve typically under-served populations, sharps pilot programs might be located in communities with higher poverty rates (e.g., Okfuskee or Greer counties)² and/or a larger Native American population (e.g., Caddo, Cherokee, or Adair counties)³. The pilots should also be designed with the goals of assessing the convenience of a sharps collection system and the costs of such a system.

Next Steps

There still remains the task of verifying that all sites in our database currently collect medication. A small number of locations have been verified through fact checking with residents and by calling the locations. In making these calls, committee members were encouraged to use the script provided in Appendix F. Significantly more verification is needed to confirm the full list of sites. To accelerate this process, on the web-based DEQ map, we have created a fillable form for users to alert us to updates. The form can be found here:

<https://survey123.arcgis.com/share/88cd2b142e934b53a218d90adc6bacb7>. In the form, the user can

¹ DEA National Rx Takeback. <https://takebackday.dea.gov/sites/default/files/NTBI%2018%20Totals.pdf>

² Index Mundi. Oklahoma Poverty Rate by County. <https://www.indexmundi.com/facts/united-states/quick-facts/oklahoma/percent-of-people-of-all-ages-in-poverty#map>

³ Oklahoma State Assessment. Percent Native American Population by County. https://www.ok.gov/health2/documents/SVP_Section_1-State_Assessment.pdf

enter the type of site, name and address of site, the date visited, and the update. For the “update,” the user may select one of the following options:

- (1) The site has closed
- (2) The site does not have a pharmaceutical collection kiosk
- (3) The site is not in the database/map, but does indeed collect pharmaceuticals
- (4) Other [explain]

Going forward, we would like to see this Workgroup, in conjunction with ODEQ, maintain, refine, and update the pharmaceutical collection database (e.g., add hours of operation and remove sites that no longer collect). We also would like to add some additional features to the web-based map, incorporate some story board features, and make navigation of the filter features clearer for the user. Lastly, because some regions of the state do not currently have access to convenient pharmaceutical drop off locations, we believe it would be valuable to analyze the benefits and drawbacks of kiosks (drop-off) versus mail-back systems. That analysis will allow PSI and ODEQ to make educated recommendations for how to expand safe disposal programs.

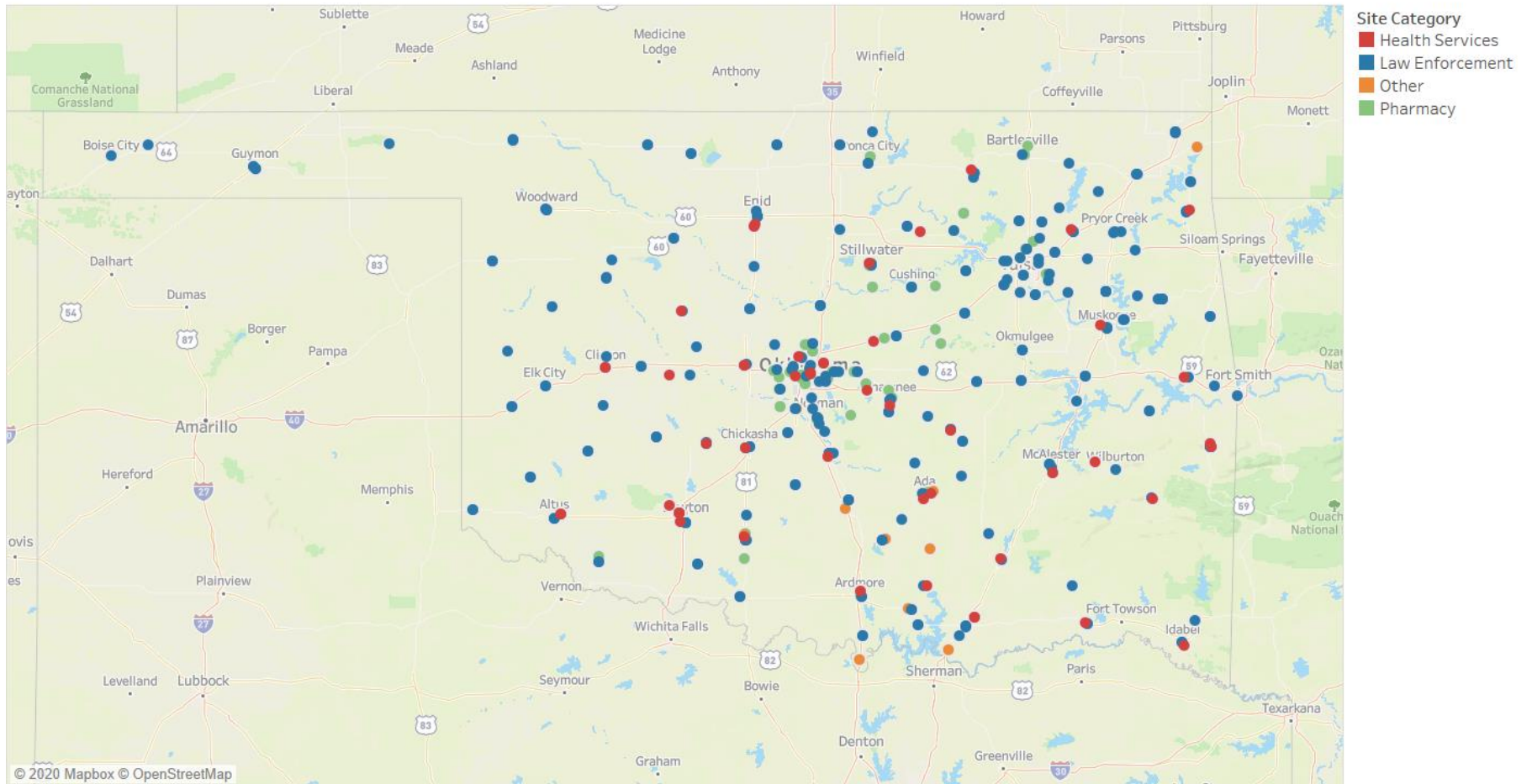
Table 2: Pharmaceutical collection sites in Oklahoma by site category and type.

Distribution of Pharmaceutical Collection Site Types

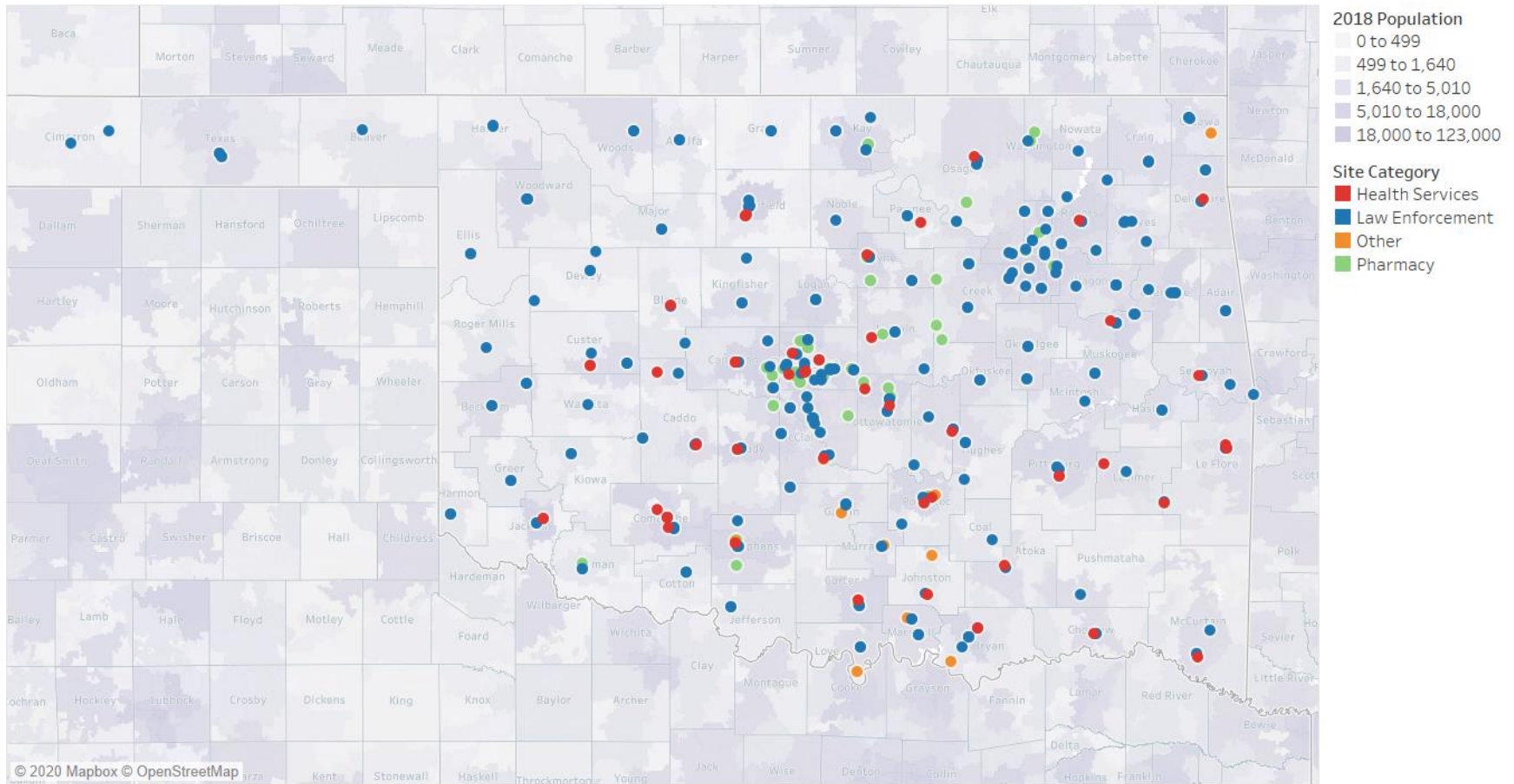
Site Category	Site Type	
Law Enforcement	Police Department	149
	Sheriff's Office	116
	County Jail	6
	Bureau of Narcotics	1
	Courthouse	1
	University Police	1
Pharmacy	Independent Pharm..	70
	Chain Pharmacy	60
Health Services	Indian Health Servic..	26
	Medical Clinic	11
	Military	7
	Medical Center	6
	Hospital	5
	University Clinic	3
	Treatment Center	1
Other	Senior Center	11
	Casino	3
	Fire Department	1
	Reuse Center	1
Grand Total		479

Sum of Number of Records broken down by
Site Category and Site Type.

Pharmaceutical Collection Sites in Oklahoma



Pharmaceutical Collection Sites in Oklahoma - Mapped with Population by Zipcode



Map based on Longitude (generated) and Latitude (generated). Color shows details about Site Category. Details are shown for State and Site Name. Map coloring shows 2018 Population by Zip Code. The view is filtered on Site Category, which keeps Health Services, Law Enforcement, Other and Pharmacy.

Figure 2: Map of the pharmaceutical collection sites in Oklahoma, mapped with population by Zip code.

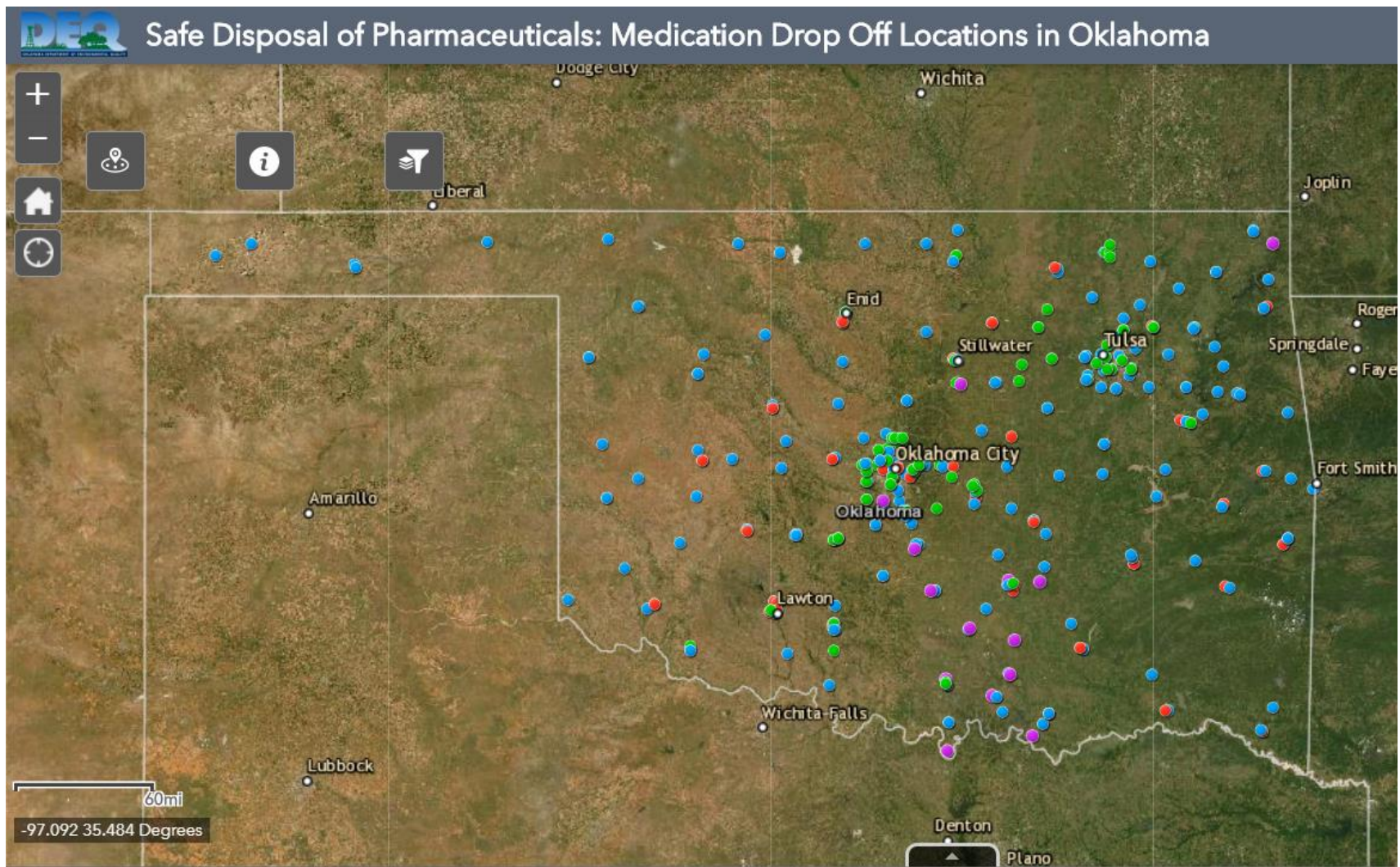


Figure 3: Screenshot of the web-enabled map of pharmaceutical collection sites in Oklahoma.

4. Next Steps Toward a Cohesive Statewide Program

Through collaborative efforts with the three Committees and Workgroup, PSI has evaluated existing education efforts (in terms of messages, consistency, and needs) and has identified gaps in existing collection infrastructure. This process has highlighted the needs for a cohesive statewide program for the safe disposal of medical sharps and pharmaceuticals in Oklahoma.

Barriers and Strategies

Below, we have outlined **specific barriers** to safe disposal of pharmaceuticals and medical sharps in Oklahoma:

1. Lack of convenient collection opportunities for pharmaceuticals in some counties.
2. Lack of collection opportunities for medical sharps in most counties.
3. Lack of awareness about safe disposal options (education element).
4. Lack of sustainable financing for pharmaceuticals and medical sharps disposal.
5. Some key stakeholders (e.g., some pharmaceutical companies) do not support take-back programs for pharmaceuticals or medical sharps.
6. Lack of data on collection volumes that would allow for accurate evaluation of collection programs.

The following are some **key strategies** for overcoming the barriers listed above.

1. Submit state application for federal government money from Opioid lawsuits or other sources.
2. Greater use of DEA-funded take-back events.
3. Increasing awareness about mail back programs.
4. Funding from state or local governments or retailers funding kiosks or collection programs.
5. EPR for unwanted pharmaceuticals and used medical sharps
 - Voluntary take-back efforts may not be sufficient for ensuring that disposal of pharmaceuticals and medical sharps is safe for humans and the environment. Extended producer responsibility (EPR) laws create an incentive for manufacturers to reduce the amount of excess drugs by requiring them to fund and manage safe disposal. PSI offers many sharps and pharmaceutical disposal educational resources, including the drug the Safe Drug Disposal Portal, which can be found at

<https://www.productstewardship.us/general/custom.asp?page=GoToGuide>. Twenty-eight pharmaceutical EPR laws in the U.S., along with several sharps EPR laws, provide models for sustainable funding.

Future Research Opportunities

In addition to the next steps outlined in Section 4, this project has illuminated multiple future research opportunities related to the safe disposal of pharmaceuticals and medical sharps in OK. These include:

- Research how DEA take-back days are funded, and how they could be better utilized in OK.
- Identify all companies that provide sharps and pharmaceutical take-back solutions available to Oklahoma residents.
- Map the full set of independent and chain pharmacies in OK (including those without kiosks) to see the potential for expansion of pharmaceutical collection in the state. Given that the OK Bureau of Narcotics is resource-constrained and has started limiting the placement of new boxes, future expansion of pharmaceutical collection will likely rely on pharmacies opting in to provide kiosks.
- Identify challenges pertaining to the Safe Trips for Scripts program, which provides pharmaceutical collection kiosks in local police and sheriff's stations. Our current understanding is that the existing system is viewed as a drain on law enforcement resources (especially routing and scheduling pickups from boxes that range from 3 to 80 pounds per week). Furthermore, other potential issues may include long-term care facilities dumping stockpiles; theft/security; overflow; needle sticks; people dropping in items that are not allowed (liquids, needles, inhalers); and the drop-off boxes' lack of durability.
- Further research on the regulatory barriers surrounding the transportation of medical sharps. The United States Postal Service (USPS) and Department of Transportation (DOT) regulations on the transportation and mailing of medical sharps create high costs for consumers mailing back sharps. For instance, the DOT does not treat collected sharps as household waste, resulting in more regulatory requirements and higher costs. Also, the USPS requires anyone who mails sharps waste to use USPS-authorized packages that have been tested to meet federal (DOT) hazardous materials packaging standards.
- Research metrics for convenience of, and access to, disposal sites for pharmaceuticals and sharps. If disposal options are not convenient, people will not use them. Collection sites need to be convenient for those living in rural areas and people without transportation options. Direct access to disposal options for rural residents, older adults, and people with mobility problems, may help to prevent drugs from being passed hand-to-hand.
- Identify the scenarios and locations, such as rural communities, where mail-back programs may be the most practical and convenient solution. Pilots can be useful to examine rural-urban differences, and data on collection volumes may indicate that take-back program participation is currently low in rural areas.

Appendix A: Workgroup and Committee Members

List of Workgroup members and contact information as of 6/19/2020.

NAME	Email	Affiliation
Albert Pierce	apierce@durant.org	City of Durant Solid Waste Department
Amanda Scofield	Amanda.Scofield@deq.ok.gov	Oklahoma Dept. of Environmental Quality (ODEQ)
Amber Edwards	amber.edwards@deq.ok.gov	Oklahoma Dept. of Environmental Quality (ODEQ)
Andrea Haddox	shotstulsa@gmail.com	SHOTS
Andrea Hamor Edmondson	andrea.edmondson@odmhsas.org	State Overdose Education and Naloxone Distribution (OEND) project
Andrew Pawlisz	apawlisz@trihydro.com	Trihydro Corporation
Ashley Cline	AshleyC@red-rock.com	Red Rock Behavioral Health Services Yukon & Clinton Offices
Ashley Jackson	ashleyja@red-rock.com	Red Rock Behavioral Health Services
Atonbara Sowemimo	AtonbaraS@health.ok.gov	OK State Dept of Health, Sexual Health and Harm Reduction Services
Audra Liggerstoffer	Audra.Liggerstoffer@aa.com	American Airlines
Avy Redus	AvyD@health.ok.gov	Oklahoma State Department of Health
Becky Bowles	becky@beckyabowles.com; beckybowles46@gmail.com	Tulsa Master Recyclers
Brady Wright	bwright@midwestcityok.org	City of Midwest City, OK
Bret Scovill	bretscovill@gmail.com	ARIS
Brian Veazey	bveazey@obn.state.ok.us	Oklahoma Bureau of Narcotics & Dangerous Drugs Control
Brittany Wilson	bwilson@spthb.org	Southern Plains Tribal Board
Cara Simaga	CSimaga@STERICYCLE.com	Stericycle
Carol Bush	Carol.Bush@okhouse.gov	SHOTS
Charlene Shreder	cshreder@ou.edu	Southwest Prevention Center (SWPC) at the University of Oklahoma
Chris Bowlin	chris.bowlin@accessiblemeds.org	Accessible Meds
Chris Duff	CMDuff@cnhsa.com	Choctaw Nation Health Services
Chris Knight	cknight@stillwater.org	City of Stillwater
Chuck Lester	chuck.lester@okstate.edu	Oklahoma State University, Department of Wellness, Prevention Program
Coleman Cox	coleman-cox@cherokee.org	Cherokee Nation
Craig Williams	cwilliams@OBN.state.ok.us	Oklahoma Bureau of Narcotics (OBN)
Damon Morris	DLMorris@cityoftulsa.org	City of Tulsa pretreatment program
Dan Zsido	dzsido@naddi.org	NADDI (National Association of Drug Diversion Investigators)
Daniel Clay	dclay@midwestcityok.org	City of Midwest City, OK

Danny Derieg	dderieg@oemaok.org	Oklahoma Environmental Management Authority
David Bales	david.bales@ihs.gov	Indian Health Service
Debbie Smith	debra.smith@normanok.gov	City of Norman
Demetrick Jones	djones1@ou.edu	The University of Oklahoma; Oklahoma SPF-PFS Project; Southwest Prevention Center
Dylan Cudd	Dylan-Cudd@ouhsc.edu	OU College of Pharmacy
Elaine King	Elaine@soonermedicalwaste.com	Sooner Medical Waste Management
Emma Rary	emma.claire.rary@emory.edu	Indian Health Service
Fenton Rood	fenton.rood@deq.ok.gov	Oklahoma Dept. of Environmental Quality (ODEQ)
Garmon Smith	garmon@cableone.net	Oklahoma Recycling Association
Gary Percefull	gary.percefull@newsolutions-ok.com	NeWSolutions
Greg Herzog	gherzog@celgene.com	Bristol Myers Squibb
Greg Phillips	gphillips@covanta.com	Covanta
Hal Scofield	Hal-Scofield@omrf.org	Professor, Department of Medicine
Hannah DeLozier	HDeLozier@covanta.com	Covanta
James Linn	jim.linn@okc.gov	City of Oklahoma City
Jami Longacre	jamilongacre@gmail.com	Johnson and Johnson
Jason Kannady	jason.kannady@newsolutions-ok.com	NeWSolutions
Jason Vogel	jason.vogel@ou.edu	OK Water Survey, The University of Oklahoma
Jenna Cansler	JennaC@red-rock.com	Red Rock RPC
Jenna McMullen	JENNA.MCMULLEN@OUMEDICINE.COM	OU Medical System
Jerry Gates	jerry.gates@okc.gov	City of Oklahoma City
Jill Shadid	jill-shadid@ouhsc.edu	University of Oklahoma College of Pharmacy
Jim Dunlap	jim@dunlapconsultants.com	PhRMA
John C. Morton	JohnCM@health.ok.gov	Oklahoma State Department of Health
Joseph Shepherd	joseph.shepherd@mylan.com	Mylan
Julia Cochran	juliac@red-rock.com	Red Rock Behavioral Health Services
Juliana Oguh	joguh@uams.edu	University of Arkansas for Medical Sciences
Julie Justice	julie-justice@cherokee.org	Cherokee Nation
Julie Nguyen	julie.nguyen@calrecycle.ca.gov	Cal Recycle
Kaileen Skidgel	kaileen.skidgel@ihs.gov	Indian Health Service
Kailey Fogo	Kaileyfogo@gmail.com	
Kara McCurry	cannabisokadvocate@gmail.com	Independent
Karl Evans	kevans@republicservices.com	Republic Waste Services
Kasie Stambaugh	kasie.stambaugh@deq.ok.gov	Oklahoma Dept. of Environmental Quality (ODEQ)

Kate Kulesher	kate.Kulesher@sandoz.com	Sandoz
Katie Noris	katie.norris@okstate.edu	Oklahoma State University Prevention Programs (OSUPP)
Keima Kona Kamara	keima.kamara@okstate.edu	Oklahoma State University
Ken Meadows	ken.meadows@okc.gov	City of Oklahoma City Utilities Department
Kenneth Wright	kwright@oemaok.org	Oklahoma Environmental Management Authority
Kevin Farmer	kevin-farmer@ouhsc.edu	University of Oklahoma College of Pharmacy
Kristen Proctor	Kristen.Proctor@Stericycle.com	Stericycle
Laura Brennan	Laura-Brennan@ouhsc.edu	Oklahoma Center for Poison & Drug Information
Lauren Wilson	lwilson@brokenarrowok.gov	City of Broken Arrow
Leon Langguth	Leon.Langguth@va.gov	Eastern Oklahoma VA Health Care Systems
Matt Faulkner	mfaulkner@midwestcityok.org	City of Midwest City, OK
Matthew Condley	mcondley@tulsa-health.org	Tulsa Health Department
Matthew Newman	mattbnewman@gmail.com	ONEOK
Maureen Turner	MTurner@cityofTulsa.org	City of Tulsa
Melissa Reichert	MReichert@pharmacy.ok.gov	OK State Board of Pharmacy
Michelle Aumiller	michelle.aumiller@okc.gov	City of Oklahoma City
Nicole Reed	nicole.d.reed@okstate.edu	Oklahoma State University, Department of Wellness, Prevention Program
Patrick Riley	Patrick.riley@deq.ok.gov	Oklahoma Dept. of Environmental Quality (ODEQ)
Patrick Walsh	pwalsh2@covanta.com	Covanta Tulsa Renewable Energy, LLC
Paul Streets	rstreets@midwestcityok.org	City of Midwest City Environmental Services / Public Works
Peter Shultze	pschultze@wm.com	Waste Management of Oklahoma
Priscilla Haynes	phaynes@tulsa-health.org	Tulsa Health Department
Robert Pickens	Robert@AWCOK.com	Tulsa Recycle & Transfer, Inc./American Waste Control (?)
Roshini Schroeder	roshini.schroeder@deq.ok.gov	OK Department of Environmental Quality
Sally Bouse	sallyb@health.ok.gov	Oklahoma State Department of Health
Samantha Crofford	samantha.crofford@creoks.org	CREOKS (a behavioral health agency)
Sarah Keeth	skeeth@red-rock.com	Red Rock Behavioral Health Services
Scott Schaeffer	Scott-schaeffer@ouhsc.edu	Oklahoma Center for Poison & Drug Information
Selin Hoboy	shoboy@stericycle.com	Stericycle
Stephanie Tillman	stillman@tulsa-health.org	Tulsa City County Health Department
Stephen Weaver	StephenW@health.ok.gov	Oklahoma State Department of Health
Terrence Spain	Terrence.Spain@odmhsas.org	Oklahoma Dept. of Mental Health & Substance Abuse Services

Thom Elkins	tom-elkins@cherokee.org	Cherokee Nation
Thomas (T.O.) Bowman	to.bowman@okc.gov	City of Oklahoma City
Tory Smith	tory.smith@deq.ok.gov	Oklahoma Dept. of Environmental Quality (ODEQ)
Troy Duke	troyduke@sordlf.org	Southern Oklahoma Regional Disposal
Victoria Holloman	victoria.hui@okstate.edu	Oklahoma State University, OSU Center for Wellness & Recovery
Wayne Isaacs	wayne-isaacs@cherokee.org	Cherokee Nation
Wiley "Butch" Williams	wiley.williams@okc.gov	Oklahoma City
Young Onuorah	yonuorah@odmhsas.org	Oklahoma Dept. of Mental Health & Substance Abuse Services
Zachary Golden	Zachary.Golden@inframark.com	Inframark

Members of the Three committees:

Stakeholder Involvement	Affiliation
Patrick Riley	Oklahoma Dept. of Environmental Quality (co-chair)
Rachel Perlman	PSI (co-chair)
Jim Dunlap	PhRMA
Debbie Smith	City of Norman
Michelle Aumiller	City of Oklahoma City
T.O. Bowman	City of Oklahoma City
Jami Longacre	Lobbyist for Johnson and Johnson
Education	Affiliation
Amanda Scofield	Oklahoma Dept. of Environmental Quality (co-chair)
Rachel Perlman	PSI (co-chair)
Amber Edwards	Oklahoma Dept. of Environmental Quality
Andrea Haddox	SHOTS
Aron Wahkinney	Southern Plains Tribal Health Board
Charlene Shreder	University of Oklahoma, Southwest Prevention Center
Dylan Cudd	University of Oklahoma Health Sciences Center
Gary Percefull	NeWSolutions
Kara McCurry	Patient Advocate
Maureen Turner	City of Tulsa
Roshini Schroeder	OK Department of Environmental Quality
Victoria Hui Holloman	Oklahoma State University, OSU Center for Wellness & Recovery
Atonbara Sowemimo	OK State Dept of Health, Sexual Health and Harm Reduction Services
Coleman Cox	Cherokee Nation
Kristen Proctor	Stericycle
Zachary Golden	Inframark
Infrastructure	Affiliation
Kasie Stambaugh	Oklahoma Dept. of Environmental Quality (co-chair)
Rachel Perlman	PSI (co-chair)
Carol Bush	SHOTS
Chris Knight	City of Stillwater
Coleman Cox	Cherokee Nation
Garmon Smith	Oklahoma Recycling Association
Hannah DeLozier	Covanta
Keima Kamara	OK State University Dept of Agricultural Economics\
Kevin Farmer	University of Oklahoma College of Pharmacy
Simaga, Cara	Stericycle
Kate Kulesher Jarecke	Sandoz US Policy, Medical and External Engagement
Greg Herzog	Bristol Myers Squibb
Jason Vogel	Oklahoma Water Survey, University of OK

Appendix B: Script for Stakeholder Outreach

The following script was used by those in the Stakeholder Involvement Committee to personally invite other stakeholders to join the Workgroup.

TEMPLATE Email/Script for Stakeholder Outreach

Dear _____,

I am reaching out to see if you would be interested in joining the Oklahoma Workgroup on Safe Disposal of Pharmaceuticals and Medical Sharps. We are a coalition of key stakeholders that aim to develop solutions for safe disposal of medical sharps and pharmaceuticals throughout Oklahoma. The workgroup includes local, state, and federal government officials, tribal representatives, recyclers, reverse distributors, water quality professionals, pharmacists, health professionals, university representatives, retailers, and others.

The workgroup meets roughly once a month via conference call.

We are inviting you, specifically, because the workgroup currently has little/no representation from _____ [role/organization]. As a _____ [role], you would provide value and perspective that would help the workgroup better.... [tailor to the particular stakeholder]

I have attached some more information about the workgroup. [attach the one-pager pdf]

Please feel free to reach out by phone or email if you have questions. I look forward to hearing from you.

Best,

Appendix C: Project Workgroup Fact Sheet

Safely Dispose of Pharmaceuticals and Medical Sharps in Oklahoma



Safe Disposal Prevents Problems at the Source

Leftover pharmaceuticals and used medical sharps are a serious concern in Oklahoma. Drug overdose deaths, especially those related to opioids, are caused partly by improperly stored drugs and drugs placed in the trash. And when medicines are poured down the drain or flushed, they contaminate our drinking water sources. Improperly disposed medical sharps (including syringes, pen needles, and lancets) create a health risk for sanitation and wastewater treatment workers and for the public.

What is the Oklahoma Pharmaceuticals and Medical Sharps Safe Disposal Workgroup?

We are a coalition of professionals working on a statewide solution for the safe disposal of medical sharps 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. Our work includes:

- Engaging a range of stakeholders, including health professionals, state and local government officials, tribal representatives, water quality professionals, and many others.
- Documenting existing safe disposal options and identifying gaps.
- Creating a clear and consistent safe disposal message for all Oklahomans.

Contact Us:

Rachel Perlman
Product Stewardship Institute
Senior Associate of Policy & Programs
rachelp@productstewardship.us
www.productstewardship.us

Patrick Riley
Oklahoma Dept. of Environmental Quality (ODEQ)
Manager of Solid Waste and Sustainability
patrick.riley@deq.ok.gov
<https://www.deq.ok.gov/>



The Product Stewardship Institute is an equal opportunity provider and employer

More Info:
<https://bit.ly/2WecHLS>

Appendix D: Pharmaceuticals Disposal Fact Sheet

GOT LEFTOVER MEDICINE?

A RESOURCE FOR OKLAHOMANS

Empty your medicine cabinet in a safe, environmentally responsible way.
Please don't flush!

Drop-Off

- Many police stations and sheriff's offices allow you to drop off your unwanted meds.
- Some pharmacies, hospitals, clinics, and other treatment centers also accept meds.
- One-day medicine collection events may also be available in your area.
- To find potential drop-off locations, go to <https://bit.ly/OKpharms>

Mail-Back

Some pharmacies and other organizations offer postage-paid envelopes for a small fee, which you can use to mail medicines to a safe disposal program. Mail-back systems accept controlled and non-controlled substances.

Last Resort

You should **only** discard medicine in the trash if there are no drop-off sites or mail-back programs available near you. Follow these guidelines:

1. Cross out any personal information on your medicine bottle.
2. Empty your medicine into a sealable, disposable container.
3. Add used cat litter, used coffee grounds, or another undesirable substance to discourage use by others.
4. Discard the sealed container with your household trash.
5. Recycle (when possible) the empty medicine bottle.



Safe Storage Saves Lives!

Store medications in a location out of reach and sight of children. Make sure the safety cap is locked. When possible, secure medications such as opiates in a lockbox or locked cabinet.

Did You Know?

- Every 14 minutes, an American dies from an unintentional drug overdose.
- Seven out of 10 people who abuse prescription drugs get them from friends or family.
- Among children, emergency room visits for accidental drug poisoning are twice as common as poisonings for other household products.
- Flushing leftover medicines sends them into our rivers, streams, and waterways. Wastewater treatment plants can't remove them.
- Chemicals from medicines can end up in our drinking water, and have been shown to have harmful effects on aquatic life.

Questions?

Rachel Perlman

Senior Associate of Policy & Programs

(617) 236-4853

rachelp@productstewardship.us



productstewardship.us/GoToGuide

Appendix E: Sharps Disposal Fact Sheet

DISPOSE OF HOUSEHOLD SHARPS THE SAFE WAY IN OKLAHOMA



Each year, U.S. households discard about 3 billion medical “sharps,” including disposable needles, syringes, and lancets. When trashed or flushed, they can injure or infect the public, hospitality workers, and sanitation personnel. They also cost taxpayers millions of dollars in maintenance problems when they jam recycling and waste management equipment.

Never put loose sharps in the trash, recycling, or toilet.

Here’s why, and what to do instead.

Best Options

Ask your health care provider if they can take back your sharps. If not, try the following:

Use city-wide programs if available: Currently in OK, only the cities of Durant (at-home pickup) and Midwest City (mail-back system) provide residential sharps disposal programs.

Drop off: Find a local program that collects sharps. Try a doctor’s office, hospital, pharmacy, clinic, health department, community organization, law enforcement, fire station, medical waste facility, or municipal household hazardous waste facility.

Mail-back: Some companies will provide sharps mailback containers and disposal service for a fee.

Specific sites and programs can be found at bit.ly/safesharps

Last Resort

Home destruction devices: A variety of products can clip, melt, or burn the sharp part, and separate the syringe or plunger (which can go in the trash).

Household Trash: If you cannot access any of the options above, you may dispose of sharps in a heavy-duty, rigid container in the trash. Keep this container away from children and pets. Follow these steps:

1. **Choose a container:** If available, use a rigid plastic container specially designed for sharps. Or, use a rigid, heavy-duty plastic container with a screw top (e.g., detergent bottle).
2. **Label:** Clearly label the container “DO NOT RECYCLE!”
3. **Fill:** Carefully place used sharps inside, needle side down, until the container is 3/4 full.
4. **Seal:** Screw on the cap and duct tape the top so it cannot be removed.
5. **Dispose:** Dispose in your household trash. Do not recycle.

Questions?

Rachel Perlman | Senior Associate of Policy & Programs
(617) 236-4853 | rachel@productstewardship.us
Product Stewardship Institute | www.productstewardship.us



Appendix F: Script Calling Pharmaceutical Collections Sites

The following script was used by those in the Infrastructure Committee to reach out to sites contained in our database that we believe to be collecting pharmaceuticals. The purpose of these calls was to the verify that the site does indeed have a pharmaceutical collection kiosk.

- 1. Ask to speak with someone from the pharmacy. If calling health center, ask to speak to someone that knows about medication disposal.**
- 2. Introduce yourself and why you are calling:**
 - *My name is _____ and I am calling on behalf of the OK Workgroup for the Safe Disposal of Pharmaceuticals and Medical Sharps. We are a coalition of professionals working on a statewide solution for the safe disposal of medical sharps leftover pharmaceuticals for Oklahoma residents. I am calling today to find out what, if any, collection system you have at your pharmacy [or site]. We are documenting and mapping existing safe disposal options around the state.*
- 3. Ask the most important questions first: *if calling Indian Health Services, tailor the language as makes sense***
 - *Does your pharmacy collect unwanted medication? How about medical sharps?*
 - *IF NO:*
 - *Do you know the nearest location where customers can drop off unwanted medication?*
 - *What advice do you give customers that ask what to do with unwanted meds?*
 - *IF YES:*
 - *What hours is the collection open?*
 - *Are there any restrictions on the type of pharmaceuticals you collect? (e.g., controlled, liquid, etc.)*
 - *Do you have any records/data on the amount of medication you have collected (for instance in the past year)?*
 - *What is the procedure for drop-off? Is there a locked receptacle?*
- 4. Ask the secondary questions if they are willing to stay on the phone a few extra minutes:**
 - *Have you noticed any change in the quantity of collections due to COVID-19?*
 - *What lessons have you learned about the collection of pharmaceuticals/sharps? (You can explain that we are trying to educate on the topic, so they may have suggestions)*
 - *Does your pharmacy have any educational material about the safe disposal of pharms/sharps?*
 - *Would you or a colleague be interested in joining the Workgroup – we are looking for more representation from pharmacists.*
- 5. Thank them:**
 - *Thank you very much for your time. Would you be interested in hanging up a guide about safe disposal of pharmaceuticals and/or sharps at your pharmacy? If so, we would gladly email you a succinct one-pager poster.*

Appendix G: Workgroup Webpage

The website can be found at: <https://www.productstewardship.us/general/custom.asp?page=safe-disposal-pharms-medical-sharps-oklahoma>



Donate Manage Profile Sign Out

ABOUT OUR SERVICES PRODUCTS RESOURCES NEWS EVENTS

SAFE DISPOSAL OF PHARMACEUTICALS AND MEDICAL SHARPS IN OKLAHOMA

Safe Disposal Prevents Problems at the Source

Leftover pharmaceuticals and used medical sharps are a serious concern in Oklahoma. Drug overdose deaths, especially those related to opioids, are caused partly by improperly stored drugs and drugs placed in the trash. And when medicines are poured down the drain or flushed, they contaminate our drinking water sources. Improperly disposed medical sharps (including syringes, pen needles, and lancets) create a health risk for sanitation and wastewater treatment workers and for the public.



FIND A COLLECTION SITE FOR YOUR UNWANTED MEDICATION

What is the Oklahoma Pharmaceuticals and Medical Sharps Safe Disposal Workgroup?

We are 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. Our work includes:

- Engaging a range of stakeholders, including health professionals, state and local government officials, tribal representatives, water quality professionals, waste industry professionals, and many others.
- Documenting existing safe disposal options and identifying gaps.
- Creating a clear and consistent safe disposal message for all Oklahomans.

[Download the Notes from the January 28, 2020 Oklahoma Pharmaceuticals and Medical Sharps Safe Disposal Working Group Meeting ->](#)

[Download the Notes from the May 21, 2019 Safe Disposal of Household Medications & Medical Sharps in Oklahoma Stakeholder Dialogue Meeting ->](#)

[Download the Oklahoma Pharmaceuticals and Medical Sharps Safe Disposal Working Group One-Page Flyer ->](#)

Resources

Dispose of Medical Sharps the Right Way!

DISPOSE OF HOUSEHOLD SHARPS THE SAFE WAY IN OKLAHOMA

Sharp tools like knives, razors, and other medical sharps are dangerous if thrown in the trash, flushed down the drain, or poured down the sink. They can harm sanitation workers and the environment. Please don't do this. Instead, please use one of the safe disposal options below.

Never put loose sharps in the trash, recycling, or toilet.
Needles, scalpels, and sharps are banned.

Best Options

- Use your local community sharps collection site. (Listed on the back of this flyer.)
- Use only sharps collection sites that are approved by the state. (Listed on the back of this flyer.)
- Use only sharps collection sites that are approved by the state. (Listed on the back of this flyer.)

Mail-Back

Mail-back is a convenient way to dispose of sharps. It involves placing sharps in a pre-paid, sealed container and mailing it to a collection site. (Listed on the back of this flyer.)

Drop-Off

Drop-off is a convenient way to dispose of sharps. It involves bringing sharps to a collection site. (Listed on the back of this flyer.)

Safe Storage

Safe storage is a temporary measure to keep sharps safe until they can be disposed of. (Listed on the back of this flyer.)

Did You Know?

- Sharps are a leading cause of injury and death.
- Sharps are a leading cause of injury and death.
- Sharps are a leading cause of injury and death.

Mail-Back

Mail-back is a convenient way to dispose of sharps. It involves placing sharps in a pre-paid, sealed container and mailing it to a collection site. (Listed on the back of this flyer.)

Drop-Off

Drop-off is a convenient way to dispose of sharps. It involves bringing sharps to a collection site. (Listed on the back of this flyer.)

Safe Storage

Safe storage is a temporary measure to keep sharps safe until they can be disposed of. (Listed on the back of this flyer.)

Did You Know?

- Sharps are a leading cause of injury and death.
- Sharps are a leading cause of injury and death.
- Sharps are a leading cause of injury and death.

Got Leftover Medicine?

GOT LEFTOVER MEDICINE?
A RESOURCE FOR OKLAHOMANS

Empty your medicine cabinet in a safe, environmentally responsible way. Please don't flush!

Drop-Off

- Many pharmacies and other businesses offer drop-off services for unused medications.
- Some pharmacies and other businesses offer drop-off services for unused medications.
- Some pharmacies and other businesses offer drop-off services for unused medications.

Mail-Back

Mail-back is a convenient way to dispose of unused medications. It involves placing medications in a pre-paid, sealed container and mailing it to a collection site. (Listed on the back of this flyer.)

Drop-Off

Drop-off is a convenient way to dispose of unused medications. It involves bringing medications to a collection site. (Listed on the back of this flyer.)

Safe Storage

Safe storage is a temporary measure to keep unused medications safe until they can be disposed of. (Listed on the back of this flyer.)

Did You Know?

- Unused medications can be harmful to the environment.
- Unused medications can be harmful to the environment.
- Unused medications can be harmful to the environment.

Data Gaps and Misleading Claims

PS PRODUCT STEWARDSHIP
In Home Drug Disposal Products: Data Gaps and Misleading Claims

Product Stewardship Institute (PSI) is a national organization dedicated to reducing the environmental and public health impacts of products at the end of their useful life. PSI is currently conducting research on the effectiveness of in-home drug disposal products.

Key Findings:

- Many in-home drug disposal products are not effective in destroying drugs.
- Many in-home drug disposal products are not effective in destroying drugs.
- Many in-home drug disposal products are not effective in destroying drugs.

Recommendations:

- Use only products that are approved by the state.
- Use only products that are approved by the state.
- Use only products that are approved by the state.

Appendix H: Summary of Educational Materials on Pharmaceutical Disposal

Table 3: Summary of education resources about the safe disposal of pharmaceuticals.

Agency/Organization	Page Description	Primary Message	How to Dispose in Household Trash	When to Flush	Special Types of Products
US DOJ/DEA - Diversion Control Division	Controlled Substance Public Disposal Locations - Search Utility	Search tool for finding locations for disposal of controlled substances. Only provides location name, address, and distance from entered location	N/A	N/A	N/A
Dispose My Meds	Medication Disposal Locator	(1) Find a disposal location to drop off medications (2) Speak to your community pharmacist	N/A	N/A	N/A
National Council on Alcoholism and Drug Addiction	Prescription Drug Drop-Off Locations	List of drop off locations by county. "Disposing your old prescription medications is a simple way to help prevent drug abuse"	N/A	N/A	N/A
OK Bureau of Narcotics - Safe Trips for Scripts	Pharmaceutical Take-Back Location Finder	Search tool to find take-back locations (Police Departments)	N/A	N/A	N/A
Muskogee	Prescription Drug Take Back Day	"Bring your unwanted, unused or expired medications for safe disposal"	N/A	N/A	N/A
Indian Health Service (for pharmacists) Indian Health Service (for patients)	Medication Disposal	Provides resources and guidance for facilities to begin collecting medications safely: (1) registering as a DEA collector, (2) Installing a permanent collection receptacle, (3) Mail-back programs, (4) Home medication disposal with pouches containing active carbon and water	Remove medication from original container, mix with undesirable substance (e.g., cat litter, coffee grounds, sawdust). Put the mixture into sealed container.	N/A	N/A

Oklahoma Department of Public Health Injury Prevention Service	Safe Use, Storage, and Disposal	<p>Recommends storing prescription drugs securely away from kids and guests.</p> <p>Recommends disposing of unwanted medications by 1) using drop boxes at law enforcement agencies or (2) mixing medications with unpalatable substance and throwing the container in the household trash, while scratching out the information on the prescription label.</p>	<p>“If there isn't a drop box available in your area, you can follow these simple steps to dispose of most medications in the household trash:</p> <ul style="list-style-type: none"> - Place the mixture in a container such as a plastic bag; - Mix medications with an unpalatable substance, such as kitty litter or used coffee grounds, and seal; - Throw the container in your household trash; and - Before throwing out your empty pill bottle or other empty medication packaging, remember to scratch out all information on the prescription label to make it unreadable.” 	<p>“To prevent accidental ingestion by children, pets, or anyone else, a few medications have specific disposal instructions indicating they should be flushed down the sink or toilet as soon as they are no longer needed, and when they cannot be disposed of through a medication drop box.”</p>	N/A
US Food and Drug Administration (FDA)	Where and How to Dispose of Unused Medicines	<p>(1) Drop off at a drug take back program and search for a location near you (2) Ask your pharmacist</p>	<p>"Almost all medicines, except those on the FDA flush list (see below), can be thrown into your household trash. These include prescription and over-the-counter (OTC) drugs in pills,</p>	<p>Only flush medications on the “FDA Flush List,” which mostly contains addictive, dangerous medicines.</p>	<p>Fentanyl products should be flushed. For inhaler products, follow local regulations (risk of exploding if punctured</p>

			liquids, drops, patches, and creams."		or incinerated).
--	--	--	--	--	---------------------

Appendix I: Summary of Educational Materials on Sharps Disposal

Table 4: Summary of education resources on the safe disposal of medical sharps.

Agency/Organization	Description
National	
FDA's "How to Get Rid of a Sharps Container"	Provides examples of the following disposal methods: drop box or supervised collection sites, HHW collection sites, mail back programs, residential special waste pickup services. Directs residents to safeneedledisposal.com to find state-specific information.
FDA's "Best Way to Get Rid of Used Needles and Other Sharps"	Overviews two main steps for how to dispose of sharps: (1) Place the sharps in a sharps disposal container immediately after they have been used. (2) Dispose of used sharps disposal container according to your community guidelines.
FDA's Dos and DON'Ts of Proper Sharps Disposal	Provides similar guidance to the pages above. Encourages the use of an FDA-cleared sharps disposal container, but acknowledges that a heavy-duty plastic household container is an alternative. FDA also recommends that residents ask health care provider if they can dispose of used sharps.
Safe Needle Disposal - FDA recommendations	Recommends using an FDA-cleared sharps disposal container. Provides information on needle clippers, and promotes them as an option for managing syringes. Directs residents to place used sharps in a "strong, plastic container, like a laundry detergent or bleach bottle" if an FDA-cleared container is not available.
State-Wide	
Safe Needle Disposal - OK specific recommendations	Recommends putting used sharps in a strong, plastic container, sealing it with duct tape and labeling DO NOT RECYCLE. Recommends disposing of the plastic container in household trash. Reminds residents to never throw loose sharps into the trash or toilet.
PSI and OK DEQ Fact Sheet	Summarize different resources for services and companies that take back sharps, as well as a description of the programs in Midwest City and Durant.
Local	
Midwest City	"The City of Midwest City offers free service for the disposal of syringes and other sharps. For assistance with this service, please contact the Sanitation office for details at 405-739-1066."
Durant	"The City of Durant offers pick up of sharps for disposal at no additional charge. Customers needing the service should call Solid Waste Collection at (580)931-6660. An empty container will be delivered to the customer's address and will be picked up upon request."
Muskogee - take-back day events	In June, 2019, Muskogee held a one-day sharps collection event, asking residents to secure used/unused needles, syringes, and lancets in a puncture proof container labeled as "SHARPS."

<i>Take-back providers not offering public education</i>	
MedPro	Sells mail-in disposal systems for sharps
OK Medical Waste	Provides sharps disposal services to commercial customers
PureWay	Provides sharps disposal services to commercial customers
Red Earth Environmental	Sells sharps disposal containers and medical waste containers in OK