



Missouri Product Stewardship Council & Product Stewardship Institute's *Virtual Pharmaceuticals Stewardship Summit* October 14 & 15, 2020 **MEETING SUMMARY**

ATTENDEES

More than 66 local, state, and federal government officials, solid waste district managers, public health experts, waste management and recycling experts, reverse distributors, and other key stakeholders participated in this virtual meeting covering two half-days (see [Participants List](#)).

MEETING MATERIALS

Meeting materials, including a background briefing document, the meeting agenda, and presentation slides are available on the Missouri Product Stewardship Council (MO PSC) website: <https://missouripsc.org/the-missouri-pharmaceuticals-stewardship-summit/>. Meeting participants are encouraged to review the meeting slides for more details.

Day 1: October 14, 2020

SESSION 1: WELCOME AND OVERVIEW

Scott Cassel, the Product Stewardship Institute (PSI)'s Founder and CEO, began the meeting by welcoming participants to the call and giving a brief overview of PSI.

Rachel Perlman, Senior Associate for Policy and Programs at PSI, laid out the meeting goals and agenda.

Meeting goal: Build support for a statewide pharmaceuticals stewardship program by finding consensus among stakeholders on a plan for Missouri. This includes:

1. Defining the problems caused by leftover drugs,
2. Identifying opportunities, barriers, and solutions for implementing a pharmaceuticals stewardship program, and
3. Developing next steps for stakeholders toward a state pharmaceuticals stewardship program.

Rachel also gave an overview of the importance of safe pharmaceutical management. One major motivation for safe disposal is that it helps prevent misuse of potentially dangerous excess medication stored at home. In 2018, there were 1,132 opioid overdose deaths in Missouri. Seven out of 10 people who abuse prescription drugs get them from friends and family, often out of a home medicine cabinet.

Lisa McDaniel, Chair of the Missouri Product Stewardship Council (MO PSC) and Solid Waste Program Manager for the Mid-America Regional Council (MARC) Solid Waste Management District (MARC SWMD), provided an overview of the MO PSC and an explanation of their work on the MO PSC's three priority products: pharmaceuticals, mattresses, and paint. Lisa also described the progress of their work on pharmaceutical stewardship to date, including the development of an educational fact sheet and online map of take-back locations.

SESSION 2: PROBLEMS RELATED TO PHARMACEUTICALS MANAGEMENT

Scott Cassel (PSI) provided a national perspective on the importance of pharmaceutical management. There are two categories of concern that occur with improper pharmaceutical storage and disposal: health and safety (such as drug abuse and accidental poisonings) and environmental health (such as aquatic impacts and water quality).

Amanda Ruback, Community Outreach Coordinator at the Missouri Poison Center, discussed the risk of poisonings due to improper pharmaceutical storage and disposal. Ninety percent of all poisonings occur in the home, primarily to children under 5 years old. The majority (76 percent) of all poisonings are unintentional. Many of these poisonings occur because people for whom a medication is not intended accidentally ingest that medicine. Children will ingest these substances because they have hand-to-mouth behavior, are curious, and may imitate their parents if they see them taking medication. Both children and adults are also prone to mistaking a medication for something else, like candy or a different medication. Three of the five deadliest poison exposures for children 5 and under are medications: pain relievers, stimulants, and cough and cold medication. The COVID-19 pandemic has exacerbated these problems. With a change in routine, added stress, and people taking more medication and vitamins, residents have been making more mistakes in taking their medication. Amanda encouraged people to store medication separately, keep it out of sight, and not to take medicine in front of children.

Cynthia Finley, Director of Regulatory Affairs at the National Association of Clean Water Agencies (NACWA), described the issues involved with the presence of pharmaceuticals in water. Cynthia first described the process of stormwater and sewage treatment. After wastewater is treated, both the resulting biosolids and the water resources can be reused. Biosolids can be applied to the land, incinerated, and landfilled, and water can be reused for irrigation and other purposes. Therefore, it is important to protect these components from pharmaceuticals contamination by disposing of medications properly, rather than flushing them into the wastewater system. Most wastewater treatment facilities are not built to remove pharmaceuticals. It is best to dispose of pharmaceuticals through a take-back program, and never to flush them or anything else that is not intended for the sewer system.

Marcus Rivas, Environmental Engineer at the US EPA Region 7, spoke on the 2018 federal rule regarding hazardous waste pharmaceutical management. This rule was created to provide a better regulatory fit for the healthcare industry, prohibit sewerage of pharmaceuticals, and help ensure best management practices. The rule regulates healthcare facilities (including-retailers that sell prescription and over-the-counter drugs). This rule does not regulate households (nor farmers and ranchers). Among other regulations, the rule prohibits all healthcare facilities from disposing of pharmaceuticals in any sewer, including septic systems. The EPA hopes households will adopt this sewer ban as a best practice for themselves. The sewer prohibition is effective nationwide (including Missouri). The rest of the rule is not yet effective in Missouri. Marcus reminded the group that there should not be any unpermitted burning of pharmaceuticals by law enforcement agencies and others, and instead they should use take-back or mail-back programs. The permitting requirement is independent of the new pharmaceutical rule. Unpermitted burning poses significant risk to human health of law enforcement personnel and communities, as well as to the environment.

SESSION 3: PHARMACEUTICAL TAKE-BACK PROGRAMS (PART 1)

Scott Cassel (PSI) provided a broad overview of drug take-back program approaches, challenges, and legislative trends. There are three types of drug take-back programs: (1) on-site receptacles at law enforcement facilities and pharmacies, (2) collection events, and (3) mail-back envelopes. These programs can be voluntary or created through legislation and they face two key barriers: regulatory challenges and sustainable funding. Importantly, the DEA rule on the disposal of controlled substances allows flexibility in these collection programs, including adding pharmacies as authorized take back sites. The DEA rule also allows for collection by law enforcement and DEA-approved mail-back programs. While there is mixed messaging about flushing a subset of dangerous medications, U.S. agencies uniformly support take-back disposal programs. Scott also discussed EPR laws. There are 29 pharmaceutical EPR laws today, including 6 statewide laws and 23 local laws, which provide a framework for all stakeholders involved in managing waste pharmaceuticals.

Dr. Randall Williams, Director of the Missouri Department of Health and Senior Services (MO DHSS), described drug take-back programs in Missouri. The MO DHSS has tracked the large problem of opioid misuse and deaths in Missouri, particularly in the St. Louis area. Based on preliminary data, this problem has been exacerbated during the pandemic. Dr. Williams emphasized that 75 percent of prescription pharmaceuticals that are abused are stockpiled at home. Historically, this problem has been addressed by working closely with the DEA to dispose of unneeded drugs, particularly through their bi-yearly take-back events. On average, the DEA collects about 40,000 pounds of medication during each event in Missouri. In July 2018, Governor Mike Parson signed Senate Bill 826 into law, authorizing disposal boxes to be placed in pharmacies and other medical facilities, greatly expanding capacity. There is no application or fee required to host a drop box; locations must just follow existing DEA guidelines. The MO DHSS is required to publish [a list of drug disposal box locations in Missouri](#), and there are currently 138 law enforcement locations and 216 pharmacy locations. Finally, the DHSS has an opioid abuse public awareness campaign called Time2Act, which includes a website with resources pertaining to opioid abuse.

Rachel Perlman (PSI) gave a brief overview of existing infrastructure for collection and disposal in MO. There are multiple resources for collection and disposal in MO, but these resources are disparate, difficult to search, and it is difficult to find all of the Missouri locations in one place. PSI and the MO PSC created a database of 365 pharmaceutical collection sites in MO and 108 in bordering areas near MO. It must be noted that these have not all been verified, but each location includes hours and a phone number to contact the site before visiting. PSI and the MO PSC, with help from MSDIS, also created an interactive map using this database that is searchable and user friendly. It can be accessed here: <http://bit.ly/MOmeds>. Rachel also mapped the information along with population by county and found that higher population areas tend to have more take-back sites, while many rural counties have few or none.

SESSION 4: PHARMACEUTICAL TAKE-BACK PROGRAMS (PART 2)

Kimberly Grinston, Executive Director of the Missouri Board of Pharmacy, provided a summary of the Rx Cares for Missouri Medication Destruction Program. The program was funded in 2018 by the Board of Pharmacy. It provides pharmacies and law enforcement locations a collection box and twelve disposals through Sharps Compliance at no cost, and then allows the location to keep the box and decide to continue with the program at their own cost. The program started July 1, 2019 and currently supports 65 participants with another 9 in process. Enrollment is open now, though COVID-19 has slowed down some of the progress. The program can likely support about 70 new participants a year, plus 70-100 returning participants, for a total of about 150 enrolled at a time. So far, 1,449 pounds of medication have been collected through the program. The goal of the program is to ensure that there is drop-off coverage not only in urban areas, but also in rural, underserved communities. Kimberly also showed an interactive map hosted by the National Board of Pharmacy that includes the drug take-back locations covered by the RxCares program: <https://safe.pharmacy/drug-disposal/>.

Sergeant Jeff Harding, of Callaway County Sheriff's Office (CCSO), discussed his office's approach to collecting and disposing of pharmaceuticals. The CCSO began participating in the National Drug Take Back Day in 2010 and has brought in 2,503 pounds of medication since 2011. While they did not initially have a year-round collection box, County residents frequently dropped off unused medications at the sheriff's office. In 2018, the CCSO independently installed a 24-hour collection box in their lobby because they wanted residents to have access to more options for disposal than just the two annual DEA collection days; the response has been overwhelmingly positive. The contents are anonymously placed into DEA-supplied boxes and stored until the next National Drug Take-Back event.

Michael Van Brunt, Senior Director of Sustainability at Covanta, began with a brief background of Covanta, which owns and operates more than 40 waste-to-energy facilities around the world and partners with many agencies and organizations to destroy unwanted medication and other pharmaceutical waste. Waste-to-energy is a suitable option for medication destruction because it meets the DEA's standards for "non-retrievable" destruction of medications, has energy recovery benefits, has been determined by the EPA to be "environmentally protective," and reduces transportation impacts because there are facilities across the country. The Maine Department of Environmental Protection found that waste-to-energy resulted in a 99.9 percent destruction of pharmaceuticals and personal care products in a test burn study. Covanta is in its 10th year of their Rx4Safety drug disposal program, which was started with the help of PSI. Under this program, Covanta works with a variety of stakeholders, including the DEA, to provide safe, secure, and anonymous disposal for drug take-back events. Covanta also disposes of medications collected in kiosks and mail-in envelopes.

Kirk Herweck, Director of Consumer Drug Take Back Program at Inmar Intelligence, discussed Inmar's role in drug take-back programs. Inmar provides pharmaceutical return services to 90% of hospitals, over 50,000 retail pharmacies and also has a consumer drug take-back program with over 3500 kiosks in 46 states, including 58 kiosks in Missouri, at Walmart, Hy-vee, and Cox Health locations. Inmar is working with states and counties across the country as a Program Operator to assist drug manufacturers with meeting legislative requirements for Drug Stewardship plans. Inmar also partners with wholesalers, insurance companies and retailers to create volunteer programs in states with no legislative mandate.

NETWORKING SESSION

Some participants joined for an optional networking discussion in which they discussed some of the presentation topics heard throughout the day and spoke about their priorities and interests for the discussion on day two.

Day 2: October 14, 2020

SESSION 1: WELCOME BACK AND RECAP

Scott Cassel (PSI) began by introducing the agenda and briefly recapping Day 1.

Rachel Perlman (PSI) discussed some of the key learnings from day 1 and topics of most interest. Participants agreed that during the previous day, the group learned about several important existing resources that could be better promoted and easier to find. There are also options for pharmacies, like RxCares, that already exist and could help them get started as a collection site. However, there is still a need for a unification of resources, and ways to reach underserved communities, like seniors and people in remote areas.

SESSION 2: EDUCATION

Participants provided feedback on [the draft fact sheet](#) on proper pharmaceutical disposal created by PSI and the MO PSC. Overall, the response was positive with some suggested edits and additions. Some participants said that it would be helpful to have an “elevator pitch” blurb or graphic that summarizes the main points of the fact sheet. This shorter version would be easier to share on social media. An ease of sharing might increase buy-in from some organizations to promote the message on their own platforms. The group came up with a preliminary succinct summary of the fact sheet:

1. Never flush medication!
2. Don't overorder or keep/stockpile excess medication OR Keep only what you need
3. Find a drop off site near you to safely dispose of medication: <http://bit.ly/MOMeds>
*Last resort: dispose of in the trash per instructions [here](#).

Rachel Perlman (PSI) then presented [the list of MO stakeholders](#) that already have messaging on safe drug disposal collected, which she created with PSI's Olivia den Dulk. Rachel asked participants to identify other organizations that either already have messaging or are important to reach out to with the fact sheet. There were many different suggestions of organizations and agencies to add to the list. PSI created [a spreadsheet](#) where volunteers can sign up to contact organizations to ask about incorporating the fact sheet into their messaging. The group decided to prioritize outreach to:

- MO Board of Pharmacy
- Local Health Departments
- Underserved populations, seniors, underinsured
- MO Pharmacy Association
- Solid Waste Districts
- Any organization that says flushing is okay
- MO HealthNet (MO Medicaid)

SESSION 3: LAYING THE GROUNDWORK FOR PHARMACEUTICAL STEWARDSHIP IN MISSOURI

Rachel Perlman (PSI) described the elements of a successful pharmaceutical stewardship plan, including a convenient pharmaceuticals disposal system, a clear and consistent message, a strategy to disseminate the message, and sustainable funding. The group then discussed these elements.

Infrastructure

PSI estimates that there are currently 365 pharmaceutical take-back sites in Missouri, and these are listed in [a database](#) and [interactive map](#) created by PSI and the MO PSC. The reception to this database and map was positive, but there remains a concern about sustainable funding and staff to maintain them. There are some other options for finding take-back locations such as Google Maps or the RxCares site, but they are not comprehensive.

It is difficult to supply to individual residents because the mailers must be tracked and regulated, so there are not many residential programs. Mail-back programs are primarily used commercially. However, it is still worth investigating mail-back options because these programs can provide disposal access to those who cannot easily get to a drop-off location (e.g., elderly or house-bound individuals). Mail-back solutions may also be preferable during COVID-19 as it allows residents to avoid making an additional trip to a public place.

Convenience standards are a key facet of EPR laws. Convenience standards typically have a clause that states that at least 90% of residents must have a permanent collection site within a 15-mile radius, and that there should be one additional permanent site for every 30,000 or 50,000 residents of an urbanized area. Participants agreed that 15 miles is far to travel to drop off pharmaceuticals, particularly in a city, so it might be important to have additional drop off sites both in cities and in strategic locations within remote areas. Generally, pharmacies are considered to be the most convenient location to have pharmaceutical take-back kiosks. While some law enforcement agencies have drop-off kiosks, residents are often reluctant to visit those locations. Even if drop off programs are convenient, we will want to normalize the drop-off behavior and make it a routine to increase the likelihood that that people will participate.

Funding

Collection kiosks cost about \$2-3 per pound, including liners and a vendor to transport and destroy collected medication. More information can be found in PSI's "[How-to Guide](#)." Funding for a collection program can come from pharmacies, manufacturers, or governments. Since the MO Board of Pharmacy is highly involved in the RxCares collection program that already exists, the group plans to follow up with them to discuss how to build upon their work. There was some interest from the group to consider Extended Producer Responsibility (EPR) and/or engagement with the pharmaceutical industry as a strategy for securing sustainable funding. Even if EPR is not feasible in the short-term, perhaps there are opportunities to work with industry to fund education efforts on the importance of take-back as part of a stewardship program.

Next Steps

Participants decided on the following next steps:

- Expand the MO PSC Pharmaceuticals Committee to include additional key stakeholders and follow up on action items from the Summit. Email Rachel to join the general MO PSC and/or pharms-focused discussions at rachelp@productstewardship.us. The next general MO PSC meeting is on November 12th at 10am CT.
- Revise the Messaging Fact Sheet to incorporate feedback from the group. Share the new version with the Committee and Summit participants. Participants should distribute this fact sheet to their networks once it is final.
- PSI and the MO PSC Pharms workgroup will research funding sources for expanding take-back programs.
- PSI will follow up with Kimberley Grinston at the MO Board of Pharmacy about potential collaboration and resources. The MO PSC Pharms workgroup will work to promote the RxCares program, and learn about how this model of financial support for take-back kiosks can be sustained and/or expanded in MO.
- Participants were encouraged to sign up [through this spreadsheet](#) to contact organizations and request that they incorporate the fact sheet into their messaging. Participants are also encouraged to add additional organizations/agencies to the list.