A Prescription for Change

How improperly disposed medications and needles are affecting our community health

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Cleaning Up Our Act

Unusual bedfellows come together to ask for safe disposal of medications and needles

The use of prescription drugs has risen steadily in the United States, to the point where 70 percent of Americans are now taking at least one prescription medication.

Where do those medications, and their over-the-counter companions, go when they are no longer needed? Many stay in medicine cabinets; some end up flushed down the toilet; and others end up in the hands of young people or criminals. In addition to medications, the Food and Drug Administration estimates that 3 billion needles, also referred to as “sharps,” are used in U.S. homes each year. While many people who use those sharps understand that it’s dangerous to throw them in the trash, not to mention illegal in California, there is still no easy way to dispose of them correctly. “We banned them from disposal in 2008, but bans don’t work if you don’t have a plan,” explains Heidi Sanborn, executive director of the California Product Stewardship Council, which is pushing several initiatives to spur the proper disposal of sharps and medications.

This topic of safe disposal has political allies in the form of two legislative bills in California. Assembly Bill 1893, co-authored by Assemblyman Mark Stone and Assemblywoman Susan Eggman, would require that disposal containers be sold with sharps. Senate Bill 1014, authored by Sen. Hannah-Beth Jackson, calls on pharmaceutical companies to create a program that ensures easy access to disposal bins for unused medications, much like take-back programs found in Canada’s pharmacies, which are paid for by drug companies there.

“It’s being done already in Canada for sharps and pharmaceuticals — why aren’t they willing to do it here?” Sanborn asks of drug companies.

What it comes down to is extended producer responsibility — making sure there are safe and convenient ways to discard products. “It’s not only the right thing to do, it’s a matter of public health and safety,” Sanborn says. When left around the house, unused medications can fuel addictions, contribute to crime or lead to unintentional poisoning, and when flushed or trashed they can end up polluting the environment. Needles also pose a risk. When disposed of improperly in household trash and recycling cans, they threaten the health and safety of sanitation workers who handle that material.

“We know that when we talk to the public, they totally get the public supports companies making products more recyclable, as well as companies that offer take-back themselves. CPSC has helped pass stewardship legislation for carpet, mercury thermostats and paint. In 2014 the council is working on policies for unwanted medications, used needles and household batteries. CPSC needs public financial support and engagement to do this work! If you want recycling to be more convenient and more affordable, please consider supporting CPSC. Find out more at www.calpsc.org.

What is the California Product Stewardship Council?

The California Product Stewardship Council (CPSC) is a 501 (c) (3) public benefit nonprofit organization founded in 2007. In seven years, CPSC has become a powerful network of local governments, non-governmental organizations, businesses and individuals creating a movement resulting in manufacturers sharing the responsibility for products at end of life. By developing partnerships, CPSC has proven it can increase battery recycling rates 3,000 percent in one year. Through focus groups, the council has learned that the public supports companies making products more recyclable, as well as companies that offer take-back themselves. CPSC has helped pass stewardship legislation for carpet, mercury thermostats and paint. In 2014 the council is working on policies for unwanted medications, used needles and household batteries. CPSC needs public financial support and engagement to do this work! If you want recycling to be more convenient and more affordable, please consider supporting CPSC. Find out more at www.calpsc.org.
A Stolen Life

Son’s addiction started with pills he found at home

by Michelle Carl

Sandra Chavez kept Vicodin in her kitchen. She kept it in the medicine cabinet, next to the Tylenol. Following a medical procedure such as a surgery or root canal, she would hold on to the unused medication — just in case.

But if she had known the danger at the time, she would have gotten rid of the drug, because her teenage son Jeff was abusing it at home.

“I didn’t make the connection,” says Sandra, who stressed to her children the ills of illegal drugs and alcohol. “You don’t think that your child is going to become an addict [to prescription pills].”

Jeff Chavez was intelligent and artistic, with dark, soulful eyes. He loved science and his pet iguana. He was quiet, although his mother says people were drawn to him because of his sensitive nature.

The summer after ninth grade, the Elk Grove High School student was attacked by a group of unknown teens. He was knocked unconscious and suffered lost teeth and a broken jaw from the assault. His jaw was wired shut and he was in pain, so his dentist prescribed him Vicodin.

“Life never was the same after that,” Sandra says.

Access to powerful prescription painkillers in the home can lead to abuse by teens, not to mention accidental poisonings in young children and the elderly.

A 2013 study by The Partnership at Drugfree.org found that one in four teens had intentionally misused a prescription drug in their lifetime — a 33 percent increase from five years ago. The study also showed that teens and parents have a false sense that prescription pills are safer than street drugs. But the reality is abuse of these drugs can be just as damaging and deadly. According to the National Institute on Drug Abuse, accidental overdose deaths from prescription opiates have quadrupled since 1999 and now outnumber those from heroin and cocaine combined.

Sandra cut off ties with her youngest son.

“He was this beautiful person and it stole his beauty. It stole his health.”

SANDRA CHAVEZ

Mother

He was this beautiful person and it stole his beauty. It stole his health.

Burglars want your meds

When a burglar breaks into a home, what’s one of the first places he looks? It’s not the jewelry box — it’s the medicine cabinet.

That’s according to Scott Koll, property and evidence supervisor for the Roseville Police Department. Criminals may lift your TV and your diamonds, but they also snag your prescription drugs to be sold on the streets, introducing dangerous controlled substances into the community.

This crime is fueled by the fact that people keep their unused medication at home, often in an unlocked medicine cabinet.

“If we have two events a year where we take back drugs, one obvious consequence of that structure is people have to stockpile,” Koll says. “Someone may use a controlled substance for four days, and then it sits in their house for five months.”

While residents can take unwanted drugs to law enforcement agencies, he says the public isn’t always so excited to visit the police department. It’s also illegal to possess a prescription drug belonging to someone else, so when a loved one passes away, caretakers and family members are often left with no legal way to dispose of the drug.

“To give people an outlet to get rid of something they no longer need and do it at their convenience seems like a logical way to relieve the pressure,” Koll says.
For six months, Brian Hamilton worried that he might have contracted a debilitating virus from a needle that stuck him while he was sorting through hazardous waste. It was the longest six months of his life.

As an associate waste management specialist for the Sacramento County Department of Waste Management and Recycling, Hamilton is responsible for making sure hazardous materials such as needles and household chemicals are properly disposed. But while sorting through some items a customer dropped off at Kiefer Landfill’s Antifreeze, Batteries, Oil & Paint facility in November 2012, the usually careful employee encountered a problem.

“I had just received a couple of buckets that were filled with oil,” Hamilton says. “I poured the oil out, and it had a whole bunch of stuff in it — garbage bags, green waste and other stuff mixed in with the oil. It was starting to clog the screen we have, so I grabbed some of it with my rubber gloves to move it into a bucket. When I picked it up, I felt a sharp pain, and that’s when I realized there was a needle mixed in with all of that stuff.”

Hamilton says he was freaked out. He cleaned the spot where the needle punctured his skin and notified his supervisor. Then he drove himself to the hospital and took along the needle so it could be tested.

“All this stuff was going through my head,” Hamilton says. “I was worried that I might have contracted hepatitis or something worse. I was angry that it happened.”

Once he arrived at the hospital, Hamilton received the first of three hepatitis vaccination shots he would get over the course of six months. His doctors believed there was a possibility the vaccination could counter the virus if it was given right away. He also had blood drawn for lab tests.

The U.S. Centers for Disease Control and Prevention estimates that more than a half-million accidental sharps sticks occur in the United States annually, with many of those injuries going unreported. Sharps injuries can occur with many professionals, including nurses, doctors, law enforcement officers, firefighters, paramedics, correctional officers and sanitation workers like Hamilton. These injuries continue to be a problem and pose unnecessary health risks for people who come into contact with improperly disposed sharps.

In Hamilton’s case, HIV was ruled out because it dies fairly quickly outside the human body. Hepatitis B, however, can live for seven days without a host. But that initial worry soon turned to calm after the first tests came back negative. Each time he would visit his doctor and hear back negative results, Hamilton would become more confident that he was going to be okay. But doctors caution that hepatitis C could show up at any time.

Today, Hamilton has a clean bill of health and is back to sorting through hazardous waste. But he stresses the proper disposal of sharps.

“We feel it’s our responsibility, as a manufacturer of devices designed to puncture skin, to make sure sharps are disposed of safely.”

TOM ERICKSON
CEO OF ULTIMED
“There’s not some sort of magic process that can remove everything we put down the drain.”

DAVID SEDLAK
DIRECTOR OF THE INSTITUTE FOR ENVIRONMENTAL SCIENCE AND ENGINEERING AT UC BERKELEY

From Toilet to Tap

Scientists say when medications are flushed, they can end up in our drinking water

by Meredith J. Graham

Many people don’t realize it, but the medications they take — or those they flush down the toilet — ultimately end up in our drinking water. While we are still in the beginning stages of understanding the effects of pharmaceuticals in our water supply, most scientists agree that it’s worthy of further study.

“When we take a medication or use a cleaning agent, and we put it down the drain, it goes somewhere,” says David Sedlak, co-director of the Berkeley Water Center and director of the Institute for Environmental Science and Engineering at UC Berkeley. “There’s not some sort of magic process that can remove everything we put down the drain.”

Many medications dissolve easily in water. But they are not so easily removed when they get to wastewater treatment facilities, which are designed primarily to filter out particles, not liquids. Once the treated wastewater is returned to the river, some of it may end up in drinking water treatment systems that serve communities downstream.

“We have seen effects on aquatic organisms,” Sedlak explains. “And there are concerns that these pharmaceuticals are making their way back into our drinking water.”

There has been no study on the effect of these drugs in the water on humans. Sedlak says there’s not enough research yet to show the repercussions of flushing unused medications down the toilet — most studies include pharmaceuticals that have been excreted — but he says it’s a subject worth exploring.

Other scientists agree. The World Health Organization’s website includes a discussion of pharmaceuticals and the environment. It suggests that to minimize the amount of chemicals that end up in our drinking water, we should not flush medications we don’t take.

“The most appropriate approach to minimize the presence of pharmaceuticals in drinking water and reduce human exposure is to prevent or reduce their entry into the water environment as far as reasonably practical,” the website reads.

But throwing drugs in the trash with some cat litter isn’t the solution either. While some experts suggest mixing pills with unsavory substances to prevent abuse and then tossing them into the garbage, studies have shown that rainfall on landfills can dissolve the chemicals, causing them to leach.

Leachate is the liquid that gets into landfills from rain and percolates through material deposited in a landfill, dissolving contaminants. The leachate is then collected and either injected back into the landfill, treated on-site or sent into the sanitary sewer system for treatment.

Sedlak says the biggest way we can help the environment is to change our attitudes about medicines. He points to Sweden, where medications are classified in relation to their effect on the environment. This classification system, which the Swedish government uses when approving new drugs, has led to further research on environmental impacts as well as pharmaceutical companies creating medicines that are less harmful to the ecosystem.

Don’t Rush to Flush! Meds in the Bin. We all Win!

Flushing expired or unused medications down the toilet can add to the pharmaceuticals in our streams and drinking water. There are alternatives to flushing. The Don’t Rush to Flush campaign recommends these actions:

• At home, scratch out all identifying information from prescription bottles, then recycle the bottles
• Remove pills from original packaging and place them in clear plastic bags
• Keep liquids and gels in original packaging
• Take advantage of drug take-back bins, which accept prescription and over-the-counter medications for humans and pets as well as medicated ointments (see back page for a list of Sacramento-area disposal spots)
• Separate controlled substances (Vicodin, codeine, Ritalin, etc.) and bring to the national Drug Enforcement Agency Take-Back Day event (see back page for details)

For a full list of controlled substances, log on to www.deadiversion.usdoj.gov/schedules
If They Can Do It in Canada, Why Not California?

A model for the safe and easy disposal of pills and sharps lies just to the north

by Shannon Springmeyer

California has a hodgepodge of programs allowing consumers to dispose of potentially dangerous medications and sharps. But our neighbors to the north have a sustainable solution, one that doesn’t burden the taxpayer or ratepayer.

Pharmacies throughout Canada have been offering free take-back for unused medications and sharps since the early 1990s. Not only is this service good for the environment and public health and safety, it is also good for business, according to Brad Wright, principal consultant for Environment and Resources Consulting in Toronto. Pharmacies began voluntarily collecting and disposing of sharps and unused medications as an additional service to attract customers to their retail locations, he says.

Pharmacy-based take-back programs make a lot of sense, offering convenience and accessibility to customers, as well as expertise in managing these materials safely, Wright says. However, a significant percentage of the materials collected in such programs ended up in the municipal hazardous and special waste collection system — at the taxpayers’ expense.

To address this problem, lawmakers in Ontario turned to a regulatory model based on extended producer responsibility (EPR), a strategy for placing responsibility for end-of-life management of pharmaceutical waste and sharps to the manufacturers, without dictating how they accomplish this. This allowed manufacturers to work collectively through the national Health Products Stewardship Association, which built upon and expanded the existing pharmacy-based disposal network on behalf of industry, while the manufacturers assumed the costs instead of taxpayers.

“The onus in terms of liability has to be on the individual producer, and what they really should do is look to the excellent example here in Canada — in B.C., Manitoba, and Ontario — of how these programs have been operating for years, and operating very effectively, meeting targets in getting this material managed properly,” Wright says.

Wright suggests that the success of EPR programs in Canada for these products, going back a decade, could be examined by industry and lawmakers alike in California.

“These programs have been operating for years, and operating very effectively, meeting targets in getting this material managed properly.”

BRAD WRIGHT
PRINCIPAL CONSULTANT FOR ENVIRONMENT AND RESOURCES CONSULTING

Californians are currently required by law to properly dispose of used sharps in specially designed containers. But disposal bans without recovery plans do not work. AB 1893, which was introduced by state Assemblyman Mark Stone, D-Monterey Bay, and joint-authored by Assemblywoman Susan Eggman, D-Stockton, aims to improve compliance with the law by increasing access to appropriate disposal containers. The bill would require that a specially designed container for sharps waste be sold with sharps. It would also require that consumers receive information about how and where to safely dispose of sharps, and allow manufacturers and sellers to create sharps take-back programs.

Both bills will have to pass through committee hearings before being debated and voted upon in the Senate and Assembly in coming months. For more information on the legislation visit www.leginfo.ca.gov and click on “Bill Information.”
Progress in Product Stewardship

The California Product Stewardship Council has played a role in the passage of several new laws that ensure the proper disposal of products. Here are a few examples:

**THERMOSTATS**
- **The Problem:** Mercury thermostats are the largest source of mercury in homes. Mercury is a dangerous neurotoxin. It bioaccumulates in animal tissues such as fish, which are then consumed by people. Sales of mercury thermostats have been banned in California but they are still found in some buildings.
- **The Solution:** In 2008, the CPSC and the California Sierra Club co-authored the first extended producer responsibility (EPR) bill in California: The Mercury Thermostat Collection Act. The act requires heating and air conditioning (HVAC) wholesalers to accept mercury thermostats from the public free-of-charge and contractors to recycle them. For a collection site near you go to www.thermostat-recycle.org.

**PAINT**
- **The Problem:** The U.S. EPA estimates that consumers buy 10 percent more paint than they need. It is the single largest material managed by local government household hazardous waste (HHW) programs. In 2008 it cost California $27 million to manage the nearly 2 million gallons of leftover paint that were disposed.
- **The Solution:** California became the first state in the nation to have a permanent paint stewardship program. CPSC worked closely with the American Coatings Association to lay the foundation for a producer financed, designed and managed post-consumer paint recovery system. In 2010, Gov. Arnold Schwarzenegger signed AB 1343. California’s Paint Stewardship Program now has over 500 collection sites throughout the state. For a collection site near you go to www.paintcare.org/locator/index.php.

**CARPET**
- **The Problem:** According to California’s 2008 Waste Characterization Study, carpet makes up 3.4 percent of materials disposed of in California. It’s bulky and difficult to manage, and it has the fourth largest greenhouse gas footprint of any product disposed in California. Every year 4 billion pounds of carpet are discarded in the U.S. and only 1 percent is recycled.
- **The Solution:** In 2010, CPSC worked closely with carpet manufacturers, recyclers, the Carpet America Recovery Effort (CARE), and Assembly Speaker John Perez to develop legislation that enabled a product stewardship approach to recycling waste carpet. The result was AB 2398, which created new manufacturing jobs in California. The number of carpet recyclers in California increased from two to 16, reducing the need to put carpet in landfills. For a collection site near you go to www.carpetrecovery.org/collector-finder/index.html.

**Thermos TaTs disposal of products. Here are a few examples:**

What makes a great EPR disposal program?

What we’ve concluded — after years of research and observation — is that it has to be free at end-of-life, because if the product has no value to you and it costs money to recycle, you’re going to throw it away for free. Next is to offer a convenient way to manage it, and partner that with a good public education program that tells people how to use that system.

Who’s currently paying for the disposal of products?

Local governments and, essentially, the taxpayers. We’ve privatized profit and socialized costs. When you have a real free market approach and the cost of the product reflects its life cycle, that cost is a signal to the purchaser — this is what it really costs, do you want to pay it? And then they choose to buy that product or not. But what we’ve done with this current system is bury the costs, so nobody knows what they’re paying for. They don’t know that a fluorescent lamp costs as much to recycle as it does to buy, they just drop it off for “free” at their public facility, but it’s not free at all.

Why have prescription drugs become another product CPSC is concerned about?

The reason we took on pharmaceuticals is that San Francisco, Alameda and other counties were going down this path. They were getting so much public demand for more collection opportunities for a variety of reasons — drug abuse prevention, law enforcement, water quality — that they wanted to make producers responsible, and that just happens to be our policy area. It wasn’t necessarily our prioritization. Pharmaceuticals became our priority due to public demand.
The improper disposal of prescription medications and needles is a problem that affects us all. Join the effort to get shared responsibility of medication and sharps disposal. Be a part of the solution.

PLEDGE to properly dispose of used sharps and medications and share your story at www.calpsc.org.

PREVENT the abuse of drugs by locking up your prescription medications and properly disposing of unused pills. To reduce prescription drug abuse, visit www.ncapda.org.

ATTEND the Enough! Rally on March 24. For more information go to www.enoughrally.com.

DONATE to CPSC and help fund its campaign to promote product stewardship for problematic products.

SUBSCRIBE to the CPSC newsletter or follow CPSC on social media to receive up-to-date information on current issues and events.

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Where to Take Meds and Sharps

For unused or expired medications:
Sacramento State University Student Health Services Pharmacy at the WELL
6000 J St., Sacramento
(916) 278-6040
Monday-Thursday 8:30 a.m.-5:30 p.m.,
Friday 9 a.m.-4:30 p.m.

South Sacramento Pharmacy
5385 Franklin Blvd., Sacramento
(916) 452-0247
Monday-Friday 8:30 a.m.-6 p.m.,
Saturday 9 a.m.-1 p.m.

Sacramento County Sheriff’s Department
North Patrol Division
5510 Garfield Ave., Sacramento
(916) 874-1021
Monday-Friday 8 a.m.-4:30 p.m.

Jefferson Pharmacy
1029 Jefferson Blvd., West Sacramento
(916) 371-2022
Monday-Friday 9:30 a.m.-5:30 p.m.

El Macero Pharmacy
417 Mace Blvd. Suite D, Davis
(530) 231-6520
Monday-Friday 9:30 a.m.-6:30 p.m.,
Saturday 9:30 a.m.-5 p.m.

Eagle Drug
101 Main St., Winters
(530) 795-4123
Monday-Friday 10 a.m.-6 p.m.

For sharps and medications:
North Area Recovery Station
4450 Roseville Road, North Highlands
(916) 875-5555
Tuesday, Thursday-Saturday
8:30 a.m.-4 p.m.

Sharps only:
Sacramento Recycling and Transfer Station
8491 Fruitridge Road, Sacramento
Tuesday-Saturday 8 a.m.-5 p.m.

Other locations (City of Sacramento only)
Retailers, medical offices, hospitals, veterinarian clinics and other providers that dispense sharps to the general public must provide a sharps collection for free.

UPCOMING EVENTS

MONDAY, MARCH 24
Enough! Rally: Learn about drug abuse prevention from 10 a.m. to 2 p.m. at the south steps of the California State Capitol. Visit www.enoughrally.com for information on participating.

SATURDAY, APRIL 26
Drug Take-Back Event: Bring your controlled substances to this free, national take-back event, organized by the DEA. Check the DEA website at www.deadiversion.usdoj.gov/drug_disposal/takeback for local event times and locations.