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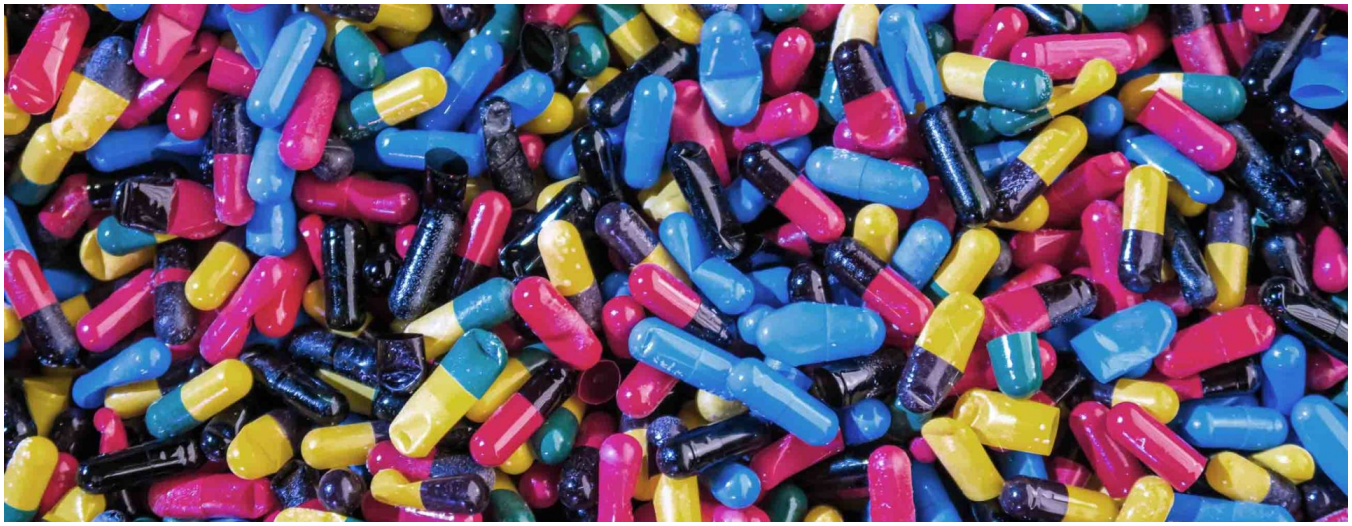

VARIABLES / *News & Features*

Awash in Unused Medications, With No Good Place to Put Them

Thousands of sites, including pharmacies, hospitals, and clinics, are eligible to serve as drug take-back sites. So why do so few participate?

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IN MAY OF last year, Dr. Chad Brummett spent part of a weekend in an Ann Arbor high school parking lot ensuring that the no-questions-asked drug take-back program he co-directs — called the Michigan Opioid Prescribing Engagement Network (Michigan OPEN) — went off without a hitch. The program is designed to give consumers in the area a convenient place to drop off unused or excess medications — ostensibly so they don't end up being dumped or flushed into the environment, or land in the streets as part of the nation's unchecked opioid epidemic.

Among the people stopping by that day, Brummett recalled: his own local pharmacist.

"I thought that was really an eye-opening moment when I had my pharmacist attend the event to dispose of his pills," said Brummett, who is also an associate professor of anesthesiology and the director of the Division of Pain Research at the University of Michigan.

"I mean the irony is pretty deep, right?"

According to a new analysis from the Government Accountability Office (GAO), some 4 million Americans reported misusing prescriptions in the prior month, and deaths related to opioid abuse are skyrocketing. Most people, the GAO suggests, get these drugs from friends or relatives, so providing a safe and

convenient way for consumers to return unused medications, the thinking goes, could help. Currently, there are three approaches to disposing of unused prescription drugs that are sanctioned by the Drug Enforcement Administration. These include special disposal bins installed at pharmacies or other registered entities, mail-back programs, and take-back events like Brummett's.

The problem, the GAO report noted, is that despite thousands of pharmacies, drug makers and distributors, narcotic treatment programs, and hospitals and clinics that are nominally eligible to serve as drug take-back sites, a vanishingly small number — fewer than 3 percent nationally — register to do so. Among the reasons cited: the cost of purchasing, installing, and managing prescription drug disposal bins; uncertainties over complying with DEA regulations; and the availability of other drug collection efforts.

Advocates for take-back campaigns consider these to be low barriers for programs that could otherwise prove an integral and effective part of a multi-pronged effort to combat opioid addiction and abuse in the United States. Such champions include Senators Chuck Grassley and Joni Ernst, both Iowa Republicans, who requested the GAO report.

The GAO estimates that close to half of the U.S. population currently lives within five miles of a DEA-authorized prescription disposal bin. Shrinking that distance, and expanding the population with nearby access, is what take-back supporters like Grassley and Ernst want. Citing studies showing their effectiveness, the senators urged the Office of National Drug Control Policy in September to include take-back programs as part of the Trump administration's opioid crisis battle plan.

"We believe these programs may be an effective part of an all-of-the-above strategy," the pair wrote, "to approaching the opioid epidemic."

Brummett agrees, which is why he's devoted not just to making the Michigan OPEN program viable, but also to studying patient behavior and the comparative effectiveness of different take-back sites.

"Our major goal in an effort like this," Brummett said, "is to raise awareness in the community about the dangers of leaving unused opioids in medicine cabinets."

THE FEDERAL Secure and Responsible Drug Disposal Act was supposed to jump-start take-back programs nationwide. Passed by Congress in 2010, the bill authorized pharmacies and other entities already sanctioned by the DEA to handle controlled substances to also collect

unused prescription drugs for disposal. The DEA finalized regulations for implementing the legislation in 2014, creating a voluntary process in which eligible entities could become official collectors of unused drugs.

The idea was not new, of course, and drug disposal kiosks have existed for many years in other countries, including France, Hungary, Portugal, and Spain. In Canada, the Health Products Stewardship Association (HPSA), a not-for-profit that sets up and oversees six Canadian take-back programs in four provinces for prescription and over-the-counter products, is funded by more than 170 pharmaceutical and health care companies including Bayer, GlaxoSmithKline, and Pfizer. The programs are overseen by the provincial government at an annual cost of close to $3.5 million, according to Ginette Vanasse, HPSA's executive director.

In the United States, the Product Stewardship Institute focuses on setting up take-back programs that are funded by what's known as "extended producer responsibility" (EPR) legislation. These laws call on manufacturers to pay for the safe disposal of consumer products, such as batteries or paint, at the end of their useful life. There is no federal legislation pending in Congress that would implement drug take-back programs funded by EPR, but there are 20 such laws for drugs in the U.S. — including two statewide laws in Massachusetts and Vermont.

"It's mandatory for the drug companies to organize and pay for these programs," says Vivian Fuhrman, senior associate for policy and programs for the Product Stewardship Institute. The problem, however, is that pharmacies or other approved entities need to volunteer to be collection points. "The larger national chains are slowly starting to see their important role in helping make drug take-back convenient across the country."

Cost is one factor that has stood in the way, says Keith Humphreys, a professor of psychiatry at Stanford University who studies the science of addiction. Most companies will not engage in expensive take-back initiatives without a reward, Humphreys suggests, and in the case of pharmacies, he says the costs of becoming a DEA-registered drop-off location, training staff, and hiring a disposal firm are considered "all just money down the drain."

Walgreens has the largest drug take-back program in the U.S. so far. The program was voluntarily rolled out in 2016, and to date, the pharmacy giant says it has installed 600 medication disposal kiosks in 45 states and has collected 155 tons of medications. Walgreens recently accepted funding from a handful of pharmaceutical and health care companies, including Pfizer, to expand the program to an additional 900 locations. The drugstore chain leases the kiosks and, at minimum, pays a monthly fee per store to the medical waste management company Stericycle, which handles the pickup and disposal of medications deposited in pharmacy kiosks. (The drugs are incinerated.)

"It is a very expensive program, but we feel it's the right thing to do in terms of corporate social responsibility and to help prevent the future misuse and abuse of prescription drugs and just get those medicines out of patients' medicine cabinets so that they don't hurt themselves," says Tasha Polster, Walgreens' vice president of pharmacy operations.

Polster adds that navigating the DEA regulations, which require each site to become licensed to accept controlled substances, is a challenge. Walgreens is still waiting on approval in some states whose respective board of pharmacy or bureau of narcotics regulations do not permit drug take-back operations.

CVS Health announced plans last year to install 750 drug collection kiosks, and according to pharmacists contacted for this story, the drugstore chain contracts with Sharps Compliance for pick up and disposal. A spokeswoman said that CVS owns the kiosks, but she would not confirm the partnership with Sharps, nor disclose any details regarding the program's cost.

For its part, Michigan OPEN, which began in October 2016, receives funding from state, federal, and University of Michigan sources for the take-back events it stages throughout the state in partnership with DEA-authorized entities — largely law enforcement agencies. Each take-back event costs approximately $2,000, which Brummett says does not include drug disposal costs typically covered by either the DEA or local police.

For all of this, Dr. Jonah Stulberg, assistant professor of surgery at the Chicago-based academic medical center Northwestern Memorial Hospital, says culture — not cost — is the biggest obstacle to getting take-back programs off the ground. Northwestern's first drug retrieval kiosk was placed at the outpatient pharmacy in the surgical clinic, he says, to serve as a potent reminder "to change the culture around the way that we prescribe." The medical center, which purchases its kiosks from Stericycle and pays for all the costs — about $2,000 per year per box, for each time drugs in a container are collected and destroyed — plans to install several more in other locations.

Humphreys also says he sees potential in establishing a national culture and program for recycling medicines that is centered around pharmacies. In his vision, it would reward both patients and drop-off location operators with a cash deposit or a bonus, akin to the early days of recycling bottles and cans. "If you turn in your extra pills, you get something," he says. "I think if we did that people would do it more and then it would become a habit."

Whether that will ever happen is an open question, but Humphreys argues that in any case, legislators should require opioid manufacturers to sponsor recycling initiatives. "The automakers don't like paying for safety features, but we make them. The chemical industry doesn't like paying for cleanups, but we make them. You may not like paying to clean up these excess opioids, but we're going to make you," he explains. "If you want to do business in this country, and it's a pretty lucrative business for you, this is going to be the new rule."

WHEN ASKED what role opioid manufacturers currently play in providing and financing drug take-back programs, a representative of the Pharmaceutical Research and Manufacturers of America, an industry trade group, responded with a prepared statement saying that the industry is "committed to educating consumers about proper, FDA-recommended in-home disposal and local take-back programs" to help prevent drug abuse, keep excess medications away from children and teenagers, and protect the environment.

The group did not provide more detailed data, but advocates of take-back programs emphasize that it's not just a drug-abuse issue. Fuhrman of the Product Stewardship Institute, for example, notes that take-back programs are a key alternative to consumers simply throwing their unused medications in the trash or flushing them down the toilet — steps that federal agencies, including the FDA, still recommend when mail-back programs or disposal kiosks are not accessible. But such take-back systems end up "protecting aquatic ecosystems and water quality for source water that eventually becomes our drinking water," Fuhrman says.

Still, a recent journal review in JAMA Surgery found that medication take-back programs "secure only a small fraction of opioids available for nonmedical use and remain in rudimentary stages of implementation" and that the highest rate of patient use of FDA-recommended disposal methods was just 9 percent. Co-author Dr. Mark Bicket, an assistant professor and director of the Pain Fellowship Program at the Johns Hopkins University School of Medicine, says Hopkins installed five self-service, no-questions-asked bright blue MedSafe disposal boxes in August at its outpatient pharmacies in order to improve its own take-back outcomes.

Back in Michigan, Brummett is working to expand take-back opportunities. This includes exploring pathways for patients to handle opioid disposal at home — including one that uses activated carbon bags made by a company called Deterra. Patients place medications inside a pouch, add warm water, and then discard the bags. This process dissolves prescriptions and renders them inert.

As it stands, though, the vast majority of DEA-registered take-back sites in Michigan — like many other states — remain located at police stations and other law enforcement facilities — and that's part of the problem, Brummett says.

It's no secret that people are uncomfortable walking into police stations to return unused opioids, and Brummett says preliminary research for a clinical trial confirms this predilection. "People's preferences are to somehow find a way to safely dispose of their medications at home. People want a low-effort opportunity," Brummett says. "Going from there, we see people interested in pharmacies.

"But the lowest on the list by far and above — in its own category," he adds, "is law enforcement."

Joshua Brockman is a writer and multimedia journalist whose stories on business, technology, and the arts have been published by NPR, The New York Times, and Smithsonian, among many other national publications and broadcast outlets. His website is www.kayaknews.com.

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drug disposal, drug take back, Joshua Brockman, medicine disposal, opioid disposal, opioids, pharmaceuticals, take-back programs, unused medication