

NERC | Northeast Recycling Council

139 Main Street, Suite 401 • Brattleboro, Vermont 05301-2800
802.254.3636 • 802.254.5870 fax • www.nerc.org • info@nerc.org

To: CPF Grants Administrator
From: Lynn Rubinstein, Executive Director
Re: Final Report - unwanted medication collection grant

January 21, 2009

Overview

This unique project focused its efforts on promoting unwanted medication collections by community pharmacies, holding such events, and developing best management practice guidance for unwanted medication collections. Requests for information and support were received, and responded to, from around the nation.

Collections

Five collections were held in or sponsored by community pharmacies:

- Ukrop's Super Markets, Richmond, Virginia – September 2007
- Big Y Grocery, Tolland Connecticut – September 2007
- CVS, Windsor, Connecticut – April 2008
- Eaton Apothecary, Wellesley, Massachusetts – June and October 2008

Case studies were written and posted for each of the collections – with the exception of the final Eaton Apothecary event. The results of that collection were incorporated into the guidance document.

The case studies were posted on the NERC website. Following are the URLs and data on downloads from the site.

| Document | Downloads through January 20, 2009 |
|--|------------------------------------|
| Ukrop's Super Markets Case Study (Posted November 2007) http://www.nerc.org/documents/case_study_ukrop.pdf | 572 |
| Big Y Grocery Case Study (Posted November 2007) http://www.nerc.org/documents/case_study_big_y.pdf | 1,288 |
| Eaton Apothecary Case Study (Posted June 2008) http://www.nerc.org/documents/case_study_eaton_apothecary_wellesley_ma.pdf | 184 |
| CVS Windsor Case Study (Posted June 2008) http://www.nerc.org/documents/case_study_cvs_windsor_ct.pdf | 179 |
| Total | 2,223 |

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Results from the collection events were as follows:

| Pharmacy | Partici- pants | Non- regulated Med's Volume (Gallons) | Regulated Med's Volume (Gallons) | Total Volume Med's Collected | Avg. Non- Reg'd Volume (Gallon) /Partic. | Avg. Reg'd Volume (Gallon) /Partic. |
|-------------------------------|-------------------|---|---|---------------------------------------|---|---|
| Big Y Grocery | 15 | 20 | 5 | 25 | 1.3 | 0.33 |
| Ukrop's Super Market | 17 | 14.5 | 2 | 16.5 | 0.9 | 0.12 |
| CVS Windsor, CT | 122 | 170 | 10 | 180 | 1.4 | 0.08 |
| Eaton Apothecary – June | 41 | 31 | 3.5 | 34.5 | 0.8 | 0.09 |
| Eaton Apothecary - October | 80 | 70 | 7 | 77 | 0.9 | 0.09 |
| Total | 275 | 306 | 28 | 333 | 5.21 | 0.71 |
| Average | 55 | 61.1 | 5.5 | 66.6 | 1.0 | 0.14 |

One of the interesting statistics arises from a comparison of the two Eaton Apothecary events. Their advertising and promotional strategy was much the same, yet there was twice the number of participants and more than twice the volume of material collected. Their opinion was that having the collection at the same location and being able to tell people that another event was scheduled contributed to the strong results.

In advance of all collections, discussions were held with the relevant Board of Pharmacy to secure their permission and guidance.

Speaking Events

The project and the opportunities for community pharmacies to hold unwanted medication collections – as well as how to do them legally and safely – were presented in a number of venues; several of which awarded continuing education credits (CEUs) for the presentation. Presentations were made at the following events:

- APhA Annual Conference (CEUs) – March 2007
- Annual New England Pharmacists Convention (CEUs) – October 2007
- Eaton Apothecary Continuing Education Program (CEUs) – June 2008
- North American Hazardous Materials Managers Association (NAHMMA) – October 2008
- Massachusetts Health Council Pharmacy Conference, *Critical Issues in Pharmacy Practice* - January 2009.

Guidance Document

A detailed guidance document and companion Quick Guide about how to design and implement a safe and legal unwanted medication collection were developed and 500 CDs produced. Both documents were posted on the NERC website:

- Best Management Practices for Holding Unwanted Medication Collections: A Legal & Safe Approach for Community Pharmacies

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http://www.nerc.org/documents/unwanted_medication_collection_bmp_11_08.pdf

- Quick Guide: Holding an Unwanted Medication Collection for Community Pharmacies

http://www.nerc.org/documents/unwanted_medication_collection_quick_guide_1_08.pdf

Approximately 50 copies of the CDs were mailed to the individuals and organizations. Another 200 copies are expected to be distributed at the Massachusetts Health Council Conference in late January. In addition, announcements about the documents were posted on the national pharmaceutical management listserv, and an article published on the NERC website. The documents were posted on the NERC website in the last week of December 2008. As of January 20, 2009, there have been approximately 205 downloads of the full document and 120 of the Quick Guide.

Technical Assistance

Guidance, support, and assistance was provided to many pharmacies and organizations during the course of this project. They included:

- Leiter Pharmacy (California) – launched ongoing community pharmacy medication collection
- Yale University Health Services (Connecticut)
- Christiana Care (Delaware) – held collection
- White Cross Pharmacy (Idaho)
- Athol Hospital (Massachusetts)
- Franklin County Solid Waste District (Massachusetts)
- Washtenaw County Solid Waste Coordinator (Michigan)
- Goodrich Pharmacy St Francis (Minnesota)
- Prairie Stone Pharmacy (Minnesota)
- “Independently owned pharmacy” (New Jersey)
- Pennsylvania Department of Environmental Protection
- Marblework Pharmacy (Vermont)
- West Virginia Rivers Coalition – launched ongoing community pharmacy medication collection

Other

In support of the project, several other tasks were completed. These included:

- Wrote a fact sheet about the project (Attachment 1).
- Wrote a press release about the project (Attachment 2) which was distributed to Pharmacy Today/American Pharmacists Association and the National Pharmacist Association.
- Provided information (PowerPoint slides) to Charlotte A. Smith, R. Ph., M.S., HEM, President PharmEcology Associates, LLC, for a presentation to the NABP (attached).
- Wrote a document highlighting key considerations for a community pharmacy relative to holding an event (Attachment 3).

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Conclusion

While this project did not evolve exactly as had been anticipated in the original proposal, the key deliverables – piloting unwanted medication collections in community pharmacies and writing a best management practice guidance document – were fulfilled. These efforts have been extremely successful and, we believe, have helped to develop and support momentum among the community pharmacy community to tackle the issue of unwanted medications, and to provide collection opportunities.

ATTACHMENT 1

FACT SHEET Demonstration Project *Community Pharmacies Taking the Lead in the Safe Disposal of Unwanted Medications*

Background

The Northeast Recycling Council, Inc. (NERC) has been awarded a grant by the Community Pharmacy Foundation to work with community pharmacies to encourage the development of unwanted medication collections from the general public. Specifically, NERC will:

1. Develop and implement retail pharmacy unwanted medication collection and disposal programs.
2. Write and promote a guidance manual for pharmacies on how to conduct an unwanted medications collection program.
3. Work in partnership with pharmacies, to develop and implement a pharmacy-based consumer education program about the proper (and improper) way to dispose of medications.
4. Promote guidance for the pharmacy community to provide consumer education and leadership about unwanted medication disposal.

The Need

Several significant scientific studies in the U.S., Canada, and the United Kingdom have found over-the-counter and prescription medications in up to 80% of the surface water supplies tested, including Prozac, antibiotics, ibuprofen, naproxen, and gemfibrozil. Action is required to prevent the unnecessary introduction of these chemicals into the water supply. While non-metabolized medication in human waste is the primary source of these pollutants, another source is the disposal of unwanted of unused medications down the drain and in the trash.

In addition, there is a growing public health and safety concern with unwanted medications. Law enforcement officials are seeing criminal activity targeting home medications; such as breaking and entering solely to steal medications, scavenging through trash – particularly from homes that are known to have had recent deaths, “pharming”, whereby all medications in homes are stolen and taken as a mixture for recreational drug use, and the well known exchange of prescription medications between friends. All of these can result in death.

The Northeast Recycling Council, Inc., through grants from the United States Environmental Protection Agency and the United States Department of Agriculture, has been working for a year to develop and implement safe and legal strategies for the collection and disposal of unwanted medications from the public. Finding a strategy that fully complies with all federal and state laws, including Boards of Pharmacy, DEA, FDA, and EPA regulations, has been particularly challenging, but such a solution has been

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found and successfully piloted in events in the Northeast, including in a community pharmacy.

Developing and piloting collection models is a first step. Developing a widespread infrastructure to safely collect and dispose of unwanted medications is essential, as is public education and guidance to make the public aware of proper disposal and of the newly developed community pharmacy disposal infrastructure.

The Role of Community Pharmacies

Community pharmacies and pharmacists can provide leadership through consumer education about the proper disposal of unwanted medication, and by providing disposal opportunities. Until now, the public has been advised to flush unwanted medicines down the drain. Clearly, this is no longer a sound recommendation. And, putting unwanted medications in the trash without proper precautions creates additional public health and safety concerns. Well-publicized best management practice recommendations and opportunities for collecting unwanted medications for safe disposal are needed. No other sector is as critical a link to the public as is the community of pharmacy regarding consumer awareness, use, and management of medications. Thus, the community of pharmacy is the ideal sector for providing leadership in how to dispose of unwanted medications. As you know, the public already turns to the pharmacist for such guidance.

The Project

The first step will be to reach out to the community of pharmacy to make it aware of this project and the opportunities that it presents. The initial goal will be to work in a targeted way with five (5) pharmacies; ideally representing different regions of the United States. We will seek to have at least two (2) national chains participating in the project. At this time our intention is to communicate with the community of pharmacies via direct communication to CVS, Walgreen's, and Rite Aid – companies with whom we have developed contacts through the above mentioned federal grants. In addition, we will reach out to the respective state pharmacist associations and ask them to recommend a specific independent community pharmacy. We will also seek the associations' assistance and participation in the project. An anticipated outreach strategy will include writing one or more articles for publication in the regional pharmacy journals. We are expecting the publication of an article about the role that community pharmacists can play in proper management of unwanted medications in the *New England Journal of Pharmacy* in a fall or winter issue.

Once collection programs are designed, we will work closely with the community pharmacies to advertise and promote the collection opportunity. We anticipate that consumer education about the need to properly dispose of unwanted medications will be a component of this outreach.

In addition, press releases will be developed and distributed announcing the availability of the consumer education tools and Guidance Document.

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Identify business or professional relationship that will be established as part of proposal
Successful implementation of this project will require developing a wide array of business and professional relationships. As mentioned directly above, this project will rely on developing working relations with several community pharmacies, pharmacists, and community pharmacy management. Once these relationships are established, we anticipate drawing representatives from each of the pharmacies together onto a working committee that will meet by conference call.

The Working Committee

Consumer education

The working committee will play an important role in developing model consumer education language and determining the best formats for communicating that message; for example, public service announcements, posters in stores, prescription inserts or labeling, brochures, fact sheets, information on websites, etc.

We will seek to have public relations professionals from the pharmacy organizations participate on the committee in order to ensure that the message(s) conform to company needs and are as effective as possible for communicating with the patient/customer community.

Unwanted medication collection

The development and implementation of unwanted medication collections will be customized for individual stores. This will require developing close working relations with pharmacy management, pharmacists, law enforcement, and disposal contractors (such as a hazardous waste firm). In addition, the state Board of Pharmacy and any other relevant state agency (such as environmental, drug enforcement) will also be consulted as part of the collection design in order to ensure compliance with all state laws and requirements.

ATTACHMENT 2
DATED PRESS RELEASE
August 9, 2006

For more information, contact:

Lynn Rubinstein, Executive Director
802-254-3636 lynn@nerc.org

Opportunity for Pharmacies to Take the Lead in the Safe Disposal of Unwanted Medications

The Community Pharmacy Foundation has awarded the Northeast Recycling Council, Inc. (NERC) a \$62,500 grant to work with community pharmacies to develop and implement public unwanted medication collection and disposal programs, and to assist pharmacies with the development of consumer education programs about proper medication disposal practices. Until now, the public has been advised to flush unwanted medicines down the drain. This is no longer a sound recommendation.

The Need

Several significant scientific studies in the U.S., Canada, and the United Kingdom have found over-the-counter and prescription medications in up to 80% of the surface water supplies tested, including Prozac, antibiotics, ibuprofen, naproxen, and gemfibrozil. Action is required to prevent the unnecessary introduction of these chemicals into the water supply. While non-metabolized medication in human waste is the primary source of these pollutants, another source is the disposal of unwanted medications down the drain and in the trash.

There is also a growing public health and safety concern with unwanted medications. Law enforcement officials are seeing criminal activity targeting home medications; such as breaking and entering solely to steal medications, scavenging through trash – particularly from homes that are known to have had recent deaths, - “pharming”, whereby all medications in homes are stolen and taken as a mixture for recreational drug use, and the well known exchange of prescription medications between friends. All of these can result in death.

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NERC, through grants from the United States Environmental Protection Agency and the United States Department of Agriculture, has been working for two years to develop and implement safe and legal strategies for the collection and disposal of unwanted medications from the public. Finding a strategy that complies with all federal and state laws has been challenging, but such a solution has been found and successfully piloted in events in the Northeast, including in a community pharmacy.

The Role of Community Pharmacies

Community pharmacies and pharmacists can provide leadership through consumer education about the proper disposal of unwanted medication, and by providing disposal opportunities. No other sector is as critical a link to the public as is the pharmacist regarding consumer awareness, use, and management of medications.

Getting Involved

NERC is seeking pharmacists that are interested in learning more about this issue and perhaps becoming involved in the project. For more information, contact Lynn Rubinstein, Executive Director, at lynn@nerc.org, or 802-254-3636.

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ATTACHMENT 3

The Decision Whether to Hold an Unwanted Medication Collection in a Pharmacy - A Brief Overview of Key Factors

Before deciding whether to host an unwanted medication collection, a pharmacy will need to consider a number of factors that affect its public image, legal standing, and, of course, its finances. After a review of these considerations, if the pharmacy is interested in pursuing a collection event, then before committing to hold such an event, it will also need to determine if its facility is suitable for a collection, including issues relating to the physical setting and the details of the collection event.

The following is a brief outline of the key points to be considered as part of the decision-making process.

1. Public perception
 - Making sure the public realizes that the medications will not be resold or reused, and that there will not be any refunds issued
 - Good service to provide – sets you apart
 - Bring more businesses and new customers
2. Legal & licensing
 - Registrant under DEA system
 - Permission from state board of pharmacy (which has already been obtained)
 - Permission from state drug control agency (which has already been obtained)
 - Destruction/possession of controlled substances
 - HIPPA
3. Costs
 - Advertising
 - Staffing of event
 - Hazardous waste disposal
 - Law enforcement
 - Supplies
 - Garbage
4. Physical
 - Space to hold event
 - Not behind counter
 - Traffic flow
 - Needs to be indoors
 - Where law enforcement feels “safe”
 - Needs to be adequate space in store so that collection does not interfere with retail activities and adequate separation from pharmacy operations.
 - Signage in store – promoting and identifying location
 - Need access to electricity

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- Need computer and access to printer other than the pharmacy's prescription filling system. For example, a laptop.

5. Event

- Time limited
- Data collection
- Survey
- Incentives
- Garbage, recycling, drug disposal (hazardous waste)
- Staffing:
 - Law enforcement
 - Pharmacist
 - Greeter
 - Data entry
 - Supervisor
 - Hazardous waste company (reverse distributor)

Brief Overview of a Collection Event

1. Individuals come in with their medications – ideally in the original containers. Experience says that individuals bring in a lot of material. On average each person will bring in approximately one gallon of medications (in their original containers), and 1 – 2 containers of controlled prescriptions. They bring the collection of medications to the event in cardboard boxes and in plastic grocery bags.

2. They drop off their medications and leave. An individual's on-site time is very brief. You may have a few survey questions for them before they leave.

3. The pharmacist sorts and categorizes the medications as controlled and non-controlled items. The non-controlled medications are put in hazardous waste containers¹. The pharmacist counts the controlled substances and a written inventory is created, witnessed by the pharmacist and law enforcement official, and given to law enforcement to take along with the controlled medications.

4. At the end of the event, the controlled substance inventory is printed out and signed by the law enforcement official as well as the pharmacist.²

5. At the end of the event, the hazardous waste hauler removes all of the non-controlled substances, creates manifests to document the materials per USEPA and USDOT regulations, and transports the medications to a hazardous waste incinerator.

6. After the hazardous waste hauler has left, the law enforcement official takes the controlled substances to the station and puts them in the evidence storage locker, awaiting destruction.

¹ Explore opportunities with reverse distributor

² The necessity of doing an inventory of the controlled substances may vary by state.

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