

US EPA ARCHIVE DOCUMENT

# Collecting Unwanted Medications for Appropriate Disposal

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# Background

- What is NERC?
  - Non-profit
  - 10 Northeast states
  - Mission: sustainability through solid waste management
- EPA & USDA – RUS Grants

# Collections held to date

- With household hazardous waste event
  - 22 participants
- With senior citizen event
  - 6 participants
- In pharmacy
  - 51 participants
- Stand alone
  - 14 participants



# Essentials for Holding a Collection Event

# Stand alone event a “must”

- *Not* ongoing due to management of controlled substances

# Unwanted Medication Collection *EVENT*

<b>Role</b>	<b>Status</b>	<b>Responsibility</b>
<b>Law Enforcement</b>	<b>Mandatory</b>	<b>Take custody controlled substances &amp; destroy. Security.</b>
<b>Pharmacist</b>	<b>Strongly Recommend</b>	<b>Determines if controlled &amp; inventories med's. Inventory required for controlled substances.</b>
<b>Hazardous Waste Disposal</b>	<b>Strongly recommend/ Mandatory in some states</b>	<b>Manifest, transport, incinerate non-controlled med's</b>

# Logistics – What to accept

- Prescription
- Over the counter, including vitamins
- Veterinary
- Homeopathic

# Logistics – *Not* to accept?

- Sharps
- Thermometers

... *UNLESS you're separately equipped for this.*

# Logistics - Pharmacist

- Determines status of medications
- Inventories medications



Non-Regulated Materials			Federally Controlled Substances			
Drug	Dosage	Amount		Drug	Dosage	Amount
Daily multivitamins		100		Acetaminophen/cod	#3	10
Aceon	4 mg	84		Acetaminophen/cod	#3	4
Acepromazine	5 mg	6		Acetaminophen/cod	#3	24
Acetaminophen	325 mg	3		Acetaminophen/cod	#3	24
Acetaminophen	160 mg	96		Alprazolam	0.25 mg	30
Acetaminophen	80 mg	120		Ambien	10 mg	1
acetaminophen	500 mg	2		Ambien	10 mg	197
Acetaminophen, aspirin, caffeine		200		Clonazepam	.5 mg	177
Aciphex	20 mg	9		Codeine sulphate	30 mg	49
Actifed		36		Concerta	27 mg	27
Advil	200 mg	39		Darvocet	100 mg	6
Advil children's	1 oz	0.5		Diazepam	5 mg	2
Aldactone	100 mg	88		Duragesic	75 mcg	1
Aleve	220 mg	66		Endodan	4.88/325	42
Alka seltzer morning	500/65	144		Hydrocdone/apap	7.5/500	9
Alka-Seltzer	325/1700/	14		Hydroco/apap	5/500	48

# Logistics - Recordkeeping

- Survey
- Data entry
  - Laptop
  - Printer
- Shelter & electricity

# UNWANTED MEDICATIONS COLLECTION

**Town/City of Residence:** \_\_\_\_\_

**Why is the medicine being disposed of?**

- Didn't like the medicine (made me ill, etc.)
- Expired/out-of-date medicine
- Taken off medicine/no longer needed
- Changed prescription/Wrong prescription
- Death (family member/friend)
- Cleaning house
- Never used the prescription
- Heard the drug was dangerous
- Drug was pulled off the market
- Other \_\_\_\_\_

**Whose medication was it?**

- Mine
- Family or household member
- Friend
- Pet

**How long have medicines been stored?** \_\_\_\_\_

# Logistics – Law Enforcement

- Provides security for collection
- Takes possession of controlled substances



# Logistics – Packing of Materials

- Medication stays in original containers
- Drums for non-controlled substances
- Aerosol/inhalers packed separately
- Ziploc bag with taped & initialed seal for controlled substances



# Logistics – Disposal

## Non-controlled substances

### Hazardous waste hauler & incineration

- Containers need to be pre-delivered
- Do not store medications on site
- Arrange pick-up time
- Suggest police remain on site until medications transported off site
- May require EPA ID number & manifest

# Logistics – Disposal controlled substances

1. Law enforcement evidence system  
for DEA witnessed destruction

Or

2. Direct shipment to witnessed DEA  
destruction

# Logistics - Worker safety

- Gloves
- Overalls/Jacket
- Hand cleaner
- Face mask?

# Why manage all consumer medications as hazardous waste?

- High percentage of medications “are” hazardous waste
- Meets intent of RCRA
- Difficult to separate into hazardous & non-hazardous
- Total destruction
- Tighter security & tracking to prevent diversion

# Average collection data

<b>Gallons per person (P/P)</b>	<b>0.84</b>
<b>Pounds P/P</b>	<b>0.47</b>
<b>Items P/P</b>	<b>31</b>
<b>Number regulated items P/P</b>	<b>1</b>
<b>Percent regulated items per event</b>	<b>11%</b>
<b>Percent prescription per event</b>	<ul style="list-style-type: none"><li>•61% by type</li><li>•69% by # items</li></ul>

# Participants – “why”

<b>Didn't like it</b>	<b>19%</b>
<b>Expired</b>	<b>46%</b>
<b>Death</b>	<b>32%</b>
<b>Cleaning house</b>	<b>21%</b>
<b>Never used</b>	<b>10%</b>
<b>Pulled off market</b>	<b>22%</b>
<b>Changed medication/didn't need anymore</b>	<b>33%</b>

# Participants - “whose”

<b>Mine</b>	<b>39%</b>
<b>Family/household</b>	<b>72%</b>
<b>Friend</b>	<b>11%</b>
<b>Pet</b>	<b>5%</b>

## **For more information – NERC Pilots**

- <http://www.nerc.org/adobe/CVSPilotReportFINAL.pdf>
- <http://www.nerc.org/documents/frnkln-cnty-pilot.html>

## **Comprehensive EPA Website**

- <http://www.epa.gov/esd/chemistry/pharma/index.htm>

# CONTACT INFORMATION

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