

# Pharmaceuticals from Households: A Return Mechanism (PH:ARM)

*Piloting a Responsible Medication Return Program for Washington State*

**Sego Jackson**

*Snohomish County, on Behalf of PH:ARM Team*

*February 27, 2007 House Select Committee on Environmental Health*



# Key PH:ARM Team and Advisors

## **Local Governments**

- Local Governments in King County
  - Public Health - Seattle & King County
  - Local Hazardous Waste Management Program in King County
  - Interagency Resource for Achieving Cooperation
- Snohomish County Solid Waste Management Division

## **State Agencies**

- Washington State Board of Pharmacy
- Washington State Department of Ecology
- Washington State Department of Social and Health Services- Aging and Disability Services

## **Non Profits**

- Pacific Northwest Pollution Prevention Resource Center
- Northwest Product Stewardship Council
- Washington Citizens for Resource Conservation

## **Private Sector**

- Bartell Drugs
- Group Health Cooperative

...and many other Interested Parties

## Project Goals:

- Reduce improper disposal of unwanted medicines that negatively impacts the environment.
- Reduce their availability for intentional/unintentional misuse.
- Reduce their availability for accidental poisoning.
- Pilot a system that can ultimately serve all communities throughout Washington.

# Program Characteristics Needed For Success

- Safe and secure system (secure collection, transport, destruction)
- Low-cost and financially sustainable
- Effective (high volume recovered)
  - Easily accessible & user friendly
  - Ongoing and widely available
- Government regulates and oversees the on-going program but does not fund and manage it. This should be left to the private sector.

# Program Must Meet Public's Needs

- It should be as easy to properly dispose of medications as it is to purchase them.
- Public comfort with solution is key to success.
- January 2006 SoundStats Survey showed that:
  - *74% of respondents said that they would be willing or very willing to return medications to a convenient location.*
  - *84% of respondents indicate a local pharmacy would be the most convenient location to dispose of unused or expired medicines.*
  - *4% said they would be willing to use sheriff or police office, 5% said special collection event, 2% said public hazardous waste facility.*

# Result of Research: Pharmacy Return

- Research of existing programs showed Australian and Canadian systems provide good models for pharmacy take-back of medicines.
- PH:ARM Team developed Washington pilot concept based on these models.
- Pilot involves return of unwanted pharmaceuticals to pharmacies for safe and secure destruction.

# PH:ARM Pilot

- Began November 2006.
- Initially launched with 7 Group Health locations. Will expand to 24.
- Will initially launch at several Bartell Drug Pharmacies in Spring 2007. Will expand to 54.
- Address adult care and others locations later in 2007.
- Pilot planned to run for 2 years.
- Work toward state-wide product stewardship system before pilot ends.

# PH:ARM Pilot Activities

- Design and procure prototype secure drop-off receptacles (off-the-shelf not available).
- Develop promotional and educational materials.
- Develop tracking and security system.
- Develop program protocols for each pharmacy for review by Board of Pharmacy.
- Research regulatory issues, address barriers.
  - Hazardous, non-hazardous
  - Controlled Substances (prescribed)
  - Impacts Collection, Transportation, Destruction
- Research most environmentally-sound disposal options that also provide witnessed destruction.

# Collection

- Initial pilot uses self-serve secure receptacles located near pharmacy service counters.
- Currently pilot does not accept controlled substances, but security systems designed as though it does.
- Seeking Drug Enforcement Administration waiver for pilot so controlled substances (prescribed) can be accepted in future.

# Removing Controlled Substances from Harm's Way

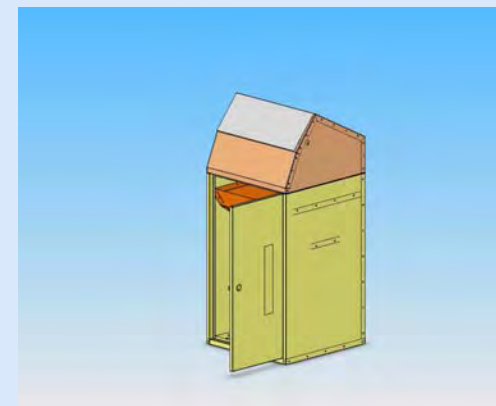
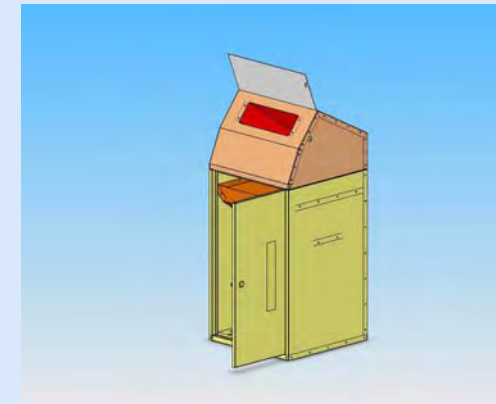
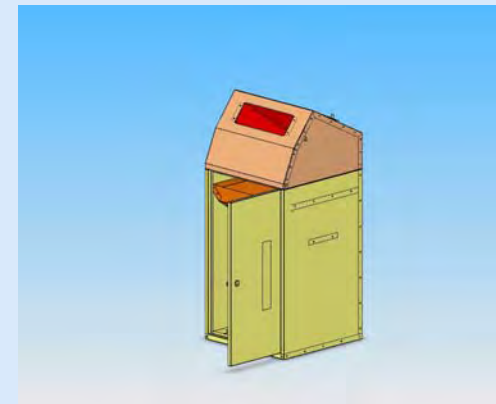
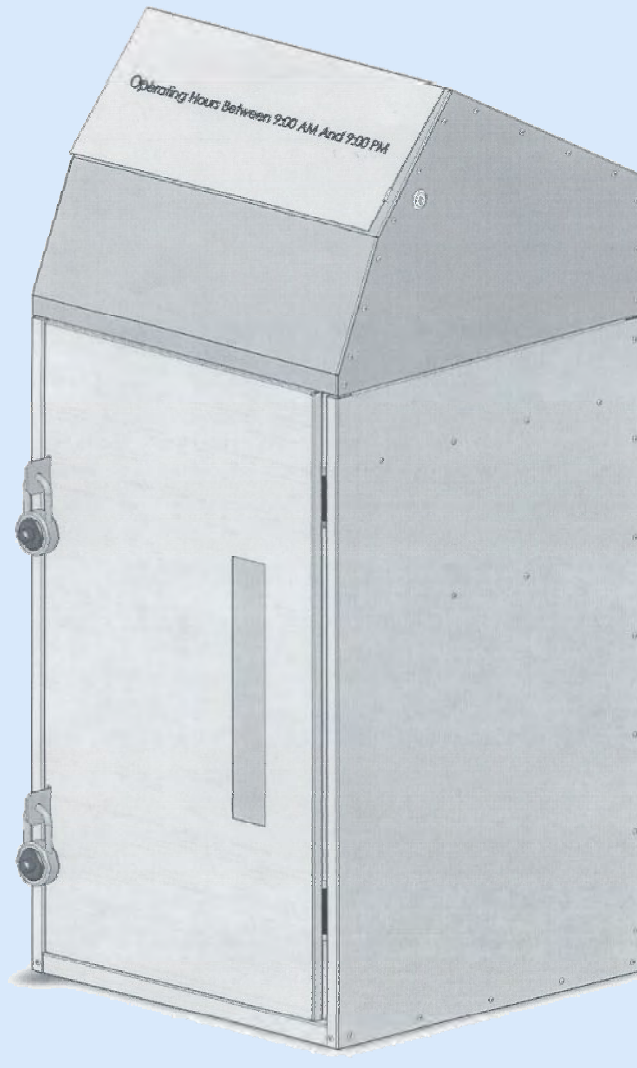
State-wide, a pharmacy return program could be expected to capture and destroy 7,300 lbs. of unwanted controlled medications (narcotics).

Potential contribution to community health and safety warrants extra efforts to make this possible in the future.

# First Prototype: Metal Drop Box



# Second Generation Metal Drop Box



# Prototype: Plastic Toter



# Group Health Clinic: Renton

Window 4

30

If you have any  
questions about your  
prescriptions  
please ask the  
pharmacy representative  
before leaving  
the window.

Take  
for all  
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# Group Health Clinic: Burien

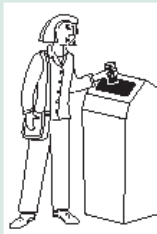


# Group Health Decal

## Medication Disposal Unit

### What to do:

1. Gather your unwanted medications and other approved items (see list). Leave items in the original containers. Mark out any personal information if you wish.
2. Bring items to this pharmacy. Deposit into this medication disposal unit.



## What items can you return for safe disposal?

### Return **YES**

- Medication: prescription and over-the-counter
- Medication samples
- Veterinary medications
- Vitamins
- Medicated ointments/lotions
- Inhalers
- Liquid medication in glass or leak-proof containers



### Do not return **NO**

- Needles
- Thermometers
- IV bags
- Bloody or infectious waste
- Personal care products
- Controlled substances
- Hydrogen peroxide
- Empty containers
- Business waste



# Group Health Flier

## Medications and the environment: what you should know

Are medications present in the environment?

Yes. They have been found in waterways and wastewater throughout the United States. Trace amounts of medications have also been found in fish.



How do medications get into the waterways and water supply?

Through direct disposal, by landfill garbage or by flushing down sinks or toilets, and through human and animal excretion of drugs.

Do wastewater treatment plants remove all medications?

No. These plants remove biodegradable pollutants, but they cannot remove all synthetic pollutants or medications.

How is returned medication disposed of?

The waste is properly disposed of at regulated facilities in the U.S.

The Medication Take-Back program is available at these participating pharmacies. For hours of operation, please call each location at the number listed below.

**Burien Medical Center Pharmacy**  
140 S.W. 146th Street, Burien 206-901-2405

**Everett Medical Center Pharmacy**  
2930 Maple Street, Everett 425-261-1560

**Olympia Medical Center Pharmacy**  
700 Lilly Road NE, Olympia 360-923-7600

**Eastside Hospital and Specialty Center Pharmacy**  
2700 152nd Avenue NE, Redmond 425-883-5940

**Renton Medical Center Pharmacy**  
275 Bronson Way NE, Renton 425-235-2855

**Silverdale Medical Center Pharmacy**  
10452 Silverdale Way NW, Silverdale 360-307-7410

**Riverfront Medical Center Pharmacy**  
322 W. North River Drive, Spokane 509-324-6464

For more information, please call 1-800-RECYCLE.

This program is made possible by:

Group Health Cooperative  
Group Health Community Foundation  
Interagency Resource for Achieving Cooperation (IRAQ)  
Local Hazardous Waste Management Program in King County  
Snohomish County Solid Waste Management Division  
Public Health—Seattle & King County  
Northwest Product Stewardship Council  
Washington Citizens for Resource Conservation  
Pacific NW Pollution Prevention Resource Center  
Puget Sound Action Team  
Washington State Department of Social and Health Services—Aging and Disability Services Administration  
Washington State Department of Ecology  
Washington Board of Pharmacy (Project Advisor)

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**Safely dispose of unwanted medications at your Group Health pharmacy**



**Protect your family**

**Fact:** Medication mistakes at home are the most common cause of accidental poisoning.

**Protect the environment**

**Fact:** Flushing or throwing away medications puts our waterways and marine life at risk.



# Bartell Drug Poster (program pending)

## Return Unwanted Medications for Free & Safe Disposal



**HERE**



### How to Return Your Unwanted Medicines

1. Gather your unwanted medications. See list to right to find out which items can be returned. Leave items in the original containers. Mark out any personal information if you wish.
2. Deposit medications into this secure bin labeled for medication return.

### What Can You Return for Safe Disposal?

**Return: YES!**

<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Prescription medications </li> <li><input checked="" type="checkbox"/> Over-the-counter medications </li> <li><input checked="" type="checkbox"/> Medication samples </li> <li><input checked="" type="checkbox"/> Medications for pets </li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Vitamins </li> <li><input checked="" type="checkbox"/> Medicated ointments/lotions </li> <li><input checked="" type="checkbox"/> Inhalers </li> <li><input checked="" type="checkbox"/> Liquid medication in glass or leak-proof containers </li> </ul>
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**Return: NO!**

<ul style="list-style-type: none"> <li><input type="checkbox"/> Needles </li> <li><input type="checkbox"/> Thermometers </li> <li><input type="checkbox"/> Narcotics (controlled substances) </li> <li><input type="checkbox"/> IV bags </li> <li><input type="checkbox"/> Bloody or infectious waste </li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Personal care products </li> <li><input type="checkbox"/> Business waste </li> <li><input type="checkbox"/> Empty containers </li> <li><input type="checkbox"/> Hydrogen peroxide </li> <li><input type="checkbox"/> Aerosol cans </li> </ul>
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For more information, please visit [www.MedicineReturn.com](http://www.MedicineReturn.com) or call 1-800-732-9253

# Transportation and Handling

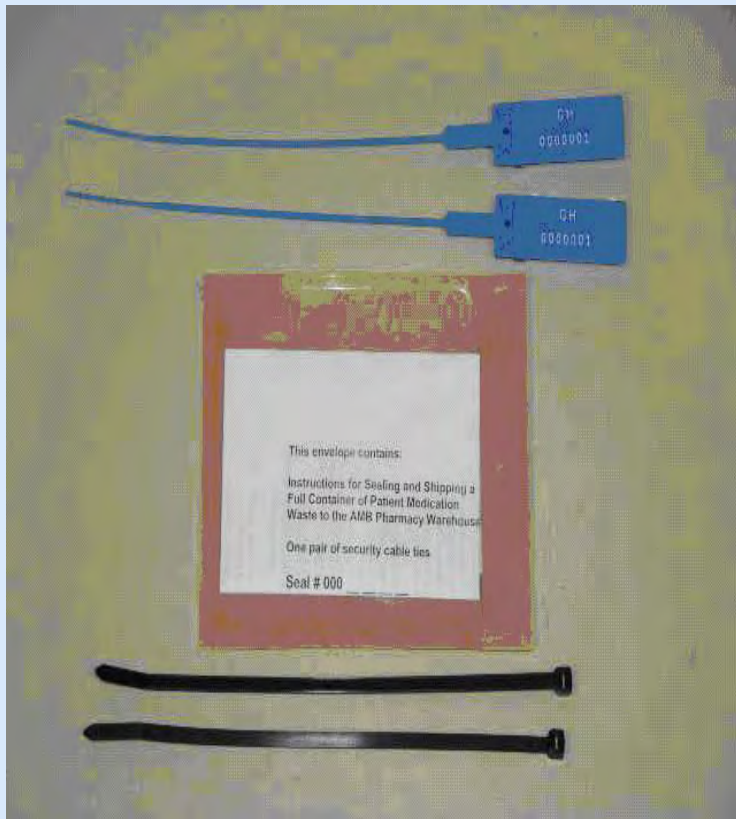
# Double Locked Container Can Only be Opened with Two People



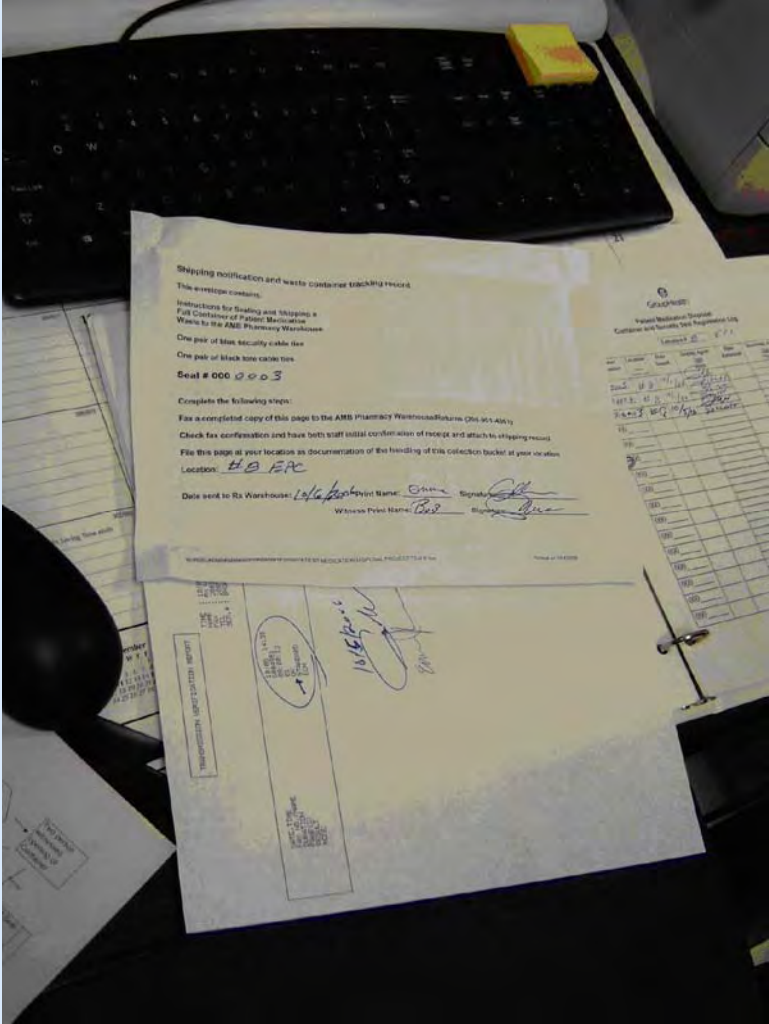
# Bucket Closed with Lock Lid Under Double Witness



# Each Bucket Has Unique Tracking Number and Security Tag



# Each Bucket Is Carefully Tracked



# Buckets are Returned to Pharmacy Distribution Center, Recorded, and Placed in Locked Cage



# When Enough Buckets Have Accumulated, They Will Be Picked-up For Secure, Witnessed Destruction



# Destruction

- Consolidated pharmaceuticals are picked up and delivered for witnessed destruction.
- Destruction will be through high temperature and hazardous waste incineration.
- We continue to research destruction technologies and how to provide witnessed destruction.

# Early Results

- Program is very popular.
- It is getting significant (unsought) media attention.
- 65 buckets of medicines have been collected (as of mid February).
- Approximately 375 lbs. of medications (and packaging) have been collected.
- The program is attracting national attention as a model.

# Potential of a State-wide Program

- A statewide program could collect **83,000 lbs per year for proper disposal** plus 7,200 lbs from nursing homes
- Collect **7,300 lbs of controlled substances**, removing them from unsecured household cabinets and unsafe disposal.
- Potential to service over **4,000 locations**: 1,300 pharmacies, 900 nursing homes, 1,360 small animal clinics, & 550 boarding homes

# Others Have Disposal Problems Too

- Assisted Living
- Public Housing
- Schools
- Daycare
- Correctional facilities
- Hospice
- Cruise Ships
- Pet Keepers
- Hobby Farms

# Next Steps

- Fully implement pilot.
- Expand and test program for other types of locations: adult care facilities, hospice, schools.
- Broaden stakeholder participation.
- Seek pharmaceutical manufacturer involvement.
- Propose establishment of state-wide system.
- If Committee is interested, work in cooperation with the Committee on pharmaceutical collection and disposal issues.

# Contact

**Sego Jackson**

**Snohomish County Solid Waste Management Division**

[sego.jackson@co.snohomish.wa.us](mailto:sego.jackson@co.snohomish.wa.us), 425-388-6490

**Coming soon for info about Washington pilot:**

[www.medicinereturn.com](http://www.medicinereturn.com)