



# **Implementing a consumer pharmaceutical mailback program: An analysis of the first year of the Safe Medicine Disposal for ME Program**

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# Why Maine?: The State's Prescription Drug Problem

- In 2007, nearly 90% of Maine drug deaths were caused by prescription drugs
- Maine Drug Enforcement Agency arrests for prescription drug misuse or diversion has increased dramatically to 23% of all arrests
- In terms of the relationship of pharmaceuticals to violent crime and property crime, Maine ranks number one in the country
- Maine ranks second in terms of the availability of pharmaceuticals for abuse



# Why Maine? The Challenges of a Rural and Aging State

- Large rural regions
- 38th in population density; < 10 residents per square mile in over half of state
  - Distribution/collection and financial challenges
  - Chronic illness and related drug use higher in rural areas
- Oldest state
  - Median age 41.2 years (United States Census, 2005)
  - Americans 65+ account for over 1/3 of prescriptions dispensed, but only 13% of the national population



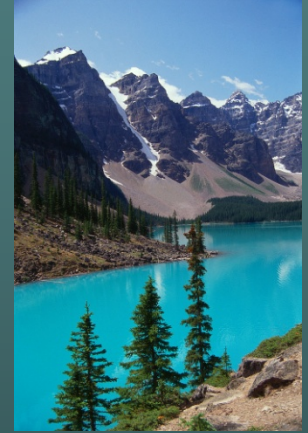


# What is safe disposal?

- Old method
  - Flush it!
- ONDCP Guidelines
  - Coffee grounds and kitty litter, but some meds still get flushed
- Drug takeback events and programs
  - Incineration

# Drug Collection Benefits

- It curtails childhood overdoses
- It restricts household drug theft
- It limits accumulation of drugs by the elderly and other high users
- It protects our physical environment
- It restrains improper drug donations
- It eliminates waste in the health care system

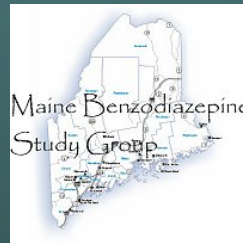




# Political and Historical Context

# Coalition Building

- Began with Maine Benzodiazepine Study Group and Maine Drug Enforcement Agency



- Convened a group stakeholders from children's advocacy, environmental organizations, medical associations, and others to create legislative solution



# Historic State Legislation

- Public Law 2003, Chapter 679
  - Maine Unused Pharmaceutical Disposal Program
  - Program administration – Maine Drug Enforcement Agency
  - Maine Drug Return Implementation Group
- LD 411 “An Act To Establish a Pilot Program for Return of Unused Prescription Drugs by Mail” (Sponsored by Representative Anne Perry) (Signed 6/27/07)





# Proper Drug Disposal Day Proclamation

- First proclamation in the nation on safe drug disposal endorsed by a governor
- Signed by Maine's governor on October 31, 2007
- Recognizes the negative impact to public health and the environment of unwanted consumer pharmaceuticals
- Recognizes the lack of effective and efficient methods of drug disposal has resulted in negative social, cultural, ecological, and global effects
- Urges proper adherence by all citizens to medication and appropriate drug disposal



# International Coalition Building

- Athens Declaration developed at 2<sup>nd</sup> International Conference on the Environment
- Endorses disposal options available to citizens and the 6 reasons for disposal:
  1. To curtail childhood overdoses
  2. To restrict household drug theft
  3. To limit accumulation of drugs by the elderly
  4. To protect our physical environment
  5. To restrain improper international drug donations
  6. To eliminate waste in the international health care systems of all countries



# Program Overview

# Program Goals

- Remove unneeded prescription drugs from circulation
- Disposal in compliance with applicable state and federal laws and sound environmental practices



# Project Objectives

- Calculate the weight, type and hazardous characteristics by actual pill count and drug classification
- Calculate the cost of such a program
- Offer an education campaign concerning proper use and disposal of prescription drugs

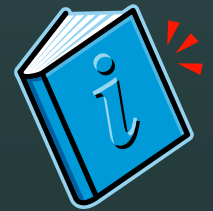


# Key Components

- Secure and manage network of distribution points (pharmacies) where individuals pick up mailers to return medication



- Create and disseminate informational materials for pharmacists, staff, and individuals acquiring mailers





# Key Components

- Generate, analyze and report on data in manner that allows physicians, pharmacists, insurance companies, patients and others to modify behaviors to minimize unused medications
- Disseminate related educational information through statewide network of community health promotion organizations and municipal health officers



# Elder Involvement

- Community Advisory Board created with older adults and RSVP volunteers from each county
  - Membership reflects state's diversity
  - Collaboration among 5 RSVP programs statewide
- Community members serve as Distribution Site Educators
  - Deliver mailers and materials to distribution sites
  - Educate site pharmacists and staff on the process
- Educators will promote the benefits of returning unwanted medications

# Program Model

- Postage-paid medicine return envelopes are distributed to selected pharmacies across the state at no cost
- Pharmacists then give the envelopes and an instruction packet to older adults and other interested participants



# Program Model



Program Participants



Secure delivery to Maine Drug  
Enforcement Agency



Envelopes received, logged,  
catalogued and destroyed  
under MDEA custody



# Program Data

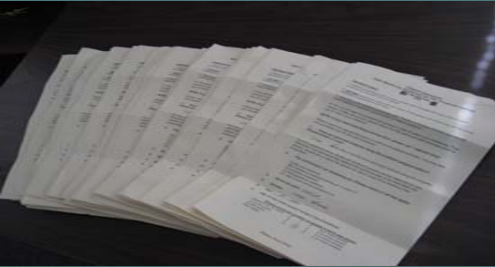
# Data Collection Strategy

- Overarching goal: Seamless and practically integrate research into all aspects of program operations
  - Geographic and demographic patterns of prescription drug accumulation
  - Participant self-reported data
  - Pharmacoeconomic assessments
    - Waste
    - Implications for prescribing, insurance reimbursement, and dispensing policies





# Phase 1 Data Collection Participant Surveys



- Participant surveys are circulated inside each return envelope along with the return instructions:
- Questions are two-fold: assist in analyzing the returns collected and provide programmatic feedback
- Participant completes the survey for the person for whom the medicine is prescribed

# Cataloging

Cataloging of returned drugs by project pharmacists





# Cataloging Method

- Pharmacists record based on visual identification and pill bottle label:
  - Drug name and trade name
  - Dosage, measure and form
  - Quantity (estimated)
  - OTC versus Rx
  - Controlled drug status



# Participant Information (Surveys)

- 37% response rate, 171 surveys returned
- Average age of program participants:  
67 years old
- Older household profiles:
  - 55% had an adult 21-64 living in their home
  - 50% had an adult 65 and older living in their homes
  - Few homes with small children present

# Drug Information (Cataloging)





# Drug Information (Cataloging)

- 632 envelopes received, 453 cataloged
- 73,000 pills inventoried + patches, creams, etc
- 90% of returns were prescription drugs, 10% over the counter
- 10% of drugs returned were controlled drugs, consistent with findings from other drug take-back events



# Drug Information (Surveys)

- 16% of respondents did not know what kind of medicine they were returning
- 57% were returning medicine for themselves
- 45% were returning medicine for a relative.

Top reasons for accumulation:

- Medicine expired or outdated
- Deceased family member
- Doctor told patient to stop taking the medicine



## Drug Information (Surveys) cont'd

- Avg. number of prescriptions/envelope: 4
- Top 4 categories of drugs returned (self-reported)
  - 35% returned pain or anti-inflammatory drugs
  - 34% returned heart, blood, or cholesterol drugs
  - 19% returned sleep or anti-anxiety
  - 18% returned antibiotics
- To be compared against actual returns to assess knowledge



# Observations from the Initial Drug Returns Analysis

## Interesting/anecdotal findings:

- Many of the mailers contained full bottles of unused drugs from mail-order pharmacies or VA pharmacy services
- Received full bottles of very costly antiretroviral drugs (HIV/AIDS drugs)-Wasted healthcare \$\$
- Older meds not uncommon-some of the returns were noted to be as many as 20 years old
- Estimated that one envelope contained enough unused narcotics to net \$7,000 if sold on the street



## Observations from the Initial Drug Returns Analysis (cont.)

Interesting/anecdotal findings:

- A mix of local and mail order pharmacies is not uncommon among those who use the program-but who has the entire medication record for these patients?
  - This includes patients who are receiving the same medication via a local pharmacy and a mail-order pharmacy



# Summary

- Women, often caregivers, are utilizing our program to return drugs for themselves and their family members for a variety of reasons
- Environmental messaging continues to be most salient for our program participants
- Emerging trends are pointing to accumulation patterns of older adults and caregivers and the need for consumer level disposal programs



# Next Steps: Phase II

- Phase II: The Program Goes Statewide
  - Pharmacies as primary point of distribution for program envelopes
  - Extensive press/marketing of the program
  - Public education
  - Expansion of distribution beyond pharmacies
    - Home health, Dr's offices, social service programs, Area Agencies on Aging
  - Expansion to other age groups
  - Continue data collection efforts



# Program Partners and National Advisory Board

## Maine-Based Organizations

- Center on Aging, University of Maine
- Maine Association of Psychiatric Physicians
- Maine Benzodiazepine Study Group (MBSG) & Drug Disposal Group
- Maine Council for Child & Adolescent Psychiatry
- Maine Department of Health and Human Services
- Maine Department of Environmental Protection
- Maine Drug Enforcement Agency
- Maine Office of Adult Mental Health Services
- Maine Office of Substance Abuse
- Maine Center for Disease Control and Prevention
- Maine Office of the Attorney General
- Maine Office of Elder Services
- Maine Pharmacy Association
- Maine Independent Pharmacies
- Maine RSVP Programs
- Maine Office of Adult Mental Health
- Maine Medical Association

- Margaret Chase Smith Center Policy Center, University of Maine
- Northern New England Poison Center
- University of New England

## Federal & National Organizations

- American Pharmacists Association
- Community Medical Foundation for Patient Safety
- National Council on Patient Information and Education
- Office of the U.S. Attorney General
- Rite Aid Corporation
- U.S. Drug Enforcement Administration
- U.S. Environmental Protection Agency
- U.S. Postal Service
- Villanova University Center for the Environment





# Want to know more about the project?

## General Project Information:

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