Safe Medicine Disposal for ME: Findings and Recommendations from Phases I & II

Data Presentation

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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)
Program Overview

- Unique opportunity to test and refine state-wide field model
- Phased mail-in return program
- Funded by the U.S. Environmental Protection Agency (EPA) and an allocation from the Fund for a Healthy Maine
- Phases I and II established a working prototype for state and beyond
Program Model

- Postage-paid medicine return envelopes are distributed to selected pharmacies and organizations across the state at no cost.
- Staff members then give the envelopes and an instruction packet to interested participants.
Program Model

Program Participants

Secure delivery to Maine Drug Enforcement Agency

Envelopes received, logged, catalogued and destroyed under MDEA custody
Program Goals

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

- Allows for monitoring of the program and piloting of protocols
- Phase I: Four-county model
  - Pharmacies as the point of distribution for program envelopes
  - Limited press/marketing
  - No public education effort
  - Selected sites within the designated area
  - Only for people 65 and older and caregivers
Phase II

- 7,600 mailers available through statewide network of participating pharmacies and partnering sites (over 100 sites)

- Refinements based on Phase I experience:
  - Expansion of program to target to all age groups
  - Expansion of distribution sites beyond pharmacies
  - Community education
Research and Data Collection
Data Collection Strategy

- Geographic and demographic patterns of prescription drug accumulation
- Pharmacoeconomic assessments
  - Waste
  - Implications for prescribing, insurance reimbursement, and dispensing policies
Survey is completed and placed into the envelope with their medicine.

1,706 surveys returned
Drug Inventory

- Cataloging of returned drugs by project pharmacists
Formaldehyde Sol 37% Poison
Drug Returns Data

- 3,850 envelopes returned
- 43% return rate
- 1,800 lbs collected
- 240,000 pills collected
- 85% of returns are prescription drugs, 12% over the counter
- 31% of returns included mail order drugs

TOTAL ESTIMATED COST OF UEMs = $208,024.85 (US Dollars)
Drug Returns Data

Top sites for returns:
- Rite Aid-Portland
- Miller Drug-Bangor
- Rite Aid-Caribou
- Rite Aid-Scarborough
- Rite Aid-Waterville
Consumer Profile

- Average age of mailback program users: 59
- Age range of users/those returning medicine through the mailback: 4 years – 95 years of age
- Avg. age has dropped considerably from Phase I (avg. age = 68.7) to Phase II (avg. age = 58).
Consumer Profile (cont’d)

- Gender breakout: 64% Female; 33% male; 3% of consumers returned drugs for both males and females in the household.
Household Makeup

- Children up to 10 years of age: 9%
- 11-20 year olds: 15%
- 21-64 year olds: 55%
- 65 and up: 47%

n = 1404
Have you returned medicine using this mailback program before?

- Yes: 82%
- No: 18%

n = 1645
57% were returning medicine for themselves

36% were returning medicine for a relative.

48% of respondents normally flush their unused/unwanted medicine, 38% use the trash and 5% attend a local collection event

Top reason for using the program: It’s best for the environment (77%), Safety for themselves and their families was second (16%)
n= 1678

*Percentages add up to more than 100 as respondents are allowed to check off multiple options for this question.
Motivation for Using the Mailback Program

- Best for the environment: 77%
- Safest for me and my family: 16%
- Free to use: 4%
- Most convenient: 3%

n = 1518
Why do you want to get rid of these medicines?

- Expired: 47%
- Doc told me to stop taking it: 30%
- Doc gave me new medicine: 27%
- Did not want anyone else to use it: 25%
- Other: 24%
- Felt better: 18%
- Didn't like the side effects: 12%
- Had a reaction or allergy: 12%
- Didn't want to take it: 7%
- I don't know: 1%

n= 1680  *Percentages add up to more than 100 as respondents are allowed to check off multiple options for this question.
Survey Data (cont.)

Top reasons for accumulation:

- Death of a relative or loved one
- Medicine expired or outdated
- Doctor told patient to stop taking the medicine
Gender Differences

- Males returned more Anti-infectives, cardiovascular agents and metabolic agents.
- Females returned more gastrointestinal agents, hormones, psychotherapeutic agents and respiratory agents [Chi sq. = 39.52, df = 14, p < .000].
Drug Return Profiles by Age

- 50 and under: Less likely to return most classes of drugs, with the exception of psychotherapeutic agents.
- Psychotherapeutics accounted for 31% of that group’s returned drugs, while the older groups averaged roughly 12%.
Top Drug Classes by Age

- 75 or older: Cardiovascular agents (19%),
- 65 to 74: hormones (7%)
- 50-64: metabolic agents (17%).
- Overall, age category was a significant predictor of class of drug returned [Chi Sq. = 64.38, df = 42, p = .015].
Federal Controlled Substance* Category of UEMs by Line Item

(DF=20; Var Name=FCS)
(Total=4,556 Items)

- C-II: 233 (5%)
- C-III: 187 (4%)
- C-IV: 241 (5%)
- C-V: 14 (0%)
- Unknown: 61 (2%)

Non-Controlled Substances: 3,820 (84%)

* Classification of UEM as a controlled substance is defined by the Controlled Substances Act of 1974.
Controlled Substances

- Controlled substances were equally likely to be returned by males (14%) and females (15%) (no statistically significant difference).
- The rate of controlled substances returned increased slightly with age (from 12% for those under 50 to 15% for those over 75), but the differences were not significant.
How helpful is this program?

- Helpful/Very helpful: 99%
- Somewhat helpful/Not helpful: 1%

n=1675
“Thank you for this program—great as is”
“Make envelopes more available/have more sites”
“Advertise more”
“Bigger envelopes”
“This is such a waste of medicine. This could be used for the uninsured elderly/homeless/those in need, etc”
“This is a fantastic program. The meds of a deceased love one are an emotional reminder of that person. Thank you for offering a private method of disposal. You saved me many tears.”
”My brother and I have tried to find a safe and responsible way to dispose of these meds for 18 months! We have not found any other way after several attempts with local police, hazardous waste, pharmacy, hospice, etc.”
Program Partners and National Advisory Board

**Maine-Based Organizations**
- Center on Aging, University of Maine
- Maine Association of Psychiatric Physicians
- Safe Medicine for Maine
- Maine Council for Child & Adolescent Psychiatry
- Maine Department of Health and Human Services
- Maine Department of Environmental Protection
- Maine Drug Enforcement Agency
- U.S. Drug Enforcement Administration
- 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

**Federal & National Organizations**
- Margaret Chase Smith Center Policy Center, University of Maine
- Northern New England Poison Center
- 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?

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