From Concept to Completion

Dr. Jeanie Jaramillo, PharmD
Managing Director; Texas Panhandle Poison Center
Assistant Professor; Pharmacy Practice
Texas Tech University Health Sciences Center
School of Pharmacy
Objectives

• Describe barriers encountered while planning a medication take-back program and how they are overcome
• List the resources needed for conducting a medication take-back program
• Discuss the implementation of a first-time event
• Describe the results of a first-time event
• Discuss future directions for take-back programs in Texas
Barriers

- Planning began ~ 4 years ago
- Barriers
  - Drug Enforcement Administration (DEA)/Controlled Substances act (CSA)
  - Local law enforcement
  - Tx State Board of Pharmacy
  - Environmental Protection Agency (EPA), Texas Commission on Environmental Quality (TCEQ); laws, rules, regulations
Barriers

- DEA/ Controlled Substances Act
  - “....pharmacies, may dispose of controlled substances already in their possession that have expired, been damaged or contaminated, but may not accept controlled substances from another person solely for the purpose of disposal.” CSA/CFR

- TSBP
  - Pharmacists may take back controlled substances, but must render them “incompatible with human consumption” and must document abundantly
Barriers

- It is ILLEGAL for ANYONE to be in possession of controlled substances that were dispensed to an end-user. (state jail felony)
  - What are controlled substances?
    - Vicodin, Lortab, Fentanyl, morphine, etc.
    - Drugs are classified into controlled substances categories based on their potential for abuse
      - C-I: GHB, heroin
      - C-V: Lyrica
Texas State Board of Pharmacy

- Tx Administrative Code also not developed with need for return of unused meds from public and subsequent disposal taken into consideration
- Compliance officers – no solution without law enforcement
- Amendment to rules proposed
- Board opted to wait until CSA is amended
“DEA has recently granted temporary permission to law enforcement agencies who have requested authorization to accept for disposal controlled substances that have been dispensed to ultimate users.” CFR

Comment accepted early in 2009 in preparation for revising CSA
Local Barriers

- Collaboration with law enforcement
  - Local law enforcement already struggles with disposal of substances confiscated through routine law enforcement activities
  - Perceived increase in burden to participate in take-back event with volume unknown and unpredictable
  - Cost for disposal (poor economy); already stressed system
  - Conceptually, agreed with goals/purpose
Environmental regulations
  ◦ Difficult to interpret
    • If resident is disposing of medications → household hazardous waste
    • If many residents bring medications to take-back program → ?
    • Special waste, medical waste, pharmaceutical waste

Waste management companies
  ◦ Fairly new concept
  ◦ Often receive conflicting answers to questions based on who is reached even within same company
DEA/CSA

- Gained support of local law enforcement through political route – city commission
- Prepared plan for event – detailed all of the work that we would do and what we needed them to do
- Contacted Special Agent in Charge staff
  - Conduction of event is acceptable if law enforcement disposes of meds in compliance with their respective policy/procedure – THIS VARIES BY REGION
  - DEA unable to provide anything in writing unless through Federal Register
Barrier Navigation

- TSBP
  - Conduction of event is “out of (their) jurisdiction” if not conducted in conjunction with a pharmacy

- Laws, rules, regulation
  - Research, interpret, educated guess, pray!
Resources Needed

- Volunteers / staff
  - Pharmacy school collaboration
  - School district

- Law enforcement officers
  - Provided at expense of city

- Locations
  - University provided one site “in kind”
  - AISD provided one site “in kind”
Resources Needed

- Disposal service
  - Collaboration with local hospital/clinic
    - Difficult without estimate of volume/expense
  - University contract/safety services
- Advertising
- $$$
- TIME & EFFORT – planning, training, communicating
- Supplies
Anecdotal reports show that success of events is directly related to advertising efforts.

Other factors:
- Public interest in “doing the right thing”
- Poison prevention
- Public safety
Marketing

- Website/phone number
- Billboards
- Newspaper ads
- Pharmacy fliers & push cards
- School fliers
- Radio
- TV

MedicationCleanout.com
Website

- Developed by poison center staff member
  - Purchased two domains:
    - MedicationCleanout.com ($15/yr)
    - MedicineCleanout.com ($15/yr)
**Next event:**
**March 27th, 2010**
**10:00am - 2:00pm**

Click [HERE](#) for our printable brochure.
Feel free to print and share with others.

You may print the brochure, complete the form, and bring it with your unwanted medications to the event. This is optional. You may *bring medicine without a form*.

Get rid of expired, leftover, unneeded medicines on March 27th.

"Why shouldn’t I just save medications in case I need them again? Why shouldn’t I just throw them in the trash or flush them down the toilet?"

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Poisonings</strong></td>
<td>Poisonings are second only to motor vehicle accidents as a cause of death from unintentional injury in the U.S. Medications left around the home can be the source for these poisonings. And poisonings are not limited to children. Adults often &quot;self-treat&quot; with leftover medications from previous illnesses – a dangerous practice that can result in delay in seeking help.</td>
</tr>
<tr>
<td><strong>Abuse</strong></td>
<td>Another alarming problem is that of prescription drug abuse by teens. Prescription drug abuse is now second only to marijuana abuse. Each day 2,500 teens use a prescription medicine for the 1st time for a non-medical reason. Medicine cabinets of parents, grandparents, friends, or acquaintances are frequently the source.</td>
</tr>
<tr>
<td><strong>Misuse</strong></td>
<td>Self-treatment with an inadequate supply of antibiotics can result in antibiotic resistance as well as a delay in seeking medical attention.</td>
</tr>
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</table>
Billboards

- Lamar Outdoor
  - 21 “mini” billboards through city
  - $4,000 (labor and vinlys; space donated by Lamar)
  - Designed by Lamar/Poison Center staff
Newspaper

- Full page ad (Sunday prior to event)
- Front page “sticky ad” day before the event
- ¼ page ad (Monday prior to event – Labor day)
- 90,000 on-line impressions
- $4,000
Prevent poisonings • Prevent abuse • Prevent misuse • Protect the environment

Medication Cleanout
Free, safe disposal of unneeded medications

Saturday Sept. 12th
10:00 a.m. – 2:00 p.m.

Drive-through event
Texas Tech University School of Medicine
Caprock High School

MedicationCleanout.com
806-351-5626 (MCO)

Why is this so important?

Poisonings: Poisonings are second only to motor vehicle accidents as a cause of death from unintentional injury in the U.S. Medications left around the home can be the source for these poisonings. And poisonings are not limited to children. Adults often “self-treat” with leftover medications from previous illnesses—a dangerous practice that can result in delay in seeking medical attention.

Abuse: Another alarming problem is that of prescription drug abuse by teens. Prescription drug abuse is now second only to marijuana abuse. Each day 2,500 teens use a prescription medication for the first time for a non-medical reason. Medicine cabinets of parents, grandparents, friends, or acquaintances are frequently the source.

Misuse: Self-treatment with an inadequate supply of antibiotics can result in antibiotic resistance as well as a delay in seeking medical attention.

Environment: Many individuals who would like to dispose of their unneeded medications simply do not because they’re hearts of contamination of the water supply by medications that are flushed or washed down the drain.

Medication Cleanout provides our community with the opportunity to safely and conveniently dispose of medications! Don’t miss the chance to safely dispose of your unneeded medicines and make your home and community a safer place.

Prevent poisonings • Prevent abuse • Prevent misuse
Protect the environment

Saturday, Sept. 12
10:00 - 2:00

MedicationCleanout.com
(806)351-5626

Bring Expired, Leftover, Unneeded Meds!

Texas Tech School of Medicine
OR Caprock High School
Pharmacy Fliers and Push-Cards

- Provided by print shop of AISD at cost (funded by AISD Safe Schools/Healthy Students program)
Pharmacy Fliers and Push-Cards

Safe, free disposal of expired, leftover, unneeded medicines

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Prevent poisonings • Prevent abuse
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Free, Safe, Confidential Disposal Of Expired,
Leftover, Unneeded Medicines

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10:00 a.m. - 2:00 p.m.
Texas Tech
School of Medicine
or
Caprock High School
School Fliers

- ½ page flier sent home with all elementary students in school district on Tuesday prior to event
Volunteers

- 90 volunteers (45 at each site)
  - Large number needed due to desire to inventory all collected items
  - De-identification of all items (paint pens work better than Sharpies)
  - Sorting: controls vs. non-controls
  - Identification of unknowns
Volunteer Training

- 1 hour training session 2 weeks prior to event
- Required attendance
- Reviewed volunteer manual
- Zero tolerance diversion policy
- Schematic – flow of meds through collection site
Event

- 10 a.m. – 2 p.m. Drive-Through Event
- Only event staff were allowed inside indoor processing area
- All volunteers provided with event T-shirt and name badge
  - Easy identification of who should be inside
Collection Sites

- Caprock High School
  - 113 completed surveys (vehicles & walk-ups)
  - 399 pounds of non-controlled substances
  - 32.5 pounds of controlled substances

- TT Medical Center
  - 183 completed surveys
  - 397 pounds of non-controlled substances
  - 35 pounds of controlled substances
What I Would Have Done With My Meds If Medication Cleanout™ Had Not Been Available

- Kept them: 159
- Thrown in trash: 48
- Flushed: 27
- Other: 58

[MedicationCleanout.com logo]
What I Would Have Done With My Meds If Medication Cleanout™ Had Not Been Available

- Kept them: 55%
- Thrown in trash: 16%
- Flushed: 9%
- Other: 20%

MedicationCleanout.com
I Found Out About Medication Cleanout™ From:

- Newspaper: 186
- Radio: 18
- TV: 54
- Billboard: 39
- Word of mouth: 11
- Other: 33
I Found Out About Medication Cleanout™ From:

- Newspaper: 55%
- TV: 16%
- Billboard: 11%
- Other: 10%
- Word of mouth: 3%
## Controlled Substances Collected

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>Number of Packages</th>
<th>% of Total (Packages)</th>
<th>Number of Pills/Units/ml</th>
<th>% of Total (Pills/Units/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>analgesics</td>
<td>399</td>
<td>62.8%</td>
<td>11,671</td>
<td>51.2%</td>
</tr>
<tr>
<td>anticonvulsants</td>
<td>17</td>
<td>2.7%</td>
<td>801</td>
<td>3.5%</td>
</tr>
<tr>
<td>antitussives</td>
<td>48</td>
<td>7.6%</td>
<td>5,291</td>
<td>23.2%</td>
</tr>
<tr>
<td>appetite suppressants</td>
<td>6</td>
<td>0.9%</td>
<td>178</td>
<td>0.8%</td>
</tr>
<tr>
<td>benzodiazepines</td>
<td>95</td>
<td>15.0%</td>
<td>3,191</td>
<td>14.0%</td>
</tr>
<tr>
<td>CNS stimulants</td>
<td>17</td>
<td>2.7%</td>
<td>387</td>
<td>1.7%</td>
</tr>
<tr>
<td>hypnotics</td>
<td>36</td>
<td>5.7%</td>
<td>869</td>
<td>3.8%</td>
</tr>
<tr>
<td>miscellaneous other agents</td>
<td>17</td>
<td>2.7%</td>
<td>416</td>
<td>1.8%</td>
</tr>
<tr>
<td>(5 or less each)</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>635</td>
<td>100.0%</td>
<td>22,804</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

* excluded medications that were unidentifiable, but assumed to be controlled substances
Of those packages of controls that were collected and for which expiration dates were recorded (n=148):

- 93.2% were expired as of the date of the collection
- [not expired = 10, expired = 138, unknown = 495]
Most Commonly Collected Controls

- Acetaminophen with codeine (Tylenol w/ codeine); 23 pkgs; 660 pills
- Alprazolam (Xanax); 15 pkgs; 508 pills
- Zolpidem tartrate (Ambien, Ambien CR); 29 pkgs; 660 pills
- Propoxyphene/Acetaminophen (Darvocet-N); 95 pkgs; 2,950 pills
- Hydrocodone/acetaminophen (Lortab, Vicodin); 220 pkgs; 6,818 pills
Breakdown of Categories Collected

- **Non-Controlled Rx, 59.2%**
- **OTC, 30.0%**
- **Controlled Rx, 8.5%**
- **Unknown/Other, 2.3%**

% of Total
Future Directions

- Need for state-specific guidance
  - DEA
  - TCEQ, EPA
  - TSBP

- Need for more than 1 model for programs
  - Academic model– detailed inventory
    - All-inclusive vs. sampling
  - Non-academic model– weights only

- Need for responsible programs
Risks to Programs

- Lack of funding
- Diversion
- Poor management of collections
Conclusions

- Programs are greatly needed
- Many medicines remain in homes
- Need for research on why medicines are not completed (Unused, Expired Medicines Registry – Community of Competence)
- If the public is not provided with a method for disposal, meds will remain in their homes or will be disposed of improperly
Jeanie Jaramillo, PharmD  
Medication Cleanout Co–Coordinator  
1501 S. Coulter  
Amarillo, TX 79106  
Ph: (806) 354–1611  
Fax: (806) 354–1667

Email:  
jeanie.jaramillo@ttuhsc.edu

Ronica Farrar, EMT–P  
Medication Cleanout Co–Coordinator  
1501 S. Coulter  
Amarillo, TX 79106  
Ph: (806) 354–1633  
Fax: (806) 354–1667

Email:  
ronica.farrar@ttuhsc.edu
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