Proper Medication Disposal
www.medicationdisposal.utah.gov/

Leah Ann Lamb, M.S., Utah DEQ, Division of Water Quality
DEQ Role: Pollution Prevention

Pharmaceuticals and Personal Care Products (PPCPs) are pollutants.
DEQ Role: Pollution Prevention

Crush and Flush

No wastewater treatment

http://www.medicationdisposal.utah.gov/
How It Began
Drinking Water/Substance Abuse

- May 2007 DEQ received a request for funding from Florence Reynolds of Salt Lake City Public Utilities to install medication collection bin at SLC police stations
- Captain Armand Glick of SL County Sheriff’s Office had worked separately with IHC to install a collection bin in the Herriman Substation

- We eventually all found each other!!

http://www.medicationdisposal.utah.gov/
COMPLIANCE WITH FEDERAL AND STATE LAWS

• Options for “Proper Medication Disposal” or Medication “Take-Back” programs are limited due to multiple laws and regulations, including:
  – Controlled Substance Act (CSA)
  – Resource Conservation and Recovery Act (RCRA)
    – hazardous rules
  – Utah Pharmacy Act and Rule
  – Other health care sector laws/rules

http://www.medicationdisposal.utah.gov/
COMPLIANCE WITH CSA (Controlled Substance Act)

- Schedule I – illegal drugs (ex., heroin, LSD)
- Schedule II – morphine, OxyContin, codeine, Demerol, Ritalin, amphetamines
- Schedule III – Tylenol with codeine, Vicodin
- Schedule IV – benzodiazepines, Valium, Darvon
- Schedule V – codeine cough syrups
- http://www.deadiversion.usdoj.gov/schedules/schedules.htm
DEA “CLOSED SYSTEM OF DISTRIBUTION”

- 21 USC 844 (a): Illegal to possess a controlled substance unless one is the intended recipient.

- 21 USC 1301.24: Law enforcement agencies are exempt from the requirement of a DEA registration and thus are able to “receive” controlled substances from private individuals.

- Under Title 21 CFR 1307.21 a procedure is provided for the Special Agent in Charge (SAC) to grant approval to law enforcement agencies to operate “take-back” programs. The regulation states that any person in possession of a controlled substance and desiring to dispose of such substance may request instructions from the SAC in the area in which the person is located. The SAC may specify the means of disposal to assure that the controlled substances do not become available to unauthorized persons.
COMPLIANCE WITH RCRA

- Disposal options for HOUSEHOLDS only
- RCRA exemption for household hazardous waste
- This program does not address medical, pharmacy, schools, long-term care, or other facilities that may accumulate unused medications and are regulated under FDA, DEA, DOPL rules

http://www.medicationdisposal.utah.gov/
SUMMARY OF THE PROBLEM

We started our program for environmental reasons but we soon learned about HUGE social issues:

– Drug Sales Have Skyrocketed
– Low compliance = high accumulations
– Lots of unused drugs in people’s homes
– Most home poisonings involve pharmaceuticals
– Pharms at Home Increase Drug Abuse
– Leftovers are routinely flushed
DEQ “Drug Collection for Proper Disposal” Grant Program

- $1,000 one-time funding to LAW ENFORCEMENT AGENCIES to install permanent collection boxes. Grant pays for
  - Collection boxes
  - Signage
  - Evidence handling
  - Incineration
  - Advertising

http://www.medicationdisposal.utah.gov/
GRANT PROGRAM REQUIREMENTS

- Adoption of a “Drug Collection for Proper Disposal” Policy – evidence protocols must be used
- Incineration at a DEQ permitted incinerator
- Compliance with DEA Requirements
- Reporting pounds collected to DEQ
- Locked collection bins – accessible, monitored, lobby
- Anonymous disposal
- Advertising of the program through normal communications with the public.

http://www.medicationdisposal.utah.gov/
DEQ works with the Utah Poison Control Center and other local partners to sponsor special community collection events in April and October each year*

- Two law enforcement officers must be present to:
  - Take possession of all medications
  - Handle them according to evidence protocols
  - Destroy all collected medicines at a DEQ approved incinerator
- DEA must approve the event – letter to police

[http://www.medicationdisposal.utah.gov/]
• Drive Up-Drop Off - Parking lots
• Household Hazardous Waste Collections
• SLC Senior Housing
• One in-store event in 2009 (now drive-up/drop-off)
• Be Well Fair at University of Utah
• Intermountain Health Care Clinics (Orem and Layton)
• Smith’s Food and Drug & Sutherlands
• Park City Recycles

http://www.medicationdisposal.utah.gov/
RESULTS

• $70,000 in grants secured - $40,000 in bins so far

• 53 Bins in 14 of 29 counties – applications continuing

• Sponsored 15 Community Events

• Partnerships established with law enforcement, water and sewer utilities, health and substance abuse prevention professionals, recycling coalitions, U of U College of Pharmacy, pharmacies, clinics, grocery stores and others.
RESULTS

• Pounds of Medications Collected:
  • Permanent Collection Bins: 5,500 (since 2007)
  • 5 Senior Housing Facilities: 20

• 2009 Events: 398 (153 surveys completed)
  – Smiths In-Store Take Back: 214
  – University Health Fair: 52
  – Layton Intermountain Pharmacy Clinic: 8
  – Orem Intermountain Pharmacy Clinic: 124
RESULTS

- 2010 Events (April & May): 2,025 pounds/ 653 surveys
  
<table>
<thead>
<tr>
<th>Location</th>
<th>Pounds</th>
<th>Surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cottonwood Heights</td>
<td>393</td>
<td>128</td>
</tr>
<tr>
<td>Heber City</td>
<td>27</td>
<td>17</td>
</tr>
<tr>
<td>Herriman</td>
<td>260</td>
<td>55</td>
</tr>
<tr>
<td>Midvale</td>
<td>350</td>
<td>143</td>
</tr>
<tr>
<td>Park City</td>
<td>115</td>
<td>32</td>
</tr>
<tr>
<td>Price</td>
<td>51</td>
<td>26</td>
</tr>
<tr>
<td>Salt Lake City</td>
<td>725</td>
<td>252</td>
</tr>
<tr>
<td>University of Southern Nevada</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Jordan Valley water Conservancy District</td>
<td>79</td>
<td>26</td>
</tr>
</tbody>
</table>

- Mother’s Day Garden Fair
Next Steps

- State Legislation/Federal Legislation?
- DEA National Prescription Drug Take Back Day – Sept. 25
  - For info on events go to www.medicationdisposal.utah.gov/
- Consistent Messaging and Branding
  - Do Not Flush! Do Not Pour!
  - Don’t Make the Fish Do Drugs!
  - Clean Out the Cabinet
  - Know Where They Go™
  - Proper Disposal of Prescription and Over-the-Counter Drugs in Utah
  - Clean Out Your Medicine Cabinet
Where Can I Properly Dispose of My Medications?

The Salt Lake City Public Utilities and Police Departments and the Salt Lake County Sheriff's Office established proper disposal programs for their residents by installing locked, mounted steel collection bins in the lobbies of their stations. Each agency then collects and burns the drugs. Bring your unused prescription and over-the-counter medications to the following locations:

Police Station
1040 West 700 South, Salt Lake City
M-F: 8 a.m. - 7 p.m.

Police Station
315 East 200 South, Salt Lake City
M-F: 7 a.m. - 7 p.m.

Herriman Sheriff Substation
13272 South 5600 West, Herriman
M-F: 8 a.m. - 5 p.m.

Cottonwood Heights Sheriff Substation
7480 South 2700 East, Cottonwood Heights
M-F: 8 a.m. - 5 p.m.

Holladay Sheriff Substation
4570 South 2300 East, Holladay
M-F: 8 a.m. - 5 p.m.

Funding

The Utah Department of Environmental Quality is offering law enforcement agencies a one-time pollution prevention grant, up to $1,000, to establish a "Drug Collection for Proper Disposal" program.

This funding can be used to pay for collection boxes, signage, evidence handling, incineration, advertising or associated expenses.

To find out more about this program and how to apply, please visit:
www.MedicationDisposal.utah.gov/funding.htm

Facts About Prescription Drug Disposal

* Unused medications improperly disposed of can harm you and your environment.

* Drugs can be scavenged and illegally sold.

* Children and animals could be poisoned if they find and swallow drugs.

* When drugs are flushed, they are not removed by the sewage treatment facilities and septic tank systems and can enter the soil, surface water and groundwater.

* Research studies have shown that exposure to drugs found in waterways is having a serious, negative impact on fish and other aquatic life.

For More Information:
http://www.medicationdisposal.utah.gov/
DON'T MAKE THE FISH DO DRUGS!

Old prescription medications should never be disposed of down the toilet. There is a nationwide problem of prescription drugs showing up in waterways below water treatment facilities. These drugs are harmful to aquatic life and have potential effects on human health.

TAKE OLD AND OUTDATED PRESCRIPTION MEDICATIONS TO THE FOLLOWING LOCATION FOR DISPOSAL:

Please do your part and dispose of your old medications properly. If you are not able to bring them to one of the drop-off locations, add water and dish soap to each bottle, wrap in duct tape, and place in the trash on the day of collection. For more information, call the Salt Lake Valley Health Department at (801) 315-6745.
You Can Protect Families and the Environment by Properly Disposing of Prescription Drugs

http://www.cleanoutthecabinet.org/
Secure or Dispose of Medication Properly

http://www.wasatchcounty.net/knowwheretheygo/Disposal.html
Tooele County Health Department

Proper Drug Disposal Program

Clean Out Your Medicine Cabinet!

Bring all your unused over-the-counter and prescription medications to the following Smith’s store so they can be safely destroyed.

Smith’s
845 East 4500 South
Salt Lake City
Saturday April 25, 2009
10:00 AM to 2:00 PM

For more information call the DEQ Hotline
1-800-458-0145
or visit www.medicationdisposal.utah.gov
Properly disposing of unwanted medications may be inconvenient, but there are some very important reasons to do this in a safe and responsible manner.

- Unused medications improperly disposed of can harm you and your environment.
- Drugs can be scavenged and illegally sold.
- Children and animals could be poisoned if they find and swallow drugs.

Now residents of Tremonton City, and surrounding areas, no longer need to worry about what to do with their unused/expired prescription drugs or old and outdated over-the-counter medications thanks to the efforts of the Tremonton City Police Department.

Prescription, or over-the-counter medications, should not be flushed down the toilet or sink. While doing so is a common practice, we now know that some of these substances are bad for our environment. The drugs are not removed by sewage treatment plants or septic tanks and may enter surface and ground waters, or soils. So what do you do?

Residents may now drop off prescription or over-the-counter medications (no needles or sharps) in a collection box which is located in the lobby of the Tremonton City Police Department at 125 South 100 West.

Citizens can place their unused medications/drugs into the collection box anonymously. They will not be required to provide any personal information nor will they be required to pay for the disposal service. The medications will later be retrieved and incinerated.

For more information, please contact the Tremonton City Police Department at (435) 257-9555 or visit our website at www.tremontoncity.com (under Public Safety). For more general information about medication disposal, you can visit www.medicationdisposal.utah.gov.
PROPER DISPOSAL OF PHARMACEUTICALS WORK GROUP

• Salt Lake City Public Utilities: Florence Reynolds, Water Quality and Treatment Administrator

• Salt Lake City Police Department: Sgt. Fred Ross

• Board of Pharmacy: Roger B. Fitzpatrick, Chairperson

• DOPL: Noel Taxin, Manager

• DEA: Lynette Wingert, Diversion Group Supervisor

• Salt Lake Valley Health Department: Dorothy Adams, Manager, Household Hazardous Waste Disposal

• Utah Department of Health: Iona M. Thraen, Patient Safety Director, Health Systems Improvement

• Utah Poison Control Center / University of Utah College of Pharmacy: Marty Malheiro, Coordinator, Outreach Education, Clinical Instructor, Pharmacotherapy
OTHER GROUPS

• Strategic Prevention Framework – State Implementation Grant Managers

• Utah Pharmaceutical Drug Crime Project

• Prescription Pain Advisory Committee – Public Education Committee
Death, Detection, Diversion, & Disposal: Utah Case Study

Presented by:

Erin Johnson, MPH, Utah Department of Health
Elizabeth Sollis, CSW, Utah Dept. of Human Services
Lynnette Wingert, DEA, Salt Lake City District
Leah Ann Lamb, M.S., Utah DEQ, Division of Water Quality

October, 2009
Drug Poisoning Deaths by Manner and Year — Utah 1991-2008

Erin Johnson, MPH, Utah Department of Health
Death: The Bottom Line

- Prescribable drugs kill more Utahns each year than illicit drugs

<table>
<thead>
<tr>
<th>Year</th>
<th>Illicit Overdose Deaths</th>
<th>Combo (both Illicit and Non-illicit)</th>
<th>Non-illicit Overdose Deaths</th>
</tr>
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<tbody>
<tr>
<td>2006</td>
<td>96</td>
<td>63</td>
<td>307</td>
</tr>
<tr>
<td>2007</td>
<td>62</td>
<td>67</td>
<td>317</td>
</tr>
<tr>
<td>2008</td>
<td>89</td>
<td>41</td>
<td>277</td>
</tr>
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</table>

*Drug overdoses investigated by OME that are accidental or undetermined intent*
Substances Involved in Non-illicit Overdose Deaths of Accidental or Undetermined Intent-2008
Drug Overdose Cases in 2008

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Cases</th>
<th>Mean Age</th>
<th>Range</th>
<th>Gender</th>
<th>Counties</th>
<th>Health Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>I illicit drugs only</td>
<td>89</td>
<td>36.3 yrs</td>
<td>18-58</td>
<td>82% male</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>407 cases of accidental or undetermined intent investigated by OME</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41 combination of illicit and non-illicit</td>
<td>41</td>
<td>39.7 yrs</td>
<td>18-62</td>
<td>66% male</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>277 non-illicit drugs only</td>
<td>277</td>
<td>40.3 yrs</td>
<td>1-80 (only 2&lt;18 yrs)</td>
<td>52% male</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>11% involve alcohol</td>
<td>9</td>
<td>52% male</td>
<td>11% involve alcohol</td>
<td>82% involve opioids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>22</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 counties</td>
<td>10</td>
<td>22 counties</td>
<td>12 of 12 health districts</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Number of Non-Illlicit, Accidental and Intent Undetermined Deaths by Year & Drug
Pharmaceutical drug abuse is a significant national threat and growing trend. According to the Office of National Drug Control Policy (ONDCP), youth drug abuse declined 24% from 2001 to 2007 with 860,000 fewer young people abusing drugs. That's the good news. The bad news is that abuse of prescription drugs is an emerging threat. They account for the second most commonly abused category of drugs behind marijuana and well ahead of methamphetamine. Non-medical use of prescription pain relievers was the abuse drug category with the largest number of new abusers (2.2 million).

According to the ONDCP Pharmaceutical Advisory Committee, every day 2,500 youth, ages 12-17 abuse prescription drugs for the first time. The committee also reports that treatment admissions for prescription painkillers increased 300% in just ten years. Non-medical use of pharmaceuticals accounts for nearly a half-million medical emergency department visits annually. The National Center on Addiction and Substance Abuse at Columbia University conducted a study in 2006 showing 2.2 million teens (between the ages of 12-17) admitted abusing a prescription drug during the past year.
Utah Threat

Utah is fourth in the nation for non-medical use of pain relievers. For 26 year olds and older, Utah has the second highest reported rates in the nation of using pain relievers for non-medical use. Of those using pain relievers for non-medical purposes, 75% are over 25 years old. The Utah Department of Health reports 317 people died from pharmaceutical drug overdose in 2007. That number is twice as high as overdose deaths caused from all illicit drugs in Utah that year.

According to a 2006 U.S. Department of Health and Human Services study, 6.21% of Utahans 12 years of age or older report using pain relievers for non-medical use in the past year. According to the Utah Department of Human Services 2007 SHARP Survey, 16% of Utah youth between the ages of 12-17 reported abusing pharmaceutical drugs within the last 30 days.

Utah has a significant pharmaceutical drug abuse problem that must be addressed in a multi-disciplinary, coordinated statewide effort. Why is there an increase in abuse related to prescription drugs? The answer is related to availability, perception of risk and public attitude.

Availability
Prescription drugs can be obtained by simply going into the unsecured medicine cabinet in most homes. Once an individual decides to abuse pharmaceutical drugs, he or she can obtain them through a number of sources including family and friends. Sometimes it's as easy as using a restroom in another person's home, where most prescription drugs are stored unsecured. At "pharm parties," teenagers bring a variety of drugs from home and consolidate them for arbitrary use at the party. "Doctor shopping" is another relatively easy means of obtaining pharmaceutical drugs. Other methods include altered or forged prescriptions, stolen prescriptions, computer generated prescriptions, pharmaceutical burglaries and robberies, internet trafficking, diversion by medical personnel, pharmacists or their employees, and theft from pharmaceutical companies or their distributors. Lastly, pharmaceutical drugs can be obtained on the street from drug dealers who tend to specialize in these types of controlled substances.
**Perception of Risk**
There is a perception among the public and pharmaceutical drug abusers that the risks associated with prescription drugs are significantly less than with illegal drugs. Many users and non-users feel that, because the drugs are FDA approved and prescribed by a doctor, they are relatively harmless and safe. This perception of risk includes both adverse physical and psychological harm from use. The users also feel that since pharmaceutical drugs are "legal", the risk of getting in trouble with authorities is significantly less than with illegal drugs.

"Many users and non-users feel that because [pharmaceutical] drugs are FDA approved and prescribed by a doctor, they are relatively harmless and safe. This perception of risk includes both adverse physical and psychological harm for use."

**Public Attitude**
The public is generally well aware of the dangers from using drugs such as marijuana, methamphetamines and cocaine. Although proponents of drug legalization attempt to change public attitude, polls and surveys show that the majority of the American public is against the use of illegal drugs. In those areas of our society where the public attitude is more favorable to illegal drug use, there is often a corresponding greater use pattern. Those societal subsets could be families or neighborhoods. In the case of pharmaceutical drugs, which are in almost every home for medical reasons, the public is more accepting. This more tolerant attitude tends to lead to greater non-medicinal use of prescription drugs.

"...polls and surveys show that the majority of the American public is against the use of illegal drugs."
Strategy

UPDCP will use public and private multi-disciplinary resources to address the pharmaceutical drug abuse problem in Utah. This program will remain fluid and sufficiently flexible in adapting to change and assessments. The program will continue to monitor the threat, adjust the strategy and assess the results, both from a criminal justice and public awareness perspective.

The goal of the Utah Pharmaceutical Drug Crime Project is to reduce the abuse of prescription drugs by accomplishing the following objectives:

- **Reduce** availability for abuse
- **Increase** the awareness of risk to include the physical and psychological harmful effects as well as legal sanctions; and
- **Decrease** tolerance of the non-medical use of pharmaceutical drugs.

The criminal justice component will target the sources for pharmaceutical drug diversion with the goal of disrupting or dismantling as many of these sources as possible. The public awareness and education component will educate the public and initiate community change through environmental strategies and policy.

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2 National Survey of Drug Use and Health by the U.S. Department of Health and Human Services September 2006
3 Pharmaceutical Advisory Committee (PAC) Executive Summary 2007
4 The New DAWN Report June 23, 2006
5 The National Center on Addiction and Substance Abuse at Columbia University, “You’ve Got Drugs!”, Prescription Drug Pushers on the Internet, July 2008
6 Utah Division of Substance Abuse and Mental Health, Prescription Drugs, September 2008
7 Utah Department of Human Services, 2007 SHARP Survey, October 5, 2007
8 U.S. Department of Health and Human Services “State Estimates of Substance Use” from the 2005-2006 National Surveys on Drug Use and Health