

Proper Drug Disposal

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Why is proper disposal necessary?

- **Protects our waters from contamination**
 - This includes drinking water as well as lakes and rivers
- **Prevents the inadvertent exposure of humans and wildlife to prescription medications**
 - The U.S. Fish & Wildlife Service has reported that some prescription hormone therapies have been found to affect the reproductive organs of fish
- **Prevent intentional or unintentional misuse**
 - Prescription drug abuse is increasing among teens and young adults
 - Prescription drugs are relatively easy to obtain from friends or relatives
 - Prescription medications are a poison risk for children and pets

Resources Available in Nevada

- No official program available for consumers
- Only Federal Guidelines for proper prescription drug disposal
- Retail pharmacies will take back medication if asked but these services are not advertised
- Hospitals are instructed to make a slurry of medications
 - Disposing of medications in sharps containers to be incinerated with other biohazardous materials

Federal Guidelines

- Take the unused, unneeded, or expired drugs out of their original containers
- Mix the prescriptions drugs with an undesirable substance
 - Such as coffee grounds or kitty litter
- Put mixture in impermeable, non-descript containers
 - Such as empty cans or sealable bags
- This will further ensuring that the drugs are not diverted or accidentally ingested by children or pets

Federal Guidelines

- Throw these containers (containing the medication mixture) can be placed in the trash
- Flush prescriptions drugs down the toilet
 - Only if the accompanying patient information specifically instructs it is safe to do so
- Return unused, unneeded, or expired prescriptions drugs to pharmaceutical take-back locations that allow the public to unused drugs to a central location for safe disposal

Federal Guideline Deficiencies

- Disposing of medications in landfills may lead to medications seeping into our groundwater supply
- Flushing certain drugs down the drain or toilet contributes to contamination of our waterways
- Only addresses methods of keeping unwanted medications “off the streets”
- Suggests the use of pharmaceutical take-back programs but does not elaborate on how this can be done

Take Back Programs

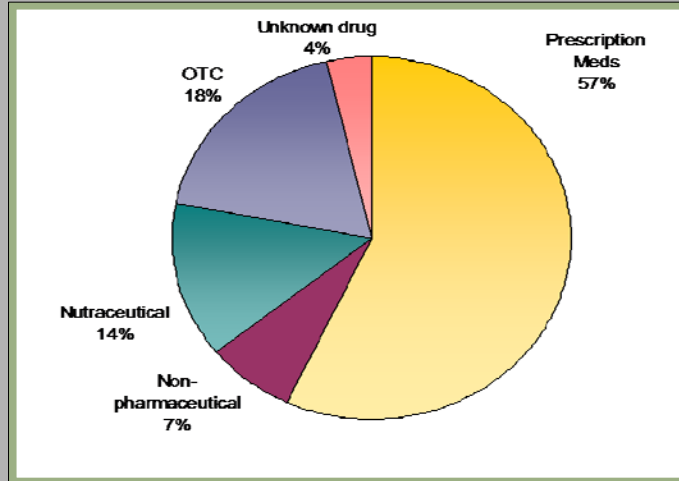
- **Clark County, Washington**
 - Collects non-controlled substances at local pharmacies
 - Controlled substances are deposited in local sheriff's offices to be incinerated
- **Kendall County, Illinois**
 - All prescription medications are collected by a central police station
- **La Crosse, Wisconsin**
 - Employees at central waste disposal site are deputized to collect and dispose of medications
 - Including any controlled substances

Take Back Programs

- **Southern California**
 - Permanent collection sites have been designated
 - Several mobile collection events held in different sites on a weekly basis
- **Washington State**
 - Medications are collected at local pharmacies and nursing homes
 - Transported to a central site for destruction
- **Success relies on adequate publicizing of programs and events for drug collection**
 - Frequent events and convenient locations are key

Collected Drugs, Percent by Weight

Taken from Washington Pilot Program



<http://www.productstewardship.us/displaycommon.cfm?an=1&subarticlenbr=386>

Short Term Options for Southern Nevada

Possible Options for Nevada

- Create an educational brochure informing consumers about the proper way to dispose of unwanted and expired medications
 - Information can be distributed at Southern Nevada Health District (SNHD) clinics and locations
- Create an educational video informing consumers about the proper way to dispose of unwanted and expired medications
 - Video's can be played in SNHD clinics and locations as well as being featured on Health District TV for expanded public viewing

Possible Options for Nevada

- Take back events can be organized on a bi-annual basis
 - Could be coordinated with the help of the local college of pharmacy (University of Southern Nevada) AND
 - Local retail pharmacies

Plastic Security Tote



http://www.trefann.org/wp-content/uploads/2008/02/newspaper_blue_bin_ad.jpg

Long Term Goals for Southern Nevada

Possible option for Nevada

- Medications, including controlled substances, can be collected at predetermined locations
 - SNHD clinics and locations
 - Collected under the DEA number of an employed practitioner
 - DEA registration allows for proper documentation of controlled substances
- Medications can be collected in tamper and theft resistant drop boxes at each site

Possible Options for Nevada

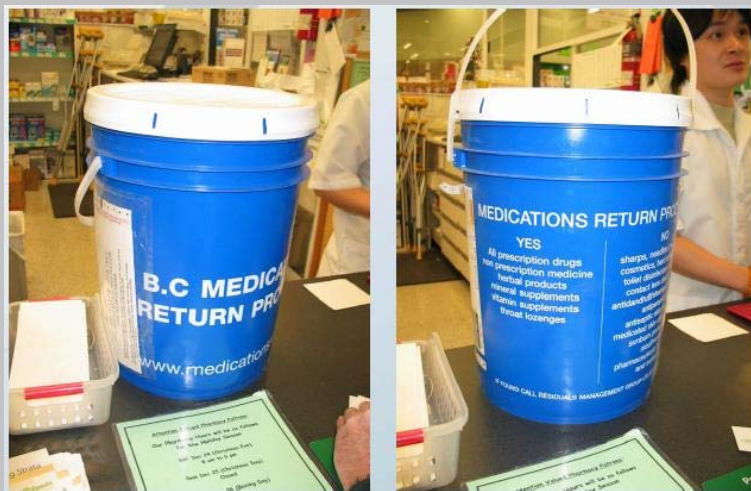
- Medications can be transported to a central waste disposal site for incineration
- Coordination with the Nevada Board of Pharmacy to ensure legality
- Program can be publicized through Health District TV as well as on local television and radio stations
- Expenses could be covered by grant funding

Secure Metal Drop Box



http://www.deadiversion.usdoj.gov/mtgs/drug_chemical/2006/2006conference.htm
<http://www.productstewardship.us/displaycommon.cfm?an=1&subarticlenbr=386>

Plastic Bucket



http://www.deadiversion.usdoj.gov/mtgs/drug_chemical/2006/2006conference.htm

References

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- Pharmaceutical Take-Back Case Studies – Models of Success
 - <http://www.iisgcp.org/unwantedmeds/updatedToolkitMaterials/2.0CaseStudies.pdf>
- US Geological Survey
 - <http://toxics.usgs.gov/regional/emc/>