

Ruthe Jackson Center Grand Prairie, TX

June 7, 2017



Welcome & Pharmaceuticals in Context







Introduction

Soria Adibi

Environmental Planner

Dept. of Environment & Development

North Central Texas Council of Governments



Thank You To Our Sponsors!







Wastewater And Treatment Education Roundtable



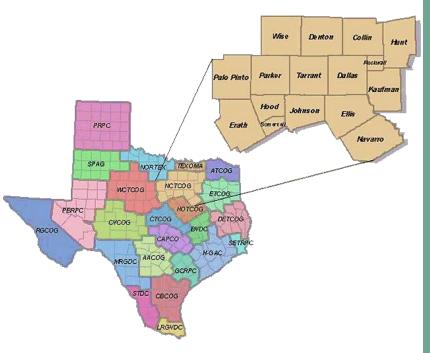






What is NCTCOG?

- Voluntary association of local governments
- Established in 1966
- Assists local governments in:
 - Planning for common needs
 - Cooperating for mutual benefit
 - Recognizing regional opportunities
 - Resolving regional problems
 - Making joint decisions
- One of 24 COGs in Texas





Regional solid waste planning

- NCTCOG is the designated regional solid waste planning agency for North Central Texas.
 - Stores a Closed Landfill Inventory
 - Promotes education and outreach
 - Administers a pass-through grant program
 - Supports the solid waste advisory committee, the Resource Conservation Council
- Coordinates with partners to implement and advance materials management programs in North Central Texas.
- Maintains a regional plan for set new goals and define new metrics for materials management.



Funding Solid Waste Programs in North Central Texas

Where does solid waste funding come from?

- Each legislative session, the State Legislature allocates funds through the Texas Commission on Environmental Quality (TCEQ) to regional solid waste management agencies
- Funds are generated by solid waste disposal fees the TCEQ collects at the landfills

Who decides what programs receive pass-through grants?

- The Resource Conservation Council (RCC) is the regional solid waste advisory council for North Central Texas
- The RCC provides input to develop and update the regional solid waste management plan, identifies regional solid waste priorities and implementation projects, reviews solid waste grant applications, and makes recommendations on projects to be funded to NCTCOG's Executive Board



North Central Texas (NCT)

- Water contamination by pharmaceuticals in NCT
 - Cost and added work for water quality authorities
 - Risk to aquatic life
 - Threat to sources of drinking water
- Drug abuse and misuse in NCT
 - Tarrant County (population 1.9 million) in 2015:
 - 177 fatal overdoses caused by drugs
 - 86 of these caused by opioids
 - Does not include near overdoses or concurrent drug use



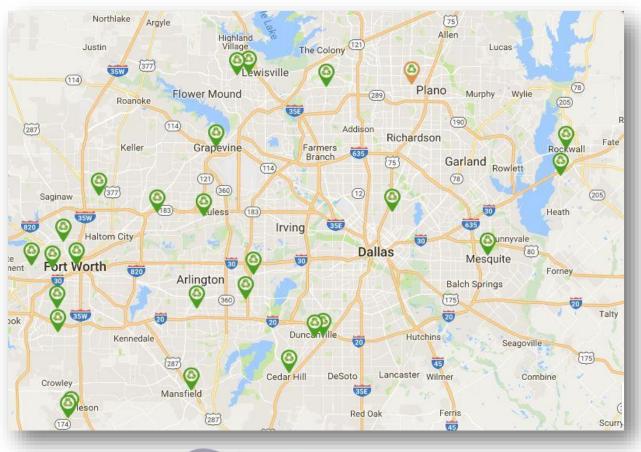
North Central Texas

- Solution: Drug take-back strategy
 - Ex in NCT— Fort Worth, TX drug take-back program 2016:
 - ➤ **6,682 lbs** from 9 permanent sites, 2 events, mail-back envelopes, and Walgreens program
 - Collections nearly tripled in 2013 when permanent sites added
 - Need strategy for NCT
- Other: source reduction and reuse opportunities
 - Re-dispension legislation: TX <u>senate bill 1243</u>, passed in 2015 to allow for the donation of unused drugs to a "participating drug provider"



Existing drug take-back collection sites in NCT

Walgreens + Law enforcement locations: timetorecycle.com/medtakeback/





Why We Are Here









Introduction to Pharmaceutical Stewardship

Scott Cassel

Founder & CEO
Product Stewardship Institute



the Product Stewardship Institute



Product Stewardship vs. EPR

Product stewardship ("producer") responsibility

Voluntary programs

Other government regulatory programs

Manufacturer

Mandatory programs (e.g., EPR)



PSI Product Categories



Pharmaceuticals



Batteries



Textiles



Packaging



HHW



Mattresses



Paint



Thermostats



Phone books



Electronics



Fluorescent lamps



Medical sharps



PSI Product Categories cont'd



Appliances with refrigerants



Framework



Tires



Gas cylinders



Carpet



Radioactive devices



Pesticides



Auto switches

...and more!



Project Goals

- Increase safe collection and disposal of unwanted pharmaceuticals
- Increase awareness about problems
 associated with improper drug
 storage/disposal, and benefits of drug take back to residents and pharmacies
- Identify sustainable funding for drug takeback programs





Workshop Expectations

- Learn about drug take-back challenges and solutions
- Understand current landscape in North Central Texas
- Consider drug take-back best practices around the country
- Begin to design a drug take-back strategy for North Central Texas





The Problem





Drug abuse Accidental poisonings Health & Safety



Aquatic impacts Water quality Environmental Health





The Solution



US Support for **Drug Take-Back**

- Drug Enforcement Administration (DEA)
 - Eleven national prescription drug take-back days
- Office of National Drug Control Policy (ONDCP)
 - Part of its national drug control strategy
- Food and Drug Administration (FDA)
 - Developed guidelines with ONDCP for drug disposal
- Environmental Protection Agency (EPA)
 - Promotes consumer use of take-back programs
- States
 - Majority of state agency websites provide information either on their own state programs and/or federal DEA take-back days











Drug Take-BackCollection System Options

1. On-site receptacles



2. Mail-back envelopes



3. Take-back events





Drug Take-Back: Challenges and Solutions





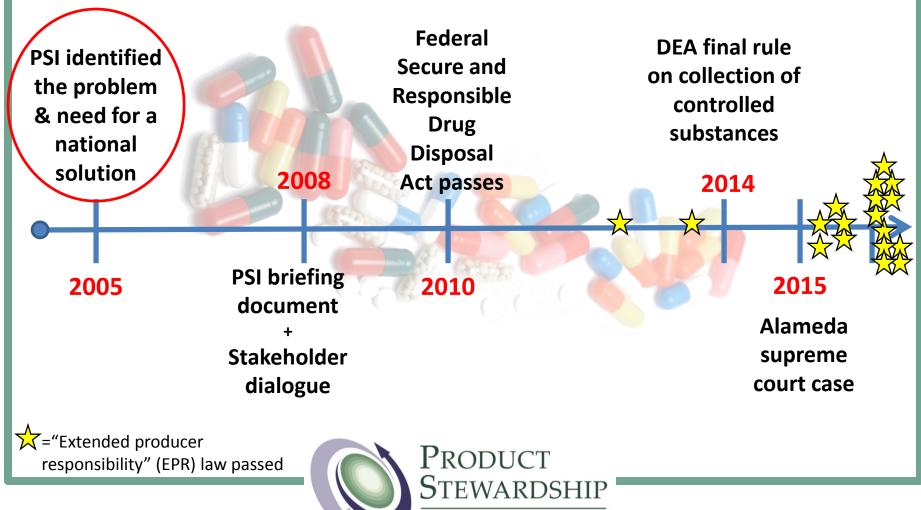
Drug Take-Back Programs Challenges & Solutions

Dr. Vivian Fuhrman

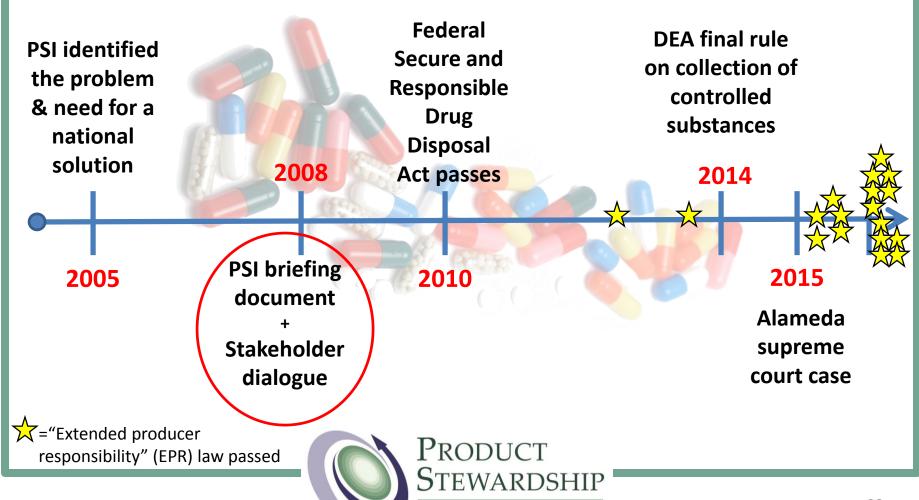
Sr. Associate for Policy & Programs Product Stewardship Institute



Key Events in **Drug Stewardship**



Key Events in **Drug Stewardship**



Challenge: Convenience



Key Events in **Drug Stewardship Federal DEA** final rule **PSI** identified Secure and on collection of the problem Responsible controlled& need for a Drug substances national **Disposal** solution 2008 Act passes 2014 **PSI** briefing 2005 2010 2015 document **Alameda** Stakeholder supreme court case dialogue ="Extended producer Product responsibility" (EPR) law passed

Stewardship

DEA's Final Rule on the Collection of Controlled Substances

• Final Rule: www.deadiversion.usdoj.gov/21cfr/cfr/index.html

• Final Rule Q&A: https://www.deadiversion.usdoj.gov/fed_regs/rules/2014/2014-20926.pdf



What is allowed by the DEA's Final Rule on the Collection of Controlled Substances?

- Flexibility in collection of controlled substances
- Mail-back programs by DEA-authorized entities
- Continues to allow take-back events by law enforcement
- Addition of pharmacies as authorized collection sites



Increase in potential collectors will lead to additional permanent collection sites



Drug Take-BackProgram Location Options

Pharmacies

- Large chains
- Independent

Law enforcement

- Police stations
- Sheriff departments

Clinics with on-site pharmacy

- Hospitals
- Narcotic treatment programs
- Long-term care



Challenge: Cost



Drug Take-Back

Approaches and Funding Sources

Voluntary Programs

- Government funded
- Retail pharmacy
- Law enforcement



Mandatory Programs (legislation)

- Manufacturer funded
- Manufacturer managed
- Government oversight



Mandatory

"Extended Producer Responsibility"

State + Local EPR Laws:

11 13 15















2 states, 2 cities 14 counties

104* EPR laws in 33 states

*not including 10 container deposit laws



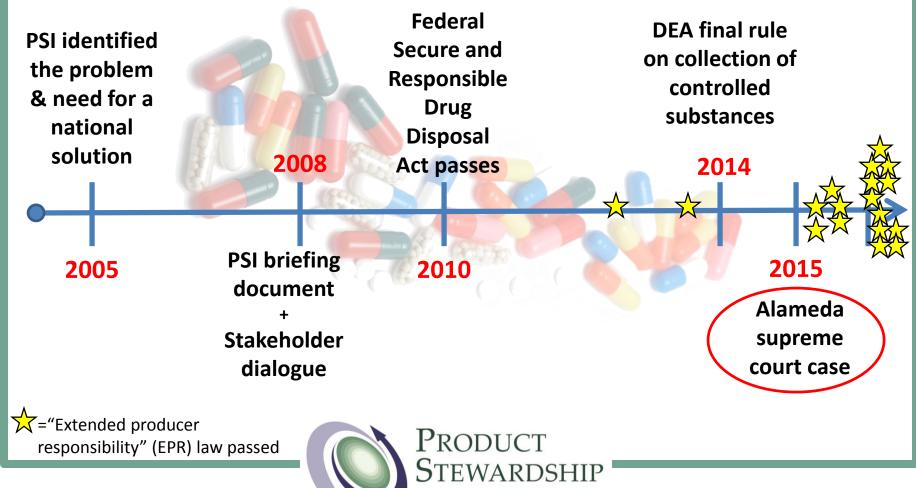
Drug Take-Back

How many collection sites needed?

- EPR convenience standards for collection sites:
 - ✓ Range from 1/6,500 residents to 1/60,000 residents
 - ✓ Most fall between 1/15,000 1/20,000
- Variation depends on:
 - ✓ Political feasibility
 - ✓ Availability of potential collection sites (# of local pharmacies)
 - ✓ Urban vs. rural environments
- Mandatory pharmacy participation in some EPR laws



Key Events in **Drug Stewardship**



No.		
INU.		- 1

IN THE

Supreme Court of the United States

PHARMACEUTICAL RESEARCH AND MANUFACTURERS OF AMERICA; GENERIC PHARMACEUTICAL ASSOCIATION; BIOTECHNOLOGY INDUSTRY ORGANIZATION,

Petitioners,

v.

COUNTY OF ALAMEDA, CALIFORNIA; ALAMEDA COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH

On Petition for a Writ of Certion to the United States Court of Appears for the Ninth Circuit

PETITION FOR WRIT OF CERTIORARI



U.S. EPR Laws for **Pharmaceuticals**





Pharmaceuticals Stewardship in the United States



Legislative activity at local, state, & federal levels



Pharmaceuticals EPR Programs in Canada and Europe

France established in 1993

Manitoba established in 2011

Canada: 4 programs

Europe: 15 programs

British Columbia established in 1996

Hungary established in 2005

Portugal established in 2001

Spain established in 2003



Voluntary

Drug Take-Back Program Examples

Government funded

- State: <u>NE</u>, <u>CO</u>, <u>IA</u>, <u>NY</u>, <u>ID</u>, SD
- County: <u>Lake County (IL)</u>



Pharmacy funded

- Independent pharmacies
- Walgreens







Pharmacy Participation



February, 2016: Walgreens announced "Safe Medication Disposal Program"

- 500 retail store locations
- At least 40 states and Washington DC
- 24 hour locations





Pharmacy Participation







Provided free to police stations



May 2014: CVS/pharmacy launched "Medication Disposal FOR Safer Communities" Program

- Mail-back envelopes in stores
- Raise awareness of collection programs
- Space for law enforcement take-back events



PSI Drug Take-Back Pilots

- 2016 USDA-funded pilot in rural NY counties
 - √ 4 independent pharmacies
 - √ 1 hospital pharmacy
- Pharmacy receptacles + mail-back envelopes
- Community outreach/education





- 2017 Oklahoma DEQ pilot across OK State
 - √ 5 independent pharmacies
- Pharmacy receptacles
- Community outreach/education



PSI Pilot Coalition

Key Stakeholders

- 1. Pharmacies
- 2. Law enforcement
- 3. Public health agencies
- 4. Waste managers/recyclers
- 5. Wastewater treatment
- 6. Environmental advocates
- 7. Reverse distributors

- 8. Manufacturers
- 9. Medical community
- 10. Drug abuse/recovery centers
- 11. Poison control
- 12. Universities/ext. programs
- 13. Local drug abuse prevention/ safe med disposal coalitions, etc.



Proven Benefits of Pharmacy-Based Drug Take-Back

- 1. High collection rates
- 2. Increased public awareness
- 3. Pharmacy experience
 - Community appreciation
 - Customer loyalty
 - Increased foot traffic

- No safety problems or misuse of receptacle
- High collection rates

Four out of five pharmacies paid to continue collections after the pilot!



Drug Take-Back Resources



PSI's How-to Guide

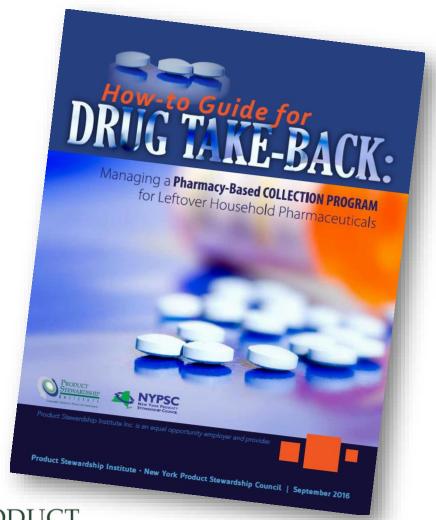
Lessons learned from implementing pharmacy-based drug take-back programs

http://bit.ly/drug-take-back

To view properly

we recommend downloading the document

to your computer







Pharmacy-Based Drug Take-Back

Best Practices

- 1. Complying with federal regulations
- 2. Choosing the right collection system
- 3. Setting up the program
- 4. Operating the program
- 5. Spreading the word



Lesson #1

Complying with Federal Regulations







DOT Special Permit: How to Comply*

Why was the U.S. Department of Transportation (DOT) special permit created?

Per the final DEA rule (see box on the right), pharmacies accepting controlled substances in their drug take-back receptacle are not allowed to inspect the collected material to determine whether it contained anything that would be considered hazardous materials. Because the hazardous nature of the content is unknown, the Pipeline and Hazardous Materials Safety Administration of the DEA would normally require specific protocol to be followed to ensure the safe transportation of these collected pharmaceuticals. The hipping container would have to adhere to DOT specifications for the hazardous materials that may be present in the container, and the container would have to be marked accordingly for transportation to the treatment facility. This is burdensome and was not the intention of the DEA.

In order to assure compliance with the DOT and DEA, the DOT approved a Special Permit, <u>SP 20255</u>, for shipment of

materials collected through take-back programs using receptacles. The permit exempts collectors (e.g., reverse distributors) and shippers (e.g., pharmacies) from having to ship the collected contents of a take-back program receptacle as if it was hazardous material.

Drug Enforcement Administration's (DEA's) Final

More information on this special permit, including a recorded webinar and presentation slides, a full copy of SP 20255, and the sample submission for party status can be found on the PSI website

How long does the process take?

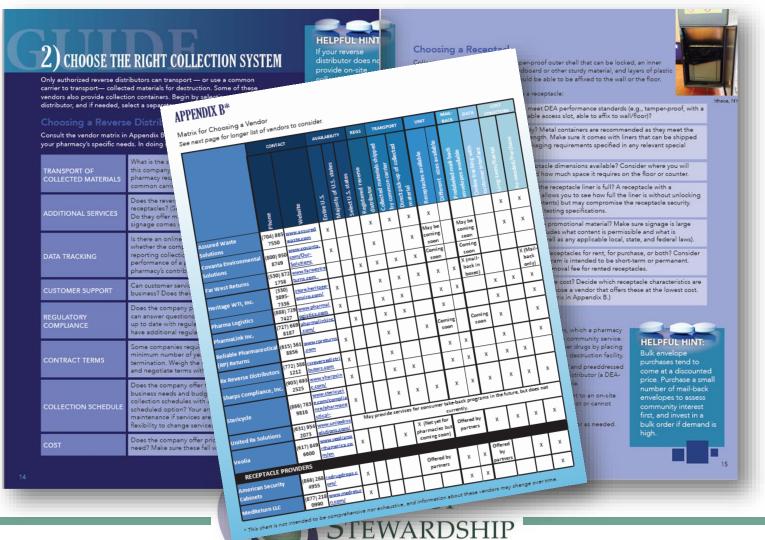
If not using a <u>vendor with its own DOT Special Permit</u>, pharmacies will need to apply for "party status" in order to be considered one of a group/class of business eligible for this exemption under an approved special permit 20255. This process takes just 5-10 minutes once you have all of the information you need. It can take anywhere from one day to three weeks for the DOT to process an application after you submit by email. Upon party status approval, DOT provides an authorization letter via email as proof of compliance under a special permit.

* The information and process described here was put into place to help those participating in take-back programs comply with federal regulations, but the process may change. Contact the DOT at (202) 366-4535 or <u>specialpermits@dot.gov</u> with any questions.

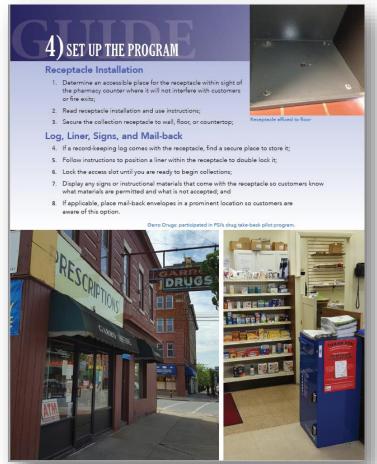
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Lesson #2 Choosing the Right Collection System



Lesson #3 Setting Up the Program





Lesson #4 Operating the Program



Lesson #5 Spreading the Word





Safe Drug Disposal Flier



Consumer messaging on safest drug disposal methods

www.bit.ly/leftover-meds



Questions?

Dr. Vivian FuhrmanSenior Associate for Policy & Programs

vivian@productstewardship.us

www.productstewardship.us



Current Landscape in North Central Texas/Statewide







Medication Take Back Tips for Success

Jeanie Jaramillo-Stametz
Director, Medication Cleanout

Managing Director, Texas Panhandle Poison Center Assistant Professor, Tx Tech UHSC School of Pharmacy







Medication Cleanout

- Started medication take back program with Tx Tech School of Pharmacy in fall 2009
- As of April 2017, conducted 50 events across Tx panhandle (primarily Amarillo, Abilene, Lubbock; on-campus)
- 13,434 participants (cars)







What we've collected





36,647 pounds of controlled & non-controlled medications

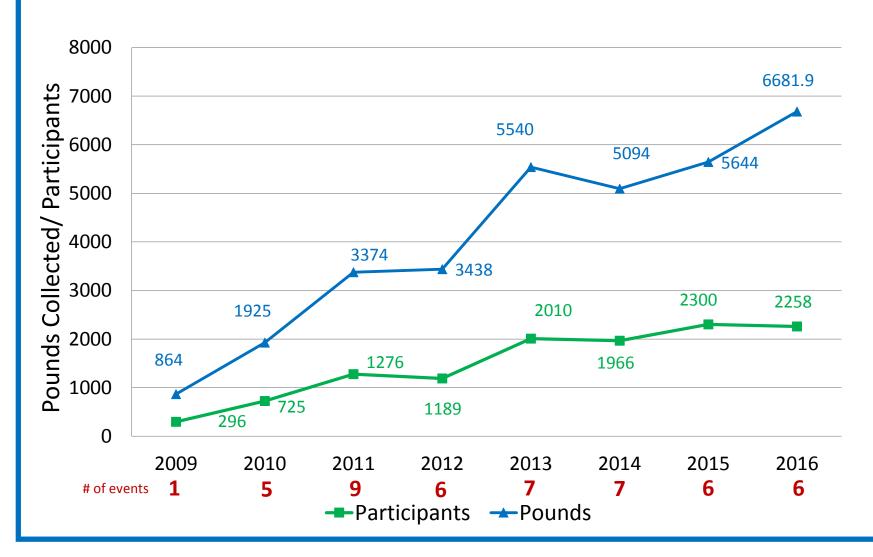
1,938 pounds of sharps



Image credit: https://biomedicalwastedisposalvirginia.wordpress.com/











Secrets to success

- Supportive institution
- On-going funding source
 - As little as \$3,000/year, as much as \$100,00
 - Poison center/ poison prevention funding
 - Xcel Energy grant
- Not reliant on DEA days
- Good relationship with law enforcement
- Effective advertising
- Consistent, on-going program





POISON PO

Law enforcement

- We started our program before DEA days began
- Developed relationship with local law enforcement
- Presented organized plan
- Ask for two officers (+/-)
- May need to pay for officers (~\$35-\$50/hr)
- Will law enforcement need to store/destroy or deliver to DEA?







Be safe

- Recognize that events may be target for theft
- Consider this when choosing site
- Drive-thru events keep level of separation between participants and staff
- Restricted indoor area for packaging of meds, weighing, etc.
- One officer inside, one outside (with patrol car visibility if possible)
- Choose event staffing wisely (background checks?)





POISON PO

Be prepared

- Will your event accept all medications?
 - Dallas DEA restricts inhalers
 - Chemotherapy?
- Sharps
 - People will often bring sharps to a drug take-back event
 - Prepare employees: How to prevent needle sticks









Structure of Medication Cleanout Events





Advertising

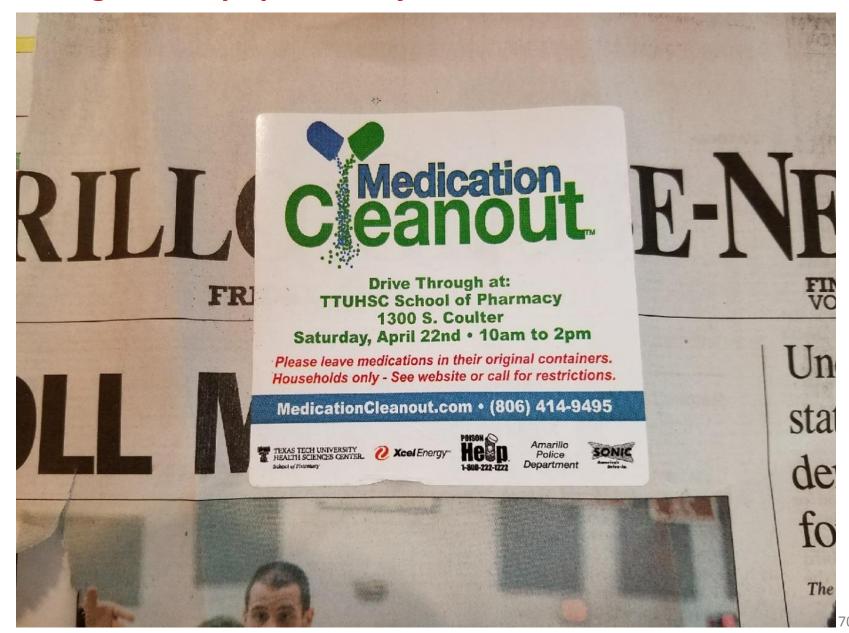


- Med Cleanout is usually low budget
- We print tear pads for all pharmacies in Amarillo and deliver these two weeks in advance of event
- Also deliver two flyers to each pharmacy
- Amarillo population = 195,000
- Flyers and tear pads for all pharmacies





Front Page Newspaper Sticky Ad ~\$2,000 in Amarillo



Bring unused, expired or no longer needed medications

*Please leave medications in their original containers. Households Only -See website or call for restrictions.

Drive Through at:
Texas Tech School of Pharmacy
1718 Pine Street
Saturday, March 25th
10:00am to 2:00pm



MedicationCleanout.com (806) 414-9495







DOCTORS RECOMMEND:

Free, Safe, Confidential Disposal Of Expired, Leftover, Unneeded Medicines

www.MedicationCleanout.com (806) 414-9495



Saturday ● September 12th 10:00 a.m.—2:00 p.m. One day only

Texas Tech School of Pharmacy 1300 S. Coulter Take expired, leftover, unnecessary medicines to Medication Cleanout™. Join the Texas Panhandle Poison Center with Texas Tech University Health Sciences Center, Xcel Energy® and the Amarillo Police Department in making our communities safer. Please leave medications in their original containers to protect our volunteers. Identifying information will be obscured from all containers at Medication Cleanout™.

No clinic or pharmacy loads, please. Households only.

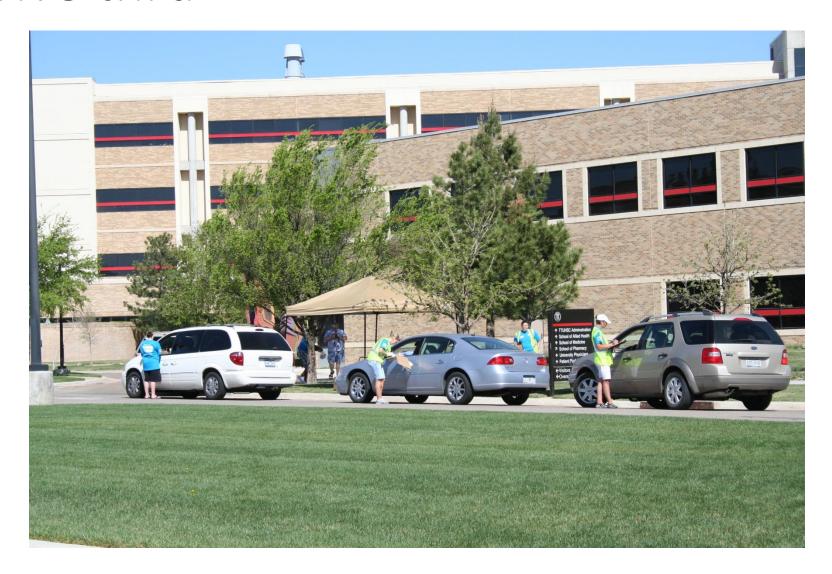








Drive thru



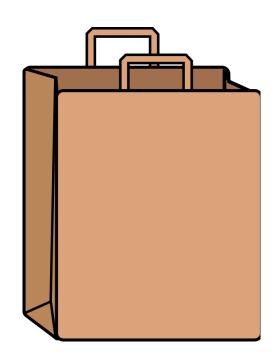
Curbside Surveys & Collection Mechanism



Surveys allow tracking participation;

"what number are we on?"

We staple one survey to each paper bag; pull apart as surveys are completed



Can number bags 1-300?



- Tailor survey to collect info that will help your organization
- Shorter is better
- If staff is limited and event is busy, may not be able to complete surveys, or may have to sample (i.e. every 5th car)
- Avoid identifying questions (name, address, phone, etc.)
- DEA does not like surveys, but they are not prohibited by Code of Federal Regulations

	Thank	you for coming today. May I ask a few questions to help with our research program?	
	1.	We DO accept sharps, needles, lancets, injections. Did you bring any of these items today?	
		YesNoI don't know	
	2.	What is your home zip code (postal code – where you receive your mail)?	
	3.	Have you participated in a Medication Cleanout event before?	
		Yes; How many?	1
	4.	Do you receive any medications through a mail-order service?	
		YesNoI don't know	
	5.	You probably have several different reasons, but what would you say is THE ONE MAIN reason for disposing of these medications today?	اي
	OSE	Not sure what they're for No longer using/don't need	pe
OI	NE NE	Patient died Medication expired	um
ANS	WER	Other (please specify:)	Z
СНО	ILY NE	Below are several good reasons for properly disposing of medications. Which ONE of the following do you feel is THE MOST important?	Collection Number:
ON ON ANSV		[prevent abuse] [protect the environment] [prevent poisonings]	Coll
	7.	What would you have done with the products if this event had not taken place?	
		thrown them in the trash kept them	
		flushed them down toilet other:	
	8.	Do you have the number to the Poison Center:	
		Somewhere in your home?YesNo	

Thank you for your participation!

Saved in your cell phone?



Gloves



- I recommend everyone wear gloves
- Sticky stuff
- Potentially contagious stuff
- Leaking stuff







POISON PO

Processing

- Bring bags to secure area
- DEA provided boxes if DEA event
- Weigh boxes
- Label boxes with number & weight
- Record outcome measures
- If collecting sharps, will need own containers







Permanent Boxes vs. 1-Day Events

 Amarillo has installed two permanent collection boxes over last 18 months (Walgreens, Tx Tech Pharmacy)

 Both sheriffs' departments have permanent disposal bins

 Volume of meds collected at our take back events continues to increase







Scaleability

 Take back events can be scaled based on amount of help

 For small community, handful of volunteers is sufficient

Large events, lots of volunteers, add on data collection







Questions?

Jeanie Jaramillo-Stametz

Jeanie.Jaramillo@ttuhsc.edu

(806) 414-9402 (poison center)

(806) 376-0039 (mobile)

(806) 414-9495 (Med Cleanout)





CITY OF GEORGETOWN



MEDICATION COLLECTION PROGRAM



KEYS TO SUCCESS

- 1)Buy-in from all stakeholders
- 2) Buy-in from City Council
- 3)Obtain grant
- 4) Create ads / communication / training
- 5)Implement

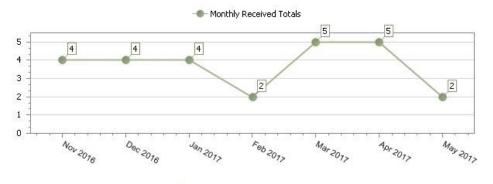


SharpsTRACER

Received Monthly By Date Range

From 10/16/2015 to 5/17/2017

Date	Total Received	Total Received Weight (lbs)	Average Received Weight (lbs)
Nov 2016	4	216.24	54.06
Dec 2016	4	229.75	57.44
Jan 2017	4	206.22	51.56
Feb 2017	2	92.21	46.11
Mar 2017	5	238.91	47.78
Apr 2017	5	225.99	45.20
May 2017	2	97.74	48.87







Jordan Fengel, B.S.

City of Georgetown Environmental Services Program Coordinator

Chair of Texas Product Stewardship Council

jordan.fengel@georgetown.org

Office: 512-819-3171



HISTORY OF DRUG TAKE BACK IN FORT WORTH

Presenter: Debbie Branch, City of Fort Worth, Superintendent with Solid Waste Services



Predominant option in Fort Worth prior to 2010 was LANDFILL or FLUSH



"ENVIRONME NTAL SIN"

"I buried my medicine in the backyard because I didn't know what else to do."

FORT WORTH'S 1ST RX TAKE BACK DAY







SEPARATED CONTROLS VS. NONCONTROLLED

TCU Nursing Students sorted Meds:

47 lbs of controlled vs. 1200 lbs of non-controlled

Police took the controlled Rx and the City of Fort Worth Environmental Collection Center took the remainder

DRUG TAKE BACK PARTNERS

- FIRST EVENT Partners
- City of Fort Worth
 - Police
 - Water Department
 - Environmental Management
 - Environmental Collection Center



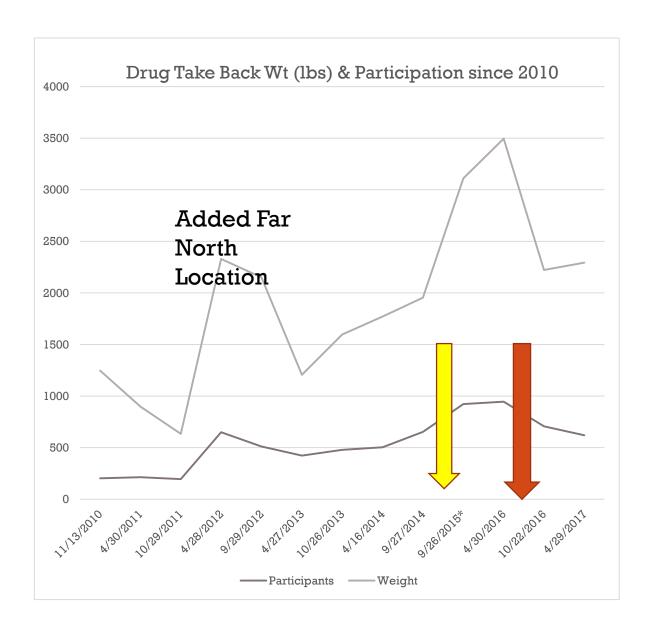


- Partners since 1st Event
- TCU School of Nursing (Fall 2010)
- DEA (Spring 2011)
- Poison Control Center (Sp 2011)
- Safe Kids of Tarrant County (Sp 2011)
- UNT Health Science Center School of Nursing
- JPS Hospital
- Walgreens (Spring 2014)
- Texas Health Harris Methodist Hospital
- Other Municipalities

Date	# of Sites	Attende es	Weight	Lbs/car
11/13/2010	1	202	1247	6.2
4/30/2011	2	213	898	4.2
10/29/2011	3	195	634	3.3
4/28/2012	4	650	2329	3.6
9/29/2012	5	511	2150	4.2
4/27/2013	3	423	1206	2.9
10/26/2013	6	478	1597	3.3
4/16/2014	8	504	1771	3.5
9/27/2014	8	653	1953	3.0
9/26/2015*	9	923	3110	3.4
4/30/2016	9	945	3495	3.7
10/22/2016	8	707	2222	3.1
4/29/2017	8	620	2293	3.7
AVG/EVENT		540	1916	3.5

13 DRUG TAKE BACK EVENTS SINCE 2010





DRUG TAKE BACK DAYS WEIGHT & PARTICIPATION

Yellow Arrow -

No Spring DEA event & Fort Worth saw removal of drug take back kiosks

Red Arrow -

Fort Worth implemented Medicine Return Envelope Pilot Program

DRUG TAKE BACK ITOSIS

Brought to you by the Safe Community Coalition and Fort Worth Police



2012 - 3 KIOSKS CAME TO FORT WORTH

Spearheaded by Safe Community Coalition.

TCU nursing students petitioned funding by local hospitals.

Kiosks funded by:

*Cook Children's Hospital

*Safe Kids of Tarrant County

*Fort Worth
Emergency Services
Collaboration (Texas
Health FW)

- September 2014 Federal Ruling allows the following to accept medication:
 - Manufacturers
 - Distributors
 - Reverse distributors
 - Narcotic treatment programs
 - Retail pharmacies
 - Hospitals/clinics with onsite pharmacy
 - Long-term care facilities



KIOSKS SUCCESSFUL UNTIL OCT 2014

Fort Worth removed drug take back kiosks AND DEA stopped sponsoring the Drug Take Back Day. No drug take back event spring of 2015.

Back to square one.

	North	East	South	West	Centra 1	Total
Nov '16	0	0	0	0	0	0
Dec '16	0	0	0	32	0	32
Jan '17	0	0	0	14	0	14
Feb '17	0	0	0	54.5	29	83.5
Mar '17	0	56	0	30	0	86
Apr '17	14	32	42	59	0	147
	14	88	42	189.5	29	362.5





KIOSKS REINSTALLE D FALL 2016

Improvements: 5 vs. 3

Average 72.5 lbs/month

OTHER FORT WORTH DRUG TAKE BACK KIOSKS

UNT Health Science Center

Box installed 2013



Walgreens

Installed Fall 2016 –
 One in Fort Worth
 proper, one on the
 border in Haltom City





Fort Worth Pilot Program



DRUG TAKE BACK ENVELOPES

Fort Worth implemented a pilot program during the fall of 2016.

Available by request.

Distributed 1166 to date.

Cost \$4.64/each

Return Rate = 25%

TESSONS LEARNED

7 years worth of lessons

SURVEY RESPONSE TO QUESTION:

WHAT WOULD YOU DO WITH DRUGS WITHOUT TAKE BACK EVENT?

	EVENT DATE	EVENT DATE
	11/13/2010	4/29/17
Kept them	58%	65%
Flushed them	6%	3%
Thrown them in trash	25%	19%
Taken to HHW event	5%	N/A
Sent to manufacturer	0%	0%
Other	5%	11%

SUMMARY

- Feel public awareness is increasing and efforts making a difference.
- Don't put all eggs in one basket.
- Involve many partners!
- Need to be as easy to safely dispose of medicine as it is to buy it.

QUESTIONS?



Debbie Branch
City of Fort Worth
Code Compliance
Superintendent

Debbie.branch@FortWorthTexas.Gov

817-392-5151



Other Drug Take-Back Programs



Thank You To Our Sponsors!







Wastewater And Treatment Education Roundtable











San Francisco Safe Medicine Disposal Program

Eileen Leung



SF Department of the Environment





Environmental Need





Public Safety Need





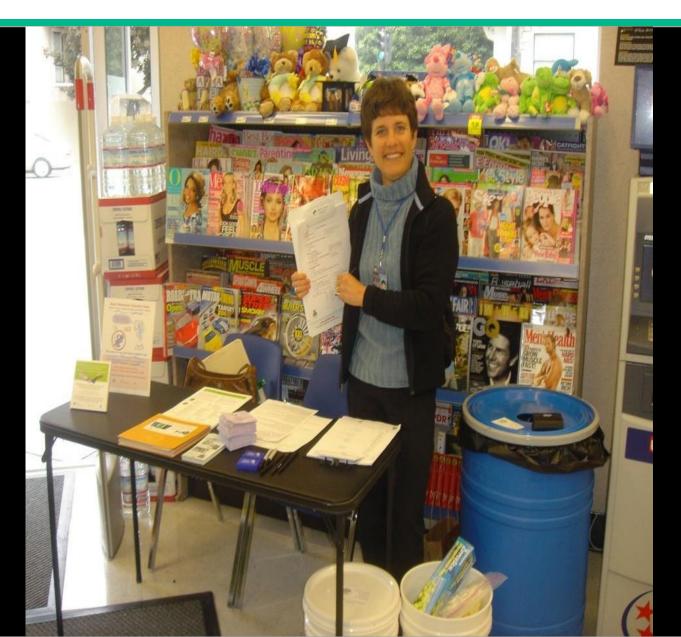
Where Does Medicine Go?





San Francisco's Past Efforts





SF Pilot Program launched April 2012





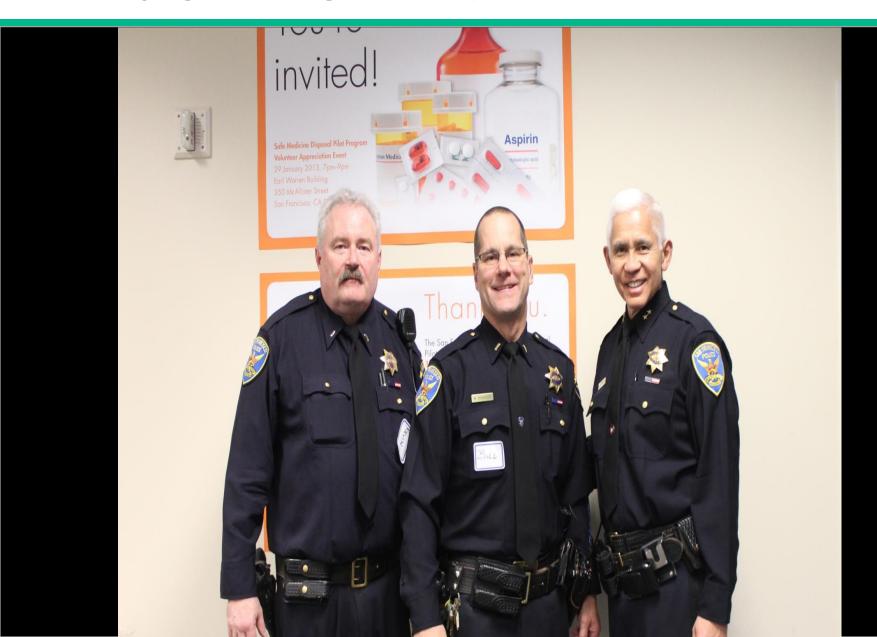
13 Independent Pharmacies





All 10 SFPD Stations





Information Ordinance





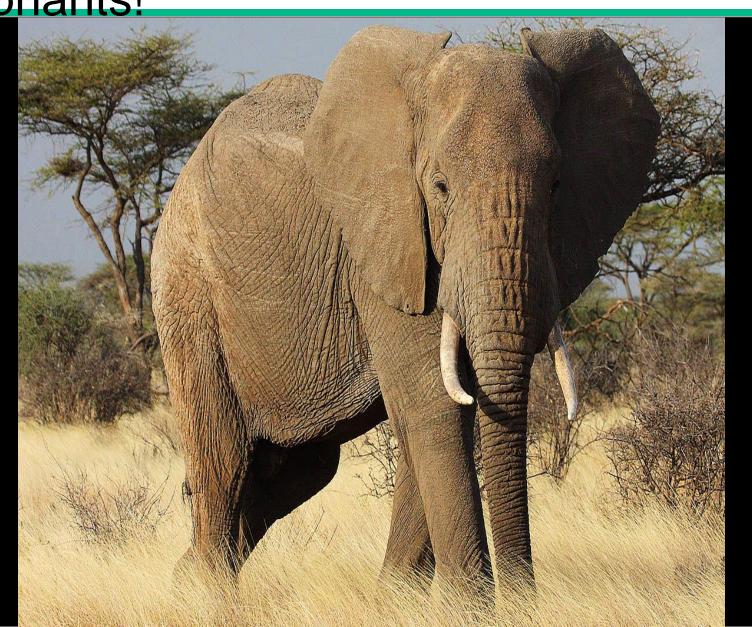
Collected 87,000 Pounds of Medicine





That's the Weight of 9 African Elephants!

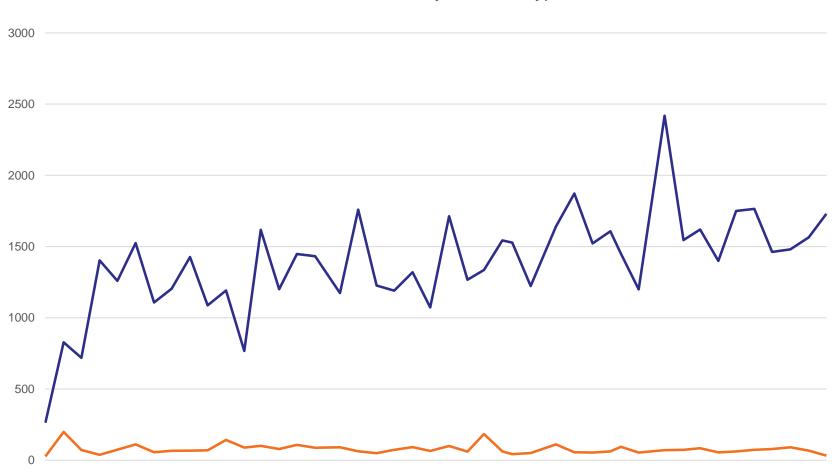




Residents Prefer Pharmacies



Pounds Collected by Location Type



Pharmacy Based Collection Works





SFPD Also Host DEA Days





SF Ordinance Passed March 2015





Pharmaceutical Industry to Run Program





Manufacturers Submit Stewardship Plan





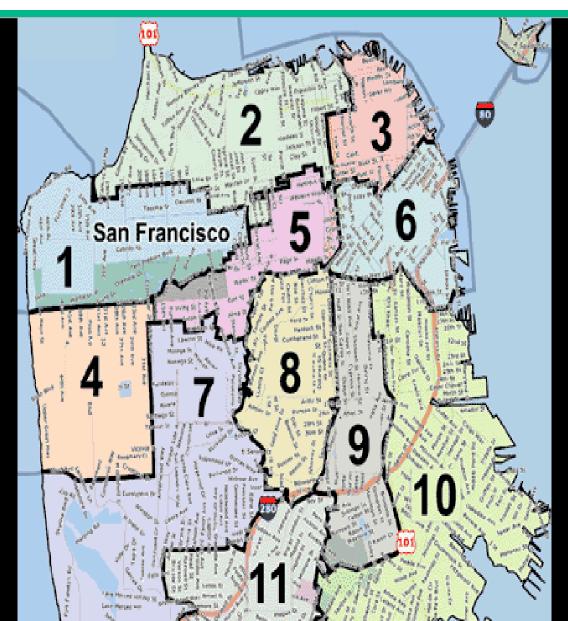
Department Oversees Implementation





Requires 5 Drop-off Locations Per District





Required to Promote Program





Received One Viable Stewardship Plan





Medication Education & Disposal

Plan Approved in July 2016





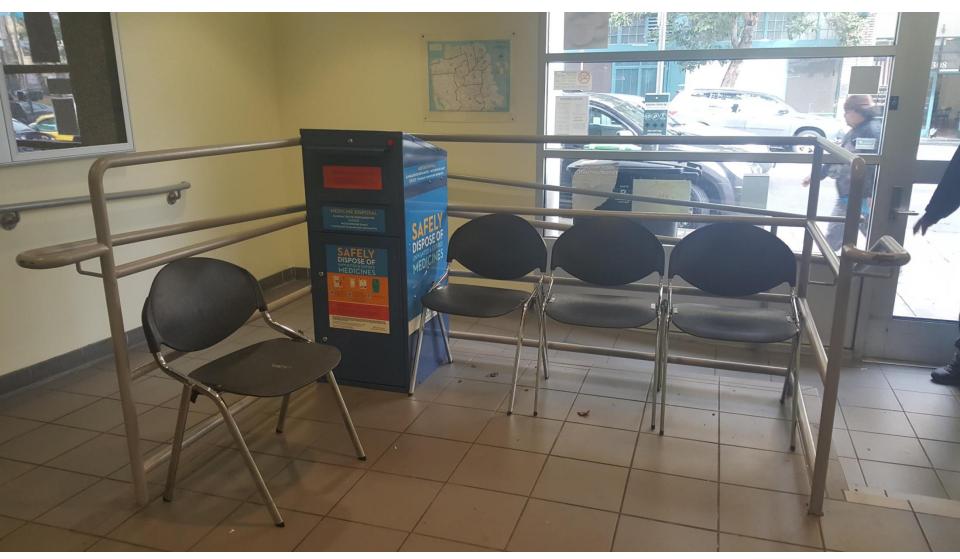
There Have Been Challenges





26 Medicine Drop-Off Locations





33 Mail-Back Distribution Locations





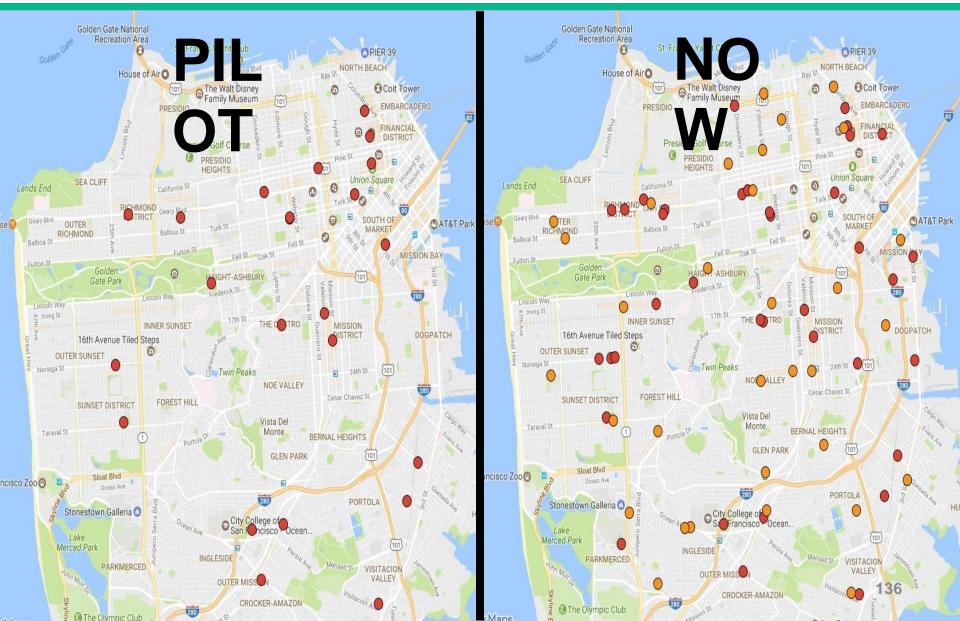
Take-Back Events





More Disposal Options Now





Ordinance is Working!





Thank you!



Eileen Leung
Safe Medicine Disposal
Program
SF Department of the
Environment

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DEA Drug Take Back Regulations

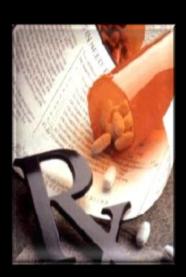


June 7, 2017





DEA Diversion Program



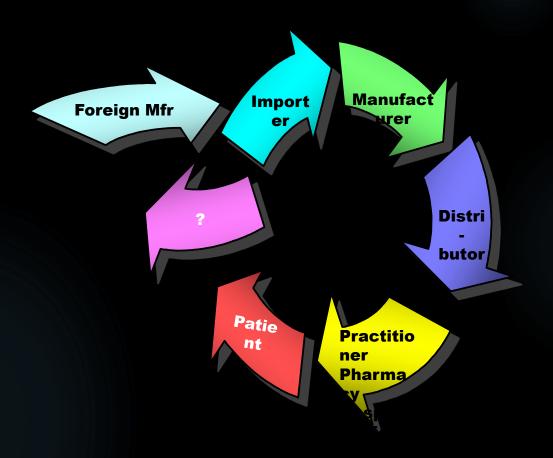
Mission

The mission of the Office of Diversion Control is to <u>prevent</u>, <u>detect</u>, and <u>investigate</u> the diversion of pharmaceutical controlled substances and listed chemicals from legitimate channels of distribution

while ...

ensuring an adequate and uninterrupted supply of controlled substances to meet Legitimate medical, commercial, and scientific meeds

Closed System of Distribution



1,683,023 (as of 5-24-17)

- **Practitioners:** 1,251,528
- Retail Pharmacies: 71,665

Hospital/Clinics:

Administration 17,655 e of Diversion Control

U.S. Drug Enforcement

The Secure and Responsible Drug Disposal

- CSA establishes the closed system of distribution-stop diversion into illicit market before the end user
- The Secure destruction of unwanted pharmaceuticals-stop diversion into the illicit market after the end user
- Final regulations became effective October 9, 2014

Most Frequent Method of Obtaining a Pharmaceutical Controlled Substance for Non Medical Use

Friends and Family...For



FINAL RULE-THREE OPTIONS

- ►Take Back Events
- ► Mail-Back Programs
- ► Collection Receptacles

TAKE BACK EVENTS

- Law Enforcement events-Law Enforcement Officer has to be there, has to be in charge of the drugs, has to stay with the drugs, has to take the drugs with them, has to destroy the drugs
- Non-Law Enforcement events-Law Enforcement Officer has to be there, has to be in charge of the drugs, has to stay with the drugs, has to take the drugs with them, has to destroy the drugs

MAIL BACK PROGRAMS

- ► For sale
- Given away
- Registrant for final destruction

Collection Receptacle

- Pharmacies may maintain collection receptacles at their business
- Pharmacies may place receptacles at Long Term are Facilities.

A Fourth Option?

- Federal, State, Tribal and Local Law Enforcement
 - At the law enforcement physical location

National Take Back Initiative April 30, 2016



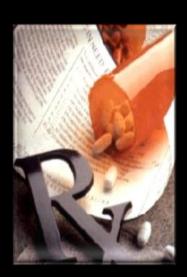
11th National Take Back Day: April 30, 2016 unused R Tons) 13,8 00 319 2,9 20 98 8 10, 5,85 842 8 62, 3,0 1,58 **§**18 68 1,47 16, 9,0 43,7 3,7 5,2 36, 84 48, 92 76 408 6,7 29, 63 24, 64, 13,8 170 43, 320 94 975 916 12, 713 25,28 66 5,7 885 88 15 1,8 4,4 79,4 18

13th National Take Back Day: April

Overseas: 25

29, 2017 Total Weight Collected (pounds): 900,386 lbs. unused Tons) R 5,5 14,4 48 53 80 4,3 57 27, 12, 694 18,5 120 08 MA 65, 3,7 1,71 46 1,09 15, ct 41 7,4 92 16 17,3 64 16, 74, 16,3 DE 068 36, 864 12,9 948 2^{24}_{MD} 165 9,5 24,48 6,1 DC 76 9,6304 21 6,2 72,3 2,690 61 3,18 PR & 29,0 55

Public Health Epidemic



Opioid Overdose Deaths

2000-2014:

Unintentional drug overdose deaths in the US increased 137%, which was a 200% increase in overdose deaths involving opioids.

2015:

```
Over 47,000 drug-related overdose deaths

28,647 deaths involved opioids, including heroin

19,000 deaths involved prescription opioid
1 death every 11.16 minutes
46 deaths by end of a normal work day(8 ½ hours)

129 deaths every 24 hours
```

CDC National Center for Health Statistics/Morbidity and Morality Weekly Report (MMWR); January 1, 2016

How Much Hydrocodone?

- THE UNITED STATES MAKES UP5 PERCENT OF THE WORLDSPOPULATION
- WHAT PERCENTAGE OF THE WORLD'S HYDROCODONE USAGE DOES THE UNITED STATES MAKE UP?

Hydrodocone Top 10

► Guatemala 10 Kilograms

Mexico 10 Kilograms

Vietnam 20 Kilograms

► China 20 Kilograms

Denmark 25 Kilograms

Syrian Republic 50 Kilograms

► Germany 60 Kilograms

► Canada 100 Kilograms

▶ United States 79,700 Kilograms (99.5%)

Source: UN International Narcotics Control Board

Website. Estimated World Requirements of Narcotic

Drugs in grams for 2015 www.incb.org

The Trinity









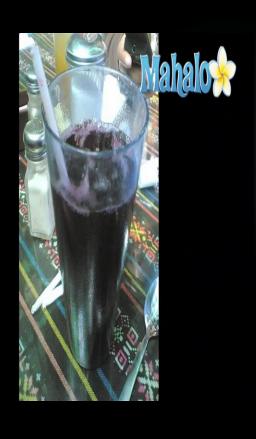
C-IV as of 1/11/2012



Muscle Relaxant Benzodiazepine

Promethazine with Codeine









C-II CEPHALON, INC. 100 mcg 200 mcg 300 mcg 400 mcg 600 mcg 800 mcg Fentora® (fentanyl buccal tablet)





- Fentanyl Patches
- Fentanyl Citrate dispensed in a berry flavored lollipop-type unit
- Fentanyl is 100 times more potent than morphine
- Intended to be used for chronic cancer pain & only for people who are tolerant to prescription opioid (narcotic) pain medicines
- Abused for its intense euphoric effects



Actiq®

What do these two things have in common?????





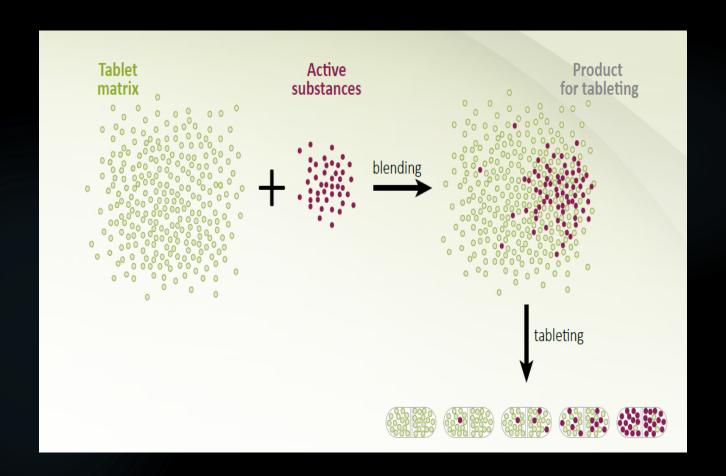


Dear Medics, Police, and Firefighters. Please share this with your colleagues. If you find drugs on a patient, be extremely careful when handling them. A new drug is in town called "carfentanil" which is so potent that it landed two first responders in the hospital from inhaling dust while closing a ziplock bag a patient had. Expect people who OD to take 10x more Narcan to start breathing again. The picture compares the lethal amounts of heroin, fentanyl, and carfentanil.



Write a comment...

Mixing Fentanyl



Non-medical Prescription Opioid Users Who Try Heroin

- Prescription opioid use is a risk factor for heroin use. Approximately 4 out of 5 recent heroin initiates ages 12-49 used prescription opioids non-medically before heroin initiation.¹
- Transition from prescription opioid abuse to heroin use is relatively rare; approximately 4 percent of prescription opioid abuse initiates begin using heroin within five years of their initiation of prescription opioid abuse.²
- Injection-drug users report that tolerance motivates them to try heroin.³
- New research shows that heroin's effects, price, availability, and ease of use motivate heroin users who formerly used prescription opioids.⁴



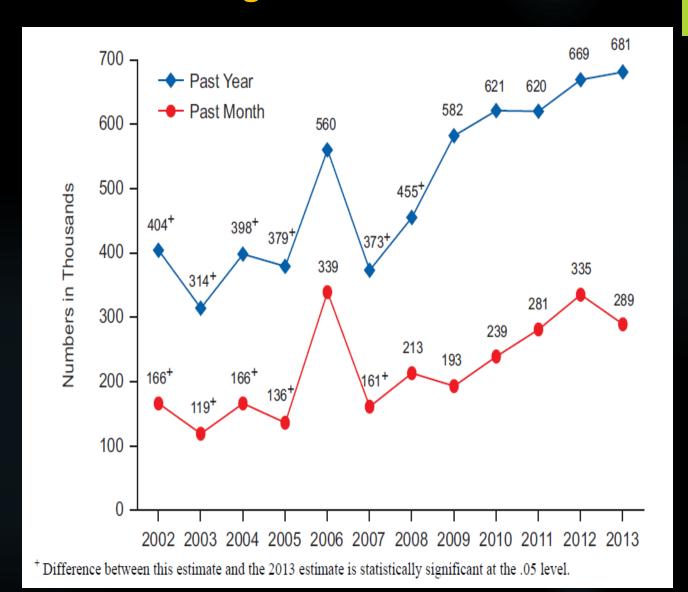
^{1.} Muhuri, P.K. Gfroerer, J., Davies, C. (2013). Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States. SAMHSA CBHSQ Data Review (August).

Ibid

^{3.} Lankenau SE, et al. (2012). Initiation into prescription opioid misuse amongst young injection drug users. Int J Drug Policy. 2012 Jan;23(1):37-44. Epub 2011 Jun 20.

^{4.} Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years. JAMA Psychiatry. Published online May 28, 2014. doi:10.1001/jamapsychiatry.2014.366

Past Month and Past Year Heroin Use Among Persons Aged 12 or Older: 2002-2013



¹⁶⁵



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214-366-6936

Thank You To Our Sponsors!







Wastewater And Treatment Education Roundtable









Facilitated Session:

Designing a take-back system for NCTCOG



Designing a Drug Take-Back System for NCTCOG

How many collection sites are needed?

- Large geographic area with high growth expected
- Diversity of small, medium, and large cities

Location?

Retail pharmacies, law enforcement, long-term care, hospitals

Type?

Mix of rural, suburban, urban, tribal

Collection method?

On-site receptacle, mail-back, events

Outreach/education

Promotional campaign & public awareness survey



Drug Take-Back

How many collection sites needed?

- EPR convenience standards for collection sites:
 - ✓ Range from 1/6,500 residents to 1/60,000 residents
 - ✓ Most fall between 1/15,000 1/20,000
- Variation depends on:
 - ✓ Political feasibility
 - ✓ Availability of potential collection sites (# of local pharmacies)
 - ✓ Urban vs. rural environments
- Mandatory pharmacy participation in some EPR laws



Launching a Drug Take-Back Pilot Project

- Gather data
 - Volumes
 - Costs
- Build relationships
- Follow How-to Guide



Thank You To Our Sponsors!







NORTH TEXAS MUNICIPAL WATER DISTRICT

Wastewater And Treatment Education Roundtable









Funding Optionsfor Drug Take-Back Programs

- Government
- COG/potential grants
- TX state funding
- Law enforcement (municipality)
- Retailer pharmacies
- Manufacturers/EPR
- Other?



Safe Drug Disposal Flier



Consumer messaging on safest drug disposal methods

www.bit.ly/leftover-meds



Implementation of NCT Drug Take-Back Program

- Who should be the Lead implementing agency?
- Who is interested in running a pilot?
- What information do you need to succeed?
- Are any changes needed to state or regional regulations/statutes?
- Any additional advice to help design a drug take-back system for NCT?
- Any additional partners that should be included in implementation?

175

PSI Pilot Coalition

Key Stakeholders

- 1. Pharmacies
- 2. Law enforcement
- 3. Public health agencies
- 4. Waste managers/recyclers
- 5. Wastewater treatment
- 6. Environmental advocates
- 7. Reverse distributors

- 8. Manufacturers
- 9. Medical community
- 10. Drug abuse/recovery centers
- 11. Poison control
- 12. Universities/ext. programs
- 13. Local drug abuse prevention/ safe med disposal coalitions, etc.



Next Steps for North Central Texas



Thank you!

Product Stewardship Institute

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