

# HOSPITALS FOR A HEALTHY ENVIRONMENT

## PHARMACEUTICAL WASTE REDUCTION ACTIVITIES AT THE HOSPITAL LEVEL

Presentation to the PPCP Webinar Series  
November 8, 2006

## H2E Program



- H2E goals for hospitals include:
  - Virtually eliminate mercury waste by year 2005
  - Reduce total waste volume by 33% by year 2005, by 50% by 2010
  - Identify and reduce PBT chemicals and other hazardous substances in hospitals through pollution prevention and waste reduction
- Currently, there are over 1200 Partners representing over 1400 hospitals in the network

# Presentation Overview

- Two main parts:
  - Hospitals for a Healthy Environment (H2E)-specific PPCP reduction
  - Other EPA efforts to address PPCPs

## PPCP's in Hospitals – 1

- H2E first encountered this issue as we are promoting better RCRA compliance in hospitals
  - Many drugs are P- or U-listed wastes or controlled substances
  - Hospitals struggled to apply RCRA rules to proper disposal of PPCP's
  - Hospitals unsure how to properly dispose of PPCP's

## PPCP's in Hospitals – 2

- As institutions, hospitals have better ability to minimize PPCP's than most
  - On-site pharmacies can reduce wastage
  - Reverse-distribution can help keep expired PPCP's out of waste stream
  - Access to red-bag waste disposal help ensure waste PPCP's can be incinerated



## H2E Results So Far?

- PPCP training call was among the most popular for H2E
  - 442 participants in May 2006 call
- H2E award winner reported PPCP collection of 1800 lb in 2006



## What H2E Has Done to Help? – 1

- Through the Innovations Grants Program and EPA Region 1, conducted pilot program for PPCP minimization in hospitals: “Managing Pharmaceutical Waste: A 10-Step Blueprint for Health Care Facilities in the United States”
- Final version of this document is available at: <http://www.envcapdocserver.org/h2e/h2epharmablueprint41506.pdf>.

## Other EPA Efforts to Date – 1

- EPA Region 3 has funded PPCP in waste water treatment research grant in 2006
- EPA Region 3 also funded PPCP collection pilot in Philly area
- H2E & EPA Regions has provided speakers to discuss proper PPCP disposal and minimization



## Other EPA Efforts to Date – 2

- Office of Children's Health Protection is reviewing grants for pilot PPCP collection program
- Collaboration of EPA, FDA, DEA, USGS, and other federal agencies drafting report on our current status & areas to pursue

Highlights and Lessons Learned  
from the  
2006 SF Bay Area's  
Safe Medicine Disposal Days  
sponsored by the  
Bay Area Pollution Prevention Group

Karin D. North  
City of Palo Alto



# History

Palo Alto  
started a  
collection  
program

2003

DTSC and  
DHS do not  
regulate res.  
pharm. waste

2005

SF Bay  
Area  
Disposal  
Days Event

2002

Spearheaded  
discussions  
with POTWs,  
HHW, DTSC,  
DHS, EPA,  
Water Board

2004

WMI White  
Paper on  
Sewering of  
Pharmaceutical  
Waste

2006

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# Overview

- Regional coordination through Bay Area Pollution Prevention Group
- Week of disposal events throughout the region during one week in May 2006
- “By the book” events with pharmacist and police involvement
- Publicity and media outreach coordinated regionally



**Safe Medicine Disposal Days**  
Safer for your family, safer for the Bay

Flushing expired or unwanted medicine down the drain may harm San Francisco Bay. Wastewater treatment cannot remove all medicines, but with your help, local agencies are protecting the Bay. Drop off expired or unwanted medicine during our

**Safe Medicine Disposal Days, May 13-21, 2006!**

For locations, dates and hours, visit  
[www.BayWise.org](http://www.BayWise.org)  
or call 1-858-BayWise.

The fish will thank you!

Drop-offs at select locations in San Francisco, Palo Alto, Oakland, San Jose, Millbrae, Sausalito, San Leandro, Fremont, Mountain View, Belmont, Menlo Park and more!

 BAY AREA POLLUTION PREVENTION GROUP 

## Overview (continued)

- 23 agencies and organizations participated
- 38 collection events regionally
- 3,685 pounds collected from ~1500 residents
  - 9% controlled substances (median)
  - Palo Alto collected ~721 lbs



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## Advertising and Media Assistance

- **Extensive Advertising**
  - Dedicated website ([www.BayWise.org](http://www.BayWise.org))
  - 65 newspaper ads in local and regional papers
  - >215,000 direct mailings
  - >30,000 flyers distributed
  - 320 transit ads
  - Radio PSAs
- **Media Assistance**
  - 5 press events
  - 10 newspaper articles
  - 4 radio interviews
  - 5 TV stations covered events



## Newspaper Articles

- “Program aims to keep drugs out of bay”, San Jose Mercury News
- “Don’t dump old medicine in toilet”, San Francisco Chronicle
- “Drugs disposed of incorrectly could give Bay bad diagnosis”, Contra Costa Times
- “Flushed meds could spur a fishy situation” San Mateo County Times

## Marketing Effectiveness

- Direct mail and flyers most effective
- Newspaper articles and ads effective
- Transit advertising – least effective and most expensive



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## Survey Results

- Past disposal practices
  - Half disposed of in trash
  - One quarter in the toilet
  - Rest HHW events or stockpiled
- Reasons for disposal
  - 74% stock piled medications for > 1 year
  - Most medications were expired/ out of date
- Majority of people who utilized the program were women over 60 years of age
- Typically disposed of 13 containers per person

## Lessons Learned

- “By the (DEA) book” events are costly
  - Staff time - ~1,980 staff hours from 23 agencies
  - Pharmacist time – sorting/ counting controlled substances
  - Police involvement
- Police coordination very difficult
  - Some police departments were unwilling to participate
  - High homicide rates in some areas deem pharmaceutical disposal a low priority
- No security issues at 38 events
  - Less than 10% of medications controlled

## Lessons Learned (continued)

- Events appreciated and needed!
  - Residents wanted to know when another event would be held
  - Doctors offices disposed of expired samples
  - Pharmacists appreciated events because people drop off medications and run!
- Demand for proper disposal is high – need sustainable solution

## Why was the Regional Campaign Successful?

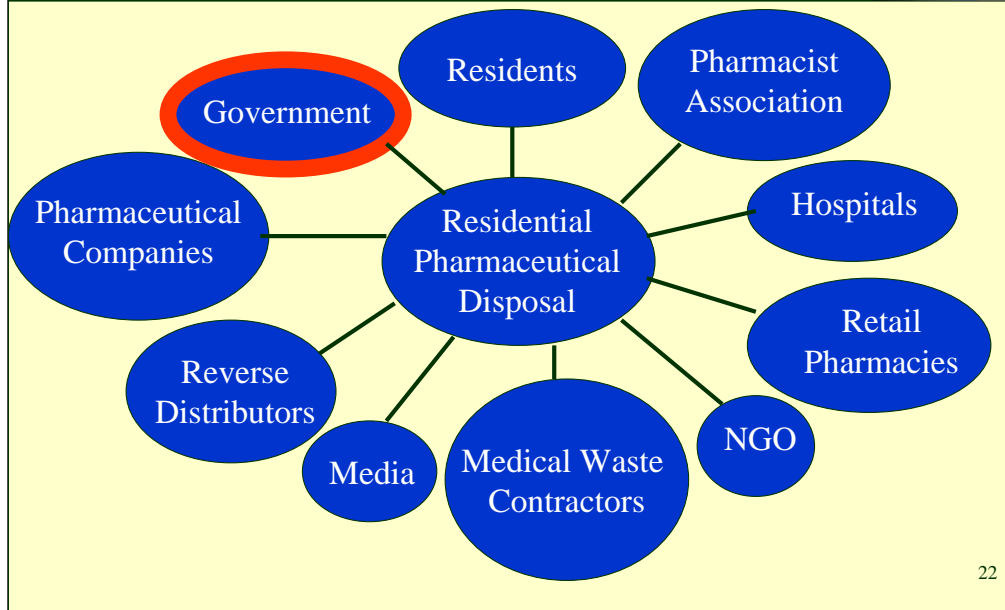


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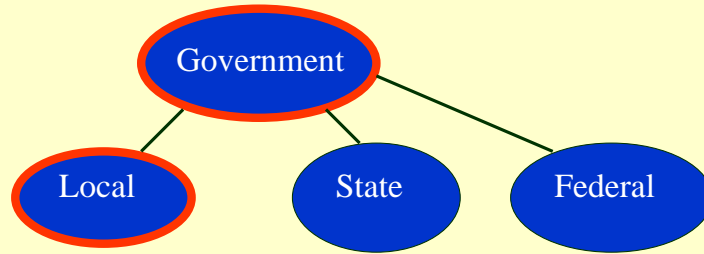
# Multiple Stakeholders



# Multiple Stakeholders

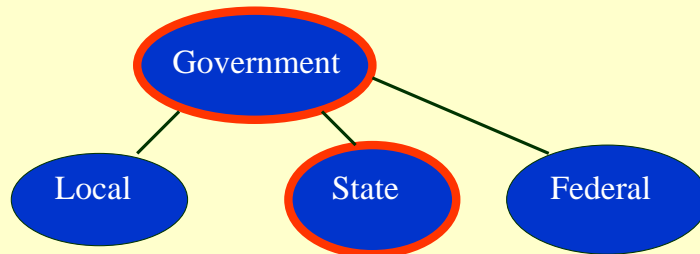


# Multiple Stakeholders



POTWs  
HHW  
Solid Waste  
County Health  
Cities  
Law enforcement

# Multiple Stakeholders

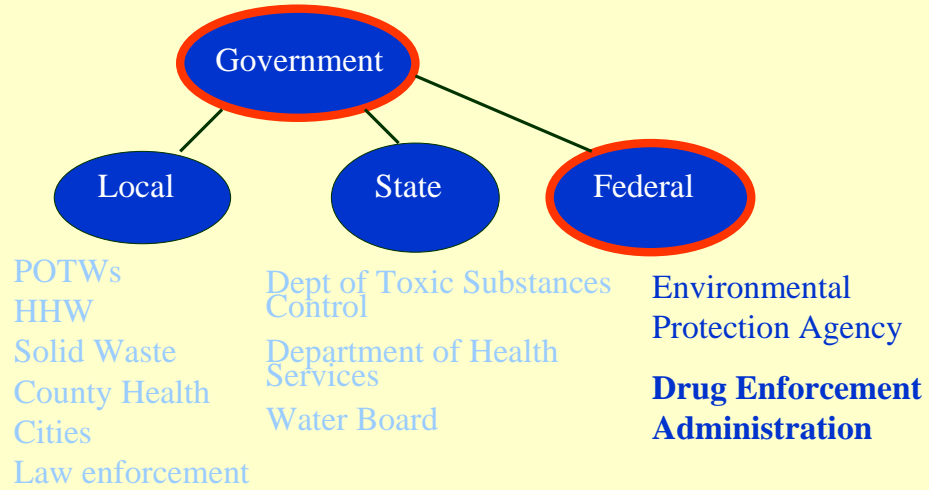


POTWs  
HHW  
Solid Waste  
County Health  
Cities  
Law enforcement

Dept of Toxic Substances  
Control  
Department of Health  
Services  
Water Board



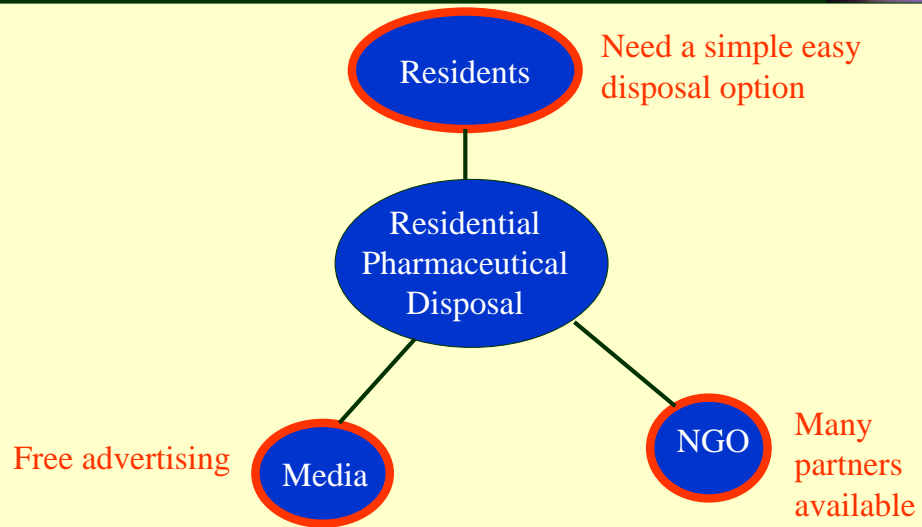
# Multiple Stakeholders



## Multiple Stakeholders



# Multiple Stakeholders



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## Multiple Stakeholders

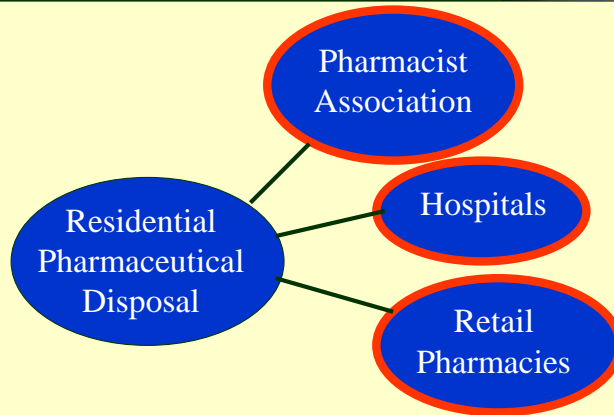


# Multiple Stakeholders

Powerful partners

Possible cost sharing

Have up-to-date  
knowledge!

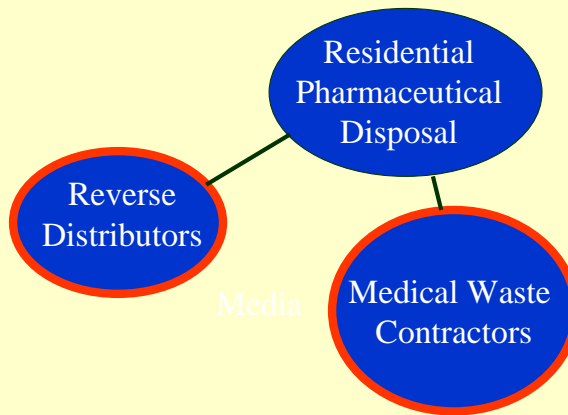


## Multiple Stakeholders



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# Multiple Stakeholders



Essential for proper waste disposal

Extremely knowledgeable

Excellent partner

## Multiple Stakeholders



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## National Collaboration is Key!

- Work with pharmaceutical companies to craft solution
- Modify DEA Regulations
- Education is vital
- Many partner agencies available
- Develop funding alternatives

## Contact Information

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Thank You

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