

Board of Supervisors



COUNTY OF SAN MATEO

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Pharmaceutical Disposal Program

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Abstract of the Program

The San Mateo County Pharmaceutical Disposal Program offers the public a convenient, viable and environmentally friendly alternative to flushing pills or medicinal liquids into the wastewater stream or placement in municipal landfills. Launched in September 2006, the program is believed to be a national first, as it operates year-round and legally accepts all pharmaceuticals, including those defined as controlled substances. Simultaneously, the program addresses law enforcement issues centered on the dangerous, recreational use of pharmaceuticals, plus health and safety concerns involving citizens – especially seniors – with multiple prescriptions resulting in large amounts of look-alike pills presenting potential dosage errors.

During the first four months of operations, the program collected more than 585 pounds of medicines discarded by the public at four locations countywide. In late-April 2007, in conjunction with Earth Week and National County Government Week, "*Protecting The Environment*," the program expanded by seven cities to total 11 drop-off sites countywide. As of January 2008, 14 Peninsula law enforcement agencies were managing 13 drop-off sites countywide.

In November 2008, the San Mateo County Pharmaceutical Disposal Program received a Governor's Environmental and Economic Leadership Award, presented by the California Department of Environmental Protection. The GEELA is considered California's highest environmental honor.

In June 2007, the program garnered an Achievement Award from the National Association of Counties. In September 2007, the program received an Honorable Mention from the San Francisco Bay Regional Water Quality Control Board in connection with its first-ever Dr. Teng-Chung Wu P2 Award, intended to promote excellence in pollution prevention.

Need for the Program

When San Mateo County Sup. Adrienne J. Tissier's father passed in 2004, she found herself sorting through a large supply of prescription medications, including powerful painkillers and sedatives. Soon after taking office in January 2005 as the newest member of the Board of Supervisors, Adrienne started researching methods of disposal, since she already knew of the environmental risks. The supervisor set out to create a permanent disposal program when her research revealed that a clear and convenient disposal path did not exist; in fact, the Web site of one of the country's largest retail pharmacy chains actually supported the flushing of unwanted medicines down the toilet. The reaction from environmental advocates was immediate and uniformly positive. However, they also cautioned

Adrienne regarding the challenges posed by strict federal regulations governing the handling of medicines defined as controlled substances.

As a gauge of public need, the supervisor worked with the county's Environmental Health Services Division and set up a one-time collection event during Earth Week in April 2005. During that week, collection points in 13 San Mateo County cities received a total of some 235 pounds of medicines. The public need was more than obvious, especially in the context of the recreational use of pharmaceuticals.

Beyond manufacturing methamphetamines with over-the-counter decongestants containing pseudoephedrine, burgeoning evidence indicate teenagers and young adults are participating in "pharm parties," where fistfuls of various, unidentified pills are dubbed "trail mix" and swallowed – often washed down with alcohol.

Working with the San Mateo County Police Chiefs and Sheriffs Association, Adrienne assembled a program that offered convenience for the public, with minimal costs to the county and minimal staff commitments by the participating law enforcement departments. Pharmaceutical disposal receptacles – refurbished surplus US Postal Service collection boxes, repainted and appropriately labeled – were placed at three police departments (City of Daly City, City of Pacifica and City of San Bruno) and at the Sheriff's Office inside the county Hall of Justice in Redwood City, Calif. This satisfied the federal rules concerning controlled substances.

The San Mateo County Pharmaceutical Disposal Program officially launched the week of Sept. 18, 2006, and by the end of December 2008, had collected more than 14,500 pounds of discarded pharmaceuticals. In other words, the program has diverted **7.25 tons** of medicines from the county's solid waste and wastewater streams, and prevented their unintended use by children and seniors. Simultaneously, these drugs were no longer available for recreational purposes.

During that same period, disposal costs to the county were approximately \$1.55 per pound, including pick-up fees.

Description of the Program

The San Mateo County Pharmaceutical Disposal Program is a public service trifecta, benefiting the environment, youth and seniors and their families. It offers a convenient way for the proper disposal of expired or otherwise unwanted pharmaceuticals through participating local law enforcement agencies. As of January 2008, a dozen city police departments hosted and/or managed disposal receptacles, plus an additional two containers controlled by the Sheriff's Office.

Anyone can walk into each site, place the unwanted medicines in the receptacle and walk away. The steel receptacles are easily seen at each location and each is clearly marked in English and Spanish. Keeping the medicines in their original containers, especially the liquids, helps prevent leakage; and removal of prescription labels helps protect privacy.

The program's three main goals are to help seniors avoid dangerous medication dosage errors, help reduce or prevent recreational pharmaceutical use and to help stop the continuing contamination of the environment by myriad medicines flushed down countless drains every day. The environmental risk stems from the fact that the majority of sewage treatment facilities are not designed to filter out medicines. So everything from antibiotics to the hormones found in birth control pills is showing up in fish and amphibians – so-called "indicator species."

The San Mateo County Pharmaceutical Disposal Program does not accept illegal substances, such as marijuana, ecstasy or methamphetamines.

The disposal receptacles were placed with law enforcement agencies because that was the only way to create a program able to legally accept ALL pharmaceuticals, including those defined as controlled substances. Each participating department is responsible for securing its own receptacle, monitoring its contents and capacity and regularly transporting the deposited medicines to the county jail, where the transporting officer deposits his or her department's collected medicines into another locked container. That locked container is then picked up by a licensed and bonded hazardous waste disposal company, which in-turn disposes of the medicines in an appropriate, commercial incinerator.

Media coverage, physical and electronic flyers as well as word-of-mouth all helped in publicizing the program. Participating cities placed flyers at city halls, senior centers and public libraries, while at least one major chain pharmacy accepted flyers for 10 of its retail locations in the county.

As word spread, inquiries arrived from as far away as the Tualatin Valley (Ore.) Water District; Macomb County (Mich.) Health Department; Brown County (Wisc.) Port & Solid Waste Department; Summit County (Ohio) General Health District; Franklin County (Mass.) Solid Waste District and the Miami-Dade County (Fla.) Police Department.

Costs of the Program

Similar to any other public program, the San Mateo County Pharmaceutical Disposal Program includes hard and soft costs, with recurring hard costs designed to be minimal.

The largest initial expense was the preparation of the disposal receptacles. A generous local postmaster granted the county four surplus mail collection boxes, with the caveat that the containers must not be used for any mail-related activities. These steel boxes were in such poor condition that they were taken to an auto-body shop for refurbishment and a thick coat of white paint. The boxes were then taken to a commercial sign manufacturer for blue lettering in English and Spanish declaring, on three sides:

Pharmaceutical Disposal Only
No Mail
No Batteries
No Trash
No Syringes

Deshechos Farmaceuticos Solamente
No Correo
No Baterias
No Basura
No Jeringas

Each receptacle also displays three, large, red biohazard logos. The refurbishment and graphics for the four, original containers totaled \$1,600 in county funds. Starting in spring 2007, the expansion departments purchased courier boxes resembling the book-drop receptacles outside many public libraries. These were purchased from a Southern California vendor and repainted by the same sign manufacturer previously mentioned. Total cost to each department was in the \$700 to \$800 range. (The expansion departments purchased courier boxes because surplus USPS boxes were no longer available.)

The sole recurring hard cost is the disposal contract between the Sheriff's Office and the disposal company (All Chemical Disposal, Inc., of San Jose, CA), set at \$60 per pickup, plus \$0.75 per pound. Any syringes or other "sharps" incur additional charges.

In terms of soft costs, the largest component by far is the staff-time commitment borne by each participating agency, which conducts an initial examination of the deposited items to look for items, such as sharps, trash, mail, batteries and any illegal drugs. Depending on a receptacle's frequency of use by the public, a particular agency's property officer might have to store some materials until the next-appropriate transport to the county jail.

In addition to the legal aspects, placing the central collection receptacle at the county jail was a convenience element of the procedural design. Officers from the county's 19 independent, municipal police departments visit the jail on a regular basis for a variety of reasons.

The police chief of Daly City, the county's largest community by population, with some 110,000 residents, said that his staff commitment is no more than three or four hours a week, including transit time between his department and the county jail.

Results/Success of the Program

The three main goals of the San Mateo County Pharmaceutical Disposal Program are to:

- 1) Help seniors avoid potentially dangerous medication dosage errors;
- 2) Help reduce or prevent recreational pharmaceutical use; and to
- 3) Help stop the continuing contamination of the environment.

The program seeks to achieve these goals by providing a convenient, effective and legal method for the public to dispose of unwanted household medicines, including those defined as controlled substances. The public's response has been overwhelmingly, if not entirely, complimentary and positive. The sole criticism has been the unavailability of disposal receptacles at neighborhood pharmacies and/or senior centers. However, the collected volume underscores the program's success.

Perhaps the best summation of the program was printed in the November-December 2006 issue of the *Loma Prieta*, the newsletter of the Loma Prieta chapter of the Sierra Club, which covers the California counties of San Benito, Santa Clara and San Mateo:

The Precautionary Principle suggests that we should act now to address the fact that an increasing number of chemicals from pharmaceuticals and personal care products are entering our environment and we only know a portion of the effects of a subset of these chemicals.

Thanks to Supervisor Adrienne J. Tissier, San Mateo County has created a convenient way for the proper disposal of expired or otherwise unwanted pharmaceuticals.

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