

How to hold a successful pharmaceutical take-back event without outside funding



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ABSTRACT

On Saturday, April 18th 2009 a “Return Unwanted Medicines” event collected almost 500 pounds of unwanted medicines from over 140 community members. Sponsors included New York Sea Grant, Stony Brook University, Stony Brook University Medical Center, Suffolk County Legislator Lynne Nowick, Suffolk County Health Department, Suffolk County Police Department Narcotics Unit, and Triumvirate Environmental Inc. This document, written by the Work Group Chair and approved by the full Event Planning Work Group, is intended to provide clear instruction as to how to hold a successful pharmaceutical collection program in the state of New York.

Since our April event, regulated procedures have been modified. The changes, as of August 2009, are outlined in this document; however we suggest that you contact with New York State Department of Environmental Conservation before planning your event.

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BACKGROUND

Pertinent Legislation in New York

State Assembly Bill A840

New York's State Assembly Bill A840 was proposed to prohibit the disposal of drugs as solid waste in a landfill and require the following: drug manufacturers to establish drug collection programs to accept unused or expired drugs from consumers; consumers to return drugs to such a drug collection program; all drugs collected by a manufacturer to be disposed of in an environmentally sound manner; the department of environmental conservation to establish and implement a public information program on the proper disposal of drugs; pharmacies and other retailers to post information on the proper use, storage and disposal of drugs.

This Bill did not pass as proposed and currently only requires the NYS Department of Environmental Conservation (NYSDEC), in consultation with NYS Department of Health (NYSDOH), to develop and implement a public information program regarding the correct disposal techniques for prescription and non-prescription drugs and to establish a demonstration program to determine the most effective drug disposal method. These agencies are responsible for developing a notice that would be displayed in pharmacies.

Resolution 762-2008

Suffolk County's Resolution 762-2008 was passed in September 2008. This resolution requires that Suffolk County Police Department and Suffolk County Department of Public Works to work with the Suffolk County Sheriff to implement a program to collect unwanted pharmaceuticals from Suffolk County residents. A proposed program would allow residents to drop controlled and non-controlled substances off at disposal receptacles throughout the County. The collected pharmaceuticals would then be transported to a central location and picked up by a contracted waste disposal company. To our knowledge, as of May 2009, this program is not yet in effect.

Pharmaceutical take-back events in New York to date

Westchester County

Since 2008, Westchester County has held 19 collection events. These events were held at various locations throughout the county including Montrose, Yorktown, Valhalla, New Rochelle, Rye, Yonkers, and Croton. In 2008, Westchester County collected 3,593 pounds (8,223 containers) of pharmaceuticals from 963 households during eight events. In 2009, they have held three events to date with eight more planned over the course of the year. In upcoming months Westchester County will collecting unwanted medicines at three local senior citizen centers as part of a pilot program. Past partners have included National Sea Grant Office, MEDCO, and POMCO. For more information on this collection event, contact Peter Costa at 914-813-5427 or ppc9@westchestergov.com.

Nassau County

On June 6th, 2009, the Town of North Hempstead offered the first pharmaceutical collection event for Nassau County. Four-hundred pounds of pharmaceuticals and over 125 vials of narcotics were taken away by the Nassau County Narcotics Squad.

Supervisor Kaiman held an event to announce the program and that he was mailing the NYSDEC flyer to all the pharmacies in the Town of North Hempstead with the proper posting instructions. The Supervisor also said he would like to make this a quarterly collection event. For more information on this collection event, contact Frances Reid, Director of Environmental Planning for the Town of North Hempstead at 516-767-4836 or reidf@northhempstead.com.

Suffolk County

Suffolk County Legislator Lynne C. Nowick sent a letter to all of the hospitals in Suffolk County asking that they consider implementing a program to collect unwanted medications from members of the community. The following events were held in response to this request:

St. Catherine of Siena Medical Center (Smithtown, NY): On Saturday, October 18, 2008, St. Catherine's Medical Center incorporated a collection event into its annual health fair. Five people returned medicines during this event, most of who said the medicines belonged to their parents, for a total of approximately 10 items returned. For more information on this collection event, contact Robert Berger, Director of Pharmacy at 631-862-3000 or Robert.Berger@chsli.org.

Return Unwanted Medicines (East Setauket, NY): On Saturday, April 18th 2009, over 140 participants returned 496 pounds of unwanted medicines, including 147 containers of controlled substances (23 lbs) and 2,059 containers non-controlled substances (473 lbs). In response to Suffolk County Legislator Nowick's letter, Dr. Stephen Strongwater, President and CEO of Stony Brook University (SBU) Medical Center agreed to hold this one-day event. This event was sponsored by New York (NY) Sea Grant, SBU, SBU Medical Center, Suffolk County Legislator Lynne Nowick, Suffolk County Health Department, Suffolk County Police Department Narcotics Unit, and Triumvirate Environmental Inc. For more information on this collection event, contact Larissa Graham at 631-632-9216 or LJG85@cornell.edu.

Eastern Long Island Hospital (Greenport, NY): In response to Suffolk County Legislator Nowick's letter, Paul Connor, President and CEO of Easter Long Island Hospital, requested that the Director of the Pharmacy Department, Ray Krupski, create a policy for residents to return unwanted medications to the hospital. As far as we know, this is the only ongoing collection for unwanted medicines. Pharmaceuticals are collected seven days a week between the hours of 10am and 3pm. Controlled substances or drugs used for chemotherapy are not accepted. For more information on this collection event, call Ray Krupski at 631-477-5192.

ORGANIZING AN EVENT

To make collection events easier and less expensive, NYSDEC is now suggesting that law enforcement collect all pharmaceuticals and treat everything as hazardous, controlled substances. Law enforcement maintains the chain of custody until the wastes are burned at the incinerated. This is a relatively new development and was not suggested when we held our event. For more information on this topic, contact Dennis Lucia (NYSDEC) at 518-402-9469 or djlucia@gw.dec.state.ny.us.

Who to involve

Planning Work Group: Our Work Group extended an offer to every agency that we thought would be interested, including elected officials, Suffolk County, Town of Brookhaven, NYSDEC, etc. Many of these agencies could not participate as active members, but were able to assist with some aspects of planning.

Our main partners included NY Sea Grant, SBU, SBU Medical Center, Suffolk County Legislator Lynne Nowick, Suffolk County Health Department, Suffolk County Police Department Narcotics Unit, and Triumvirate Environmental, Inc.

Staff from SBU Environmental Health and Safety Department and pharmacists from SBU Medical Center were extremely important in the planning process to ensure that the collection of substances would be handled properly during collection process and disposal.

Work Group Chair: It was helpful for one organization, in our case, NY Sea Grant, to be head of the Work Group to organize meetings, follow up on tasks, apply for approval to hold the event, and serve as the main contact for questions and interviews.

Pharmacists: The Director of Pharmacy was part of our Work Group from the initial stages which was helpful since licensed pharmacists were responsible for identifying all items that were returned. This ensured the pharmacists had the supplies necessary to work as quickly and efficiently as possible. Six pharmacists from SBU Medical Center volunteered during our event, incurring no cost to our program. *According to NYSDEC, pharmacists are no longer required and all pharmaceuticals can be given directly to law enforcement, without being separated.*

Law enforcement: Law enforcement is required to be on site for any event where controlled substances will be collected and will take custody of these substances. Even if you are not collecting controlled substances, we highly recommend that law enforcement be on site in case any emergency arises. Three Stony Brook University law enforcement personnel volunteered their time during our event, incurring no cost to our program. *NYSDEC is now suggesting that law enforcement collect all pharmaceuticals, whether controlled or non-controlled.*

Disposal: Triumvirate Environmental, Inc., a local hazardous waste company, generously agreed to collect and dispose of \$1500 of non-controlled substances and donated labor (three volunteers) at no cost to our program. The controlled substances were disposed of by the Suffolk County's Police Department Narcotics Unit. These law enforcement personnel packaged and disposed of controlled substances at no charge to our program. It is very hard to estimate how many pounds of pharmaceuticals will be returned and so additional funds should be reserved to fully cover disposal costs. *According to NYSDEC, all collected items can be treated as hazardous, controlled substances and disposed of by law enforcement. However, if law enforcement will destroy the collected pharmaceuticals at waste-to-energy facilities, the facility must obtain a variance from NYSDEC.*

Communication: We extended a massive effort to promote the event which will be further elaborated in the **Advertising** section below. Work Group members from NY Sea Grant, SBU, SBU Medical Center, and Suffolk County Legislator Lynne Nowick's Office conducted the majority of marketing and advertising. We also reached out to local businesses and agencies to assist with promoting our event.

Event volunteers: Many of our Work Group members volunteered during our event. We also recruited SBU students to serve as additional volunteers on the event day. These students were members of SBU's environmental club and SBU Environmental Health and Safety interns. We had 14 student volunteers throughout the day.

Sponsors: Although no outside funding was acquired, we did rely heavily on Work Group members donating their time to plan and run our event. We also reached out to local agencies and businesses, radio, newspapers, and magazines for free advertisement. Local restaurants and other businesses donated raffle prizes that were used as an incentive for participants to complete an evaluation form of our program.

Note: *Operating Unwanted Medication Collections- A Legal & Safe Approach, a document developed by the Northeast Recycling Council (referenced below in "USEFUL RESOURCES") gives a clear and concise outline of the responsibilities of staff needed during the event.*

Pre-survey

If possible, conduct a pre-survey to identify your audience and determine the location, date, and time that will work best for your audience. A pre-survey was sent out to members of the SBU and SBU Medical Center faculty, staff, and students using Survey Monkey (www.surveymonkey.com) to understand how members currently disposed of medication and to gauge their interest in the upcoming planned collection event (Appendix 1). Almost 70% of participants said that they currently throw unwanted medicines out in the trash and 40% said that they dispose of unwanted medicines less than once a year. Over half (57.9%) of participants said that they would prefer that the collection event be held during a weekday, during the day. Unfortunately, we did not receive this information until after we had reserved our event location.

Selecting a time and place

Location: We held our event at a local firehouse that had ample parking and was centrally located, just a few miles from the SBU campus. The collection event was held inside a large meeting room. We were able to use the firehouse and their tables and chairs at no cost. However, Legislator Nowick's Office did send a plaque to the firehouse on behalf of our committee to thank them for their services.

Time: We collected unwanted medicines between 10am and 3pm. There was a relatively steady flow of participants throughout the day, with attendance the highest between 10-11am and 1-2 pm and the lowest between 12 and 1pm.

What to collect

Our committee decided to collect both controlled and non-controlled substances, including over-the-counter medications, prescriptions, and even pet medications. The challenge with collecting only non-controlled substances is that the participants cannot simply drop off their unwanted medicines and leave. Even if advertisements state that only non-controlled substances will be collected, participants will most likely bring both controlled and non-controlled substances. A pharmacist will have to identify all items to ensure that they are not controlled substances before the participant leaves and ask the participant to take all controlled substances with them. Although collecting controlled substances required more approvals, we decided that collecting both controlled and non-controlled substances was the best option.

Approval

Proper approval is needed for every collection event, even if you are collecting only non-controlled substances. We recommend that you contact the following agencies to alert them about your event and apply for approval as soon as you have chosen a date, time, and location and have identified pharmacists and law enforcement to assist with your event. From our experience, we would recommend applying for approval *at least* three weeks prior to your event. The sooner, the better, as the approval process can take a while.

For collection of non-controlled substances, you will need permission from:

- The Division of Solid and Hazardous Waste of the NYSDEC requires an outline of your plan for collection and disposal of collected items, specifically where substances will be destroyed (e.g., solid waste management facility).

For collection of controlled substances, you will need approval from:

- The Division of Solid and Hazardous Waste of the NYSDEC requires an outline of your plan for collection and disposal of collected items, specifically where substances will be destroyed (e.g., solid waste management facility).
- State of New York Department of Health's Bureau of Narcotic Enforcement requires a written request to hold the collection event; an approval letter from NYSDEC; a security plan and names of the law enforcement personnel that will be at the event; and the names and license numbers of pharmacists who will be identifying the collected pharmaceuticals.
- U.S. Department of Justice's Drug Enforcement Administration (DEA) requires that law enforcement personnel submit, in writing, their intent to be responsible for all controlled substances that are returned.

Contacts: We recommend that you contact the following organizations to ensure that you submit all of the appropriate materials, as requirements may have changed since the publication of this document.

NYS Department of Environmental Conservation
 Division of Solid and Hazardous Waste
 Bureau of Solid Waste, Reduction, and Recycling
 625 Broadway, 9th Floor
 Albany, NY 12233-7253
 P: 518-402-8606, F: 518-402-8681

New York State Department of Health
 Bureau of Narcotic Enforcement
 433 River Street, Suite 303
 Troy, New York 12180-2299
 P: 1-866-811-7957 (Option #3)

Richard Springer (Suffolk and Nassau County only)
 Drug Enforcement Administration
 175 Pinelawn Rd, Ste. 205
 Melville, NY 11747
 P: 631-420-4549, F: 631-429-4551

Susan Baker (all areas outside of Suffolk and Nassau County)
 Diversion Program Manager
 Drug Enforcement Administration
 99 Tenth Avenue
 New York, NY 10011
 P: 212-337-1193, F: 212-337-1536

Advertising

Our Work Group put a great deal of effort towards advertising in order to make our event

successful (Appendix 2). We sent out a press release and media advisory to many local newspapers, magazines, and television and radio stations. Articles were written about the event in numerous local newspapers and details about the event were posted on web sites and were sent to email lists. We also posted flyers (Appendix 3) at various businesses, libraries, and other community facilities.

DAY OF THE EVENT

Setting up for the event

Greeter's Table: As participants entered, they spoke with “greeters” that were set up at a table by the front door. The “greeter” asked each participant if he/she had any sharps or household hazardous waste (HHW). Although, during promotion of the event, we told participants we were *not* collecting sharps or HHW, about 10% of participants brought these items. We collected sharps at the Greeter's Table and disposed of them in a sharps container. If participants had HHW, we told them we could not collect these items and gave information about the Town of Brookhaven's HHW collection day. (2 volunteers needed. Volunteers with hazardous waste training are useful because they will have the background to screen items and removed those that cannot be collected.)

Drop-off Table: Once all sharps and HHW were removed at the Greeter's Table, each participant's pharmaceuticals were placed in a bag (if not already in a bag) and collected by volunteers at the Drop-off Table. Although all items that were collected were being sent to an incinerator, markers were available in case participants wanted to mark out their personal information. However, they were instructed not to mark out the name of the medication to allow easy identification by pharmacists. Once the participant had turned in their items, he/she was asked to fill out an evaluation about the event. If they filled out this evaluation, they were given a raffle ticket and could enter our prize drawing. (2 volunteers needed)

Raffle and Give-away/Information Tables: These tables were set up near the exit. Once participants had turned in their unwanted medicines, they dropped their raffle tickets at the Raffle Table (if they filled out a survey) and could stop by the Give-away/Information Table for educational materials (e.g., pamphlets on water quality and the proper disposal of pharmaceuticals, a poster on how pharmaceuticals can get into the water supply [Appendix 4], and EPA Energy Star program) and free give-aways. Volunteers were present at the Raffle and Give-away/Information Tables in order to answer any questions. (2 volunteers needed)

Sorting Table: Volunteers working at the Drop-off Table passed the collected pharmaceuticals to the Sorting Table. Here, volunteers sorted pharmaceuticals into categories (e.g., pills, liquids, powders) and placed these items into bins to speed up the identification process. Despite asking participants if they had HHW at the Greeter's Table, we did find some HHW items mixed in with pharmaceuticals (a small box's

worth). The volunteers at this table removed these items and at the end of the day, these items were taken to a HHW collection site. (3 volunteers needed) *If law enforcement will be collecting all items, this step is unnecessary.*

Pharmacists Table: Once sorted, six pharmacists worked constantly throughout the day to identify all items returned. They recorded the name, strength, form, and quantity of each drug, how it was identified, and disposal waste stream by participant. By separating each participant's returned items into bags, we were able to keep each participant anonymous and identified them by number only (e.g., Participant 1, Participant 2, etc). The pharmacists entered this data directly into excel spreadsheets using laptops. (5 pharmacists needed) *If law enforcement will be collecting all items, this step is unnecessary.*

Internet Access Table: Although, participants were asked to bring all items in their original containers, four participants had combined various medications into one container. One pharmacist dedicated all of his time to identify these items using a computer with access to the internet. (1 pharmacist needed) *If law enforcement will be collecting all items, this step is unnecessary.*

Waste Disposal Table: All identified, non-controlled substances were sent to the Waste Disposal Table. Here, items were sorted and packed by proper waste characteristics for incineration. Employees from Triumvirate Environmental, Inc. segregated the non-controlled medications by hazard class and placed them in hazardous waste containers. Both regulated and non-regulated materials were packaged for disposal to a fully licensed and permitted Treatment, Storage and Disposal Facility. The controlled substances were identified by licensed pharmacists and given to the Suffolk County's Police Department Narcotics Unit. These law enforcement personnel packaged and disposed of controlled substances. *If law enforcement will be collecting all items, this step is unnecessary.*

Controlled Substances Table: Any controlled substances were immediately taken into custody by our police officers and, at this point, we relied on the police officers to separate, package, transport, and dispose of the substances. *If law enforcement will be collecting all items, this step is unnecessary.*

Results

Over 140 participants returned almost 500 pounds of unwanted medicines at our "Return Unwanted Medicines" event. One-hundred forty-seven containers of controlled substances (23 lbs) were returned, including 5,303 pills and 2.4 liters of liquid. Two-thousand fifty-nine containers non-controlled substances (473 lbs) were returned, including 88,051 pills, 38.8 liters of liquid, and almost 18 pounds (8,113.4g) of powder. The most commonly returned substances were blood pressure and lipid-lowering agents (244 containers totaling 14,162 doses), followed by pain relievers, antibiotics, antianxiety/antidepressants, antihistamines/decongestants, vitamins/minerals, gastrointestinal prescriptions, drugs to treat asthma/chronic obstructive pulmonary

disease, veterinary drugs, and antidiabetic agents, respectively. The oldest medication collected was from 1965.

Event evaluation

Our evaluation was filled out by 94% of participants (Appendix 5). Most participants indicated that they were returning their own or a family member's medication because it had expired or they did not need the remainder of the medication. Prior to the event, most residents (76%) threw unwanted medicines out in the trash. An overwhelming (94%) number of participants said that the event had increased their knowledge about the effect pharmaceuticals had on the environment and of better ways to dispose of unwanted medicines. 100% of participants said that they would attend another event and would like to see this type of event held once a year. The majority of participants heard about our event through articles written in local newspapers. A good majority also learned of the event through SBU advertising outlets. Lastly, the majority of residents would like to see legislation at the town or village level to collect unwanted medicines.

Most residents were happy to fill out an evaluation of our program; however, to add some incentive, participants that completed and returned the evaluation form were entered to win one of 11 raffle prizes that were generously donated by local businesses and restaurants. *This step is certainly not required, but will greatly improve future events.*

AFTER THE EVENT

Post-event Media and Requests

The use of media advisories resulted in several local follow up newspaper stories and local TV coverage of the event. Since the event, we have also received numerous phone calls from the general public requesting information about proper pharmaceutical disposal and from various groups that would like to hold their own take-back event. In response, we have compiled this document and will be posting it, along with other relevant information, on NY Sea Grant's Web site at www.nyseagrant.org.

Lessons learned

Use pre-survey results: If possible, conduct a pre-survey to determine what type of collection will work best for your audience. Our pre-survey of SBU and SBU Medical Center employees revealed that most participants would have liked to have the event held on university property during a weekday. We found this out after we had already decided on a date and location, but if we had used this information, it might have increased the amount of materials collected.

Signs: We had numerous complaints that we did not have enough signage, despite multiple signs leading to the entrance of the firehouse. We recommend placing a large sign in front of the location to direct people to the entrance.

Materials needed: A few materials that were crucial to the success of our event were laptops (preferably connected to the internet); plenty of latex gloves (used by all volunteers that would be handling any returned items); bins (used for sorting and separating of collected items); and baby wipes or paper towels (used to clean up spills).

Provide places for participants to sit: Many of our participants were elderly, so it is important that your layout set up in a way that participants do not have to walk very far and can sit down if needed.

Large quantities: We expected most participants to bring in small bags, containing two to five items. However, a few participants brought in multiple large boxes and bags of unwanted medicines. We think these items might have been from a rehabilitation center and a pharmacy that had shut down. These large quantities took the majority of time to separate and identify.

“Mystery” bag: Although we stressed that participants bring unwanted medicines in their original containers, we received four bags/containers of unidentified medicines. One pharmacist spent the entire day identifying and sorting these medicines using a computer that was connected to the internet.

Prefilled injectables: Although we anticipated receiving sharps, we did not anticipate receiving sharps that were still full of pharmaceuticals (such as pre-filled epinephrine syringes and the like). In order to properly handle this type of waste stream, it is advised that you verify with the hazardous waste disposal company that they are equipped and prepared to accept such items for disposal. Often times "sharps" waste contaminated with or containing chemicals must be specifically profiled as such. This is due in part that certain wastes may be physically "handled" once received at an end disposal facility, and employees there would need to be made aware of sharps and other potential hazards that may cause injury or effect their ultimate disposal process. Another option is to be prepared to remove the sharps (if it can be done safely) and separate the needle from the syringe/vial so that they can be disposed of separately. However, this practice is not recommended due to safety concerns.

Thank your sponsors and volunteers: Our Work Group sent thank-you letters to all volunteers and sponsors. We felt this was an important gesture because, without all of their help, our event would not have been successful or, in some cases, even possible!

USEFUL RESOURCES

Online Toolkits

Disposal of Unwanted Medicines: A Resource for Action in Your Community- Developed by Illinois-Indiana Sea Grant, this toolkit to help communities, schools and individuals develop and promote programs for safe disposal of unwanted medicine. Found at: www.iisgcp.org/Unwantedmeds

Operating Unwanted Medication Collections- A Legal & Safe Approach- Developed by the Northeast Recycling Council, this document provides numerous case studies, lessons learned, and a clear overview of holding a collection event. Found at: www.nerc.org/documents/operating_unwanted_medication_collections_final_2006.pdf

Useful Websites

Northeast Recycling Council: www.nerc.org/how_to_guides

Teleosis Institute: www.teleosis.org/gpp-program.php

The Drug Take Back Network: www.takebacknetwork.com

Return Household Medicine in Washington State: www.medicinereturn.com

Returning Unwanted Medicines (Australia): www.returnmed.com.au

Groundwater Foundation: http://www.groundwater.org/gi/docs_pack/action_ppcp.pdf

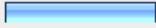
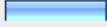
Product Stewardship Institute: <http://www.takebacknetwork.com>

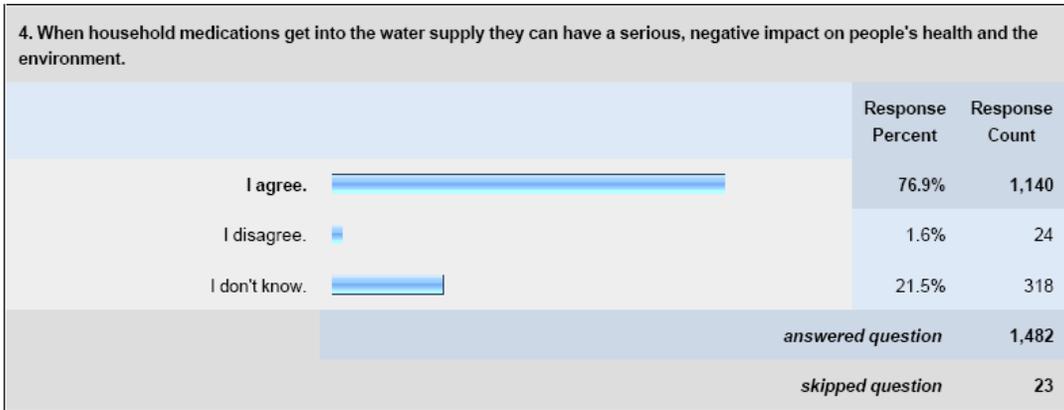
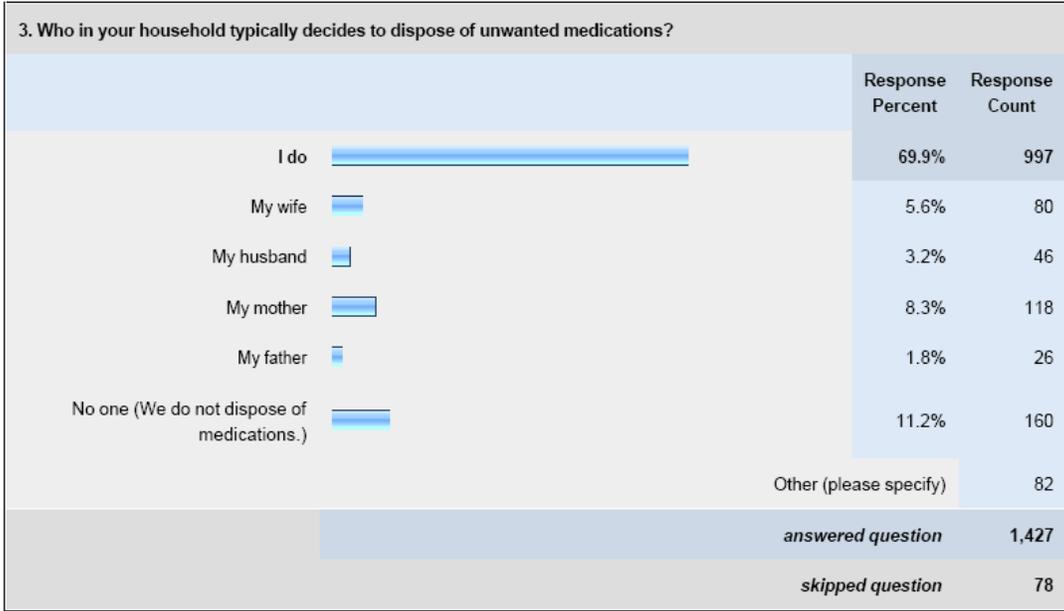
APPENDICES

Appendix 1: Pre-survey results

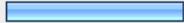
A pre-survey was sent out to 31,000 members of the Stony Brook University community to understand how members currently disposed of medication, and to gauge their interest in future medication take back programs. We received 1,505 responses (5% return rate)—25% from students, 32% from SBU employees, and 33% from SBU Medical Center employees. The questions and results are as follows.

1. How do members of your household primarily dispose of unwanted medications?		
	Response Percent	Response Count
We flush them. 	14.7%	213
We throw them out in the trash. 	69.4%	1,006
We submit them to a medication take back program. 	1.3%	19
We do not dispose of medications. 	14.6%	211
Other (please specify)		96
<i>answered question</i>		1,449
<i>skipped question</i>		56

2. How often do members of your household dispose of unwanted medications?		
	Response Percent	Response Count
Less than once per year 	40.6%	608
One time per year 	28.8%	431
More than once per year 	19.1%	286
Never 	11.4%	171
<i>answered question</i>		1,496
<i>skipped question</i>		9



5. Would you be interested in attending an Unwanted Medicine Collection Day event at the Setauket Fire House on Saturday, April 18, 2009 between 10-4pm where you can safely dispose of your unwanted medications?

	Response Percent	Response Count
Yes 	34.4%	495
No 	65.6%	943
Comments		330
<i>answered question</i>		1,438
<i>skipped question</i>		67

6. Would you like an email reminder of the scheduled medication take back event in April or future medication take back events? If so, please provide your e-mail in the box below. (Note: The SBUH Office of Community Relations will use any email address provided solely to communicate with you regarding future medication take back events.)

	Response Count
	453
<i>answered question</i>	453
<i>skipped question</i>	1,052

7. If there are future medication take back events on the Stony Brook University campus, which days of the week and times of day would be best for you?

	Response Percent	Response Count
Weekdays, during the day 	57.9%	765
Weekdays, during the evening 	16.8%	222
Weekends, during the day 	23.0%	304
Weekends, during the evening 	2.3%	30
<i>answered question</i>		1,321
<i>skipped question</i>		184

8. Which best describes you? (choose one)

	Response Percent	Response Count
Employee of the Medical Center and/or Health Sciences Center	43.5%	637
Employee of the University (excluding the Medical Center and the Health Sciences Center)	30.4%	445
SBU student	26.2%	384
<i>answered question</i>		1,466
<i>skipped question</i>		39

9. What is your gender?

	Response Percent	Response Count
Male	24.6%	361
Female	75.4%	1,109
<i>answered question</i>		1,470
<i>skipped question</i>		35

10. What is your age?

	Response Percent	Response Count
Less than 25 years	20.1%	295
25-35 years	16.0%	235
36-50 years	25.9%	380
50+ years	37.9%	555
<i>answered question</i>		1,465
<i>skipped question</i>		40

11. Your home zip code?

	Response Count
	1,332
<i>answered question</i>	1,332
<i>skipped question</i>	173

Appendix 2: Means of Advertizing

Event details posted/printed articles:

- American Society of Safety Engineers newsletter
- Better Health Better Living (SBU Medical Center newsletter)
- Dan's Paper- calendar
- Facebook (FB)- sent to SBU community FB members
- Kings Park Chamber of Commerce- web site
- Long Island Business News- calendar
- Long Island Sound Study- web site
- Long Island Sound Water Authority email list
- Mall Walkers newsletter
- NY Sea Grant- web site
- News 12- calendar
- Newsday- health calendar
- NYS Department of Environmental Conservation- web site
- PSA for WUSB
- SBU college-wide email list
- SBU Environmental Health and Safety newsletter
- SBU Happenings campus newspaper
- SBU mascot, Wolfie's FB page
- SBU Student Activities center and residential TV
- SBU- web site
- SBU Hospital Safe Watch Newsletter
- St. James Chamber of Commerce- web site
- Suffolk County Health Department- web site
- Suffolk County Legislator Nowick- web site
- Suffolk County Water Authority- web site
- TV 29- calendar

Press release and Media Advisory sent:

Newspapers-

- 50 Plus
- Associated Press
- Daily News
- Dan's Paper
- Long Island Business News
- Long Island Catholic
- Long Island Press
- Neighborhood News
- Newsday
- NY Post
- NY Times- Long Island Section
- Pennysaver

Press release and Media Advisory sent:

Newspapers con't...

- Smithtown Messenger
- The Smithtown News
- Times of Smithtown

Magazines/newsletters-

- Long Island Association
- Long Island Pulse
- Long Island Women
- Networking

TV-

- Channels 2, 4, 7, 11
- News 12
- TV 29, TV 55
- WVVH- Hamptons TV

Radio-

- 1010 WINS
- CBS
- Long Island Public radio
- WALK FM

Flyer distributed to:

- Fairfield Senior Complex
- Huntington Drug and Alcohol Task Force
- Kings Park Civic Association
- Kings Park in the Know (community group to fight alcohol/drug use by kids)
- Kings Park Parent Center
- Kings Park School District/Alcohol Forum
- Local businesses
- Local libraries (Smithtown, Stony Brook, North Shore)
- Local pharmacies
- Network of Women with Disabilities
- Northport/East Northport Drug and Alcohol Awareness Task Force
- Pederson Krag (drug treatment/prevention organization/Sachem Public Schools)
- Smithtown Chamber of Commerce
- Smithtown Senior Citizen Center
- Smithtown Youth and Alliance
- Smithtown Youth Bureau
- Suffolk Community Council
- Suffolk County Community College
- Suffolk County Legislative Building
- Suffolk County Legislators (via email and snail mail)
- United Cerebral Palsy of Suffolk

Appendix 3: Flyer

This flyer was sent to numerous agencies, community groups, and local businesses to help advertise our “Return Unwanted Medicines” event (listed in Appendix 1). *For permission to use this graphic, please contact Barbara Branca at 631-632-6956 or Barbara.branca@stonybrook.edu.*



Keep your family healthy & Long Island waters clean!

Return Unwanted Medicines
Saturday, April 18, 2009
10 am to 3 pm at Setauket Firehouse
Nicolls Road, Setauket, NY

Let's keep medicines out of Long Island waters! What can you do to help? Instead of flushing unwanted medicines, return them for proper disposal during our one-time collection event.

We will collect expiring and unwanted prescriptions and over-the-counter medications, including controlled and non-controlled substances.

For more information, please call Larissa Graham at 631-632-9216 or visit www.nyseagrant.org

This event is a collaboration of New York Sea Grant and the following: Assemblyman Steve Englebright, Long Island Sound Study, Stony Brook University and Stony Brook University Medical Center, Suffolk County Department of Health Services, Suffolk County Legislator Lynne Nowick, Suffolk County Water Authority, Triumvirate Environmental Inc., Long Island Pulse Magazine, and WALK-FM.



Appendix 4: Poster

This poster was used to educate participants about the effects of flushing pharmaceuticals down the drain. For permission to use this graphic, please contact Barbara Branca at 631-632-6956 or Barbara.branca@stonybrook.edu.

DON'T FLUSH PHARMACEUTICALS!



Pharmaceuticals such as antibiotics, antidepressants and anticonvulsants have been detected in the drinking water of many U.S. cities. Combinations of these drugs that get into marine waters can be harmful to fish, algae and other marine life.

While sewage treatment plants and septic systems remove larger particles from the sewage, it is important to remember that some things, like pharmaceutical compounds, are not as easily broken down by natural bacteria or the processes used by sewage treatment plants. These compounds can alter the chemistry and biology for the environments, marine or fresh, that they flow into. We must always be mindful that what we put into our drains does not simply cease to exist; its flow path continues through to our natural water resources.

 New York Sea Grant April 2009
Copy by Ruth Coffey and Barbara Branca. With thanks to Dr. Henry Bokuniewicz, Stony Brook University and Dr. Diana Aga, University at Buffalo

Appendix 5: Event evaluation results

All households were asked to fill out an evaluation of our “Return Unwanted Medicines” event (94% return rate). Below are the questions that were asked, as well as the results for each question.

Participant Evaluation- Results Return Unwanted Medicines Event Setauket Firehouse - April 18, 2009

1. Whose medication did you return today? (check all that apply)

Mine	81 participants; 76%
Family member	68 participants; 64%
Friend	8 participants; 8%
Pet	14 participants; 13%
Other	4 participants; 4%

Other: Animal rescue facility [1], found in yard [1], rehab center [1]

2. Why is the medicine being returned? (check all that apply)

Did not like the medicine (made me ill, etc.)	24 participants; 23%
Never used the prescription or didn't need the remainder of the prescription	57 participants; 54%
Expired /out-of-date	73 participants; 69%
Death (family member/friend)	20 participants; 19%
Drug was pulled off the market	6 participants; 6%
Other	6 participants; 6%

Other: Prescription changed [4], parent in nursing home [2]

3. Prior to this event, how did members of your household primarily dispose of unwanted medications? (check all that apply)

Flushed them	32 participants; 31%
Threw them out in the trash	75 participants; 73%
Gave them to a nurse or doctor	9 participants; 9%
Gave them to a friend or family member	0 participants; 0%
Other	13 participants; 13%

Other: Returned to pharmacy/vet [2], finished [2], kept [6], Town of Islip[1]

4. Did this event increase your awareness about better ways to dispose of medications?

Yes	100 participants; 94%
No	6 participants; 6%

5. Did this event increase your awareness about how your disposal of medications can affect the environment?

Yes	100 participants; 94%
No	5 participants; 5%

6. How did you hear about today's event? (check all that apply)

Newspaper	49 participants; 46%
TV	0 participants; 0%
Radio	9 participants; 8%
Flyer	9 participants; 8%
Legislator	5 participants; 5%
Other	40 participants; 38%

Other: SBU-related [18], Long Island Sound Study [1], involved/Dept involved [5], Suffolk Co. Waste Disposal [1], Facebook [1], Friend [2], Garden Club [2], Suffolk Co. Water Authority web site [1]

7. Was the location of today's event convenient for you to get to?

Yes	95 participants; 93%
No	7 participants; 7%

No: East End [1]/Nassau Co [2] location, drop off at a local HS [1]/local pharmacy [1]/closer to home [1]

8. Were the hours of today's event convenient for your schedule?

Yes	101 participants; 99%
No	1 participant; 1%

No: Prefer weekday [1]

9. Would you participate in a Return Unwanted Medicines event again?

Yes	102 participants; 100%
No	0 participants; 0%

10. How many times a year would you like to see a Return Unwanted Medicines event held?

Less than once a year	4 participants; 4%
Once a year	55 participants; 52%
More than once a year	39 participants; 37%
Other	3 participants; 3%

More than once a year: 2 times per yr [3], 2-3 times per yr [1], 4 times per yr [1]

Other: Continuous program [2], as often as needed [1]

11. Would you support legislation to collect unused or expired medicines? (check all that apply)

At the town or village level:	Yes 80 participants; 75%	No 3 participants; 3%
At the county level:	Yes 67 participants; 63%	No 4 participants; 4%
At the state level:	Yes 58 participants; 55%	No 5 participants; 5%
At the federal level:	Yes 59 participants; 56%	No 5 participants; 5%

12. What is your home zip code?

Total: 103 households from 34 zip codes

Zip code	Town	# of participants
11733	E. Setauket	23
11790	Stony Brook	18
11776	Port Jefferson	7
11777	Port Jefferson	6
11720	Centereach	5
11766	Mt. Sinai	4
11772	Patchogue	3
11706	Bay Shore	2
11727	Coram	2
11754	Kings Park	2
11779	Ronkonkoma	2
11780	St James	2
11784	Selden	2
11787	Smithtown	2
11789	Sound Beach	2
11792	Wading River	2
11953	Middle Island	2
11738	Farmingville	1
11742	Holtsville	1
11755	Lake Grove	1
11762	Massapequa Park	1
11763	Medford	1
11764	Miller Place	1
11767	Nesconset	1
11768	Northport	1
11769	Oakdale	1
11771	Oyster Bay	1
11778	Rocky Point	1
11786	Shoreham	1
11933	Calverton	1
11950	Mastic	1
11961	Ridge	1
11967	Shirley	1
11971	Southold	1