

Saving lives, saving Earth, saving money

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At Lower Bucks Hospital, they're saving the world one soda bottle at a time.

Abington Memorial Hospital is helping transform old grease into earth-friendly fuel.

Doylestown Hospital has found that certain mops can make the environment and patients healthier.

They are among nearly two dozen hospitals across the Philadelphia region participating in a pilot project seeking to reduce their carbon footprints through increased recycling, trash reduction, green purchasing and green construction techniques.

What local hospitals are finding, though, is going green has them seeing green — as in saving tens of thousands of dollars in annual waste disposal and energy consumption costs.

A few are even looking at turning their trash into extra cash, which can help offset the costs of more expensive but environmentally friendly equipment and supplies.

As a 24/7 operation, U.S. hospitals are among the biggest waste generators — 7,000 tons per day or 2 million tons a year — and consumers — accounting for an estimated 10 percent of the total U.S. energy consumption, according to Hospitals for a Healthy Environment, which promotes environmental sustainability in health care.

In small communities, hospitals can be the largest source of certain wastes. In recent years there have been concerns about hospitals and hospital incinerators as sources of mercury in the environment.

Everyday trash (called municipal solid waste) accounts for 85 percent of hospital trash, according to Hospitals for a Healthy Environment. The remainder, which includes infectious waste and confidential shredding, is the most difficult, and expensive, to dispose.

In the Philadelphia region, hospitals were spending more than \$20 million annually to dispose of everyday trash that ended up in special containers designated for items that are contaminated with blood or body fluids.

Since July, 22 Philadelphia area hospitals, including six in Bucks and eastern Montgomery counties, have worked together to reduce their waste and improve their bottom lines through the Green Hospital Project. The Health Care Improvement Foundation spearheaded the pilot using a \$78,500 Environmental Protection Agency grant.

In recent years, local hospitals have slowly implemented more energy saving efforts.

Eight years ago, Abington Memorial Hospital was among the first hospitals to eliminate items containing the toxin mercury, such as thermometers, blood pressure cuffs and florescent light bulbs, said Meg McGoldrick, executive vice president and chief operating officer.

Doylestown Hospital replaced string mops with micro-fiber ones, which use less water and cleaning product and they're washable, so they're good for the environment, more economical and they reduce cross-contamination.

Doylestown and Abington switched to DEHP-free IV bags and tubing in their maternity departments and both plan to go DEHP-free hospital-wide. DEHP-free products use fewer chemicals that can leach out and create environmental damage.

RECYCLE, REFUND

For years, most hospitals have recycled paper and cardboard products, but now they're expanding into other areas, including batteries, glass, plastics, cell phones, aluminum and ink cartridges.

Some recycle old and outdated furniture, medical equipment and supplies by donating them to local and Third-World charities. Others are looking for ways to recycle shredded confidential patient medical information, which is also more expensive to dispose than ordinary paper.

"Half the struggle is finding people who want to take the stuff and bring it to good use," said McGoldrick, adding that Abington recycles 22 tons of the 150 tons of monthly waste it produces.

Abington and Holy Redeemer Hospital and Medical Center in Abington have found companies that will take used fryer grease to convert into cleaner bio-diesel fuel.

Doylestown Hospital has developed a composting project with nearby Del Val College, where food scraps and yard waste are composted at the college. It hopes soon to start composting shredded paper products.

The less trash a hospital throws out, the more savings it sees. The more hospitals recycle items, the more items are taken out of the regular trash stream, the greater savings in disposal costs. The less trash a hospital brings in, the less trash it has to throw out, the greater the savings.

Recycling items like scrap metal can provide revenue that hospitals can use to offset the cost of some more expensive eco-friendly items, such as mercury-free equipment and DEHP-free IV bags.

Holy Redeemer has seen more than \$100,000 in savings with its efforts including nearly quadrupling its recycled materials from 14,000 pounds to 50,000 pounds a month and sending its confidential medical shredding to a paper mill.

SEEING RED AND GREEN

Where local hospitals have experienced the greatest waste reduction — and the biggest savings — is so-called "red bag" trash, which contains highly regulated infectious and biohazard materials.

While the average solid waste disposal charge is \$40 to \$120 a ton, regulated waste costs are at least five times higher. Red bag waste costs \$450 to \$1,000 per ton, and hazardous chemical waste costs \$1,000 or more per ton, according to Hospitals for a Healthy Environment.

Preliminary data from seven Green Hospital Project participants, including Doylestown, St. Mary, Lower Bucks and Central Montgomery, shows the daily red bag waste volume has declined from 6.4 to 5.5 pounds per patient during the first five months of the project.

Total monthly pounds of red bag waste among the hospitals dropped from 313,000 to 208,000, a 33 percent reduction, said Kate Flynn, president of the Health Care Improvement Foundation. At an average disposal cost of 25 cents per pound, the seven hospitals combined are saving more than \$315,000 annually.

Among the most dramatic declines in red bag waste have been at St. Mary Medical Center in Middletown. Last summer, the hospital hit a high of 7 pounds per patient a day. Last month, that figure was down to 4 pounds.

Like other hospitals, St. Mary found that adding more regular trash cans, removing "red" waste containers from most general areas, and staff training made a big difference, said Mark Nessel, senior vice president of hospital operations.

Among the biggest drops are in St. Mary's operating rooms, where often untainted items — like surgical instrument wrapping — were put in "red" cans because they were conveniently located. Hospitals are required to have a red waste container in the OR, but regular trash cans are optional, Nessel said.

"If there is only a red bag in an area, that is what people tend to use," he said.

St. Mary officials added regular trash cans and repositioned the red waste cans farther away in the operating rooms. In the last six months, the daily red bag waste in the operating rooms dropped from 459 to 80 pounds, a savings of roughly \$31,000 a year in that one department.

The money hospitals are seeing through their eco-friendly efforts is generated through disposal costs savings, though several have negotiated contracts with trash haulers that provide rebates or discounts for recyclables, said Flynn.

"I don't think they get much of a break on the hauling rate, but they have the peace of mind it's recycled," she added.

Lower Bucks Hospital sees a rebate for the estimated 30 tons of recyclables it collects each year, said Sue Minnar, director of environmental services. The Bristol Township hospital produces an estimated 440 tons of solid waste alone annually, she said.

Two months ago, Lower Bucks added glass, plastic and aluminum containers to its regular paper/cardboard recycling program.

But when the hospital used all the expensive special collection containers on the patient floors and cafeteria, Minnar did some old-fashioned recycling to encourage employees and visitors to participate.

She took old cardboard boxes, labeled them as for plastic, glass and cans, and put them in departments throughout the hospital. The boxes are regularly emptied into the proper containers for disposal.

"It's worked wonderful," she said.

Not that everything has worked perfectly.

Minnar says she still sees plastic water bottles mixed in regular trash cans, but she is working on it. The hospital's green team is also working closely with its office suppliers to encourage less product packaging. She'd also like to see the hospital pursue composting.

In the meantime, the hospital plans to mark Earth Day on Tuesday with a tree planting outside its Health and Wellness Center.

Going green

Local hospitals participating in Health Care Improvement Foundation's Green Hospital Pilot Project:

Bucks County: Doylestown, Lower Bucks and St. Mary Medical Center

Eastern Montgomery County: Abington, Central Montgomery and Holy Redeemer.

HIGHLIGHTS OF SOME ENVIRONMENTAL EFFORTS OF LOCAL HOSPITALS

Abington Memorial has replaced Styrofoam take-out food containers with plastic wrap and aluminum in its cafeteria, and serves only hormone-free milk, which the hospital buys from a local farmer.

Doylestown Hospital has found that since implementing its cooked-to-order patient menu in 2005, food waste has dropped 40 percent.

Grand View Hospital uses a confidential waste shredding company that recycles 100 percent of the paper it collects. Since March, the hospital has saved 44 trees based on company reports. It also reduced water consumption in 2007 by 693,000 gallons.

Holy Redeemer Hospital and Medical Center composts 5 tons of food, yard waste and organic materials per month. It has eliminated mercury thermometers and blood pressure monitors, and installed low-mercury lamps.

Lower Bucks Hospital reduced the amount of ordinary trash disposed in its infectious and biohazard waste cans 65 percent to 70 percent after removing the special "red" waste containers from most general patient rooms.

St. Mary Medical Center has built one of the first green roofs atop its radiology center. The 5,000 square-foot garden was planted over the winter and is expected to save energy costs by providing additional insulation.

Did you know?

- Almost 80 percent of the hospital packaging waste from a single procedure is generated before the patient enters the operating room.
- Abington Memorial was the first area hospital to implement a purchasing policy that encourages its departments to buy the safest, least-toxic, most environmental and human-friendly products, recycle and resell materials.