



North Broward Hospital District's Community Health Services and Physician Practices notch pollution prevention successes

Implementing a successful pollution prevention program for dozens of primary care clinics and physician practices is a tall order for any health care system.



Ambulatory Services
NORTH BROWARD HOSPITAL DISTRICT

But that's exactly what the North Broward Hospital District, the fifth largest health care system in the nation, based in Fort Lauderdale, FL, accomplished, and in a very short time.

North Broward's Community Health Services (CHS), a network of more than 40 physician practices and outpatient clinics (including an urgent care center and ambulatory surgical center), provides services in urgent care, prenatal, pediatric, HIV/AIDS care and research, disease state management, primary adult care, pharmacy, dental, home health, hospice, school and community health, Healthy Start programs, and care and outreach for the homeless.

In 2006, Community Health Services initiated a pollution prevention program that seeks to minimize waste, increase staff and patient safety, minimize the use of hazardous materials, prevent pollution, increase recycling, and seek suppliers by way of using environmentally preferable purchasing (EPP). Led by Patricia O'Rourke, district safety coordinator, North Broward instituted an EPP program to include the purchase of recyclables, non-toxics, non-mercury-containing items, limited use of packing materials, and energy and water conserving materials, whenever feasible and available.

For those efforts, the network was recognized in May 2007 with a Partner Recognition Award from Hospitals for a Healthy Environment.

How did they pull it off in such a short period of time? Lots of meetings and even more front-line education efforts on environmental safety initiatives and biomedical waste handling and reduction that included handouts, slides and posters, said O'Rourke, who also was named a runner-up for Safety Professional of the Year by kelleronline and has made presentations to the University of Florida and the Florida Department of Environmental Protection regarding achievements in biomedical waste reduction efforts and reduction in contaminated needle sticks.

CHS holds regular organizational staff meetings and its environment of care committee meets quarterly to review North Broward's ongoing pollution prevention program. "We talk incessantly about innovations, policies and challenges at those meetings," said

O'Rourke, who oversees environmental and safety rounds twice a year in all CHS clinics and practices.

Recycling efforts

North Broward's pollution prevention efforts have led to significant achievements, most notably programs that have resulted in, among other things, more than 30 percent of its total waste stream being recycled or reused, O'Rourke said.

Other achievements over the past year:

- The materials department ensures that company assets such as paper, cardboard, fluorescent lamps, silver, electronics, batteries, toners, furniture, beds, medical equipment, computers and other electronics are recycled back into use, auctioned or sold to reclaimers/recyclers, and landfill space is saved and disposal costs reduced by donating used equipment and supplies. For the CHS and physician practices division the department recycled, redistributed, sold or donated 13,207 pounds of surplus materials in the form of hardware, furniture, computers, medical equipment, and expired medical records – all at a cost of only \$120. (All the recyclers pay the district for items taken.)
- All told, the division recycled 287,377 pounds of solid waste, and recycled 62,352 pounds of paper and cardboard in 2006.
- More than 62,000 pounds of confidential documents were shredded for recycling per HIPPA guidelines. Close to 2,000 pounds of medical records at end of archive life were shredded and recycled.
- Toners used for printers, faxes and copiers are recycled and reused by Corporate Express, the district's office supply vendor. Corporate Express also sells thousands of recycled products each year.
- The district's purchasing department also is going paperless on requisitions in 2007.
- Material Safety Data Sheets (MSDS) are obtained via fax on demand as needed and all environment of care safety and environmental policies and procedures are on line, eliminating paper copies.

Hazardous waste reduction

An exhaustive chemical inventory and environmental safety rounds helped O'Rourke identify ways to reduce hazardous chemicals and wastes.

As a result, the NBHD Community Health Services and physician practices:

- Eliminated gluteraldehyde in November of 2003, replacing it with Cidex OPA.
- Used latex-free paints in facility renovations.
- Used an integrated pest management vendor, which has pledged to partner with North Broward Hospital District in identifying maintenance and sanitation opportunities that will minimize the need for chemicals. A pest site logbook is located at each facility to monitor pest and rodent activity.

- Eliminated formalin-containing specimen containers in all primary care gynecological, specialty, and dermatology exam rooms, and replaced with methyl alcohol preservative containers.
- Safely disposed of exhausted batteries through a program with battery vendors.
- Eliminated photo-developing chemicals at three locations by utilizing digital X-rays and recovered silver from existing photochemical units. As a result, CHS reduced its photo-developing hazardous waste by 25% over calendar year 2005.
- Limited receipt of samples and maintained records of drugs returned via reverse distribution in pharmacies and medical office practices.
- Minimized excess oxygen tanks by using a just-in-time supplier, which picks up and maintains par levels. The cylinders have an attached, easy-to-use valve that eliminates leaks.
- Eliminated Thimerisol preservatives in pharmacy departments.

Mercury elimination

Mercury has been virtually eliminated across the NBHD in an ongoing effort since 2003, and in January 2007, NBHD compiled an environmental leadership statement that includes eliminating mercury-containing devices.

Other achievements:

- Mercury has been completely eliminated in patient thermometers, blood pressure cuffs, and thermometers in all pharmacy, medication, food, and lab refrigerators. All blood pressure devices are now aneroid type and clinical thermometers are digital.
- HVAC thermostat switches that contain mercury all are changed out to electronic when they need replacement.
- Sink traps are used in the district's dental clinics to capture amalgam/mercury waste. Mercury amalgam is no longer used in fillings
- The NBHD Community Health Services and physician practices collected, crushed and recycled mercury containing fluorescent light bulbs. In 2006 alone, 1,700 pounds were disposed of as universal waste. Fluorescent light bulbs are replaced with bulbs that contain less mercury. Mercury vapor lamps are replaced with sodium vapor lamps when they are exhausted, where appropriate.

Regulated medical waste programs

In March 2006, a red bag waste reduction initiative, in conjunction with the district's infection control departments, was started throughout the Community Health Services clinics and practices. Each clinic and practice was visited and assessed. All employees, including providers, were in-serviced on the need for red bag waste reduction. O'Rourke provided biomedical waste training at each site and in a special session with providers and explained the costs of biomedical waste versus solid waste.

At the provider meeting, O'Rourke made a presentation on the district's overall pollution prevention efforts. O'Rourke told the group that ambulatory sites disposed of at least

100,000 pounds of red bag waste per year. “Regulated medical waste is very expensive to dispose of,” she said. “We told them we could cut that in half.”

In one year, the district’s two largest clinics, the Seventh Avenue Family Health Center and Specialty Care Center, reduced their regulated medical waste volume by an average of 19 percent. The program promises to save up to \$9,000 per year. The district partners with Stericycle to help reduce its biomedical waste.

This was accomplished by, among other things, removing red bag waste containers from most clinic and medical practice exam rooms. “We identified for people what goes into the red bag and utilized the local health department guidelines and definitions of what is deemed infectious,” said O’Rourke.

“Overcoming obstacles was and remains the hardest when it comes to red bag waste reduction,” O’Rourke said. “It requires continual scrutiny, in-service education of all levels of staff members, publishing the public health department regulations, and stressing that red bag waste actually costing us 89 cents a pound to dispose of as opposed to 4 cents per pound in regular trash.”

O’Rourke said the NBHD Community Health Services division is hoping to cut its red bag waste volume by 50 percent (over 2005 levels).

Future goals

O’Rourke said ongoing education and staff awareness has provided a successful program that results in significant pollution prevention, waste reduction, recycling increases, preferred purchasing, and cost savings. “We have shown that a primary health care organization can apply significant efforts that demonstrate environmental leadership,” she said.

With that in mind, NBHD Community Health Services has set ambitious goals in the coming two years, including:

- Continued reduction of regulated medical waste by at least 50 percent;
- Increased recycling of all types of paper, cardboard, batteries, used oil, and office waste;



O’Rourke posted posters like this at clinics and other sites to educate people about red bag waste.

- Measuring and capturing construction and renovation waste materials; and
- Beginning measurable energy and water conservation programs. (Already, all lawn sprinkler systems use timers to conserve water use and some rooms have presence sensors to conserve electrical energy.)

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