

Green *Corner*

A look at environmental success stories from around the country.

Hazardous waste ... NY hospital recovers chemical waste, and dollars

Each year since 1995, Albany Medical Center has been successfully recovering more than 50 percent of its regulated chemical waste by operating a chemical reclamation facility. Since its inception, the center has also avoided \$1.7 million in removal costs and reclaimed 147 tons of chemicals for laboratory use, at a value of more than \$1 million. The program paid for itself in about six months.

Reducing toxic chemicals ... Hospital opts for EtO-free sterilization

The material processing center at St. Elizabeth Hospital, Edgewood, Ky., switched to a low-temperature hydrogen peroxide gas plasma system to improve air quality and reduce hazards from exposure to ethylene oxide (EtO). The hospital also reduced daily sterilization loads from six per day (EtO) to partial loads once or twice a week.

Baystate Health System finds better ways to de-bug

Since Baystate Health System in Western Massachusetts implemented an in-house integrated pest management program in April 2003, it has learned that hiring one individual to focus on an issue leads to an effective, cost efficient and safer program for patients, communities and staff.

Greening of health care: Hospitals making a difference

One of the most under-reported yet significant trends of the 21st century is the greening of health care.

Since the turn of the century, increasing numbers of hospitals and other organizations have heeded the calls for environmental safety by implementing programs to minimize and manage waste, recycle, eliminate or seek alternatives to harmful toxic chemicals, and conserve renewable resources.

Hospitals for a Healthy Environment (H2E) was launched in 1998 as a joint project of the American Hospital Association, the Environmental Protection Agency, Healthcare Without Harm, and the American Nurses Association. The voluntary program is designed to help hospitals enhance workplace safety and promote environmentally friendly practices.

H2E was born out of a landmark Memorandum of Understanding between the Environmental Protection Agency and

the American Hospital Association. The agreement advances pollution prevention efforts in our nation's healthcare facilities and was intended to address the growing environmental problems of hazardous materials, including mercury, in our nation's waste system as well as the overall issue of medical waste.

Since its formation, H2E has fostered a national movement for environmental sustainability in healthcare.

The primary goals of H2E are:

- Virtually eliminating mercury-containing waste from healthcare facilities' waste streams. Today, that goal has been achieved, with 97 percent of all U.S. hospitals today labeling mercury-containing devices and phasing out their purchases in favor of safer, equally effective alternatives;
- Reducing the volume and toxicity of healthcare waste both through reduction of materials at the source and through



recycling and other waste minimization activities; and

- Identifying hazardous substances for pollution prevention and waste reduction opportunities, including hazardous chemicals and persistent, bioaccumulative, and toxic pollutants.

Guided by these important goals, H2E today is taking on even broader roles as a promoter and national information clearinghouse of environmental health and safety, allowing health care organizations to share their successes.

For more information, visit the [H2E Web site](#).

Luminary Project lights the way for nurses to share green successes

The Luminary Project: Nurses Lighting the Way to Environmental Health is a new [Web-based effort](#) to capture the illuminating stories of nurses' activities to improve the health of the environment. Their stories show how nurses are creatively addressing environmental problems and illuminating the way toward safe hospitals, communities with clean air, land and water. Here are two luminaries:

- Charlotte Brody, R.N., former executive director, Health Care Without Harm and current executive director, Commonwealth, Health Care Without Harm, helped build the bridge between environmental activ-

ists and healthcare professionals, and was instrumental in educating both about the dangers of dioxin and the availability of safer alternatives for the disposal of healthcare waste.

- Bettie Kettell, R.N., OR staff nurse, Mid Coast Hospital, Brunswick, Maine, led efforts to establish an active hospital environmental committee that identified internal waste streams and coordinated a successful hospital recycling program.



National survey on health, chemical exposures

The National Nurses Survey on Health and Chemical Exposures is the first-ever [Web-based tool](#) that explores the relationship between a nurse's health and on-the-job exposures to chemicals, drugs and other harmful agents. Nurses will be able to enter information online about their workplace experiences and exposures and download information related to these hazardous substances and alternative products.

For more information, contact [Kelly Heekin](#) at Health Care Without Harm, 703.243.0056.

Green Corner

Green cleaning ...

Hackensack University Medical Center uses green cleaning

Hackensack (NJ) University Medical Center converted its entire cleaning system to an environmentally-friendly green cleaning program. The center uses the least toxic alternatives. The program reduces toxicity, waste, storage space and cleaning costs. Facilities that have implemented the program have saved as much as 75 percent.

Recycling ...

Computer recycling

Thomas Jefferson University Hospital, Philadelphia, has been successfully recycling electronics since 2001. Retired computers and electronics are removed and stored by information services or the housekeeping department, cleaned of confidential information per HIPAA regulations, and then safely disposed.

Oregon hospitals recycle bulbs

Pricing barriers were dissuading many Oregon hospitals from recycling their fluorescent bulbs. To turn things around, the Oregon Health Care Without Harm Campaign, Oregon Center for Environmental Health and Oregon State Department of Environmental Quality worked together to negotiate a discounted rate with a local bulb recycling vendor. In the first year, the 16 participants successfully diverted 67,000 lamps.

Saving on reusables

Legacy Health System has attacked environmental problems on many fronts, including switching to reusable medical products. A switch to reusable gowns and drapes saved more than \$100,000 a year alone.

How green is your facility?

Does your chief executive need an easy way to gauge how green your organization is?

A short assessment tool for CEOs to rate their organizations' pollution prevention, material purchasing, and waste management/reduction programs is available on the [Safety Institute Web site](#).

Premier developed this valuable tool in collaboration with Hospitals for a Healthy Environment (H2E) and Health Care Without Harm (HCWH), to help healthcare organization leaders perform a high level assessment on environmental initiatives, including green buying

practices, waste reduction and pollution prevention initiatives. As a supplement to the CEO scorecard, Hospitals for a Healthy Environment has prepared a 28-page comprehensive environmental assessment tool to help healthcare facilities conduct a complete assessment of their environmental program's status and develop goals and action plans to reduce waste, eliminate the use of mercury, and reduce other types of health care related pollution.

The tool can be [downloaded](#) from the Premier Safety Institute Web site.



Order your CD set of environmentally safe healthcare resources

The Safety Institute offers a special [four-CD collection](#) of presentations and resources from the Environmentally Preferable Purchasing and Healthcare Practices Conference in Boston.

This set contains audio recordings of all speakers, PowerPoint presentations, and resource materials. Premier, Beth Israel Deaconess Medical Center, Health Care Without Harm, and Hospitals for a Healthy Environment sponsored the conference.

Hear what other organizations are doing for environmental health and safety in the presentations and cases studies on

- Mercury pollution prevention
- Green buildings
- Energy efficiency
- Solvent recovery
- Waste management

Order these valuable materials today from the [Premier Safety Store](#).

Some success story highlights

Beth Israel Deaconess Medical Center, Boston

- Energy efficient lighting upgrades saved \$166,000
- Energy savings estimated at



25 to 75 percent

- Water efficiency measures saved 40 million gallons a year and more than \$350,000

Bronson Healthcare Group, Kalamazoo, Mich.

- Now recycling more than one-third of total waste stream
- Virtually eliminated EtO and glutaraldehyde
- Use less harsh chemicals in place of xylene, formalin, and alcohol

University of Michigan Hospitals & Health Centers, Ann Arbor

- Recycled more than 4,000 tons of material
- Conserved more than 16,000 cubic yards of landfill space
- Saved more than 110,000 trees, 33 million gallons of water

Audio excerpts ...

'Our goals are to accomplish the same objectives by using less energy. These objectives don't involve sacrifice; in fact, they improve the hospital environment. We just think it makes good business practice to do this.'

Dan Bazinet, Facilities Director, Beth Israel Deaconess Medical Center, Boston
Presentation: "Green Buildings: Energy and Water Efficiency"

'Bay State generates over 500 tons of regulated medical waste. We do a really good job managing it and are looking for ways to minimize more of it.'

John Murray, Safety Director, Bay State Health System, Springfield, Mass.
Presentation: "Waste Management"

Catholic Healthcare West switches to PVC/DEHP-free products

Catholic Healthcare West (CHW) recently announced its plan to convert to polyvinyl chloride (PVC)/di-2-ethylhexyl phthalate (DEHP)-free intravenous (IV) bags, solutions and tubing in all of its 40 hospitals in California, Arizona, and Nevada. This represents one of CHW's ongoing efforts to ensure that products used in the hospital setting are safe for patients, employees, and the environment.

"The care and safety of our patients is our first priority," said Lloyd H. Dean, CHW president/chief executive officer. "We have been actively advocating for PVC/DEHP-free supplies from our vendors since 1997. B. Braun has stepped up to the challenge as the first sup-



plier with the capacity to deliver PVC- and DEHP-free supplies to all 40 of our hospitals."

By using PVC/DEHP-free products, CHW is eliminating approximately 840 tons of PVC/DEHP IV containers from both the patient care setting and the waste stream. Due to the lighter weight of materials, CHW is also reducing overall waste by 250 tons during the five-year course of the contract. Together, PVC and DEHP may represent long-term hazards to the health of patients as well as the environment, as the destruction of PVC results in the release of dioxins,

a potent carcinogen.

The transition to PVC/DEHP-free products is one of many environmental and patient safety policies CHW has in place. In 1996, CHW endorsed the CERES Principles for environmental protection and accountability (www.ceres.org) and agreed to conduct regular audits of its environmental impacts and develop action plans for improvement.

In 2001 CHW adopted a mercury elimination policy. Since 2003, CHW has been engaged in a program of sustainable design. Several of the system's hospitals have undergone energy retrofits that have resulted in a savings of 11.6 million kWh of electricity and 833,000 therms of natural gas per year.

Premier cited for environmental leadership

Premier and its shareholder Catholic Healthcare West have been recognized as "Champions for Change" by Hospitals for a Healthy Environment (H2E).

Premier was the first hospital group purchasing organization to earn the award (in 2003), and in 2005 became the first GPO to be honored three consecutive years.

The award recognizes organizations for their national leadership in helping healthcare facilities with their environmental efforts, including waste minimization and the elimination of the use of mercury.

Dozens of other Premier healthcare organizations have also earned distinction as honorees for other H2E awards, recognizing efforts in waste reduction, pollution prevention and mercury elimination.

For more information, call H2E at 800.727.4179 or visit the [H2E Web site](#).

MORE

Premier safely disposes two tons of IT equipment

Premier recently launched a comprehensive Web-based resource to assist health care organizations in the environmentally friendly selection, recycling and disposal of computers and electronics. While the resource was designed with medical facilities in mind, Premier's own Corporate Information Technology Services operations team found that the [Premier Safety Institute's Computers and Electronics in HealthCare Web site](#) has applications beyond hospitals.

Guided by the site's searchable database, Premier was able to recycle and safely dispose of more than two tons of excess IT equipment to organizations within the Charlotte area at no cost. In the midst of a major office move, Premier found that much of its older IT equipment slated for disposal could not be removed through the company's normal garbage



Premier's CITS Operations staff in Charlotte

pick-up process – a challenge faced by medical facilities across the country.

While some disposal companies wanted \$150 per barrel-full of discarded uninterruptible power supply (UPS) devices, Premier ultimately found a local company that would accept them all at no cost. Moreover, the IT team located a local business that not only removed a truckload of old PCs, laptops and other equipment, but actually *paid* Premier to do it.

Green Corner

Medical waste management ... Hospital saves \$250,000 with on-site autoclave

Since dismantling its incinerator in 1995, Dartmouth Hitchcock Medical Center, Lebanon, N.H., has saved about \$250,000 annually by autoclaving and landfilling instead of shipping its general infectious waste through a vendor.

Improving air, water quality ... St. Joseph Hospital walks the talk ... on healthy floors

St. Joseph Hospital, Orange, Calif., switched to an environmentally friendly floor material to improve worker and patient safety. The flooring, which is chlorine-free and low in volatile organic chemicals, has improved indoor air quality and reduced maintenance costs.

Hospital saves big by being smarter about water

Since 2001, Ridgeview Medical Center, Waconia, Minn., has been perfecting a plan to manage or remove harmful contaminants from its discharge water. The hospital removed toxic chemicals from its waste stream, added a laboratory chemical recycler, and began seeking safer alternative products. Many alternative products did not increase costs.

Biomed waste reduction

North Broward Hospital District's Coral Springs Medical Center recently implemented a biomedical waste reduction program that has cut the amount of its hazardous waste generation by more than half.

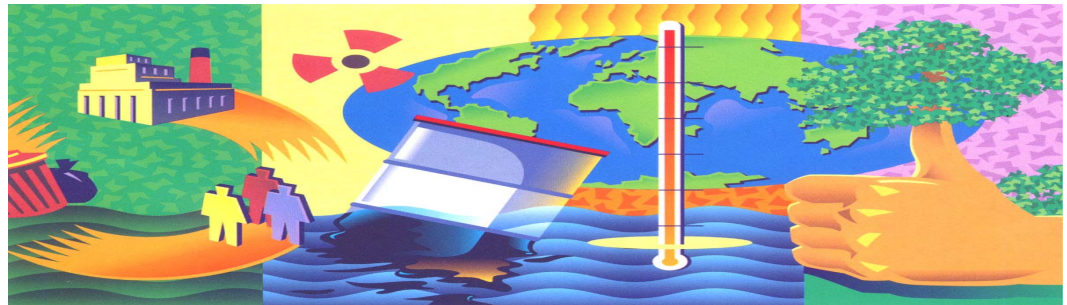
"Green Corner" stories in this issue adapted from case studies on H2E Web site under ["Tools and Resources."](#)

Premier Safety Institute Resources

Visit Web site for in-depth green resources and news

The Premier Safety Institute offers a comprehensive selection of tools, resources and news on [environmental safety](#) on its Web site. Here are samples:

- Environmentally preferable purchasing (EPP) tools and resources, including product/services lists;
- News about federal and healthcare industry initiatives;
- Information about hazardous chemicals and safer cleaners and pesticides;
- E-waste management and disposal;
- Pharmaceutical waste management;
- Mercury pollution prevention strategies;
- Latex allergy resources;
- Current topics about reuse of single-use devices;
- A CD collection of presentations from the Environmentally Preferable Purchasing and



Healthcare Practices Conference in Boston (see p. 2); and

- An assessment tool for CEOs to rate their organizations' pollution prevention, material purchasing, and waste management/reduction programs (see p. 2).

In addition, news on environmental safety and environmentally preferable purchasing trends is covered regularly by the Safety Institute's monthly e-newsletter, *Safety Share*.

For recent articles, visit the [Safety Share archives](#).

Pharmaceuticals and mercury lists

Premier supports efforts related to the identification and use of environmentally preferable products and packaging that are less toxic, minimize pollution, more energy efficient, and safer and healthier for patients, workers, and the environment.

As part of its commitment, Premier has a comprehensive collection of mercury pollution prevention news, resources and tools on its [Web site](#). Among these are lists of [mercury-free products under contract with Premier](#) and [pharmaceuticals containing mercury](#), which Premier prepared to assist in the identification, management, and/or disposal of these drugs as potentially hazardous waste.



Quick Stats

- Hospitals generate 6,600 tons of solid waste every day, 2 million tons annually
- Solid waste is 70-80 percent of a facility's waste
- Half of a hospital's solid waste stream is paper and cardboard
- Full-fledged waste reduction efforts cut disposal costs up to 70 percent
- Incinerated medical waste containing chlorine is third largest contributor of dioxins
- E-waste is the fastest growing portion of our waste stream
- Ninety five percent of discarded computers end up in landfills or incinerators

CleanMed: Industry's leading EPP conference

Health care providers are recognizing that products can impact our health and the environment and are seeking opportunities to improve the environment, occupational health, and patient safety by choosing safer, cleaner, more sustainable products and practices.

Now in its fourth year, CleanMed is the healthcare industry's leading conference on environmentally preferable products and green buildings.

Conference participants have included health care purchasing and facility executives, architects, designers and engineers, environmental health and safety leaders, university re-

searchers and nursing and clinical leaders.

Educational sessions have covered issues such as design and operation of green buildings, environmentally preferable healthcare products, reducing waste and toxicity, greener cleaners, computer

recovery, and latex elimination. CleanMed 2006 is scheduled for April 19-20 at The Westin Hotel in Seattle.

On April 18, Hospitals for a Healthy Environment will host its Annual Awards Luncheon and Workshop.

Premier is a CleanMed sponsor. For more information, visit the [CleanMed Web site](#) or call 617.524.6018.



Green Link

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About Premier's EPP program

Premier's Environmentally Preferable Purchasing program, a collaboration of its Safety Institute and Group Purchasing Program, supports the efforts of members and the industry at large to enhance the safety and health of patients, healthcare workers and the environment. Through its EPP program, Premier provides publicly available resources and tools to assist hospitals with their environmental safety agenda and offers environmentally friendly products, packaging, and services to members as part of its group purchasing contracts in collaboration with suppliers that share Premier's environmental commitment.

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