PREMIER

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# Green Link

NEWS AND SUCCESS STORIES ABOUT GREEN PURCHASING AND ENVIRONMENTAL HEALTH

## Green Corner

*Full versions of these and other environmental success stories are on Premier's new Green Corner Web site at www.premierinc.com/greencorner*

***Environmental purchasing***

**Premier scorecard provides 'green' snapshot for Saint Francis**

Hartford, CT-based Saint Francis Care, the largest Catholic hospital in New England, has a long track record of successful projects aimed at improving environmental health. Through it all, the 617-bed medical center has done an equally impressive job documenting its progress. One tool that helped significantly, the "Executive Scorecard on the Environment," came at a fortuitous time in 2005. Offered by the Safety Institute of Premier, the Executive Scorecard is a short assessment tool for CEOs to rate their organizations' pollution prevention, material purchasing, and waste management/reduction programs. A year after beginning the process, the hospital was pleasantly surprised, improving its score two complete rating levels. In fact, Saint Francis scored 185 total points out of 200 at the end of 2006, giving it the highest rating of excellent. MORE

***Recycling and waste reduction***

**St. Elizabeth Medical Center sets new benchmarks for recycling**

St. Elizabeth Medical Center in Edgewood, KY, could be easily considered one of the largest recyclers among the nation's hospitals. Last year, the three-hospital system recycled more than 350 tons of materials, including 154 tons of cardboard, 190 tons of paper, more than 1,300 gallons of lab chemicals, and almost 12 tons of universal wastes such as fluorescent lamps, batteries, and computer monitors, safety director Mike Gabennesch said. St. Elizabeth's efforts have resulted in 23 percent of its waste stream that is either being recycled or reused. MORE

# Hospitals create healing environments

U.S. hospitals are taking a broader, holistic approach that goes to the core of their primary mission by creating high performance environments that heal - from calming waterfalls to public areas bathed in natural light.

In addition to using environmentally friendly building materials, hospitals are designing healing spaces that incorporate all that is good about nature, including calming indoor gardens and waterfalls, outdoor walking spaces, public areas bathed in natural light, and noise reducing ceilings and flooring.

Most importantly, healing environments have been found to have a direct correlation with improved patient outcomes. One study found, for example, that patients with views of nature went home almost a day sooner, had a $500 lower cost per case, used fewer medications and exhibited better emotional well-being. Private rooms have been associated with shorter length of stay and reduction in both medication errors and nosocomial infections - according to a study by the Coalition of Healthcare Environment Research (CHER) on the single versus multiple occupancy rooms in acute care.

**Examples of healing environments**

- **Hackensack (NJ) University Medical Center's Women and Children's Pavilion**, opened in December 2005, has earned a distinction as one of the nation's top 10 green hospitals by the Green Guide Institute. Its Deirdre Imus Environmental Center for Pediatric Oncology has garnered worldwide acclaim as one of the first hospital-based programs whose specific mission is to identify, control and ultimately prevent environmental factors that may cause adult and pediatric cancer and other health problems. The hospital took exhaustive measures to procure and use materials with little or no persistent bioaccumulative and toxic chemicals as well as creating special healing features.
- **Banner Health**, a large non-profit healthcare system with 17 hospitals in seven states, has embraced a "healing environment" in many of its hospitals. Two examples:
- **Banner Estrella Medical Center, Phoenix, AZ** - Sunbathed lobbies, waterfalls and soothing music describe the ambience of this desert hospital that was featured in a special 2006 *Newsweek* report, "Fixing America's Hospitals."
- **Banner Gateway Medical Center, Gilbert, AZ** - Opening in early fall 2007, Banner Gateway was designed with a canyon theme to bring the peacefulness of nature indoors and create a warm and welcoming environment.

**Sarkis Gabrellian Women's and Children's Pavilion at Hackensack University Medical Center**

# Green Guide inspires environmentally friendly building projects

As the U.S. hospital industry undergoes one of the largest construction booms in its history, the vast majority of hospitals planning new construction are doing so with guidance of green building criteria to create spaces that are as healthy for patients and workers as they are the environment.

The healthcare industry represents $16 billion and more than 100 million square feet of construction per year. As with medical products, there are concerns among hospitals about the health effects of construction building materials on patients, staff, and the environment.

Green Guide for Health Care (GGHC) is the primary guide for the healthcare industry as a transformational new tool for building hospitals that are healthy for people and the environment. It is being cited as an important catalyst in the recent watershed for healthcare green construction that emphasizes human health outcomes when designing healthcare environments.

Major healthcare facilities around the world are using the GGHC to design, build, and operate the next generation of high performance healing and green environments.

The Green Guide is a voluntary, self certifying system modeled after the U.S. Green Building Council's LEED® rating system with more than 170 design, construction and operations points that offers specific health policy reasons for each point.

A toolkit of best practices, the guide incorporates design elements that can be used by designers, owners, and operators of healthcare facilities to guide and evaluate their progress toward what is being called "high performance healing environments."

**Unique features of Green Guide**

Some of the unique features of the new version of Green Guide (Version 2.2) released in January 2007:

- Tailoring to assist with regulatory challenges in healthcare;
- Incorporating design elements that enhance patient healing and staff well-being;
- Using innovative technologies to reduce energy and water use;
- Reducing hazardous chemicals; and
- Implementing green operations ranging from organic food to landscaping and housekeeping protocols.

## Green *Corner*

***Food***

**CHW hospitals take healthy food goals to high levels**

Premier owner Catholic Healthcare West (CHW) developed its own "Food and Nutrition Vision Statement" in 2005. Since then, CHW and its 41 hospitals have implemented broad, sweeping environmental changes in the way it procures food, and works with food suppliers and distributors. CHW was one of the first large healthcare systems to introduce Fair Trade coffee, produced through an international program that promotes ethical labor, commerce, and environmental practices. It also was the first health system to sign the Healthy Food Pledge, developed by Health Care Without Harm to commit organizations to environmental food practices. MORE

***Energy Star winners***

**St. Francis Hospital & Health Services earns second Energy Star**

Premier member St. Francis Hospital & Health Services, Maryville, MO, recently earned its second Energy Star designation, putting it in an elite group of U.S. hospitals that have successfully implemented green building programs. The hospital is the first in Missouri to receive the prestigious EPA designation, and is among the fewer than 1 percent of U.S. hospitals that have earned the Energy Star label. MORE

***Recycling and waste reduction***

**Compacting waste nets big savings and healthier environment**

Western Maryland Health System became alarmed when it discovered that as much as 23 percent of its total regulated medical waste disposal costs represented phantom weight, or the difference between actual weight and the hauler's minimum charge. After purchasing two small compactors, the system's phantom weight dropped from 23 percent to 14 percent. The hospital projects that the compactors will save the system approximately $103,000 over the next five years and divert more than 6 tons of plastic from landfills. MORE

# Healthy food movement spreads to healthcare

Increasing scrutiny has been leveled at foods high in pesticides, antibiotics and other chemicals, and hospitals are implementing solutions such as purchasing locally grown foods, organic foods, and produce, milk and meats that are free of potentially damaging chemicals. Recent trends:

- Close to 20 million pounds of antibiotics are used as feed additives for animals to promote growth, about 10 times the total antibiotics used in human medicine.
- Genetically engineered drugs such as recombinant bovine growth hormone (rBGH), which is given to dairy cows to boost milk production, has been singled out as a major health concern in humans.
- The vast majority of the nearly 9 billion broiler chickens sold to stores each year are fed arsenic to promote growth and better skin color.
- Nearly 40 percent of U.S. hospitals host a fast-food establishment on their campus- according to recent studies by the University of Michigan Health System and Ann Arbor VA Medical Center.

The healthy food movement in U.S. hospitals is growing, and food suppliers and distributors are beginning to respond by offering healthy alternatives. To the 80 percent of U.S. hospitals that operate their own food service - each of which serves up more than 1 million meals a year - implementing healthy food initiatives can be daunting. But scores of hospitals are doing just that today through various initiatives, including:

- Seeking out arrangements with local farmers' markets to provide produce free of pesticides and other chemicals. More than 100 U.S. hospitals now host farmers' markets, and dozens more are reportedly planned.
- Developing on-site organic gardens.
- Purchasing antibiotic- and hormone-free dairy products, poultry and other meats.
- Removing fast food chain restaurants from their premises.

One of the broadest such approaches is illustrated by the work of Catholic Healthcare West (CHW), a 41-hospital system. "Our food vision began as a list of things we wanted to commit to, and we started with ensuring milk had no rGBH and poultry were antibiotic-free," said Sister Mary Ellen Leciejewski, CHW Ecology program coordinator. "We also looked at other things like organic vegetables and getting away from pesticides and genetically modified produce." CHW's Dominican Hospital in Santa Cruz, CA, for example, has adopted sustainable food programs that include on-site gardens and buying locally grown organic produce.

**Michael Raciti, Dominican Hospital Garden Project Manager, is harvesting lettuce that will be taken to the hospital cafeteria at Dominican Hospital in Santa Cruz.** ***Photo courtesy of Dominican Hospital.***

# Hospitals becoming more energy efficient

Motivated by upwardly spiraling costs, hospitals across the country are retrofitting their heating and air conditioning systems, installing energy efficient lighting, using renewable energy sources such as wind, or solar energy - even outsourcing their energy management - all in efforts to save money while becoming better environmental stewards.

In addition to such measures as retrofitting heating and air conditioning systems and installing energy efficient lighting, hospitals have found ways to better manage increasing energy requirements. These include using alternative power sources, such as electricity generated from renewable sources such as wind or solar energy; using biodiesel fuel made from renewable resources like soybean oil in diesel generators; and outsourcing energy management.

Hospitals that have buildings classified as "commercial" may benefit from the energy efficiency tax credits that were signed into law in August 2005 as part of the first comprehensive energy legislation in over a decade and apply to services in place from January 2006 to December 2008. A tax deduction from the federal government of up to $1.80 per square foot is available to owners or designers of new or existing commercial buildings that save at least 50 percent of the heating and cooling energy of a building that meets ASHRAE Standard 90.1-2001.

**Energy Star program**

Superior energy efficiency - identified by the Energy Star program - is a critical element of green buildings. Energy Star is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy that helps in measuring current energy performance, setting goals, tracking savings, and rewarding improvements. Top performing hospitals are recognized with the Energy Star label, with 54 hospitals currently in the program. For highlights of a few Energy Star hospitals, visit Premier's new Green Corner Web site of environmental success stories.

The Energy Star Web site offers no-cost online Energy Star training and presentations on demand, including self-guided presentations, live Web conferences and pre-recorded training programs.

**ASHE's 'E2C' campaign**

The American Society of Healthcare Engineers (ASHE) recently launched a two-year campaign, Energy Efficient Commitment (E2C) to educate hospitals about the environmental and economic benefits of pursuing energy efficiency improvements. Among the campaign's resources, provided at no cost, are a Web site that offers tools, best practices and case studies on energy management and a forum for peer networking. You can also download a copy of the 180-page ASHE Healthcare Energy Guide book.

# Healthcare industry mobilizes on electronic waste issue

U.S. hospitals may not be the biggest generators of electronic waste, but they are becoming among the most proactive in safe recycling and disposing of what has become a mounting environmental concern.

Many types of equipment routinely used in hospitals contain many hazardous components and when incinerated or landfilled, can release heavy metals and other hazardous substances that contaminate groundwater and pollute the air.

Discarded computers and other consumer electronics (so called e-waste) are the fastest growing portion of our waste stream and less than 10 percent of discarded computers and electronics are being recycled. It is estimated that 600 million desktop and laptop computers in the U.S. will soon be obsolete; many of these are from healthcare facilities.

Healthcare facilities are addressing the environmental impact of computers and electronics through environmentally conscious purchasing of equipment with fewer and/or less toxic components and with options for end-of-life handling. Computer manufacturers are rapidly responding to the increased demand for less toxic components and providing options and programs at the time of purchase for recycling, reuse and "take back." As hospitals are upgrading their electronics and computers systems, outdated equipment that is still functional is also being donated to schools and other non-profit organizations.

Wrapped e-waste awaits pickup on the Premier loading dock.

The Electronic Product Environmental Assessment tool (EPEAT) is a new tool being used to help institutional purchasers, including healthcare organizations, evaluate, compare and select desktop computers, notebooks and monitors based on their environmental attributes. EPEAT also provides a clear and consistent set of performance criteria for the design of products, and provides an opportunity for manufacturers to secure market recognition for efforts to reduce the environmental impact of its products. EPEAT was developed with a grant from the U.S. EPA and is managed by the Green Electronics Council. In keeping with its commitment to offering contracts for environmentally preferable products, Premier used the EPEAT tool in its sourcing process to select suppliers computers and electronics that have fewer toxic components and recycling and reuse programs In successful internal corporate efforts in the past two years, Premier recycled a total of more than 5 tons of IT equipment in its Charlotte, NC offices.

Premier also offers Web-based resources and tools, along with guidance on selection, purchasing and end of use disposal and recycling of computers and electronics on its popular "Computers and Electronics in Healthcare" Web site. These Web site resources include information on Premier's contracted suppliers, Dell and Gateway, and their environmentally friendly computers and recycling options. A searchable database is also provided to find a local recycling company that subscribes to the Electronics Recycler's Pledge of True Stewardship, to make sure the computers are recycled or disposed in a safe manner.

# H2e guide bridges Joint Commission, federal regulations

Hospitals for Healthy Environment (H2E) recently developed a tool that helps facilities ensure their programs are consistent with regulations of the federal government and The Joint Commission (JC).

One of the greatest challenges for hospitals undertaking environmental improvement initiatives is sorting through the complex maze of regulations from myriad organizations and federal agencies.

H2E's Web-based tool, Environmental Compliance and Improvement Guide, serves as an information bridge by matching each Joint Commission (JC) "element of performance" to specific federal regulations, and in effect, helping facilities identify how to be in compliance with both. H2E stresses that the resource was created to supplement guidance provided by the JC standards.

Elements of performance are specific expectations that must be met in order to meet a JC standard, which is a statement that defines the performance expectations, structures, or processes that must be in place for an organization to provide safe and high-quality care, treatment, and services.

Some of the standards refer to environmental issues; many of the environmentally relevant elements of performance fall under the JC "Environment of Care" standard, while others are included in the Human Resources and Leadership standards. The guide also helps facilities identify JC quality improvement initiatives, as well as steps that facilities can take to encourage environmental performance improvements. A comprehensive environmental program, including waste minimization and pollution prevention initiatives, not only ensures compliance, but can also help reduce the costs of compliance.

The guide provides links, tips and tools that enumerate specific management practices, materials, regulatory requirements, and facility infrastructure relevant to a specific element of performance.

## Green *Corner*

***Computers-electronics***

**Beth Israel Deaconess Medical Center turns electronic waste into dollars**

Reducing waste and their associated costs while preventing pollution, conserving energy and eliminating toxic mercury is a tall order for any hospital. Over the course of five years, Beth Israel Deaconess Medical Center's Information Systems Asset Management and Inventory Control department turned the hospital's asset disposal program from a cost center (whose expenses were more than $70,000 in 2001) to a revenue producer in 2006. Each year, the hospital processes more than 2,600 pieces of electronic computing equipment. MORE

**Saint Francis Care's e-waste initiatives save environment, costs**

Hartford, CT-based Saint Francis Care, the largest Catholic hospital in New England, recently began an e-waste management and recycling program that's not only saving the environment, but valuable dollars as well. The hospital would remove the circuit boards of computer equipment; and either disposed of the boards and shells as universal waste or recycled them when feasible. After contracting with WeRecycle!, Saint Francis expects to save as much as $20,000 a year in disposal and labor costs. MORE

***Recycling and waste reduction***

**Chelsea Community Hospital, Wieland Healthcare partner in furniture reuse programs**

Working with Premier contracted furniture supplier Wieland Healthcare of Grabil, IN, Chelsea (MI) Community Hospital found it could maximize its investments and extend its furniture lifecycles by recovering chairs and other furniture. The hospital recently replaced upholstery covers on 14 Wieland chairs and loveseats in its Diagnostic Imaging Center for about a third of the cost for replacements. Today, renewability has become an evaluation standard at Chelsea for a wide variety of products. MORE

# 'Green' demands from hospitals, investors, fuel Dow Jones Sustainability Indexes

The demand from healthcare for more environmentally friendly products and services is literally changing the industries that serve them, and Wall Street has taken notice. In recent years, more and more of those firms are not only striving to be listed on a specially created stock index of environmentally conscious companies, but are wearing such an achievement as a badge of honor.

Created in 1999, the Dow Jones Sustainability Indexes (DJSI) is one of the first global indexes watching the financial performance of leading companies with an emphasis on sustainability in economic, social, and environmental capacities. The Indexes have a twist that is somewhat unique: other than auditing historical financial information, companies listed in the Dow Jones Sustainability World Index are selected globally based on their ability to integrate economic, environmental and social criteria into their strategies and operations to determine sustainability. A company can quickly be tossed from the fund if it fails to maintain certain criteria.

**"Sustainability" no longer a buzz word**

The Dow Jones Sustainability Indexes are simply a product of the times: Investors, many of whom are aging baby boomers with strong feelings about the environment, wanted to invest in companies that did more than just talk about saving the earth. As

the Indexes notes on its Web site, the concept of corporate sustainability is attractive to investors not only because it aims to increase long-term shareholder value and can now be financially quantified, but also because sustainability leaders are increasingly expected to show superior performance and favorable risks and returns.

**How hospitals have changed dynamics**

While investors gave rise to the Dow Jones Sustainability Indexes, hospitals more than anything have been a major impetus behind the innovations that got companies on the DJSI list in the first place. Hospitals also have the power to shift markets. Kaiser Permanente, for example, has required building materials for their 30 million square feet of new construction to be PVC-free. In November 2005, Catholic Healthcare West awarded a five-year, $70 million contract for IV products to B. Braun Medical for their PVC and DEHP-free products.

As the hospital industry embarks on a $200 billion construction program to replace rapidly aging buildings and to meet expansion needs from an aging population, it has become a major market force, according to Health Care Design Magazine.

The publication asserts that many of the same health concerns driving change in the medical products industry are also driving change in the building materials industry, which is responding with products like PVC-free furniture and non toxic rubber flooring.

**Clearinghouse of "green" healthcare products and practices**

One popular source for resources on products and practices that eliminate or reduce environmental hazards is the Sustainable Hospitals Program affiliated with the University of Massachusetts Lowell.

A key feature of the program is a Web site that contains a clearinghouse of information and alternative healthcare products and practices.

## InformeDesign Web site fosters hospital, designer collaboration

Progressive hospitals undertaking or planning green building projects are challenging the architectural and design community like never before. And thanks to a new Web-based collaborative called InformeDesign, they have a forum for sharing ideas that combine design and human behavior research. Created by the University of Minnesota in collaboration with the American Society of Interior Designers, InformeDesign is a clearinghouse for design and human behavior research. The project is based on a belief that the designers of the built environment must continue to enhance their knowledge and skills to continue to protect the health, safety, and welfare of the public to ever-increasing degrees of excellence.

The site enables hospital designers to apply research to their design decisions so the outcomes of design solutions can be systematically examined. Hospital lay people benefit from the body of knowledge through an understanding of key design considerations. Creators hope that practitioners, researchers, educators, code officials, clients, and industry partners are able to share ideas and information, enabling them to design environments that protect and enhance the public's health, safety, and welfare, and respect the limitations of the earth. The InformeDesign Web site focuses on providing reputable research sources, including research tutorials, webcasts and a monthly publication, Implications, that addresses the issues facing practitioners and researchers who focus on design and human behavior. There is a plethora of research studies specific to healthcare; for example, one study discusses how healthcare environments should be designed to functionally restore the independence of the individual and acute care must respond to the demands of the increasing number of senior patients.

## Premier launches Web site with 'green' success stories

Premier's Safety Institute launched a new Web site, Green Corner, which showcases hospital and supplier success stories in environmental or "green" initiatives that contribute to a safer and healthier environment. Topics include:

- Environmentally preferable purchasing (EPP) program or implementation;
- Waste reduction (solid, hazardous, medical);
- Toxicity elimination (e.g., mercury);
- Energy efficiency;
- Water savings;
- Indoor air pollution reduction;
- Recycling;
- Healthy foods;
- E-waste (computers, electronics) recycling or reduction;
- Green cleaning programs;
- Green building initiatives; and
- Pharmaceutical waste management.

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*www.premierinc.com/safety*
E-mail us at:
safety_institute@premierinc.com
704.733.2006

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### About Premier's EPP program

Premier's Environmentally Preferable Purchasing (EPP) 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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