PREMIER

# GreenLink™

June 2009

NEWS AND SUCCESS STORIES ABOUT GREEN PURCHASING AND ENVIRONMENTAL HEALTH

## GREENCORNER™

*Success stories in environmental and "green" initiatives that contribute to a safer and healthier environment.*

**CHW's MODEL ENERGY PROGRAM**
**Catholic Healthcare West has implemented a vast array of energy conservation initiatives that have included dramatic percentage decreases in energy.**

**SEMP SAVES ENERGY, MONEY**
**PeaceHealth's seven hospitals now operate more efficiently thanks to a standardized program modeled after BetterBricks' Strategic Energy Management Plan (SEMP).**

**SYSTEM EARNS DUAL LEED AWARDS**
**Geisinger Health System has the rare distinction of earning Leadership in Energy and Environmental Design (LEED) Gold and Silver Certification.**

**MODEL ASSET RECOVERY PROGRAM**
**With a central warehouse to refurbish unused or underutilized equipment and an eBay-like web site to market them, Aurora Health Care will recover more than $1 million through its Asset Investment Recovery program.**

**SC's FIRST GREEN MEDICAL COMPLEX**
**Lexington Medical Center, West Columbia, SC, recently finished construction of a "green certified" medical office building that is the first in the state to earn LEED designation.**

**RECYCLING OF BLUE WRAP**
**Harbor Hospital's 11 OR suites and three endoscopy rooms have diverted nearly 75 percent of their blue wrap from the waste stream.**

**PROFITABLE COMMUTING PROGRAM**
**At Mercy General Hospital, nearly one-quarter of the hospital's 1,800 employees are now leaving their cars at home and are choosing public transportation and carpooling.**

**FOOD RECYCLING SUCCESSES**
**Children's Hospital and Regional Medical Center, Seattle, diverts more than 1,400 pounds of food waste each week from landfills through composting, saving the hospital about 40 percent on its annual waste bill.**

**Read these and other stories at**
***www.premierinc.com/greencorner***

# Hospitals becoming savvy green energy buyers

Spurred by volatile energy prices, concerns over global warming and their desire to adopt more environmentally sustainable practices, increasing numbers of hospitals today are demonstrating they are savvy about energy.

**Energy procurement: reverse auctions**
In June 2008, Premier, in partnership with Practice Greenhealth and its Healthcare Clean Energy Exchange (PGH-HCEE), launched the first large-scale, Web-based healthcare reverse auction for energy procurement. The reverse auctions are just one offering in Premier's new energy initiative, *SPHERE* (Securing Proven Healthcare Energy Reduction for the Ecosystem), open to all healthcare facilities, with the goals of helping hospitals reduce their energy usage and cost, as well as increase the use of clean/renewable energy, all to reduce their carbon footprint and the related public health impact of their energy use. Premier's SPHERE Web site offers tools, resources, calculators and case studies to help hospitals achieve these goals.
In partnership with PGH-HCEE, the reverse auction procurement process permits energy providers to compete to supply healthcare facilities' energy needs with renewable and traditional energy at the best possible price in those states that are deregulated for energy procurement. Through participation in the reverse auction, hospitals in states where electricity or natural gas is deregulated have the opportunity to reduce their costs. Such savings for hospitals in those states deregulated for electricity can be applied to the purchase of renewable energy, priced higher than traditional energy (fossil fuel-based). The savings can also be used to fund energy efficiency initiatives and technologies, further reducing energy use and generating even greater savings. Results so far:

- Covenant Health Systems in Lexington, MA, saved nearly $1.6 million in electricity over a traditional paper-based procurement process.
- Ingalls Health System saved $365,000 in electricity and was able to purchase 5 percent of its electricity from renewable, or green, energy sources at the same price as the traditional fossil-fuel energy, and also saved $465,000 for their annual purchase of 112,431 decatherms of natural gas.

SPHERE
Energy Leadership Forum

**Healthcare leaders share cost savings with energy efficiency**

Premier's *Energy Leadership Forum* teleconference, offered at no charge, features healthcare leaders sharing success in energy efficiency and cost savings of up to $3 million annually. Audio archives, program materials and upcoming program dates are at *www.premierinc.com/forum*.

# Healthy food projects reducing carbon footprint

Healthy food initiatives may be doing as much for our planet's health as the health of hospital workers and patients. Organizations are building their own organic gardens and buying food locally, as well as donating food to local charities instead of paying for it to be hauled away by carbon dioxide-producing trucks.

A few examples taken from Premier Safety Institute's Green Corner Web site:

- Catholic Healthcare West (CHW) - CHW developed its own "Food and Nutrition Vision Statement" to promote sustainable food transportation systems and, when appropriate, to source foods that are local and minimize transportation impacts.
- Aurora Health Care - When possible, Milwaukee, WI-based Aurora Health Care buys locally to support the communities in which it operates, but also to reduce its carbon footprint. For example, the decision to recycle locally not only reduces landfill waste, but also reduces greenhouse gases because less fuel is used to transport the material long distances. The distance from farm to market has increased about 20 percent in the last two decades, with much food traveling between 2,500 and 4,000 miles before it reaches the plate.

While the general public has dealt with recent isolated incidences of salmonella-contaminated peanuts and pistachios, the healthcare industry in the United States is grappling with other issues that have potential consequences for our nation's food supply. Those issues include the use of synthetic hormones in livestock, increasing use of antibiotics as food additives for animals, genetically engineered vegetables and cloned-animal meat and dairy products.

While data are being gathered on potential adverse impacts on human health, we are seeing a surge in the purchase of locally grown and organic foods, a call for federal laws requiring disclosure of cloned foods on labels, and the need to increase the number of FDA food inspectors.

## BRIEFLY . . .

**BUYING GREEN LIGHTING EASIER**
A new guide on buying low-mercury lighting is the first resource to list mercury levels of light bulbs by major manufacturers. The guide helps institutional purchasers of bulbs, tubes or ballasts: find more than 700 energy efficient lights that have the least amount of toxic mercury; replace incandescent bulbs with light-emitting diode (LED) or compact fluorescent lights (CFLs) and save about $30 or more in electricity costs over each CFL's lifetime; and safely dispose of lighting.

**EPA PORTFOLIO MANAGER**
Hospitals are measuring their energy performance with Portfolio Manager, an interactive energy tracking and benchmarking tool developed by the EPA's Energy Star program. The tool allows a user to track and assess energy and water consumption across its entire portfolio of buildings in a secure online environment. As of January, more than 2,200 acute care hospitals, representing more than 1.2 billion square feet, had obtained Energy Star ratings using Portfolio Manager - the highest of any building type in the nation.

**ENERGY HEALTH IMPACT TOOL**
Based on EPA and other peer-reviewed data, the Energy Impact Calculator, developed by Practice Greenhealth's Clean Energy Exchange, estimates the health impact of energy use on a per kilowatt hour/year basis. The tool also enables healthcare energy purchasers to make business decisions on energy efficiency projects and renewable energy purchases based on a fuller understanding of energy's true costs.

**REPORT CONFIRMS GHG THREAT**
The EPA has released results of a study concluding that greenhouse gases (GHG) contribute to air pollution that may endanger public health or welfare - a timely report given President Obama's call for a low carbon economy and strong leadership in Congress on clean energy and climate legislation. The report, titled "Assessment of the Impacts of Global Change on Regional U. S. Air Quality: A Synthesis of Climate Change Impacts on Ground-Level Ozone," is out for public comment, the next step in a deliberative process before final findings are issued and any changes are made under the Clean Air Act.

# 'Green' design: evidence of promoting healing

In one respect, it seems obvious that healthier environments promote healthier patients. But as with other questions in healthcare, science is now being applied in systematic ways to prove the correlation.

Growing numbers of hospitals are incorporating evidence-based design, the practice of creating healthy environments based on research demonstrating how the design may impact patient healing, primarily in new construction projects. The bonus is that healing environments also benefit staff and visitors, and often involve green principles.

Many contend that for institutions able and willing to make the investment in green design, the paybacks in energy savings and community and patient health are substantial. For example, use of natural light by installing energy-saving glass permits healing-conducive views of nature, which can lead to a reduced need for pain medication and possibly speedier recovery, while cutting electric bills and reducing greenhouse gas emissions. Use of environmentally friendly building materials such as low volatile organic compounds (VOC) paints and carpeting improves air quality for all building occupants.

Efforts have been made to look at the literature retrospectively, identifying measurable health outcomes using evidence-based design to determine how the environment contributes to healing. One report commissioned by the National Association of Children's Hospitals and Related Institutions (NACHRI) engaged the Center for Healthcare Design (CHD) to apply the literature findings to children's hospitals. The CHD authors concluded that the physical environment inside the NICU, children's settings, and adolescent settings affects the clinical, physiological, psychosocial and safety outcomes of patients and families. Study authors cited such strategies as single-family rooms, circadian lighting (light synched with patients' biorhythms), incubator noise reduction and access to nature as positive steps.

**Geisinger Health System earned LEED Gold Certification for its "green" clinic in State College, PA.**

CHD published similar work as a 2009 white paper for the Institute for Healthcare Improvement (IHI), describing basic elements believed to lead to safer, less stressful, and more patient-centered healing environments. Both reports include a literature review, design recommendations, a business case supporting the recommendations, an implementation toolkit and checklists.

**Visit Green Corner Web site**
Go to *www.premierinc.com/greencorner* to read more about how hospitals are using evidence-based design to create healthier environments.

# Medical supply donations offer green options

Until recently, healthcare organizations had few options for disposing of outdated medical equipment or unused supplies. Today, the estimated value of such medical surplus is $6.25 billion a year.

Fueled by the green movement and increasing shortages of needed healthcare supplies in impoverished or developing countries, new organizations are providing bona fide repositories for used medical equipment and supplies. Many operate large warehouses in major cities where donated items are inspected, inventoried and shipped to countries around the world. Consider:

- Global Links - This international nonprofit organization based in Pittsburgh has recovered more than 3,000 tons of medical materials and delivered more than $140 million worth of medical materials to hospitals and clinics in more than 70 countries. Through its suture donation program, hospitals around the world have received more than 1 million sutures, a critical medical supply that is often lacking. Children's Hospital of Pittsburgh has a long history of donating much needed medical equipment. After a recent change in the brand of sutures, all of the boxes that were opened and therefore not returnable were sent to Global Links and redirected to 16 hospitals, including Linden Hospital in Guyana, one of the poorest countries in the Western Hemisphere.
- AFYA Foundation - This New York-based worldwide organization partners with a growing network of donor hospitals, health organizations, corporations, and individual households to collect medical and non-medical supplies and equipment. AFYA (the Swahili term for "good health") stores and sorts donations from a New York warehouse, loading containers bound for health clinics in Africa and the Caribbean. For example, St. John's Riverside Hospital, a 407-bed community hospital located on the banks of the Hudson River and part of Riverside Health Care System, has donated more than 25 tons of furniture, medical equipment and supplies to AFYA and other charitable organizations and equipment recovery firms.

**Aurora's 10,000-square-foot warehouse**

**Creative recovery**
Some hospitals are even creating their own revenue streams from outdated medical equipment or unused and expired supplies. Aurora Health Care, Milwaukee, converted an existing warehouse, and staff inspect and refurbish the items, using an eBay-like Web site to market them.

Aurora expects to recover more than $1 million through its Asset Investment Recovery program, a full integrated cradle-to-grave approach to maximize the remaining value of unused or underutilized medical equipment. The Premier Safety Institute established a Web site dedicated to information about medical equipment and supply donations.

Go to *Donations-equipment* for resources and case studies.

# Navigating e-waste environments can be risky

Disposing of electronic waste in a risk-free, safe manner continues to challenge the nation's hospitals, as highlighted recently by critical reports from the media and the GAO, Congress' investigative arm. Hospitals are receiving more support from a coalition of manufacturers supporting an international pledge to ban e-waste exports, effective guidance from the EPA and leading environmental organizations, and a promise of stiffer EPA enforcement. Well-established scientific evidence has shown that computers and other types of electronics contain dangerous materials that pose health risks and long-term adverse environmental consequences when improperly discarded. Even as hospitals believe they are disposing of their e-waste in a responsible manner, they may be unwittingly handing it over to unscrupulous waste haulers and recyclers. "Unfortunately, these practices are still widespread," said Sarah O'Brien, EPEAT Outreach director for the Green Electronics Council, which administers EPEAT (the Electronic Product Environmental Assessment Tool), a green rating system to help purchasers in the public and private sectors evaluate, compare and select desktop computers, notebooks and monitors based on their environmental attributes, including manufacturer takeback and recycling. "If a waste handler offers to 'recycle' a healthcare organization's high-volume e-waste at no cost, they should be extremely careful to investigate processes throughout the vendor's recycling service chain..." The good news is that EPEAT and other organizations now monitor such practices. They include Basel Action Network, a watchdog group that monitors the rapidly growing electronics recycling industry, and Electronics TakeBack Coalition, which works to promote sustainable production and consumption of consumer electronics. *Premier's Computers & Electronics Web site* provides additional organizations and resources, including a link to the National Recycler's Coalition database to find recyclers near you. The EPA, as part of a group of recycling stakeholders, recently developed the "Responsible Recycling (R2) Practices for Use in Accredited Certification Programs for Electronics Recyclers" to promote better environmental, worker safety, and public health practices for electronics recyclers and ensure safe and legal handling in the U.S. and abroad.

## EPA eyes disinfectant green label claims

It is easy to choose a green general purpose cleaner and many alternative products are available with third-party certifications, such as Green Seal and EcoLogo. Currently the green certification process cannot be applied to "hospital-use" antimicrobial sanitizers and disinfectants since these are classified and regulated as pesticides by the EPA, which prohibits manufacturers from making any claims of "green" or "environmentally preferable." Hospital-use disinfectants are used to decontaminate environmental "high touch" surfaces in patient rooms and the EPA registration means the product is effective for killing specific organisms. The EPA has formed a Comparative Claims Workgroup to evaluate alternate claims and labeling, a change requiring a new policy, but still requiring the product meet effectiveness criteria. For now, the solution for environmental disinfection of surfaces in the healthcare setting is a careful monitoring strategy to ensure that all surfaces are thoroughly cleaned, a practice that has been found to be lacking in many hospitals.

# Green goes mainstream in hospital construction, energy projects

Just a few years ago, it was little more than a novelty. But today, green is going mainstream in healthcare, and nowhere is that more evident than in the power plants and bricks and mortar of U.S. hospitals. Increasing awareness about greenhouse gas emissions and an explosion of environmentally friendly and energy efficient products and building materials has escalated the greening of hospitals.

The evidence is borne out in surveys conducted by the American Society for Healthcare Engineering (ASHE), which found that new and newly renovated healthcare organizations are embracing more energy efficiency and environmentally friendly building practices. Energy efficiency can also save money. Many healthcare systems also have learned that environmentally friendly building programs and health go hand-in-hand - and planning is key. Current hospital construction projects also include the hospitality appeal consumers demand, but include green design concepts shown to promote healing, such as use of natural light and private rooms, as well as use of low or no volatile organic compounds (VOCs).

The return on investment on many environmentally oriented initiatives also is getting steadily better, and green building initiatives do not necessarily cost more than traditional construction. According to the U.S. Green Building Council, an added investment of 2 percent on top of normal construction costs yield life-cycle savings of more than 10 times the initial investment.

**GreenCorner™ Web site**
Visit *www.premierinc.com/greencorner* for more than 90 success stories on energy efficiency and other green healthcare practices.

## Briefly ...

**GNYHA "GO GREEN" WEBCAST**
**Environmentally conscious decision-making has recently gained significant momentum in the healthcare industry, with administrators reevaluating the impact of policies, procedures, and purchasing patterns on the environment. Greater New York Hospital Association Services hosted its first Green Conference last fall. To view a recorded webcast of the conference, visit the *Premier Safety Institute Safety Store Web site*.**

**PREMIER GOVERNANCE CONFERENCE FOCUSES ON THE ENVIRONMENT**
**Environmental issues were featured at the 2009 Premier Governance Conference with presentations on the role of leaders in reducing the impact of healthcare on the environment, global warming, greenhouse gases, health and disease. These and other presentations are available free through the *Premier Safety Store*.**

**SURGEONS GOING GREEN**
**At the University of Minnesota Medical Center-Fairview, Dr. Rafael Andrade has saved his facility $2,000 and 80 pounds of waste annually through such practices as eliminating needless, redundant supplies from surgical picks, minimizing surgical prep waste, switching to reusable gowns and making prudent use of sterile saline solutions. At Oregon Health and Science University (OHSU), Portland, surgeons are recycling solid waste and conserving energy use in the operating room. For the past five years, surgeons at OHSU have been actively involved in waste conservation and energy efficiency activities, and have contributed to the university's campus-wide environmental sustainability programs, which recycled nearly 1,100 tons of solid waste in 2007 and saved more than $85,000 in waste management fees.**

**'PET' PLASTIC FINDS NEW LIFE**
**In February, Spartanburg, NC-based United Resource Recovery Corp. opened a plant that will recycle billions of plastic beverage bottles made of polyethylene terephthalate (PET). The plant will initially recycle 56 million pounds of food-grade PET annually, with another 44 million pounds coming online by the end of this year or early 2010, when a second recycling line starts production. When completed, it is expected to be the largest PET recycling plant in the world that makes food-grade PET resin.**

## Briefly ...

**NEW GREEN SEAL PAINT STANDARD**
Green Seal recently published a new paint standard that has increased the number of prohibited chemicals, reduces allowable levels of volatile organic compounds (VOCs) for base paint and colorants, requires a more accurate test to measure VOCs, and includes expanded consumer education criteria.

**NATIONS ADDRESS DEHP RISKS**
Government-sponsored reports from the United States, Canada and the European Union have all concluded that exposures to di-2-ethylhexyl phthalate (DEHP) are of concern to some patient populations and subsets of the general public. All reports point to the need for action with the U.S. Food and Drug Administration (FDA) recommending medical device manufacturers reformulate products to remove DEHP, and that hospitals use alternatives to DEHP-containing products, whenever possible, for high-risk populations. These reports are summarized on the Health Care Without Harm web site.

**NEW GREEN BUILDING RESOURCES**
The Premier Safety Institute recently launched a new section on green building material alternatives on its *"Safer, Green Designs" Web site*, providing tools and resources useful when selecting safer, environmentally sustainable materials. Resources include information on alternatives to polyvinyl chloride building materials and toxic chemicals in building materials.

**EPEAT REACHES MILESTONE**
Electronic Product Environmental Assessment Tool, a rating system for comparing and selecting desktop computers, notebooks and monitors based on their environmental attributes, recently registered its 1,000th environmentally preferable computer product. This is the latest milestone in the EPEAT system's explosive growth from its launch in July 2006 to its status as today's most expansive and influential green IT product rating system.

**TREES PLANTED IN WINNERS' HONOR**
Through a partnership with Trees for the Future, Practice Greenhealth (PGH) will sponsor the planting of 18,200 trees in Haiti in honor of PGH's 2009 Environmental Excellence Award winners. Haiti is one of the most impoverished countries in the world, with very few trees left due to clear cutting of trees for income.

# CleanMed 2009 shines spotlight on sustainability

Nearly 700 green healthcare proponents convened in Chicago May 18-20 for CleanMed 2009, a global conference that inspires and activates environmentally preferable practices in healthcare. Now in its sixth year, CleanMed serves as a comprehensive and energizing educational and networking event for healthcare professionals, vendors, architects and others concerned with sustainability.

"Sustainable healthcare practices are continuing to expand, even in these challenging economic times," said Peter Diamond, CleanMed coordinator of Health Care Without Harm. "Healthcare leaders recognize the link between human health and a healthier environment and are increasing efforts to reduce their environmental footprint."

**Community health promotion**
One of the keynote speakers, Ray Baxter of Kaiser Permanente, placed the conference sessions in the larger context of organization mission and the promotion of health for communities. Baxter explained that "creating environments conducive to health" is key to many healthcare organizations today. One example he gave was the far-reaching impact on health and obesity when "fast foods" and unhealthy foods may be the only or most readily available choice in the community, such as local convenience stores.

**Growth, success out of tragedy**
A moving moment of the conference was the screening of "A Healing Garden Grows in Bhopal," a new video that tells the story of the Sambhavna Clinic, a nonprofit holistic health clinic in Bhopal, India, built to treat those injured by the Union Carbide toxic gas release in 1984. Sambhavna Clinic has gained a reputation for the research it is conducting on the long-range impacts of chemical exposure and for building a model treatment program for those exposed to toxic gas.

**Trees donated to Haiti**
Another highlight of the conference was the Practice Greenhealth awards ceremony, where 182 healthcare organizations were winners of the Environmental Excellence Awards and learned that 18,000 trees were being planted in Haiti in their honor. (See "Trees planted in winners' honor" under "Briefly" at left.)

**On behalf of PGH award winners, 18,200 trees are being planted in Haiti, a country devasted by deforestation.**

Next year's conference will be May 11-13, 2010, in Baltimore.

## PGH enters 11th year true to its mission

Hospitals for a Healthy Environment last year evolved into Practice Greenhealth (PGH), which joined forces with the Green Guide for Health Care, the foremost green building and operations tool for healthcare facilities, and the Healthcare Clean Energy Exchange, a program to reduce energy costs and healthcare's carbon footprint.

Since 1998, PGH has remained resolute in its mission to offer members a full range of tools, resources, forums, technical assistance and networking opportunities to engage the healthcare design, construction and operations sectors in creating safe, healthy healthcare environments. PGH merged with a major alternate care environmental education provider, Teleosis, and launched a sustainability research and training program with one of the largest healthcare companies in the world, Johnson & Johnson.

## GHSI builds on industry's green, safety momentum

Since launching a healthcare sector-wide collaboration in late 2007 to transform the way the industry designs, builds and operates its facilities, the Global Health and Safety Initiative (GHSI) is well on its way to becoming a major force in the environmental safety movement. In the midst of developing a host of resources such as design databases and ecological impact evaluation toolkits for hospitals, GHSI also has spearheaded efforts to free up federal funds for healthcare energy efficiency and renewable energy.

In early February 2009, GHSI joined with Health Care Without Harm, Practice Greenhealth and a coalition of supporters to propose the "Renewable Energy and Green Healthcare Jobs Initiative" to make federal funds available for healthcare energy efficiency and renewable energy.

PREMIER™ GreenLink

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Serving more than 2,000 U.S. hospitals and 50,000 other healthcare sites, the Premier healthcare alliance and its members are transforming healthcare together. Owned by not-for-profit hospitals, Premier operates one of the leading healthcare purchasing networks and the nation's most comprehensive repository of hospital clinical and financial information. Premier's award winning GreenHealthy™ environmental leadership program is led by the Premier Safety Institute™. Headquartered in San Diego, Premier has offices in Charlotte, N.C., Philadelphia and Washington.

*www.premierinc.com/safety*