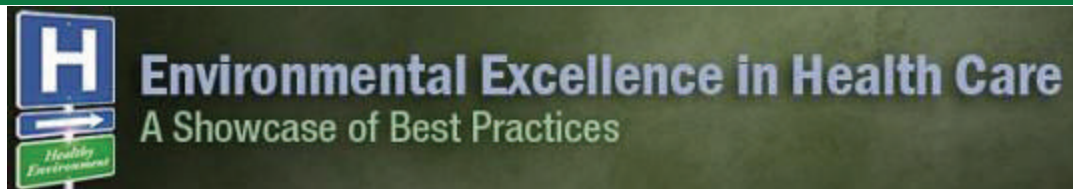


December 2010

Maryland H2E News Roundup



MD H2E and University of Maryland School of Nursing Conference a Roaring Success!

On November 18th, over 200 healthcare professionals from Maryland and across the country gathered to share and learn about industry's best environmental practices. Vendors, VPs, nurses and more were there, all eager to be a part of making sustainability part of the culture of healthcare. Gary Cohen, President and Co-Founder of Health Care Without Harm, delivered the keynote address, "[Transforming Health Care for the 21st Century](#)."

MD H2E presented four Trailblazer Awards to Maryland hospitals showing leadership in sustainability in a particular area or areas of their operations. The winners are truly blazing the trail of sustainable healthcare by reducing their environmental footprint and raising the bar on achieving improved results. The 2010 Trailblazer Awards went to **Anne Arundel Medical Center, Franklin Square Hospital Center, Lifebridge Health, and University of Maryland Medical Center.**



Gary Cohen gives keynote address

The Integrated Pest Management in Health Care Facilities Project (a partnership between Maryland Pesticide Network and Beyond Pesticides, in collaboration with MD H2E) honored **Springfield Hospital Center and the Maryland Department of Health and Mental Hygiene** for their outstanding achievement in creating a "green pest management" campus through the adoption of Integrated Pest Management (IPM) principles and practices that minimize the use of toxic chemicals in controlling pests.



L to R: Jay Feldman, Beyond Pesticides; Paula Langmead, Springfield Hospital; Renate Henry, DHMH; Ruth Berlin, Maryland Pesticide Network

The exhibitors, who were encouraged to reduce their handouts in order to practice the message of the day, were nonetheless busy at their tables. For more information on the conference exhibitors, including electronic handouts, [click here](#). The food, catered by [Clementine](#), was delicious: Thai curry, roasted vegetable salad, and crustless pumpkin pie were among the offerings. Menu consultations were done with Isaac Nowak and Matthew Sercombe, chefs from Harford Memorial Hospital and Sinai Hospital of Baltimore, respectively. Go to the [conference website](#) for conference presentations, links and more!

Thanks to Conference Sponsors and Supporters!

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Conference Snapshots



Thank you to our conference exhibitors...

cdm eCycling

Contact: Bob Donald
410-485-4040
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Clean Harbors Environmental Services

Contact: Bill Satz
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Global Links

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The Integrated Pest Management in Health Care Facilities Project

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Reduction in Motion

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Triumvirate Environmental

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Western Pest Services

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Ascent: A Stryker Sustainability Solution

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Chesapeake Sustainable Business Alliance

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Compliance Environmental International, Inc.

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Emergence Technology Consultants, LLC

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Local Food

Contact: Louise Mitchell
410-706-1924
Lmit001@umaryland.edu
www.healthyfoodinhealthcare.org

Practice Greenhealth

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866-598-3332
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www.practicegreenhealth.org

SRI Surgical

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513-226-7865
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www.srisurgical.com

Waste Neutral

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443-838-1826
keith@wasteneutral.com
www.wasteneutralgroup.com

WM Healthcare Solutions

Contact: Diana Brokaw
410-830-0481
dbrokaw@wm.com, www.wm.com

Conference Sessions

The Environmental Excellence in Health Care was great! If you missed it, click [HERE](#) to see conference presentations. Remember, MD H2E is here to share knowledge and connect you with others! If you have any questions, contact information can be found on the newsletter's last page.

1A. Environmentally Preferable Purchasing

- Strategies and Tools for Eliminating Toxic Chemicals in Products, Joel Sigler
- Partnering to Create a Sustainability Roadmap, Vinny Brooks, CMRP
- Eliminating Harmful Chemicals from Healthcare Building Materials, Jim Albert, AIA, ACHA, LEED AP

1B. Green Building

- Building a Healthier Hospital for Our Patients, Employees, and Community, Carolyn Core
- Sustainable Pervious Concrete Parking Lot, Bruce Patterson and Jeffrey A. Harman, P.E.
- Rooftop Healing Gardens - Benefitting Hospitals and Sustaining the Environment, Scott Scarfone, ASLA

1C. Pharmaceutical Waste Management

- Best Practices in Managing Hazardous Pharmaceutical Waste, Denise Choiniere, MS, RN
- Managing Hospital Pharmaceutical Waste, Robert Shuman and Shane Zuffante

2A. Environmental Best Practices in the Operating Room

- Going Green in the Operating Room, Kathleen Painter, BS, RN, CAPA
- Greening the Source: OR Waste Management and Recycling, Janel Parham, MS, RN
- Greening the Operating Room, Cecilia DeLoach, MBA, HEM, LEED AP

2B. Energy Conservation

- Independent Energy Audits Unearth Savings, Geri Nicholson
- Energy Savings: Finding Funding and Giving Back, Lewis Poe
- The "GREEN Groupies" Educate Staff on Energy Conservation, Ingrid Black, MBA

2C. Sustainable Foods

- Mitigating Climate Change in Hospital Food Service, Holly Emmons, RD, LD, MPA
- Growing a Comprehensive Sustainable Food Program, Jason Saunders

Physician Panel

The physician panel was a particularly lively session, moderated by Delegate Dan Morhaim, the only physician in the Maryland House of Delegates! Dr. Makary, of Johns Hopkins University, spoke about what hospitals are doing today, including the reprocessing of single use devices, pharmaceutical waste management, red bag reduction, current research and cost savings. Dr. Woods, from Magee-Womens Hospital, discussed reducing operating room waste and finding the passionate physicians within an institution to assist with greening efforts, and Dr. Bearer, of University of Maryland Medical Center, spoke about the importance of reducing toxins from healthcare, especially from the neonatal unit.



Del. Morhaim



All three physicians discussed their own journeys leading to this work, and how to get physicians more involved in sustainability efforts, especially in their hospital green teams. The common thread to the physicians' responses was that physicians are most easily persuaded thorough evidenced based research and studies. The three panelists and Del. Morhaim offered to speak at Maryland hospitals to encourage fellow physicians to get involved. Let MD H2E know if you would like help engaging your facility's physicians!

L to R: Dr. Bearer, Dr. Woods, and Dr. Makary

Trailblazer: Anne Arundel Medical Center



AAMC continues to embody a sustainable healthcare agenda, by creating an eight-story tower that exemplifies the principles of “healthcare without harm” and emphasizes the well being of its patients, community and surrounding eco-system. The green building plans under consideration for the Acute Care South Pavilion (ACSP) are being constructed in accordance with the U.S. Green Building Council requirement for certification under their LEED criteria for a new construction program. These requirements, which AAMC has embraced in the design and now construction, **ensure that the new building will increase AAMC’s energy conservation, water conservation and commitment to “saving the bay”, while embracing comprehensive recycling programs.** AAMC is a pilot project for the Green Guide for Health Care program, which focuses on reducing the environmental impacts of the operations of the facility during its life cycle. AAMC will be the first Acute Care Facility in Maryland with LEED –Silver certification.

Energy Conservation:

The new tower will reduce consumption of fossil fuels and greenhouse gas emissions by increasing the energy efficiency of the building. The new eight-story tower’s HVAC system includes high efficiency chillers and chiller plant controls, which work together to operate at optimal efficiency. A high-efficiency dehumidification system (Cool Dry Quiet – CDQ™) will be installed in the eight new operating rooms to ensure stringent conditions are met while minimizing energy use. The plan calls for high performance glaze for large expansive windows and thermal comfort controls for patients and staff. We seek the minimization of heat island effect through the inclusion of a multi-level garage and a 16,700 square foot vegetative roof. The design nearly eliminates all asphalt surface parking and creates a parking structure with materials that do not release heat into the environment. The concrete used for the parking will have an Solar Reflectance Index (SRI) rating of 44, greater than the SRI 29 rating required by LEED. The hospital’s roof surface will be composed of the green roof noted above, as well as thermoplastic polyolefin (TPO), with an SRI of 78. The design is estimated to achieve an 18-20% reduction in energy consumption when compared to standard basic designs.

Water Conservation:

The new tower is designed and built to have a 33% increase water conservation than the baseline-calculated building. This will be achieved by incorporating low flow plumbing fixtures into all showers, toilets, faucets, and sinks ensuring water efficiency. Step ponds have been designed to treat storm water runoff and remove these pollutants before they reach the Cowhide Branch; a stream alongside AAMC’s campus eventually leads to the Chesapeake Bay. The green roof also has hydrological benefits, including minimizing water run off and filtering dust particles from the atmosphere before reentering the Chesapeake watershed. Eight nurseries provided over 24,000 plantings for the Anne Arundel campus and approximately 80% of the planting was grown within the local region.



Step ponds have been designed to treat storm water runoff

Recycling Programs:

AAMC has had a strong history of recycling toxins, including Alkaline and UPS batteries and light ballasts due to their mercury contents. This project has helped AAMC expand its commitment to recycling beyond toxins. AAMC recycled 92.6% of its demolition materials, by diverting them from the landfill. The geo-pier foundations were back-filled with 11,000 tons of recycled concrete, which has been reclaimed from surrounding projects.



L to R: Carolyn Core and Charlotte Wallace, AAMC, with Joan Plisko, MD H2E

**Contact: Charlotte Wallace,
Pediatrics RN & E.A.R.T.H Advisors Chair,
cwallace@aahs.org**

Trailblazer: Franklin Square Hospital Center



Franklin Square Hospital Center is the only Maryland hospital to have an Environmental Management System (EMS) in place. This plan, developed through assistance from the Maryland Department of the Environment (MDE) and University of Maryland Manufacturing Assistance Program, manages regulated and unregulated environmental impacts, ensures compliance with environmental regulations, and allows for accountability to the health care consumer. It improves the

efficiency of waste handling, decreases environmental costs and pollution, and increases environmental awareness, competency and communication throughout all levels of the facility. The EMS includes a commitment to continual improvement and meeting or exceeding applicable regulations.

Management reviews the EMS annually, and a corporate audit of its progress will be conducted every three years. Additionally, a dedicated Safety Manager monitors all targets and objectives, such as comprehensive staff training. The EMS has two less obvious benefits to the hospital: environmental impact control for all events or emergencies, and improved quality of patient care. The latter benefit will be an integral part of the perceived quality of Franklin Square's new patient tower, opening in November. By decreasing pollution and the impact of waste streams, the Franklin Square EMS has been so successful in managing environmental quality that Medstar's Corporate Sustainability Team is working to duplicate its benefits at all member facilities.

Franklin Square Hospital also began a pharmaceutical waste management program before it was prevalent in the industry, piloting the first such program in Medstar Health in 2007. This pilot was undertaken with the goal of expanding the program throughout the health system, and this goal was realized when it moved through corporate approval in 2008, began system-wide implementation in 2009, and became fully operational in all facilities in 2010.

In developing its new seven-story, 356,000 square-foot Patient Care Tower and Emergency Department, Franklin Square Hospital Center challenged its designers and contractors to use sustainable building products and to follow green guidelines and The Leadership in Energy and Environmental Design (LEED) principles wherever feasible for both design and ongoing operations. The LEED-compliant features of the new tower include, but are not limited to:

- Roofing surfaces were designed for higher solar reflectance to reduce the heat load.
- Lead free wiring, conduit, electrical devices and solder were used throughout the project.
- Exit lights are LED Energy Star qualified devices.
- No CFC-based refrigerants were used in the HVAC systems.
- Flooring, wall coverings, adhesives and paints were selected to minimize volatile organic compounds and emissions to ensure health of building occupants.
- All entrances to the building are pressurized and walk off mats are provided to minimize entry of pollutants.
- Numerous local and regional materials were used in the construction of this building to reduce shipping distances and fuel usage.
- The building is designed to maximize the opportunity for views and natural daylight in diagnostic and treatment areas.
- Site improvements included natural habitats and a walking trail for the public. The meditation garden provides a healing environment with a connection to the natural world.
- Native plants are used for landscaping to eliminate the need for wasteful plant irrigation.
- Water recirculation is used throughout this project to minimize water consumption.
- The existing pond has been designed to treat water quality and to minimize additional storm water from the project reaching the water treatment system.



FSH Patient Care Tower
Bamboo Garden

Contact: Dennis Kephart, Senior Director of Campus Services, Dennis.Kephart@medstar.net

Trailblazer: LifeBridge Health



This past year, LifeBridge Health acquired grant funding from Baltimore Gas & Electric to replace fluorescent lights in all non-clinical areas with LED lamps, switching 9,200 lamps and donating approximately 4,000 of the outgoing fluorescents and 2,000 ballasts to a Baltimore-based non-profit organization for reuse. The LED bulbs add a minimum of 3.42 years of life and reduce heat generation at the bulb 10 degrees compared to the fluorescents previously in place, further reducing energy costs for temperature control. This was Phase 1 of the program. Phase 2, in which more areas will switch from fluorescent bulbs, is slated to begin in 2011. LifeBridge was the first health system in the region to enact such a program.



LifeBridge Health assisted its offsite properties in making similar strides, subsidizing recycling and reviewing contracts, such as a forthcoming, cost-saving contract for LifeBridge Health and Fitness. The health system has also consulted with neighboring hospitals on ways to duplicate its energy successes.

LifeBridge Health is working to close the loop on waste life cycles. The only health system in the region composting at all its facilities, LifeBridge Health composted more than 100 tons of organic waste from food prep and patient trays in 2009. In May, two LifeBridge facilities - Courtland Gardens Rehabilitation Center and Levindale Hebrew Geriatric Center and Hospital - began receiving the compost to use in therapeutic patient activities, and this fall, Sinai Hospital of Baltimore plans to use 10 yards of compost to fertilize its flower beds!

LifeBridge Health has been greening the OR since 2002, when it began a system-wide regulated medical waste (RMW) separation and reduction program. By creating distinct waste streams for generators, educating them with signage and in-services trainings, and continually tracking and monitoring the process, LifeBridge Health was able to reduce red bag waste by well over half. As the RMW program matured, LifeBridge Health sought further opportunities to reduce, reuse and recycle, focusing on the operating room as the largest generator of infectious waste. In early 2007, Sinai Hospital of Baltimore began using the Neptune Stryker fluid management system in all five ORs of the Rubin Institute for Advanced Orthopedics, where irrigation needs are high. The completely closed system protects practitioners from surgical fluids and minimizes the environmental and fiscal impacts of red bag waste by eliminating the need for bulky canisters. The OR began recycling pre-case blue wrap and mixed plastics three years ago. Today, all three OR waste streams (recycling, clear and red bag) can be separated not only before but also during and after a case. LifeBridge Health continues to expand and improve its separation of infectious and recyclable materials from the municipal waste stream and prioritizes reducing its impact on environmental health among staff, patients and the greater community.



L to R: Lewis Poe and Lionel Weeks, Lifebridge Health, with Joan Plisko, MD H2E

Contact: Lewis Poe, Director of Facilities,
LPoe@lifebridgehealth.org

Trailblazer: University of Maryland Medical Center



The University of Maryland Medical Center (UMMC) developed a new hazardous pharmaceutical waste management program in January 2010. Titled, "The Safe Handling and Disposal of Hazardous Medications", the policy addresses both worker and environmental safety.

An interdisciplinary team with representation from Nursing, Pharmacy and the Safety Department was convened to develop the policy. The priority was not only to meet federal regulations, but to incorporate *best practices*. Realizing that the pharmaceuticals identified by the Environmental Protection Agency's Resource Conservation Recovery Act (RCRA) are not all inclusive, UMMC hired an outside consultant to review our medication formulary and identify any medication that is potentially hazardous. An inclusive list, specific to UMMC's formulary, has been populated and is included in the policy. The policy outlines proper handling, administration and disposal of hazardous medications, including proper personal protective equipment that should be worn to best protect one self.

Medications that are considered hazardous are identified so on the medication label with a bold "**HAZ WASTE**" identifier. Additionally, proper disposal procedures are included in smaller print on the label. Each nursing and procedural unit at UMMC has been supplied with a black "Hazardous Medication Disposal Bucket" for the proper disposal of these medications. UMMC's Safety Specialist monitors the buckets for compliance and reports back compliance to the Sustainability Manager, Environment of Care Committee and the nurse managers on a monthly basis.



Education began two months prior to the actual implementation and is ongoing. When containers are full, unit staff place a call for pick up. UMMC's Safety Specialist collects contents of full containers and inspects contents for compliance. Initially, compliance was a challenge and UMMC continues to strive for 100% compliance. The containers tend to collect items that are not classified as hazardous pharmaceuticals, such as narcotics. This information was reported back to nurse managers and the Environment of Care Committee. Additional inservices were scheduled when requested. Currently, 60% of what is collected from patient care units is actual pharmaceutical hazardous waste, which is up from our initial compliance of 30%. The Pharmacy Department's compliance is now at 85%. Their success has been achieved through re-education of pharmacy staff and support from pharmacy leadership.

The amount of hazardous pharmaceuticals is tracked by weight. Since January 2010, UMMC has collected 3510 pounds of hazardous pharmaceutical waste for proper disposal.



**Contact: Denise Choiniere, Sustainability Manager,
dchoiniere@umm.edu**

L to R: Bethany Shelbourne,
Marc Summerfield and Denise
Choiniere, UMMC, with Joan
Plisko, MD H2E

Maryland Hospitals for a Healthy Environment Nurses' Networking Dinner

Coming January 2011

**Join us for a casual dinner get-together
at a local Baltimore restaurant**

Nurses are on the front lines of healthcare, poised to make environmentally beneficial changes at the point of care. Let's get together and-

- Share ideas on greening hospitals
- Hear success stories in sustainability
- Ask questions of other nurses who have made changes in their facilities

A survey of preferred dates & times will be circulated to those who are interested. Please RSVP to Karin Russ, Nursing Outreach Coordinator at

mdh2e@son.umaryland.edu

Submit Proposal Now!

The Presentation Proposal Deadline has been extended: December 17, 2010!

If you have expertise in a sustainable health care topic, we invite you to submit your session proposal for consideration.

Suggested topics include, but are not limited to, the following:

- Executive buy-in and Leadership / Administrative / Culture change
- Business case for sustainability / Budgeting / Measurements
- Chemicals and toxins
- Climate change/Clean energy/Green building
- Greening by department (OR, purchasing, etc.)
- Healthy food
- International
- Policy reform
- Water conservation



For more information on submitting a proposal, click [here](#). For more information on the conference, visit www.cleanmed.org.

Proposals will be reviewed only if they are received by 11:59 p.m. EST on December 17, 2010.

To submit proposal for consideration, please use the [Online Proposal Submission Form](#).

Please call Laura Wenger at 847-592-7808 with any questions.

What is Maryland H2E?

Maryland H2E is a technical assistance and networking initiative that promotes environmental sustainability in healthcare. Participants include hospitals, clinics, nursing homes, and other ancillary health care providers in MD.



Our staff now includes:

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Practice Greenhealth Webinars



- December 08, 1 pm (Eastern)
Greening Operations Series: Energy, Structure, Strategy & Metrics
- December 10, 1 pm (Eastern)
Celebrating Success! Practice Greenhealth Environmental Excellence Awards
- December 15, 1 pm (Eastern)
Introduction to Greenhealth Tracker

To Register and Purchase Webinars, go to:

www.practicegreenhealth.org/tools/webinars/

Access to Practice Greenhealth webinars is a fee-based service, and is one of many member benefits. You can learn more about the fees and benefits of membership by going to our website. See:

www.practicegreenhealth.org/community/membership/