Maryland Hospitals for a Healthy Environment

Monthly News Roundup

June • 2014

MD H2E announces winners of the 2013 Trailblazer Awards

Congratulations to GBMC, Medstar Franklin Square Hospital, University of Maryland Medical Center and Upper Chesapeake Medical Center for winning the 2013 Trailblazer awards. Read on for write-ups on the great sustainability programs these hospitals implemented last year.

From L-R: Gene Corrado, Don Allik (Upper Chesapeake), Jeff Rivest (UMMC), Larry Strassner, Juan DeJesus (Franklin Sq.), John Chesare (GBMC), Joan Plisko (MD H2E), Jeff Pargament (MHA)

Congratulations to Maryland's Practice Greenhealth award winners!

Top 25 Award

Bon Secours Hospital System—Baltimore

Emerald Partner for Change

Johns Hopkins Hospital
Levindale Hebrew Geriatric Center and Hospital
Sinai Hospital of Baltimore
University of Maryland Medical Center
Greater Baltimore Medical Center

Champion for Change

Maryland Hospitals for a Healthy Environment

Greening the OR

University of Maryland Medical Center

Greenhealth Partner for Change

MedStar Franklin Square Medical Center
MedStar Good Samaritan Hospital
MedStar Harbor Hospital
MedStar Montgomery Medical Center
MedStar Union Memorial Hospital
Northwest Hospital
Kaiser Foundation Health Plan of the Mid-Atlantic States

Mercury Free Award

MedStar Union Memorial Hospital

MD H2E and Maryland Hospitals chosen as Environmental Leaders

Environmental Leader included MD H2E as one of 104 industry experts sharing valuable information regarding environmental, energy and sustainability programs. The website offers online green business and corporate sustainability news, and recently published the fourth edition of its Insider Knowledge Report. To read more about the report, or download it from the EL website, click HERE. MD H2E can be found on page 25.

MD Healthcare Sustainability Leadership Meeting

JUNE 18TH

8 AM– 10 AM

MARYLAND HOSPITAL ASSOCIATION

RSVP to Barb Colleran

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Greater Baltimore Medical Center (GBMC)

Greater Baltimore Medical Center (GBMC) developed a comprehensive energy plan; selected details of the project are outlined below:

1. Retrofit of four parking garages which included 843 LED lights at a cost of $238,000. With an estimated $104,000 in annual energy savings and $148,000 in rebates from BGE, the ROI is less than one year.
2. Adjustment and/or replacement of the controls and valves on the chiller system and installation of two variable frequency drives. The initial cost was $207,000, but with an estimated annual savings of $120,000 and a rebate of $90,000, the project's ROI is less than one year.
3. Participation in a demand load response program with BGE to estimate peak load times and reduce stress on the energy grid, along with an employee action plan for these times. BGE paid GBMC **$185,000** in capacity payments plus **$13,000** in energy payments in FY14 to take **3,200 kW** off of the grid--an estimated annual energy savings of **$5,400.**

LED lighting retrofit at Lily Garage

Regarding energy management conservation, advice from GBMC management includes:

- Connect with peers to understand best management practices.
- Conduct additional research on best practices for energy management.
- Utilize trusted and proven consulting partners to help navigate programs.
- Investigate BGE rebates/rewards.
- Prepare ROI calculations and share with finance and senior leadership for buy-in.
- Find product and installation partners who focus on energy efficient products.

In addition to energy management success, MD H2E honored GBMC with a Trailblazer Award for implementing a new distribution strategy which reduced total cost of ownership of supplies, improved services levels, and reductions in waste and energy consumption. GBMC avoided **10,000 gallons of fuel**, and reduced CO_2 emissions by over **91 metric tons**. Overall annual savings totaled more than **$153,000**.


New Cooling tower installation

The Materials Management team, Nursing, Information Technology and GBMC's medical supplier were all involved in establishing the following goals for a new model of supply deliveries, which was designed to:

1. Reduce the total cost of ownership of medical/surgical supplies throughout the procurement, acquisition, use and end of life cycle.
2. Reduce waste and products wasted.
3. Increase nurse and patient satisfaction with material delivery.
4. Increase supply chain efficiency in an effort to reduce the overall budget.

Out of pocket costs were limited to new lighting in a stat supply room, and a new high-density shelving unit, negotiated at no cost in the new distribution agreement with their supplier. GBMC saved inventory and staff dollars in the amounts of $140,000 and $253,300 respectively. Warehouse equipment and vehicle savings totaled $24,000. Total annual savings, taking into account the slight markup for LUM supplies equate to over **$153,000**.

GBMC VP of Facilities Mike Forthman credits his team for the success of the project, as they did it without any outside help or consulting. "A strong partnership with our distributor was a key factor, as well," said Forthman.

Medstar Franklin Square Hospital Center: Green Cleaning

Medstar Franklin Square Hospital Center (MFSHC) environmental services department, managed by Sodexo, embraced the motto "first, do no harm," by recognizing that a facility's cleaning methods directly impact the safety, satisfaction, quality, and well-being of every patient and staff member. Here are some of the programs implemented:

1. Switched to Green Seal certified bio-based chemicals in bulk dispensers. The new products require no personal protective equipment and contain zero volatile organic compounds.
2. Invested in an Ecolab Phazer backpack floor finish system and a Clark-boost machine. The Phazer uses half the amount of wax as the traditional method and reduces employee exposure and chemical costs, while the Clark-boost machine offers chemical-free floor stripping technology.
3. Utilize reusable microfiber mops which require fewer chemicals, absorb six times their weight in water, clean floors more efficiently, better promote infection prevention and last 5 times longer than cotton-loop mops.
4. Piloted two mini trash compactors in the main lobby and doctor's lounge to reduce service needs while increasing sanitary conditions
5. Utilized "germ-zapping robot that eliminates hard-to-kill bugs in hard-to-clean places." The Xenex robot uses pulsed xenon ultraviolet (UV-C) light that is 25,000 times more powerful than sunlight to destroy harmful bacteria, viruses, fungi, and even bacterial spores. The system is effective against the most dangerous pathogens, including staph bacteria such as MRSA. MFSHC is the first medical center in the region to utilize this system, which can disinfect a room in 15 minutes through an automated sequence, leaving no chemical residue. The robot is being used to clean all patient rooms, emergency rooms and surgical suites.

Ecolab Phazer Backpack demonstration

Xenex disinfecting robot

6. Reduced par inventory levels in housekeeping and implemented usage control initiatives.

Under this program, MFSHC will save more than **$200,000** annually. By switching to reusable mops, MFSHC will save about **65,000 gallons** of water each year and use less cleaning solution. By reducing the toxicity of their cleaners, the MFSHC indoor air quality is increased, thus patient and employee health is benefited.

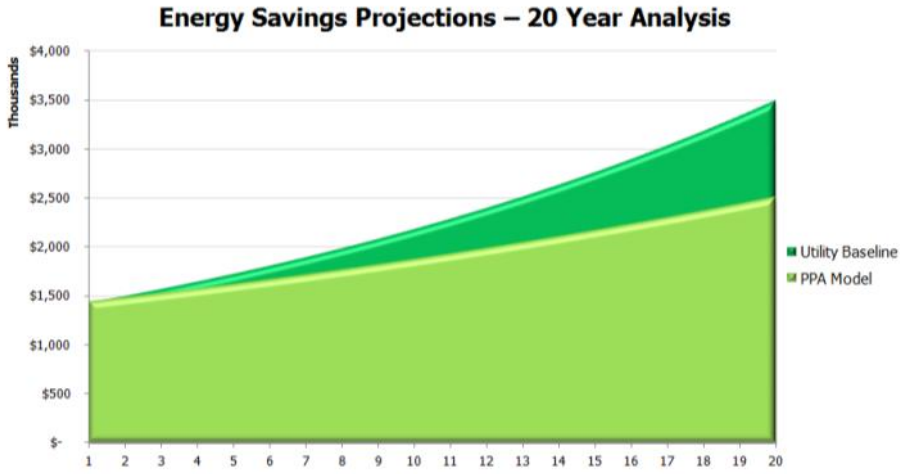
MFSHC pushed to find new ways to improve their environmental footprint while maintaining quality, trialing not one but several innovative solutions to greener cleaning. Juan DeJesus, Director of Environmental Services reflected on the project: "The best thing to do is educate...for instance, the nursing staff, and other hospital staff members were confused when they didn't see the glass cleaner on the carts after we switched. They had a lot of questions that I didn't anticipate answering." He would advise hospitals to heavily market their plans internally before full launch of such a program.

For more information, contact Juan DeJesus, Director of EVS, Medstar Franklin Square Hospital Center.

University of Maryland Upper Chesapeake Medical Center: Combined Heat and Power

University of Maryland Upper Chesapeake Medical Center (UCMC) is constructing a 2 MW Combined Heat and Power (CHP) system that will provide electric power, heating, and cooling to their Bel Air campus—*all with no upfront costs to the hospital*. UCMC partnered with Baltimore Gas and Electric (BGE), Clark Financial Services Group, TMR Engineering, and Clark Construction Group to for this new system which increases efficiency, provides electricity for UCMC's base load, and supplies a thermal base load for both steam and chilled water, making it significantly more efficient than the conventional method of electricity generation. The system will also provide backup power to ensure operations during an emergency or natural disaster.

UCMC is the first hospital Maryland to qualify for the BGE EmPower Maryland Incentive, receiving close to **$2 million** for the system's construction.



Projected savings with the Power Purchase Agreement

UCMC chose the CHP system because of its ability to provide cleaner more efficient primary power as well as serve as a significant backup power source during a prolonged grid outage. The existing diesel generators at the hospital only serve the critical care loads but the new system will power more than 60% of the hospital's electrical load. In light of recent natural disasters, such as Superstorm Sandy, UCMC leadership determined that additional sources of backup power were a top priority to ensure the hospital could operate during an emergency.

UCMC will realize significant environmental benefits from this system, expecting to reduce its CO_2 emissions (by more than 40 percent) and its NO_x emissions. Implementing this system is the equivalent of permanently removing over 2,200 cars from our highways.

The UCMC CHP plant will consume significantly less water than typical power generation facilities. This system will generate over **13 million kWh** of power on-site. By utilizing the heat generated from the system, the hospital will save nearly 1 million kWh through the new absorption chiller. In addition, steam/ hot water savings will total over **27,000 MMBtu** in natural gas savings.

Natural Gas Fed Generator Set—2 MW

The project addressed several key healthcare-related concerns that are applicable to other hospitals, such as the need to separate critical care loads from other power needs. UCMC is projected to save over **$9 million** over the system's expected service life relative to purchasing this power off the electric grid. Through the third-party financing, design, construction, operations and maintenance of the project, UCMC is blazing a trail for other hospitals to take advantage of this unique business model.

Contact Don Allik, Facilities Manager at UCMC, for more information.

University of Maryland Medical Center Healthier Food and Beverage Initiative

MD H2E recognized UMMC for its trailblazing food and beverage program. UMMC increased the health and nutrient value of the food and beverages offered in the hospital, utilized smart purchasing, and implemented a unique price incentive pilot—all while furthering the hospital's mission to "improve health outcomes." Project includes:

1. Implementation of a price incentive pilot which increased the price of 'unhealthy' items by about 20% and decreased the price of healthy items by the same. Since the inception of the pilot there has been a net **increase** in profit of the targeted items of **$28,863**.

2. Created a new menu featuring less meat and more vegetarian entrée options. This resulted in a reduction in meat purchasing by **8% (28,290lbs)** and an increase overall healthy food transactions by a total of **23%.**
3. Added 10 healthy sparkling and flavored waters, and replaced three sugar sweetened beverages (SSB) in the café's fountain with zero-calorie drinks. These efforts, in addition to the installation of a refillable water infusion station, helped UMMC reduce the number of SSBs by **34%.** In terms of dollars per transaction, 'unhealthy' beverage purchasing **decreased 11%** and 'healthy' beverage purchasing **increased 14%** over the course of 2013.
4. Altered recipes to include fresh and local ingredients, including a healthier version of the already popular Mac n'Cheese which now incorporates a pumpkin puree and vegetable base.
5. Participation in the Buy Local Challenge week serving locally raised meats, every day for the week of July 17th. A local, organic potato soup was featured for Food Day in October.
6. Became first hospital-based farmers market in Maryland to accept Supplemental Nutritional Assistance Program (SNAP) benefits. In 2013 seventy five new community members spent a total of **$1,536** in SNAP benefits and UMMC provided **$1,265** in matching dollars.

Free infused water tastings at Earth Day event

While UMMC's price incentive pilot encouraged increased sales of healthier items it did not dissuade staff and visitors of purchasing less healthy items. To enhance the effectiveness of the program in the future, UMMC will consider including more nutritional education up front. As evidenced by the turkey burger purchasing, providing nutritional information did have an impact on purchasing behavior even though the prices of turkey burgers were unchanged.

UMMC said that the biggest lesson learned was that people are people and habits are hard to break: "Eating habits are just that: habits. And they can be hard to change."

For more information, contact Justin Graves, Sustainability Coordinator at UMMC.

Upcoming Events!

MD H2E Welcomes its newest member!

Tarah Ranke, MPH, M(ASCP) joins MD H2E as the newest member of the team as a sustainable food project coordinator. She received her Masters of Public Health from the University of Maryland, School of Public Health in 2013. Ms. Ranke led and evaluated the Balanced Menus Challenge study as her Capstone Experience to obtain her MPH. This study was conducted through MD H2E and the Center for Integrative Medicine (CIM) at the University of Maryland, School of Medicine.

Ms. Ranke brings her decade long experience as a clinical research specialist for the Department of Epidemiology and Public Health for the University of Maryland, Baltimore School of Medicine as well as a clinical laboratory scientist in microbiology for the University of Maryland Medical Center in Baltimore and Lakeland Regional Health in Michigan. Ms. Ranke's work includes research on the increase of hospital acquired infections in hospital patients has been published in the American and European Journals of Clinical Microbiology. She is proud to be a Spartan graduate of Michigan State University!

MD H2E Important Dates!

Upcoming Maryland Healthcare Sustainability Leadership Council Dates:

- September 9th - Greening the Operating Room featuring Dr. Lauren Berkow of the Johns Hopkins Hospital. Dr. Berkow will discuss methods for reducing anesthetic gasses (potent greenhouse gasses), tips for greening the operating room, and how to begin the conversation when engaging physicians in sustainability.
- December 4th – Environmental Health Legislative Updates and Advocacy

...all MD HCSLC council meetings are held at the Maryland Hospital Association from 8am– 10am and are **FREE** to attend (for healthcare providers only, please).

Mark your Calendars!

October 30th is the MD H2E Trailblazer Education event, scheduled to be held at GBMC.

Maryland Sustainable Victories

Did you miss the Sustainable Victories edition of MD H2e news roundup? Click on the link above to access it. Did we miss you? Email Carrie Flora at cflora@som.umaryland.edu with your top three bulleted sustainability efforts from 2013 and we will update the document!

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