

University Hospital INDIVIDUAL BEHAVIOR CHANGE FOR ENERGY SAVINGS

Summary

- The opportunity to change individual energy awareness and energy saving habits in the workplace as it pursued its own institutional energy efforts, including a 3% reduction in energy use intensity at medical centers enrolled in Healthier Hospitals
- Energy Challenge was created to inspire employees to adopt energy saving actions at home and at work and to be energy aware.
- A combination of projects and operational improvements increased their ENERGY STAR rating to 64, and resulted in significant cost savings including over \$20,000 in rebates from their local electric utility.
- The results were impressive: 456 employees, engaged from a wide variety of disciplines/departments and position levels and pledged 2,071 energy saving actions at work; 97 participants completed both phases and took 1,181 energy actions at work that they would continue beyond the Challenge.

The Problem

Even though energy conservation is often referred to as a low-hanging fruit, individual behavior change continues to present a challenge. Individual choices ultimately influence the energy costs and environmental impact of the health system.

Strategy Selected

The UH Employee Energy Challenge idea came from CleanMed, a national sustainability health care conference, with the goal to incentivize individual energy saving actions at work and at home, illustrate their impact back to the group taking action, and inspire adoption of new energy saving behavior. Employees pledged their energy aware actions through an incentivized survey mechanism.

Two criteria were used when creating energy awareness actions in the pledge: actions could either be under employees' personal control, such as taking the stairs, or could require outside influence to accomplish, such as speaking to a supervisor about switching from incandescent to LED



Greening UH poster educating energy efficient behavior

lighting. In this way, employees could be empowered by personal choices similar to what they might do at home, while also having the opportunity to influence indirect energy actions at work by engaging on a deeper level with colleagues. Considering the importance of indirect actions in this campaign, leadership support was a key component of this strategy, in addition to energy awareness resources.

“Inspiration was honestly the prize, however I was equally happy about the education and self-awareness of my utility consumption. So concepts or challenges like this I believe are great and may be the best way to involve a larger amount of our population to see larger scale changes.”, Bret Mason, General Maintenance

Implementation Process

The implementation process was set up into phases:

Pre-Challenge Phase: Communications Were Disseminated to Each Medical Center Via:

- An energy specialist who used a booth at medical centers to promote energy programs.
- Presentations at the system-level Sustainability Council and Facilities meetings.
- Flyers distributed to facility operation directors and Green Teams via email.
- Meetings and site-specific email distributions from facility managers and communication directors at two newer facilities.
- Postings on the internal employee website and in weekly internal “news” emails.

Phase I: Energy Challenge Registration and Pledge

- Employees were required to register and pledge to adopt energy conservation actions (energy aware actions) for three months, including tracking home energy bills.
- Upon online submission of the registration/pledge, the energy awareness webpage opened for participants with access to energy education resources for home and work.

Phase II: Follow-Up – Three Months Later

- All participants were surveyed and asked to comment on actions they took and will continue to pursue in order to quantify impacts of the Challenge on individual behavior.
- Participants also reported electric and natural gas usage for the three months of the challenge, which was compared to regional averages and reported back to them.
- A prize drawing amongst the participants who completed both phases was accomplished through random selection (grand prize was a nest home thermostat and iPad mini, with two additional prizes of LED bulbs).
- The final communication piece, called “Energy Usage: UH and You”, tied together individuals’ efforts in particular areas (using power strips) and how they are related to UH Energy efforts (HHI Leaner Energy Challenge). This was published on the Greening UH Energy webpage and presented to the System Sustainability Council.

“The inspiration to participate in the UH Energy Challenge was to save money for the birth of our youngest child.

My energy awareness has changed during the Challenge with the replacement of our furnace and the decision to get a high-efficiency model and reduced gas usage this winter. We also increased our use of CFL light bulbs in our house and made an effort to turn off lights when they were not needed.”, Jeff Luhn, IT&S“

Benefits

- Participants who reported home electricity usage used on average 45 kWh less/month than the monthly OH average of 892 kWh.

- Survey results indicated intentional long-term behavior change by participants, with top actions being posting energy education and having energy conversations with supervisors.
- Participation of new UH employees: 121 out of 456 Phase I participants were from new facilities acquired by the system.
- 75% of participants found the Greening UH Energy webpage useful and 85% said they would join another energy challenge in the future.
- The program identified engaged employees who can be cultivated as future front-line green team members.

Challenges and Lessons Learned

- As this was a communications-focused employee engagement program, support from communication teams and facility-level operations directors were key to its success.
- Future energy challenges should include an interactive survey tool or energy usage calculation tools to give immediate feedback to participants.
- The competition became a great welcoming opportunity for employees from new medical centers that recently joined the UH health system.
- Participant survey feedback suggested: opportunities to better prepare managers on UH Energy practices, new initiatives to make employee conversations more productive, offering energy provider and energy saving device discounts through the employee discount program, and awarding HealthMiles (discount off health insurance premium) for participation.

Demographics

University Hospitals, the second largest employer in Northeast Ohio with 25,000 employees, serves the needs of patients through an integrated network of 15 hospitals, 29 outpatient health centers and primary care physician offices in 15 counties.

At the core of this \$3.5 billion health system is University Hospitals Case Medical Center, ranked among America's 50 best hospitals by U.S. News & World Report in all 12 methodology ranked specialties. Its main campus includes UH Rainbow Babies and Children's Hospital, ranked among the top children's hospitals in the nation; UH MacDonald Women's

Hospital, Ohio's only hospital for women; and UH Seidman Cancer Center, part of the NCI-designated Case Comprehensive Cancer Center at Case Western Reserve University.