



ENVIRONMENT & HEALTH

Start making progress today.

BOULDER
ASSOCIATES

ARCHITECTS

Healthcare systems across the country are working continuously to improve quality of care, enhance the patient experience, and increase safety & efficiency in their facilities. The overall goals—patient satisfaction, staff well-being and fiscal responsibility. Various sustainable practices can be easily implemented to effectively assist in achieving these objectives. This article illustrates some valuable programs that will directly benefit your staff, patients, and the environment. They can even impact your bottom line!

Environmental initiatives in hospital operations are easier to implement than you may think. As a result of the increasing media attention & the recognition of environmental health impacts, service providers, product manufacturers and even healthcare staff are looking for ways to support these concepts. A wealth of resources are readily available to assist facilities in implementing sustainable programs. Specifically, Health Care without Harm (noharm.org) and Practice Greenhealth (practicegreenhealth.org) provide healthcare professionals with tools and 10-step guides for implementing various programs that enhance the healthcare environment.

Providing healthier food options can set a good example for the public and promote wellness. Consider offering locally grown and/or organic produce in your cafeteria, food carts & coffee shop. Purchasing fair trade or certified organic coffee is an easy change to institute. Antibiotic-free dairy, meats & poultry are readily available and are not only a healthy choice but also assist in the fight against the ever-growing threat of antibiotic resistance. Kaiser Permanente hosts on-site farmers' markets at 36 of their hospitals and medical office buildings across six states.¹ Hosting these events not only promotes good eating habits but provides a service to their staff who work irregular and long hours and directly supports the communities that they serve.

The use of green cleaning products that provide a more salubrious environment for patients and caregivers is another policy that many healthcare facilities have instituted. Many cleaning products contain carcinogens, asthmagens, and substances associated with reproductive organ damage, birth defects, kidney damage,

neurological impacts and other serious health effects.² Evaluating the products being used in your facility and switching to safer products is an easy change that has instant results. Two hospitals in New York, Jacobi Medical Center and North Central Bronx, replaced cleaning chemicals such as ammonia and chlorine with products made from biodegradable, nontoxic ingredients such as soy, cornstarch and citric acid for the specific purpose of improving indoor air quality for their young patients.

Water- and energy-saving practices are environmentally responsible and can also assist your facility in saving money. Low-flow plumbing fixtures save substantial amounts of water compared to conventional fixtures and are available to suit many healthcare needs. The plumbing market is continually introducing new models of toilets, faucets and showerheads that utilize less water and yet provide comparable results. Low-flow pre-rinse spray valves save not just water—but the energy it takes to heat that water. Hefty savings can result in short payback periods. Carney Hospital in Dorchester,

Environmental initiatives in
hospital operations
are easier to implement
than you may think.



Massachusetts experienced this quick payback in one month after retro-fitting their patient and exam room sinks with flow controlled faucets.³

Along the same lines is the use of microfiber mops—the benefits of which are numerous. They use less water and cleaning agents, while simultaneously creating cost-savings and providing a better patient experience. Bronson Methodist Hospital in Kalamazoo, Michigan was able to curtail water use by 480,000 gallons/year by adopting a microfiber mopping system.⁴

Energy performance contracting is another great way to make building improvements that save energy and money. Contracting with an Energy Service Company (ESCO) can allow you to improve your facility without incurring upfront costs. ESCOs can assist you in lowering your energy-consumption by recommending improvements and upgrades in your facility that will guarantee energy savings. They will help you to implement the changes and can provide preventative maintenance for your current and new equipment, and you can choose to pay for the upgrades over 7–10 years with the money you save on your energy bill. St. Mary-Corwin Medical Center in Pueblo, Colorado discovered the effectiveness of this process in the form of \$178,077 a year in energy savings.⁵ In addition to improving your bottom line, you can be confident that these energy-saving measures will reduce pollution and greenhouse gas emissions, positively impacting the community you serve.

Although it may seem like a daunting task, waste minimization is essential in reducing your facilities' environmental impact. The most common landfill diversion program to implement is the recycling of materials like soda cans and paper. This can be instituted facility-wide and customized within each department. Already there? Try a farther-reaching goal. At Boulder Community Foothills Hospital in Boulder, Colorado, the staff reuses the tabs off the sterile gowns for notes and messages, donates unused medical supplies to needy organizations, and has switched to reusable sharps containers that are emptied, cleansed and sanitized, and returned ready for reuse.

The largest issue hospitals face in regards to waste minimization is medical waste segregation. Not only is medical waste disposal costly, it also has severe consequences for the environment. The Center for Disease Control estimates that only two to three percent of hospital waste should actually be disposed of as infectious waste, yet hospitals are sending 50-70% of their waste into the biohazardous waste stream.⁶ Taking into account the comparatively lower cost of domestic waste disposal, aggressive waste segregation can save your facility thousands of dollars a year. The key to medical waste segregation is educating your employees on a regular basis about your waste segregation policies and the myths about what is considered to be regulated medical waste. Relocating waste containers based on needs of each department and determining true volumes of waste, along with clear signage, will help make this program a success. These simple steps will aid your facility in cost reduction of waste disposal and have a positive impact on the community and environment by reducing the amount of waste that needs to be treated with chemicals or incinerated.

These programs are all relatively simple and cost-effective to implement, and yet their impact on health and the environment is profound. To achieve the best results, gather input from various departments and educate staff in all areas of the facility about your initiatives. The success of these programs will be powerful in encouraging further environmentally-friendly changes in your facility. Start making changes today and reap the benefits! 🌱

There are many operational changes that you can implement in your facility today. In addition to those discussed in this article, there are many other initiatives that are just as crucial to consider, including:

Low-odor paint

Encourage the use of Low-VOC-interior paint for touch-up and repainting walls. These products produce low amounts of odor therefore allowing continued operation without odor complaints while the work is being completed.

Reduce Mercury Use

Begin eliminating mercury in your facility by initiating replacement of mercury containing products and requiring low-mercury lamps. Common items in the healthcare setting that contain mercury include batteries, thermometers, gastrointestinal tubes and many more.

Patient Environment Control

Consider including options for your patients to control their healing environment. Install patient controlled lighting, operable shades, operable windows & thermal comfort controls when making facility improvements.

Rechargeable Batteries & Battery Recycling Program

Begin a battery recycling program for batteries used by your staff and medical equipment. Propose rechargeable batteries be used and recharging machines be made accessible.



RESOURCES

1. Kaiser Permanente Lauds Gov. Schwarzenegger's Health Reform Focus on Preventive Medicine, Healthier California. Kaiser Permanente News Release. February 6, 2007
http://newsmedia.kaiserpermanente.org/kpweb/toc.do?theme=mediainfo_newsmedia
2. Green Cleaning Implementation. Hospitals for a Healthy Environment. October 2006
<http://www.h2e-online.org/docs/h2e10stepgreenclean-r5.pdf>
3. Water Efficiency and Management for Hospitals. Massachusetts Water Resources Authority
<http://www.mwra.state.ma.us/04water/html/bullet2.htm>
4. 'Green' Tide on the Rise. Maintenance Solutions. 2005
<http://www.facilitiesnet.com/ms/article.asp?id=3228>
5. Success Story: Energy Remedies Prescribed for Hospital. Rebuild Colorado
http://www.colorado.gov/rebuildco/success/healthcare/centura_health.htm
6. Regulated Medical Waste Reduction. Hospitals for a Healthy Environment
<http://www.h2e-online.org/docs/h2e10steprmw20103.pdf>

Boulder Associates

Boulder, CO
Sacramento, CA
Orange County, CA
San Francisco, CA

contact us
1.800.499.7796

visit us
boulderassociates.com