

Developing Sustainable Systems for Managing Waste

Research by Lee Ann Jarousse



Do no harm. The underlying tenet in health care applies to all hospital operations, not just those that take place within hospital walls. Saving lives and promoting community health are commendable undertakings. But to fully achieve their realization, hospitals need to be good environmental stewards.

Yet hospitals are in an unusual predicament. As community leaders and stewards of community health, the provision of care generates considerable waste — more than 6,500 tons per day — that consumes landfill space and ultimately impacts the environment. Sustainability programs help hospitals significantly reduce their environmental impact. They also can lower costs, improve organizational performance and enhance patient and employee experiences.

Implementing a sustainability program requires significant cultural change and time. A good place to start is by examining what comes out of the facility. Waste reduction involves the diversion of waste from landfills through recycling, source reduction, reuse, repurposing and composting. Eighty percent of hospital refuse is solid waste, about 50 percent of which is recyclable. Focusing on waste disposal will provide some easy gains that can build support for future efforts.

“Waste management is a critical piece of an overall sustainability plan,” says Janet Brown, director of sustainable operations for Practice Greenhealth. “Hospitals need to look at the amount of waste generated in the process of care and the associated costs.” Many hospitals do not know how much they spend on total waste management

because they have a variety of waste streams managed by different departments and operated by different vendors. Hospital waste typically falls into one of the following categories: solid waste, regulated medical waste, hazardous waste, pharmaceutical waste, universal waste and recycled waste. Getting a handle on the

totality of waste coming out of the facility will help organizations establish a baseline, set goals and prioritize actions.

Leadership involvement is essential. “The more that leadership is involved, the better,” says Sister Mary Ellen Leciejewski, ecology program coordinator for Catholic Healthcare West, San Francisco. Board involvement is crucial as well, as trustees play a role in establishing policy and setting goals.

The next step is to establish teams to oversee implementation and evaluation of the organization’s performance. Sustainability teams should include individuals and departments from throughout the organization. “Most employees live in the community, so garnering support is not very challenging,” says Dr. Linda Lee, health care solutions operations director, Waste Management Inc., Houston. Most importantly, hospitals should take the time to form a strategic approach, researching best practices and carefully monitoring progress along the way. “There will be great economic, health, social and environmental benefits for hospitals that embrace sustainability,” says Dale Woodin, executive director of the American Society for Healthcare Engineering.

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How Three Organizations *are* Making Sustainability Pay Off



City of Hope Duarte, Calif.

In 2009, the City of Hope comprehensive cancer center began assessing its waste management system to identify ways to improve safety, lower cost, ensure regulatory compliance, reduce environmental impact and enhance campus aesthetics. The 217-bed facility, located on a campus of more than 100-acres, quickly identified opportunities for improvement. Trash collection, in particular, needed a revamp. Throughout the campus, trash was left on the sidewalks for collection in the evening. In partnership with its waste management provider, the organization developed an integrated system that segregates waste into streams, such as medical waste, cardboard and electronics. Landfill waste was reduced by more than 30 percent, saving between \$8,000 and \$10,000 a year. “We’ve made huge strides but we still have a lot more to do,” says Charles Pickering, chief safety officer. He adds, “I was a little naive in thinking everything would happen at once. But you can’t move on to more complex programs, like composting, until you figure out how to pick up trash.” ❀



Catholic Healthcare West San Francisco

Environmental sustainability is a core value of Catholic health care, guiding hospitals to act responsibly toward the environment and promoting health in the community. Catholic Healthcare West launched a sustainability program in 1996, focusing on waste stream reduction, recycling and environmentally preferable purchasing. “We started with the low-hanging fruit – solid waste,” says Sister Mary Ellen Leciejewski, ecology program coordinator. “From there, we moved on to more challenging items such as food, water and energy.” The organization has set a goal to reduce the volume of materials sent to landfill to 15 pounds per adjusted patient day. In 2010, the organization reached 16 pounds per adjusted patient day. Recycling reached 29 percent in 2010, up from 26 percent in 2008. Tactics include the substitution of hazardous materials with nonhazardous alternatives, the establishment of an electronics-management program and programs to donate surplus and other usable items to health facilities in the United States and around the globe. ❀



MetroHealth Grand Rapids, Mich.

MetroHealth opened a LEED-certified replacement hospital in 2007. Its sustainability initiative seeks to provide patients with the best care experience possible and provide a healthy environment for the community. Recycling is a key component of the sustainability program; the organization set a goal of surpassing the 25 percent recycling threshold set by the American Hospital Association’s Sustainability Roadmap. In June 2011, the recycling rate reached 47.9 percent. That was accomplished, in part, through the rollout of a single-stream recycling program that allows placement of all recyclable items in a single container. More than 50 containers have been placed throughout the facility. MetroHealth has achieved significant savings as a result of its waste management initiatives. Alison Waske, sustainable business officer, estimates the organization saved \$173,000 through its recycling program. “It’s much cheaper to recycle a pound of paper than to throw it away,” she says. “Our recycling and composting programs are significantly cheaper than trash disposal.” ❀



The Business Case *for* Environmental Sustainability

There are multiple reasons for organizations to embrace environmental sustainability; key among them is fulfillment of mission and commitment to community health. The improper management of health care waste can pose a significant risk to patients, employees, the community and the environment. Environmental sustainability programs can curb these risks while also providing additional benefits to health care organizations. These include:

- 1. Enhance performance improvement.** Sustainability initiatives increase efficiency and effectiveness, improve clinical outcomes, enhance patient and employee experience and support high-reliability systems and culture.
- 2. Reduce costs.** Hospitals spend about \$10 billion annually on waste disposal, according to the American Hospital Association's Sustainability Roadmap for Hospitals. Sustainability initiatives can produce cost savings by reducing the amount of resources consumed and the amount of waste generated.
- 3. Get ahead of regulations and reduce risks.** Regulatory oversight of hospital energy consumption and waste disposal likely will increase due to growing public concern about energy security and depletion of oil and other natural resources. The Environmental Protection Agency, for example, is taking steps to enhance oversight of pharmaceutical waste.
- 4. Enhance public perception.** Sustainability programs build goodwill with the community.



Sustainability Assessment

To be effective, environmental sustainability practices require significant leadership engagement. This checklist can help organizations determine their current involvement in sustainability practices, identify areas that require further attention and prioritize projects.

1. The executive team and board have been introduced to sustainability in health care.
2. A board member or board committee has oversight of environmental sustainability.
3. The hospital has a written sustainability policy.
4. A specific staff person or team is accountable for planning and implementing sustainability initiatives.
5. The hospital has identified its current environmentally sustainable practices.
6. The hospital has assessed compliance risks, costs, benefits and return on investment for specific sustainability initiatives.
7. The hospital has a sustainability plan with priorities, goals and timelines for implementation.
8. The hospital tracks the financial, operational, environmental, health and other impacts of sustainability initiatives.
9. The hospital communicates its commitment to sustainability to patients, staff and the community.

SOURCE: AHA EXECUTIVE PRIMER ON HOSPITAL ENVIRONMENTAL SUSTAINABILITY, 2010



Resources

- American Hospital Association's Executive Primer on Hospital Environmental Sustainability: www.hospitalsustainability.org.
- Sustainability Roadmap for Hospitals: www.sustainabilityroadmap.org
- Hospitals for a Healthy Environment Self-Assessment Guide: <http://practicegreenhealth.org/pubs/selfasmt.pdf>

HOW WE DID IT:

This gatefold was produced by researching published studies and articles and conducting interviews with hospital and industry executives.

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