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.

No 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 sponsored 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 total amount of waste coming out of the facility will help organizations establish a baseline and set goals and priorities.

Leadership involvement is essential. "The more that leadership is involved, the better," says Dr. 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. "Great success lies in the commitment of everyone on the team," 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, measuring best practices and carefully monitoring progress along the way. "This will be great economic, health, social and environmental benefits for hospitals that embrace sustainability," says Dale Riddle, executive director of the American Society for Healthcare Engineering.

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We introduced our hospital systems in a resource-separating program that reduces your total waste volume by 35%.
We've helped our customers in other high-profile industries recover $40 million through binning operational improvements that minimize cost and environmental impact.
Firms save daily by recycling in managing pharmaceutical waste and beyond.
Help-on-Waste Management to help improve the health of your entire operation.


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Healthcare Solutions
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 costs and reduce regulatory compliance, reduce environmental impact and enhance campus aesthetics. The 217-bed facility, located in a campus of more than 30 acres, quickly identified opportunities for improvements, such as reducing paper use, in particular, needed a revamp. Throughout the campus, toxic waste is left in open containers for collection in compliance with hazardous waste regulations. The organization provides the appropriate development for the organization, which enhanced compliance with regulatory requirements into streams, such as medical waste, cardboard and electronics. Wastewater was reduced by more than 30 percent, saving between $10,000 and $13,000 a year. “There were huge strides but we still have a lot to do,” says Charles Pickering, chief safety officer. He adds, “If we don’t improve, the evening. In partnership with its waste management provider, the organization developed an integrated system that segregates waste by material type, including recycling the amount of waste generated.

Catholic Healthcare West, San Francisco

Sustainability is a core value of Catholic healthcare, guiding hospitals to be responsible stewards of the environment and promoting health in the community. Catholic Healthcare West launched a sustainability program in 2008, focusing on waste stream reduction, recycling and environmentally preferred purchasing. “We started with the low-hanging fruit — solid waste,” says Sister Mary Ellen Leciejewski, ecology program coordinator. “From there, we moved to more strategic thinking about water, waste and energy.” The organization has set a goal of recycling 35 percent of all waste sent to landfill and a goal of reducing landfill waste by 35 percent per adjusted patient day. In 2010, the organization recycled 35 percent per adjusted patient day. Recycling increased 23 percent in 2010, from 26 percent in 2009. The facility reduced the amount of hazardous waste by 70 percent. As a direct result of the sustainability program, the organization saw significant savings as a result of its waste management initiatives: decreased costs, sustainable business office, estimate the sustainable amount $11,809,800 in 2010 to recycling program. “It’s much cheaper to recycle a pound of paper that it is to throw it away,” she says. “Our recycling and composting programs are significantly cheaper than trash disposal.”

MetroHealth, Grand Rapids, Mich.

MetroHealth opened a LEED-certified replacement hospital in 2007. Its sustainability initiatives seek 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 recyclables in one bin. The program was developed with input from more than 500 consumers who have been through the facility. MetroHealth first allowed significant savings as a result of its waste management initiatives: decreased costs, sustainable business office, estimate the sustainable amount $11,809,800 in 2010 to recycling program. “It’s much cheaper to recycle a pound of paper that it is 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 serious risk to patients, employees, the community and the environment. Environmental sustainability programs can cut these risks while providing additional benefit to health care organizations. These include:

1. Enhance performance and reduce costs. Reduce costs. Reduce costs. By promoting energy conservation and encouraging other energy-efficient practices, hospitals can save money, reduce costs. By promoting energy conservation and encouraging other energy-efficient practices, hospitals can save money, reduce costs. By promoting energy conservation and encouraging other energy-efficient practices, hospitals can save money.

2. Balance costs. Balancing the trade-off between economic and environmental sustainability practices can balance costs. Balancing the trade-off between economic and environmental sustainability practices can balance costs.

3. Get ahead of regulations and reduce risks. Get ahead of regulations and reduce risks. By preparing for regulatory requirements and adopting environmental practices, hospitals can avoid regulatory compliance costs. By preparing for regulatory requirements and adopting environmental practices, hospitals can avoid regulatory compliance costs.

4. Enhance public perception. Enhance public perception. By demonstrating their commitment to sustainability and involving the community, hospitals can enhance the public perception.

The Benefits of Sustainability

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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 costs, ensure regulatory compliance, reduce environmental impact and enhance campus aesthetics. The 217-bed facility, located in a campus of more than 350 acres, quickly identified opportunities for improvement after collecting, in particular, a need to improve performance. Throughout the campus, trash was left on the sidewalks for collection in plastic bags rather than being contained in a secure receptacle, and medical waste was not segregated. By 2010, the facility was spending more than $35,000 a year to contain and handle more than 300,000 pounds of waste. To improve efficiency and decrease costs, the facility established a sustainability initiative to reduce the volume of materials sent to landfill by more than 30 percent, saving between $8,000 and $10,000 a year. “We’ve made huge changes by managing waste like we would manage anything else,” says Sister Mary Ellen Leciejewski, ecology program coordinator. “From there, we moved on to more sophisticated programs that involved staff education and training.”

Catholic Healthcare West
San Francisco

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How Three Organizations are Making Sustainability Pay Off

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2. Reduce costs. Recycle spent about $13 million annually on waste disposal, according to the industry’s Sustainability Roadmap for Hospitals. Sustainability initiatives can generate savings by reducing the amount of waste consumed and the amount of waste generated.

3. Get ahead of regulations and reduce risks. Regulations demanding more stringent controls are driving hospitals to improve their environmental sustainability programs.

4. Enhance public image. Sustainability programs build goodwill in the community.

Sustainability Assessment

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Resources

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2. Sustainability Roadmap for Hospitals (American Hospital Association, 2010)

3. Environics Research: Sustainability Assessment, Sustainability Assessment: Tools, Trends and Timelines for Implementation

4. The Hospital tracks the financial, operational, environmental, health and other impacts of sustainability initiatives. The hospital communicates its commitment to sustainability to patients, staff and the community.

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Leadership involvement is essential. "The more that leadership is involved, the better," says Frank Dietz, MS, CHES, a sustainability program manager for Catholic Healthcare West, San Francisco. "Board involvement is crucial as well, as team leaders 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. "Every department has a role in the conversation as generating 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, ensuring best practices and carefully monitoring progress along the way. "There will be great economic, health, social and environmental benefits to hospitals that embrace sustainability," says Dale Nicole, executive director of the American Society for Healthcare Engineering.

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Health Facilities Management

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