Greenhealth

A Practice Greenhealth Member Publication

Greenhealth SUSTAINABILITY Dashboard

Collect & Measure Waste Data

Reuse Secondary Packaging

Compost & Recycle

Track Waste

SEPTEMBER/OCTOBER 2012

WASTE REDUCTION

SEPTEMBER/OCTOBER 2012

Pharmaceutical Waste 16

A look at reducing your hospital's impact on contaminating our waters

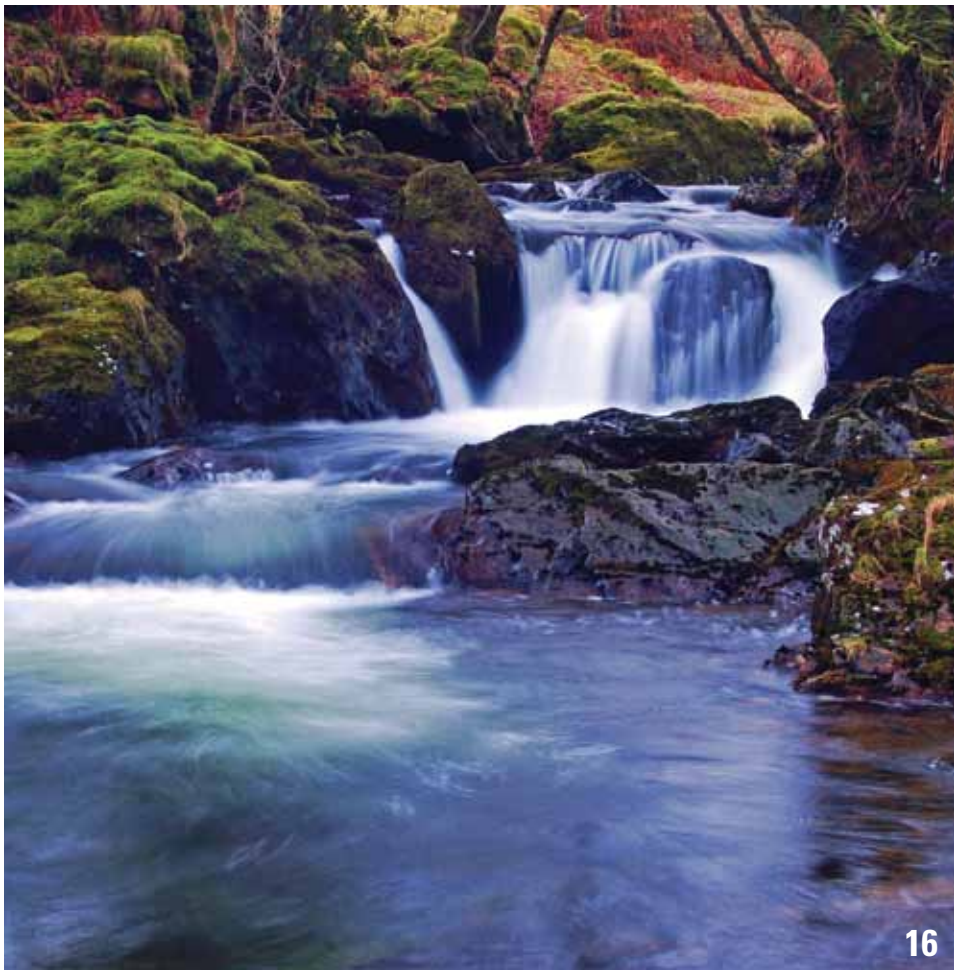
Waste Not 22

Lessons from one of the country's greenest hospitals on how to make sustainability part of the culture

ON THE COVER

Data collection is a great way to track your waste stream and get a handle on your facility's impact and success in this area of sustainability. Practice Greenhealth has recently developed the Greenhealth Sustainability Dashboard, a web-based program that will help our members monitor, track, and improve their facilities' efficiencies while reducing their environmental footprint.

Right: A study by the U. S. Geological Survey reports on the presence of pharmaceutical and personal care product chemicals to be in virtually every surface water body tested around the globe. Below: Kai Abelkis, Boulder Community Hospital's Sustainability Coordinator



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MEMBER INFORMATION

DEPARTMENTS

The Packaging Problem

How to reduce secondary packaging in the health care setting

BY BETH ECKL,
DIRECTOR OF ENVIRONMENTAL
PURCHASING PROGRAM

U.S. HOSPITALS GENERATE approximately 6,600 pounds of waste every day, and most of this waste is nonhazardous material. In fact, nearly half of the refuse found in a hospital's waste stream is cardboard, other packaging materials, and paper products. "Hospitals fall behind supermarkets, big box stores, and even car manufacturers in terms of their efforts to reduce packaging waste, also known as secondary waste," explains Justin Lehrer of Stop Waste, California's Alameda County Waste Management Authority. "Health care institutions need to band together to muster the kind of clout needed to reduce packaging generated by manufacturers. There is a huge opportunity here to work with suppliers—it works in the retail industry, so why not health care?"

Take-Back Initiatives

One way to reduce packaging waste is through take-back initiatives. Extended producer responsibility (EPR), often termed "producer take-back," is an increasingly popular waste policy that is radically different from traditional recycling practices. EPR makes the producer of the product responsible for the financial and/or physical product's recycling. In its truest form, EPR also extends the responsibility of the producer over the entire life cycle of the product chain—from production through end-of-life management—ideally in a cradle-to-cradle approach. Take-back programs are also important because they encourage green product design as well as reduce packaging and the use of toxics.

A component of Stop Waste's Environmentally Preferable Purchasing Policy (EPP), take-back initiatives encourage vendors to take back packaging for reuse as well as take back or reuse pallets and other shipping materials, so each vendor's willingness to practice this policy should be considered in the procurement process. In addition, facilities can request vendors eliminate packaging or use the minimum amount necessary for product protection and sterility. Hospitals should also inquire whether a product's packaging is reusable, recyclable, or compostable when suitable uses and programs exist.

Focusing on and requiring action in the upstream (producer of the product) rather than the downstream (waste handling) encourages manufacturers to incorporate eco-design of products and packaging with materials that are recyclable or materials that do not generate

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WHY IS TAKE-BACK IMPORTANT?

It is a front-end solution to waste—source reduction first!

It creates markets that reflect the true environmental impact of products.

It encourages green product designs and reduces packaging and use of toxics.

It empowers consumers.

It reduces costs to government, taxpayers, and rate payers.

—California Product Stewardship Council

(Opposite) Hospitals produce roughly 6,600 pounds of waste every day, and almost half of that is from cardboard, other packaging materials, and paper.

waste disposal costs for the receiving company, which is the core of EPR.

Reusable Totes

Another way health care systems are combating packaging waste is by using reusable transport packaging, made of sturdy recycled plastic, wood, or metal. The reusable containers can be used over and over and can take the place of one-time or limited-use pallets and boxes. In 1992 Kaiser Permanente (KP) saw the need to reduce cardboard, so this health care system implemented a pilot program that changed the way it manages inventory. KP began using reusable totes in place of disposable cardboard boxes. Expanding on the success of the 1992 pilot program, KP continues to cut down waste, conserves paper products, and saves over half a million dollars a year using right-sized, color-coded reusable totes for distribution to over 55 locations in northern California. KP spends $18,000 to $25,000 per year on replacement totes compared to $0.95 per box—a cost savings of $561,450 annually, or approximately 96 percent.

Some suppliers have found reusable totes effective when delivering a low unit of measure of supplies instead of bulk supplies. Stanford Hospital & Clinics and Lucile Packard Children's Hospital receive 95 percent of their patient unit's consumable medical/surgical supplies in reusable totes from their primary distributor. The distributor restocks supplies in over 300 stocking locations throughout the hospitals. This saves the hospital costs of labor, inventory management (eliminating $1.2 million of inventory), picking supplies and storage space. In many parts of the country, savings in storage space costs alone justifies this system of reusable totes moving from a central warehouse by a primary distributor. Many suppliers and distributors have experience in receiving low units of measure, which affords hospitals an opportunity to consider, as part of a value analysis strategy, improved delivery options in their supply chain, such as with the use of reusable totes.

Sustainable Packaging

JOHNSON & JOHNSON

The company has developed a Global Environmental Packaging Reference Guide and Packaging Protocol to assist the Johnson & Johnson Family of Companies in efficient and effective packaging design. The company also works to reduce the weight of its packaging, decrease the energy used to make and transport packaging, and increase the post-consumer recycled (PCR), sustainable, and biodegradable materials used. Johnson & Johnson achieved its Healthy Planet goal in 2010 of ensuring that at least 75 percent of its paper-based packaging contained at least 30 percent PCR content or fiber from certified forests; in fact, by the end of 2010, 97 percent of paper-based packaging met these criteria. –Johnson & Johnson

BECTON DICKINSON

Becton Dickinson is working to reduce the materials in its product packaging and to find effective alternatives that are recyclable and reusable and that are not derived from fossil fuels. BD PosiFlush Packaging engineers have redesigned the BD PosiFlush packaging, which holds 30 prefilled syringes, and introduced recycled content into the materials. The new design resulted in a 25 percent reduction in overall packaging weight while maintaining all the existing benefits of the original packaging, including cleanliness, wipeability, and clear labeling. The company's reusable Envirotainer also cuts waste. Certain bioscience products need to be transported at stable temperatures. These products were typically packed in single-use cooler boxes with frozen gel packs; however, the San Jose facility now uses the new reusable Envirotainer, which not only provides better insulation but also prevented 12,480 foam coolers and 100,000 gel packs from being sent to landfills in 2010. –Becton Dickinson

BEACON CONVERTERS

Beacon Converters develops medical devices for treating osteoarthritis and joint damage. It provides patient-specific surgical solutions, including special instrumentation that is supplied by the patient's surgical team and shipped by Next Day Air carrier to the surgical site. Because of their product attributes, orthopedic medical devices are typically packaged in rigid thermoformed trays that have a large packaging footprint. The company's new ConforMIS Drill and Pin Kit Wallet is 100 percent virgin HDPE and provides a flexible packaging alternative to the rigid trays; multiple tiers of heavy sharpened metal components are individually organized and secured within. The unique design minimizes the packaging footprint while protecting the components from abrading each other and from puncturing the pouch. The package addresses multiple environmental concerns when compared with a thermoformed tray solution, and the wallet reduces the volume of packaging components by more than 93 percent. –Beacon Converters

BOSTON SCIENTIFIC CORPORATION

"Our sustainability program is a triple win—it's good for the environment, our customers, and the bottom line," says Leonard Sarapas, PE, PH, Corporate Director, Environment, Health & Safety at Boston Scientific Corporation. As a leading manufacturer of less invasive medical devices for treating gastrointestinal and pulmonary conditions, Boston Scientific is committed to providing innovative and quality products to improve patient care while remaining good stewards of the environment. "In some product families, Boston Scientific has reduced both its primary and secondary packaging size by 65 percent and the materials used in its packaging by 45 percent," notes Sarapas. "Reducing the packaging size also reduces the transport impacts on the environment—you're shipping less bulk and weight." The reduced size is also important to a hospital's operations in terms of storage, Sarapas explains. Improving patient care and safety while providing customers unmatched value and making sustainability a key focus, are among Boston Scientific's priorities. —Boston Scientific Corportaion

Intermountain Healthcare's medical supply deliveries are packaged in reusable pallets and totes.

Case Study: Closed-Loop Shipping

Intermountain Healthcare (IMHC) is a nonprofit system of over 400 clinics, labs, and medical centers based in Salt Lake City, Utah, serving patients in Utah and southeastern Idaho. A fully integrated health care system, IMHC has over 32,000 employees. IMHC had been using an outside distributor to deliver orders of medical supplies directly to its many facilities. Forced to order available "unit measures" of products—rather than the smaller quantities needed at a given time—many individual sites had to provide their own storage space and operated a receiving dock; larger facilities frequently had a full-time employee just to handle incoming shipments and packaging materials. Given the large number of vendors, transport packaging materials varied widely, complicating efforts to streamline the shipping system with reusables.

To solve the problem, IMHC built its own distribution center to manage all shipments of medical supplies and deliver them to individual facilities via an in-house trucking company and courier service. Most of IMHC's clinics, labs, and medical centers are located within a 45- to 50-mile radius of the center. Using a centralized ordering system, IMHC buys in bulk and repackages the large loads into customized mixed shipments for distribution within the health care network. All deliveries within the closed-loop system are made with reusable pallets, crates, and totes, drastically reducing waste from transport packaging materials. Reusables also help IMHC to use trailer space more efficiently and to improve shipping efficiency because of uniform container sizes. With orders being better tailored to customers' needs, individual facilities are greatly reducing storage as well as labor costs to handle products and packaging. IMHC has cut its overall waste by an estimated 20 percent and enabled individual sites to reduce storage space as well as labor to handle products and packaging materials.

Projected Results

Sustainable practices strengthen IMHC's image as a community partner:

- A 20 percent reduction in overall waste generation due to packaging waste prevention with reusables
- Significant reduction in labor costs associated with shipping and receiving at individual facilities
- Reduced disposal costs and less reliance on market fluctuations for the sale of recyclable materials (e.g., cardboard)
- Better product protection (e.g., cooling, protection from light) with customized reusable transport packaging
- Reduced carbon footprint due to eliminated packaging materials and increased shipping efficiency

Keys to Success

Most IMHC facilities are in close geographic proximity, and similar needs among these facilities enable centralized bulk purchases and use of uniform transport packaging materials. A dedicated work group (distribution team) has strong support from top management. The Sustainability Council brings together members from all departments, fostering organization-wide buy-in. In addition, as a member of Practice Greenhealth, IMHC has access to educational resources and industry-specific expert advice.

—Stephanie Pruegel, Gigantic Idea

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