

# Recycling

As with Regulated Medical Waste Reduction, a baseline assessment is the first step. The team reports a waste baseline for: Solid waste, regulated medical waste, recycling and hazardous waste. Recycling is implemented to achieve a 15 percent recycling rate compared to total waste (as identified in level 1.)



## STEP 1: Define the Recycling Team and Stream

Step 1 assumes that a team, team leader and leadership engagement have been established. Expertise for recycling could include Environmental Services, Purchasing, Chief Security Officer Administration, Clinical Liaison and Regulatory Affairs. Review local regulations regarding recycling and any regional goals. The team can report their activities to the green team or through The Joint Commission Environment of Care Hazardous Material and Waste Management Plan.

Working together, the team should review the baseline data and consider conducting a walk-through to get a feel for the vast amount of papers, plastics and other recyclables in the waste stream. The team should consider other stakeholders, especially the existing waste hauler, GPO and purchasing department to identify existing contracts, market conditions and recycling potential in the region. Recycling opportunities vary state to state. Sitting down with waste and recycling vendors is the best way to identify recycling opportunities. The key

to recycling is simplicity – maximum material collection with minimum effort. Sitting down with business partners can help identify opportunities for “single stream” or “commingled” recycling to capture as much material in one process as possible. In order to decide what and how to recycle, the first step is to find out what options are available in the marketplace. Advantages to single stream or commingled recycling include simplified collection and one vendor for many materials.

Once local markets and vendor opportunities are understood, the team can assess whether existing haulers can meet the demands (pick up needs, training, marketing of material) or if other business partners should be considered.

This process can lead to a definition and a written policy identifying the types of materials that will be recycled and the method (commingled or not) of their removal. Leadership oversight and an updated definition understood by all members of the team make training and education around proper segregation possible.

## STEP 2: Develop a Cost/Benefit Analysis

Using the baseline assessment, the facility can perform a cost/benefit analysis to determine recycling opportunities and areas for improvement. With an ultimate goal of zero waste, recycling is a long-term initiative for most hospitals. There are costs associated with recycling, though they are usually less than

for waste removal. Education, training, poster campaigns and branding have costs that will be considered during program implementation and budgeting. Understanding the cost per unit and current generation rate can help the team calculate savings if it achieved a 15 percent or more recycling rate. This information can help secure buy-in for the effort.

## STEP 3: Research and Identify Business Partner(s)

With the baseline information, the team is in

a position to request information from the marketplace to see what offerings are available. There may be a need for more than one vendor

to manage the various waste streams and recyclables. The facility's needs can be articulated in a formal request for proposal, and then the team can review the options. Some facilities decide that a consulting firm is needed to help with the entire program to ensure success and adequate staff training. GPOs can also be extremely helpful. Make sure that negotiations include reimbursement for commodities based on market conditions, staff training, and reporting of types and amounts of materials recycled.

The following should be considered:

- **HIPAA:** Most hospitals have a system for protecting the security of health information through a program approved by the chief security officer. Some choose to shred onsite, others partner with a vendor for a mobile shredding truck and still others use locked bins but send the material to regular recycling, since HIPAA mandates
- Using the checklist at the end of this guide, the team can identify programs that capture as many materials as possible and consider high generating areas like the operating room, pharmacy, food services and dialysis for maximum material recovery.

#### STEP 4: Set Goals

Select SMART goals (Specific, Measurable, Attainable, Realistic and Timely) that include health and safety considerations, cost reduction, waste minimization and resource use considerations. It is important that the team share a common understanding of these goals. A written action plan will help team members stay focused. An example of a measurable could be to increase the recycling rate by five percent

#### STEP 5: Audit, Develop a Plan and Pilot

The following steps are required to have a well-coordinated and cohesive recycling program.

- Identify a lead for each task to take a shared approach to recycling strategy and implementation.
- What are others doing? It can be helpful to connect with other hospitals to learn about various models. For example, some have individuals transport their own desk-side recyclables to a storage bin by a photocopier, while others have staff collect recyclables from every desk. Various scenarios can be explored and piloted to ensure that hidden costs such as time, labor, storage space and elevator waiting time are addressed. Practice Greenhealth can help hospitals make connections with other hospitals to learn about their recycling successes and challenges.
- In practical terms, the audit really means walk every single floor and every single unit to identify the sizes and amounts of receptacles needed to collect various materials. Specific departmental needs and

“destruction,” not shredding. Whatever the facility chooses, it's important to consider all the options and to price out the variety of options to see what works best. One facility in California even purchased its own HIPAA shredding truck to take the process in-house--not a bad idea for managing what is actually a commodity. Standardizing HIPAA vendors for multi-facility systems is a very good way to reduce costs. Don't forget - paper is a commodity, and while it may have protected health information (PHI), it is still a commodity. As a result, going out to bid for multiple sites can both standardize operations and reduce expenses.

in the first year. Consider use of Practice Greenhealth's “members only” Sustainability benchmark report to view industry benchmarks to set short, medium and long-term goals. Present program goals to appropriate committee to ensure leadership and the team are on board with the plan before going forward.

tight spaces make a visual inspection of every area critical. A few locations that will require more frequent pick-ups, due to high generation and low storage capacity.

- A facility audit and individual meetings with nursing and department heads are required to explain the program and expected outcomes. Involve key management in decision making, program pilots and identification of the types and locations of recycling bins in each area.
- Standardize receptacle purchases so that all recycling bins look the same and have the same labeling but vary in size, depending on the location's generation rate. For example, every staffer sitting at a desk or a work station should have a small, blue bin for paper collection. Large, wheeled bins, where possible, can be placed by photo copiers and other standardized locations. Users can collect their waste paper regularly and place it in the larger bins in standardized locations



“HCA has implemented one of the first system-wide Integrated Waste Management Programs in healthcare, designed to both decrease costs and increase recycling.”

**Alan Yuspeh**

Senior Vice President & Chief Ethics and Compliance Officer

Hospital Corporation of America, Inc.

around soiled utility rooms and other locations to reduce labor time. Large generators may identify the need for a large, wheeled bin and eliminate the smaller bins altogether. The largest generators of recycling include administrative offices, computer rooms, laboratories, medical records and other areas that are identified through communication with staff and observation. The audit offers the opportunity to identify pick-up locations and to create a service schedule for material collection, transport and pick-up.

- Once the audit is complete, the team can review, discuss and prepare for a pilot in a variety of areas. The pilot needs to evaluate the recycling bins, signage and training needs, and to work out any kinks before materials are purchased house-wide. Don't standardize or order bins until they are tested in a variety of units.
- Practice Greenhealth's Greening the Operating Room offers full support for waste reduction initiatives in the Operating Room.
- Develop a plan to delineate and document the entire process from materials pick-up, training, monitoring, transport, storage and ultimate removal. The plan should include a process for monitoring and a number that employees can call if they need a pick-up, additional bins or departmental education.
- Educational development - posters, newsletter, labels for recycling bins, new employee and existing staff orientation, float staff training, student training, clinicians, grand rounds.
- Evaluation - Conclude pilot with a written evaluation and identification of any additional

purchasing, training or educational needs.

- Purchase receptacles, lease equipment and complete any needed construction to prepare for smooth, safe, ergonomic, and efficient material collection and storage.
- Identify how recyclables will be stored, e.g., compactor, totes, bales or bags
- Standardization of container purchases and labeling helps with staff training. It may sound simple, but staff must be properly trained to understand which waste is to be placed into which container. It takes time to standardize and label the receptacles, and to properly train staff. Team review and staff input on the bins can help identify the standardized containers for each type, e.g., desk-side recycling bins, larger bins by photocopiers and wheeled transport bins. The various bin needs can be identified by the material audit, following the process from collection to storage to transport to removal. Take the time to find the right pace to ensure that staff can meet the program's pick-up needs.
- Develop a written plan for placement in appropriate binders, including the Environment of Care Manual, and for communication to various committees and department heads.



Fairview "Greening the OR" Team

## STEP 6: Implementation and Training

Overfilled containers and confusion over separation and collection of recyclable materials can create frustration and pose significant challenges. Memos and staff announcements can be used to keep staff abreast of the implementation dates. Ongoing training should be provided to ensure clear understanding among all staff. Signage, handouts, screen savers and email updates can help staff understand their own important role in the program. Vendors also can help education, implementation and ongoing monitoring. Provide Education should be provided on all shifts, for several days and then provided on a regular basis. and then continue on a regular basis, with less frequency, indefinitely. Consistent monitoring and adequate pick-up can either make or break a program.

### Education tips:

- Implement the recycling program one unit,

floor and building at a time. Monitor the area 24/7, making spot checks throughout and only easing off on inspections when staff thoroughly understand their roles and responsibilities. Waste vendors may be able to help with training and inspections.

- Environmental Services staff is critical. They can be the first line of defense and the first to identify problems with collection.
- Recycling training should be part of new employee orientations and should be provided at a departmental level. Include the facility's commitment to compliance, good segregation practices and stewardship statement.
- Remember that each individual learns differently so use different training methods, including physical examples of different types of wastes. Some will be more motivated by environmental benefits (how many trees recycling paper saves, how many barrels of oil recycling of plastics saves), while others will

be more motivated by monetary benefits (the cost savings of avoided solid waste disposal). Ensure the training schedule catches all staff, including relief and night shifts. Adapt training to the needs of different departments (e.g., emergency versus ICU) and different stakeholders (e.g., physicians working in the operating room versus nurses doing emergency intake).

- Monitor work areas regularly and consider tracking generation rates, employee training

and rounding through Environment of Care's Hazardous Material and Waste Management Committee.

- Continue to train, spot check, monitor and report regularly.
- Stress the cost benefits of recycling versus regular waste disposal. Create some friendly competition between units/department/floors. Publicize and celebrate the winners, and consider providing theater tickets or a pizza lunch.

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### **STEP 7: Be Ready to Identify and Solve Problems**

Even after program implementation and staff training, facilities may still encounter resistance to change and improper segregation. Have an action plan to resolve problems. Administration support will help drive the initiative and empower the staff person assigned to police the program. If problems are not addressed quickly, they will persist and increase.

Develop a tracking form, a schedule for ongoing

rounds and a mechanism to immediately report concerns and communicate appropriate solutions back to staff. Include monitoring and quality assurance reports in Environment of Care Committee minutes. Respond to Environmental Services reports immediately to address problems and retrain staff immediately. Monitor vendor recycling removal to ensure pick-up needs are met and storage areas are clean and maintained.

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### **STEP 8: Track Progress, Report Successes and Reward Staff**

Celebrate even small successes to build momentum. Consider celebrations, pizza parties and applying for Practice Greenhealth's Environmental Excellence Award. Hospitals have

achieved recycling rates of more than 25 percent through recycling of operating room materials, electronics and much more. Encourage friendly competition between floors or departments, or display recycling percentages with graphic signage to make the program more fun.

## Recycling Checklist

This worksheet can help track material segregated for recycling. Data is entered for recycled materials. If the facility does not recycle a material, just leave it blank. If plastics are commingled with other materials, do not record data by plastic type but in the “commingled” box.

Place the sum of these amounts in tons (either actual or estimated) in the blue section of the recycling table above as part of the baseline. This checklist can be continuously expanded and revised as your recycling changes and grows. Pacing is important.

## Recycling Checklist

Material Type	Estimated or Actual Tonnage in 12 month period
<input type="checkbox"/> Batteries	
<input type="checkbox"/> Boxboard	
<input type="checkbox"/> Cans, aluminum	
<input type="checkbox"/> Cans, steel	
<input type="checkbox"/> Cardboard	
<input type="checkbox"/> Commingled or single stream	
<input type="checkbox"/> Computers and electronics	
<input type="checkbox"/> Food waste composting	
<input type="checkbox"/> Fluorescent lamps (not crushed)	
<input type="checkbox"/> Glass, all	
<input type="checkbox"/> HIPAA confidential paper recycling	
<input type="checkbox"/> Ink jet and toner cartridges	
<input type="checkbox"/> Cooking oil	
<input type="checkbox"/> Motor oil	
<input type="checkbox"/> Paper, mixed	
<input type="checkbox"/> Paper, white	
<input type="checkbox"/> Plastic, #1, PET	
<input type="checkbox"/> Plastic, #2, HDPE	
<input type="checkbox"/> Plastic #3, PVC	
<input type="checkbox"/> Plastic #4, LDPE	
<input type="checkbox"/> Plastic #5, PP (and blue wrap)	
<input type="checkbox"/> Plastic #6, Polystyrene	
<input type="checkbox"/> Plastic, mixed types	
<input type="checkbox"/> Clear wraps (e.g. shrink wrap)	
<input type="checkbox"/> Steel	
<input type="checkbox"/> Wood	
<input type="checkbox"/> X-ray	
<input type="checkbox"/> Other	