



Thinking Outside the Box: Exploring Non-Profit Partnerships to Expand Hospital Plastics Recycling

A Closer Look at the Kaiser Permanente and Cleveland Clinic Programs

Hospitals around the country are searching for ways to reduce the amount of waste they send to landfill. Blue wrap, trays, Tyvek and other materials are discarded as “clean” medical waste in large volumes. However, oftentimes the closed system of a hospital or operating room presents a unique opportunity for collection, segregation and recycling of these materials.

One approach to a successful recycling program requires taking a new look at the hospital’s involvement with waste haulers and other businesses, like document destruction vendors, that already come to the location and may be open to expanding their services. Local non-profit organizations such as Goodwill Industries are potential partners for helping to sort the mixed plastic waste into different recycling bales of sufficient size for plastic recyclers.

HPRC identified two such hospital-led recycling programs: [Kaiser Permanente’s](#) partnership with [Goodwill Industries](#) and the [Cleveland Clinic’s](#) partnership with [Rumpke Recycling](#) and Buckeye Industries, a subsidiary of [New Avenues to Independence](#). The programs follow a similar model, whereby the recycling entity collects waste from the hospital and then bales materials for bulk sale. And while unfortunately neither program is still currently in operation, there is still much to be learned from the efforts of the participating hospitals.

Through extensive interviews, HPRC has put together best practices for implementing a program like this, as well as a deeper dive into the specifics of each hospital’s approach, and a look at common challenges to watch out for.

Best Practices for a Plastics Collection Collaboration Program

Setting up a new program requires buy-in from hospital management stakeholders. It is also vital to train the in-hospital employees who will be collecting and handling the recycling waste at the start of the program, including all clinicians and Environmental Services employees and their management (the contracting firm that is sorting the recycled waste also must undergo training.)

The recycling program must be set up within the hospital so that only clean waste is collected in easily identifiable plastics recycling bags. Best practice is to only collect waste within the OR prior to the start of the surgery, as removal of the recycling bags before commencement of the procedure prevents any contaminated waste from entering the recycling stream.

At the start of a new program it is vital to do [waste audits](#) to ensure the right material is being collected, and findings need to be shared with the teams that collect the recycling waste in the hospital, as well as other

stakeholders. Audits should then continue at a reduced frequency after the program is well-established because market pricing for recycled waste can cause changes in the materials that are collected over time, and additional hospital training will need to occur when this happens.

Hospital recycling programs are a great way build engagement within the hospital and between the hospital and the community. Hospital employees feel good knowing they are contributing to a greener world while outside the hospital, recycled waste handling can offer work to people who are unemployed or underemployed. Earth Day celebrations and other opportunities to bring together all those involved can help reinforce that their combined efforts are contributing to a more sustainable future for all.

The Kaiser Permanente / Goodwill Industries Partnership

In 2007, Kaiser Permanente's Director of Regional Building Operations received a flyer from Goodwill Industries promoting its e-waste recycling programs, and saw a connection between these collection programs and Kaiser Permanente's corporate objective to improve local communities. When an Earth Day event held in partnership with Goodwill Industries saw a tremendous community response and large collection rates, Kaiser Permanente and Goodwill Industries met and discussed other services that Goodwill might offer the hospital network.

In 2009, Goodwill Industries won the competitive bid for a contract to destroy confidential information for all Kaiser Permanente locations in Southern California. During implementation, Kaiser Permanente recognized an opportunity to utilize Goodwill Industries' recycling options for many materials similar to those at its medical centers, specifically electronics, bottles and cans, cardboard and plastics. As the document destruction program ramped up, Goodwill Industries and Kaiser Permanente tested collection programs for some of these other recyclables (starting with blue wrap) complementing Goodwill's objective to provide work for individuals with special needs.

The Method

During the collection process for the document contract, Kaiser Permanente noticed extra space on each Goodwill Industries truck that could be utilized to backhaul materials. The two parties formed an agreement whereby this extra space would be used to haul recyclable commodities to Goodwill Industries' central facilities where they would then be baled and sold.

At Kaiser Permanente's locations, recyclable materials (including cardboard, sterile blue wrap, plastic film and bottles and cans) were staged at the loading docks for Goodwill to pick up on the same schedule as the documents for destruction. Hospital staff were not required to participate in these programs; rather, they were trained and offered the opportunity to participate. As a result, each hospital collected a different variety of materials and operated slightly different processes (baling vs. not baling materials, scale of collections, scope of materials collected, etc).

Lessons Learned

Kaiser Permanente attributes the success of this program to engaged employees who recognized the opportunity the empty truck space offered and to Goodwill Industries' willingness to work with the hospitals to identify the best methods and materials for collection. Their recommendation for other hospitals seeking to implement a similar program is to look to partner with local businesses that share similar values and also provide community benefit. The opportunity might not seem obvious at first, but meeting with local vendors to discuss their operations could bring to light new opportunities to partner.

They also recommend that the hospital assemble a diverse team (including representatives from material management, health & safety, finance, and procurement) to assess its sustainability needs--Kaiser Permanente's plastics recycling program was the result of just such a team. Ongoing success was the result of internal leadership driving the collection program, as well as the flexibility of Goodwill Industries in finding waste solutions as the market changed.

While this program ran successfully for a number of years, Kaiser Permanente has since changed its secure document disposal partner and, as a result, no longer sends recyclables to Goodwill, and continues to explore other options for plastic waste disposal. It's important for other hospitals to remember that, while establishing a program that leverages existing contracts can work in the short-term, its long-term existence is still reliant on the original revenue-generating contract.

The Cleveland Clinic and Buckeye Industries Partnership

The Cleveland Clinic operating room recycling program began in August 2012 as a partnership between Rumpke Recycling and Buckeye Industries, a not-for-profit organization that provides opportunities for people with disabilities and special needs to become more independent and productive members of society.

Cleveland Clinic initiated a pilot in 2010 with two facilities, including the main campus, but by 2013 involvement had expanded to cover sixteen of its facilities. The program began with a surgical staff meeting to establish rules of engagement where staff received [training](#) and signed a commitment to keep all contaminants out of the purple clinical plastic recycling bag, color-coded to help Environmental Services identify proper back-house disposal.

The Cleveland Clinic sustainability office was a main driver for this program, circulating material to each OR and ensuring waste was collected properly. It also performed audits at Buckeye to ensure materials were contaminant-free and that individuals at Buckeye were working safely.

The Method

Each surgical suite OR was equipped with a hamper containing a purple bag to collect all materials for recycling *before* first incision. These bags were tied-off and taken outside the OR along with the clear trash bags. Purple bags were then segregated for Buckeye and clear bags were compacted for landfill. The program collected blue wrap, plastic bottles, mixed clear film, mixed color film, containers, trays, mixed paper, Tyvek, and Styrofoam (Rumpke had a Styrofoam densifier).

From 2014-2016, the program gained popularity with staff and physicians, who even volunteered at Buckeye to get involved in the entire recycling process. At the height of the program, Cleveland Clinic collected 196 tons of clinical plastics from all of its ORs and its main campus laboratory. It later created a unique program run by Dr. Ilyssa Gordon that still today continues to look for ways to reduce plastics through a market lens.

Lessons Learned

The main drivers for success were continuous communication, updates, data sharing and high levels of engagement with the OR staff and physicians, who participated with passion, knowing they were doing something to help others.

The main barriers the program faced throughout the years included transportation costs, finding buyers for materials in a fluctuating market, and [finding space at the hospital](#) for proper segregation of the materials and protection in case of rain. At the start of the program, the market for recycled plastic was strong and Buckeye

did not charge to collect material. This made the arrangement a win-win for both Buckeye and Cleveland Clinic. However, once the market for recycling plastic dropped, so did grants and other public funding focused on providing work for individuals with disabilities that supported the program. As these diminished, Buckeye began to charge to collect material by volume, and eventually Cleveland Clinic had to pay a courier service to collect and drop off materials at Buckeye, which increased the cost for waste, eventually forcing the closure of the program.

Common Barriers to Non-Profit Recycling Partnerships

While non-profit partners can be a great option for healthcare plastics recycling programs, certain unique barriers can prevent a program from launching successfully or being as impactful as possible.

- 1. Finding the right partner.** Not every nonprofit can be a successful partner for your specific needs, and choosing the wrong one could lead to disruptions in your recycling programs in the future. We suggest using the following criteria as you make your selection:
 - **Capabilities:** Does the partner have the ability to collect a wide range of recyclable materials? We suggest visiting the site and walking through the process to ensure there are no concerns around labor, safety, or environmental issues.
 - **Transportation:** Is the partner willing to provide transportation and logistical capabilities that match your situation with collection volumes and storage limitations? If not, ensure that the transporter and nonprofit partner are aligned on the agreed-upon process
 - **Contracting:** Are they willing to agree to a contract that will lock in terms and conditions? With volatility in commodity pricing, terms could change quickly.
 - **Buyers:** Make sure the partner has a buyer for the recycled commodity, and inquire whether there are contingency plans due to frequent market changes.
- 2. Collection space & logistics.** Nonprofit partners may not have the same level of resources for transportation as a typical waste hauler, so ensure you are aligned with regard to the pickup frequency prior to launch and ensure you have [sufficient storage](#) and [dock space](#) available.
- 3. Recycling cost considerations.** Nonprofit partners may not have the same industry relationships and cost structures in place as waste haulers. Therefore, they may be reliant on grants to operate, may not have access to alternative buyers for recycled commodities, and may not have the financial capabilities to withstand fluctuations in commodity prices. We suggest finding a partner that has multiple revenue streams, has a strong financial balance sheet, and is working with multiple companies on recycling programs.

Hospitals hoping to establish a similar program are best served by carefully identifying partners and seeking buy-in from the staff responsible for the actual collection.

Conclusion

Kaiser Permanente and the Cleveland Clinic were both able to connect with local partners who could provide collection solutions for their hospital plastics, and found success due to internal support and the willingness of their partners to adapt as the markets changed. And while both hospitals were heavily impacted by the market drop in recyclable plastics and ultimately unable to continue their programs, the participants reflect on them as successes for increasing community and staff engagement, and for providing insights that may help other

hospitals establish similar programs in the future.

Learn more about starting, growing, and refining a hospital recycling program with HPRC's [HospiCycle toolkit](#) or [contact us](#) to tell your own story!