Case Study

McPherson Hospital
Howell, Michigan

Diminishing landfill space in Livingston County has spurred interest in waste reduction. In 1987, the county's only operating landfill closed, and waste is now transported outside the county for disposal. The resulting search for local landfill sites has increased community consciousness and is prompting residents and businesses to examine their waste disposal habits.

Waste Consciousness Leads to the Return of Washable Dishes

McPherson Hospital, located in Howell, Michigan, is a 136 bed community hospital and a unit of the Catherine McAuley Health System. Staff at McPherson have implemented a series of waste reduction efforts...they realize that every pound of waste not produced saves already overburdened landfill space. In response to community and employee interest in waste reduction, Servicemaster Inc., McPherson Hospital's food service provider, has helped divert nearly 700 pounds of waste each month, by converting from disposable dishware to durable, washable dishware. Hospital kitchen employees were the driving force behind this waste reduction effort.
**Case Study**

**Source Reduction in Action**
Before using washable dishes, all cafeteria meals were served on disposable dishware—polystyrene plates, paper cups, plastic cup lids and straws. (While paper cups are currently used instead of washable glasses, ceramic cups have replaced polystyrene cups for hot drinks.)

The switch to reusable dishware proved to be quick and easy to implement. A motivated staff and a relatively independent manager were major factors in the implementation of the program. Since the hospital already used a dishwasher for washing cutlery, trays and plates for patient meals, the changeover required no major capital investment. Moreover, the hospital already possessed the space necessary for storing reusable dishware.

**Environmental Responsibility**
Using washable dishware has reduced waste at McPherson Hospital by 43 pounds per 1,000 meals served. Although labor costs have increased after the conversion to reusable—the hospital has spent significantly less on dishware and supplies.

Water, steam and electricity use increased after conversion to washable dishes. However, if the total energy use required to manufacture and distribute washable and disposable dishware were factored into a more complete analysis, total energy use may not have increased for reusables.

Fortunately, the capital costs of converting from disposable dishware to washable dishware are low enough to make the switch affordable in similar cases. For example, a new dishwasher of the same brand and size as McPherson's, amortized over its expected life, costs just $7 per 1,000 meals. Equipment costs, therefore, should not prohibit hospitals and providers of high-volume food services from switching to washable dishware.

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![Diagram comparing costs of disposable and reusable dishware]

**Disposable Dishware**
- Labor: 33.16%
- Dishware & Supplies: 64.22%
- Equipment & Utilities: 2.62%

Cost per 1,000 meals: $250.73

**Reusable Dishware**
- Labor: 61.62%
- Dishware & Supplies: 29.35%
- Equipment & Utilities: 5.34%

Cost per 1,000 meals: $265.73*

*Disposable paper cups are still used at McPherson. Conversion to washable glasses would reduce cost by almost $30 per/1000 meals, making reusable dishware less expensive to use than disposable equivalents.
**Further Source Reduction**

McPherson Hospital also uses volunteer workers in its waste reduction efforts. Four volunteers donate one day per week to repair or refurbish linen and bedding items that, in the past, would have been discarded. Each year, they:

- repair approximately 26 gown ties;
- convert about 25 bedsheets into stretcher sheets;
- convert 45 surgical drapes into biopsy cloths; and
- convert 26 blankets, mattress pads and quilts into potholders.

When disposable dishes were used, 50 thirty-gallon bags of trash were discarded from the kitchen daily. After the conversion to reusable dishes, the kitchen discarded only two thirty-gallon bags.

Glass, steel and aluminum containers collected by the food service department and other areas of the hospital are recycled, as well as office paper and newspapers. At the present time, the hospital has no outlet for its corrugated cardboard; however, it plans to recycle it as soon as a market is found. In addition, the hospital is an active community member and provides space for the local recycling drop-off center. The drop-off site is operated by a local recycling organization.

**Response to Public Concerns**

Despite some additional costs, McPherson Hospital and Servicemaster Inc. instituted the change in dishware systems at the urging of their employees and the community. The changeover exemplifies a willingness to respond to public opinion and provides an example of environmental responsibility.

Conversion from disposable dishware to washable dishware by all Michigan hospitals could reduce solid waste production by as much as 880 tons per year.
Hospitals and other high-volume food service providers with space and equipment for washing dishware, may also find it easy to institute a reusable dishware program. Some variation in procedures or additional hiring may be required, but the ease and speed with which Servicemaster Inc. converted to washable dishware at McPherson Hospital demonstrates how smoothly a nondisposable dishware system can be adopted.

Hospitals can further reduce the waste they generate by practicing the following methods:

- reuse packaging;
- repair and reuse linens and housekeeping materials;
- use washable instead of disposable gowns, linens and other single-use supplies;
- keep records on microfiche and use double-sided copies for necessary paper documents;
- keep report and memo writing to a minimum and limit distribution.

An economic analysis shows that using washable dishes does not substantially increase costs. The similarity in costs between using disposable and reusable dishware should provide an incentive to implement the least waste-producing system. As landfill costs continue to rise, it will become even more economically feasible to use washable dishware.

Organizations that respond to employee suggestions and encourage staff participation will find much success in the pursuit of their own waste reduction efforts.

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