

## Reusable Gowns and Basin Sets – Reducing Waste in the Operating Rooms

**Environmental and Human Health Impact:** Eliminating 30 tons of waste from landfill each year.

**Business Impact:** 3.8 percent cost savings by using reusable in place of disposable gowns, taking Total Cost of Ownership into consideration.

### Challenge

If you've watched a surgical procedure you'll see several trash bags of waste are removed from each procedure straight to landfill. Gowns, drapes, and basin sets are a major component.

Kaiser Permanente uses 800,000 gowns each year. In 2009, 700,000 of those were disposable and 100,000 reusable. 700,000 disposable gowns creates 158 tons of waste. Kaiser Permanente uses 85,000 basin sets each year. In 2009, 75,000 were disposable and 10,000 reusable. 75,000 disposable basin sets creates 56 tons of waste.

### Aim/Goal

Kaiser Permanente wanted to compare the performance of reusable gowns vs. disposables with respect to i) clinical performance, ii) total cost, iii) environmental trade-offs.

### Team

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### Actions Taken

- ✓ Formed a California cross-regional, cross-functional group
- ✓ Constructed a total cost of ownership model to compare the cost of reusables and disposables over their lifetime (including purchase price, tax benefits from renting, distribution, disposal)
- ✓ Constructed a model to evaluate the environmental trade-offs
- ✓ Conducted a facility assessment to understand the operational impact of the reusable gowns system
- ✓ Interviewed clinicians to understand their performance requirements for these products to create evaluation form
- ✓ Conducted clinical trials at three facilities to gather clinician feedback on the performance of the reusables

### Results

- ✓ Awarded national contract to SRI for reusable gowns and basin sets.
- ✓ Surgeons and Infection Control were not comfortable at this time contracting for reusable drapes.
- ✓ This delivers a 3.8 percent saving over disposable products.
- ✓ Usage of reusable gowns diverts 22.5 tons and usage of reusable basin sets diverts 7.5 tons of waste from landfills each year.
- ✓ Water consumption associated with the sterilization of reusable products was calculated at 180,000 gallons per year. However, we were unable to determine water consumption in the manufacturing of disposable products and therefore unable to determine if reusables pose and overall negative impact on our water consumption.

### Weighing the Environmental Impact:



### Lessons Learned

- ✓ Had to carefully understand all the environmental trade-offs between reusable vs. disposables to confirm which one was the more environmentally beneficial system.
- ✓ Reusables were determined to be the clear Environmentally preferable alternative

### Next Steps

- ✓ Educate facilities on total cost equation for using reusable gowns and basin sets, and educate them on the importance of conducting a facility assessment and assessing appropriate gown utilization ("right gown for the right procedure").