

## External Defibrillators – Saving Lives Through Design and Function

**Environmental and Human Health Impact:** Product requires 33 percent fewer raw materials (such as plastics, hazardous metals, paper) compared to equivalent product.

**Business Impact:** Nine percent cost savings in first year.

### Challenge

Automatic External Defibrillators (AEDs) are critical life-saving devices. Kaiser Permanente has more than 2,500 stationed throughout our facilities in case of cardiac emergency. When Kaiser Permanente's contract for AEDs was nearing expiration in 2008, the sourcing group for physiological monitoring products thought the time was right to evaluate the marketplace for new technology. The group found a marketplace with few viable alternatives in terms of products and capacity to serve KP. Additionally, competitors to Philips were struggling with quality and product recalls. The group then took on the challenge to identify a strategy to improve terms, conditions, pricing, service, and quality of the Philips products.

### Aim/Goal

To select an AED supplier that would service and support the needs of the existing equipment fleet, and provide new product model that met clinical and environmental expectations.

### Team

Dr. John Howse, Chair, Physiological Monitoring Core Group  
 Dr. Timothy Cotter, Member, Physiological Monitoring Core Group  
 Marlene Davis, Southern California Clinical Technology  
 Bridget Moorman, Northern California Clinical Technology  
 Andy Delgesso – Sourcing Director  
 Physiological Monitoring Core Group

### Actions Taken

- ✓ A market evaluation was performed to validate assumption that few viable alternative products and suppliers existed.
- ✓ Physiological Monitoring (PM) Core Group chose to perform thorough clinical evaluation of Philips' new product, the HeartStart MRx, to assess extended battery life, neonate compatibility, user interface, wireless data transferability from equipment to electronic health record systems, and environmental attributes.
- ✓ Requested product-level environmental performance data to compare old to new models.

### Results

- ✓ Negotiated a deal structure yielding waste reduction benefits spanning product's life-cycle:



**Manufacture**

**Use**

**End-of-life**

- |   |
|---|
| <ul style="list-style-type: none"> <li>• Smaller product = 33% less source material</li> <li>• Lead-free soldering</li> <li>• Compliance with E.U. restrictions on hazardous substances</li> <li>• Non-bleached packaging material</li> </ul> |
| <ul style="list-style-type: none"> <li>• Sustained support for existing equipment &amp; long-lasting battery = less hazardous waste</li> </ul>  |
| <ul style="list-style-type: none"> <li>• Extended supplier responsibility for end-of-life management of batteries</li> </ul>  |

### Lessons Learned

- ✓ Many companies are working to improve the environmental performance of their products, but are not necessarily educating their sales and account management staff on such efforts.
- ✓ It's important to take time to ask product-level disclosure questions, because environmental benefits and savings throughout the product's lifecycle can often be revealed.

### Next Steps

- ✓ Look into how Philips manages old trade-in defibrillators to ensure the company employs responsible product end-of-life management practices by donating operable or domestically recycling non-operational equipment.