Cost Relationships of Medical Textile Products

Howard M. Zins, Howard M. Zins Associates LLC
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Primary Factors in Healthcare Textile Selection

- Performance
- Cost
- Environmental Impact
- Health and Safety Issues
Challenge of Increasing Healthcare Expenses

- Healthcare Reform
- Secure funds to pay for programs
- Govt efforts – Pursue waste, fraud and abuse – Cost HC system Billions every year
- NEJM July 16, 2009 (John Iglehart)
### Total Healthcare Expenditures as a % of GDP

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2005</th>
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<tbody>
<tr>
<td>U.S.A.</td>
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<td>Canada</td>
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<td>9.3</td>
<td>9.6</td>
<td>9.8</td>
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<td>U.K.</td>
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<td>7.5</td>
<td>7.6</td>
<td>7.7</td>
<td>8.2</td>
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</tbody>
</table>
## Total Healthcare Expenditures as a % of GDP

<table>
<thead>
<tr>
<th>Country</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2005</th>
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<tbody>
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<td>China</td>
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<td>4.8</td>
<td>4.8</td>
<td>4.7</td>
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<tr>
<td>Japan</td>
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<td>7.9</td>
<td>8.0</td>
<td>8.1</td>
<td>8.4</td>
</tr>
</tbody>
</table>
Some Factors Underlying Rising Healthcare Spending

- As previously stated fraud, waste and abuse
- Aging Population – Baby boomers at, or close to, retirement
- Infectious and many other diseases
- Drugs, tobacco and accidents
- A perspective of entitlement in a free and prosperous society
## Cost Comparisons, Reusable and Disposable Surgical Gowns

<table>
<thead>
<tr>
<th></th>
<th>Reusable</th>
<th>Disposable</th>
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</thead>
<tbody>
<tr>
<td>Initial Cost</td>
<td>$60.00</td>
<td>$4.50</td>
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<tr>
<td>Cost/Use*</td>
<td>1.20</td>
<td>4.50</td>
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<tr>
<td>Admin. Costs</td>
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<td>.15</td>
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<tr>
<td>Laundering</td>
<td>.50</td>
<td>--</td>
</tr>
<tr>
<td>Pack Mkng, Strlzn</td>
<td>.40</td>
<td>--</td>
</tr>
<tr>
<td>Waste Dispsl</td>
<td>--</td>
<td>.25</td>
</tr>
<tr>
<td>Total Cost/Use</td>
<td>$2.25</td>
<td>$4.90</td>
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</tbody>
</table>

* 50 uses
## Possible Variations

<table>
<thead>
<tr>
<th>Number of Use Cycles</th>
<th>Total Cost/Use</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Reusable</td>
</tr>
<tr>
<td>50X</td>
<td>$2.25</td>
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<tr>
<td>40X</td>
<td>$2.55</td>
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<tr>
<td>30X</td>
<td>$3.05</td>
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</table>
Conventional Costs

Capital equipment
Materials
Labor
Supplies
Utilities
Structures
Hidden Environmental Costs

Regulatory Related

Monitoring/Testing    Inspections
Reporting              Waste Management
Remediation            Medical Surveillance
Testing                Taxes/fees
Record keeping
Additional Hidden Environmental Costs

Contingent Costs

Future compliance costs
Penalties/fines
Property damage
Legal expenses
Natural resources damages
Cost Comparisons

- Anecdotal Information
- Actual Studies – With Controls
- Life Cycle Assessment Evaluations
Mercy Healthcare

- Sacramento, CA
- Conversion of Disposable to Reusable Fluid Impermeable Gowns
- $60,000 Annual Savings
Intermountain Hospital System

- Throughout the state of Utah
- Conversion of disposable to reusable surgical packs
- $250,000 annual savings
University of Minnesota (MnTAP)

- Life Cycle Assessment (LCA)
- Fairview Medical Center, Minneapolis
- Reusable Surgical Gowns
- Cost Savings - $360,000/year (relative to disposable gowns)
- Waste Reduction 254,000 lbs/year
Winter Haven Hospital

- Winter Haven, FL
- Conversion of disposable to reusable fluid impermeable gowns
- Cost per procedure
- Disposable - $37.21
- Reusable - $26.45
- Savings - $10.76
Potential Global Cost Savings

Estimate – 70-80% current surgical pack materials – single use disposable

Annual global surgical procedures

120 million procedures $0.8 \times \$10.75 = \$1.032\text{ Billion}
Overall Perspective

- Cost is One Factor
- Total Value Considered
- Rising Medical Expenses – Some Positive Aspects

The Business of Medical Care
Employment of Professionals, et al
Save and Prolong Life, Alleviate Suffering
Toward an Improved Global Society