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Can Sustainable Hospitals Help Bend the Health Care Cost Curve? A Research Study

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Why study cost savings from sustainability in health care?

- ▶ Health care has a large environmental footprint: Hospitals are the second-most energy intensive buildings in the U.S. The health care sector creates thousands of tons of waste a day and is the single largest user of chemicals.
- ▶ There is considerable data that greening health care not only protects health and the environment, but also saves money.
- ▶ We asked: How much money could we save if sustainability activities were implemented in hospitals nationwide?
Hypothesis: a significant amount.

Our study

- ▶ Linking this project to the objectives of the Healthier Hospitals Initiative, the Health Care Research Collaborative studied cost savings of a sample of hospitals that implemented greening activities in three areas:
 - ▶ Energy efficiency – a range of energy efficiency/conservation measures
 - ▶ Waste reduction - recycling, minimization of RMW, reduction of total landfilled waste
 - ▶ Efficient purchase of OR supplies – OR pack reformulation, SUD reprocessing



Our study

- ▶ We collected data from each study facility, for baseline and up to five years post-implementation of intervention, including incremental costs of implementation.
- ▶ For each area of sustainability, we selected a metric to use for extrapolation of the results of the study hospitals to all hospitals nationally.
- ▶ We carried out the extrapolation.

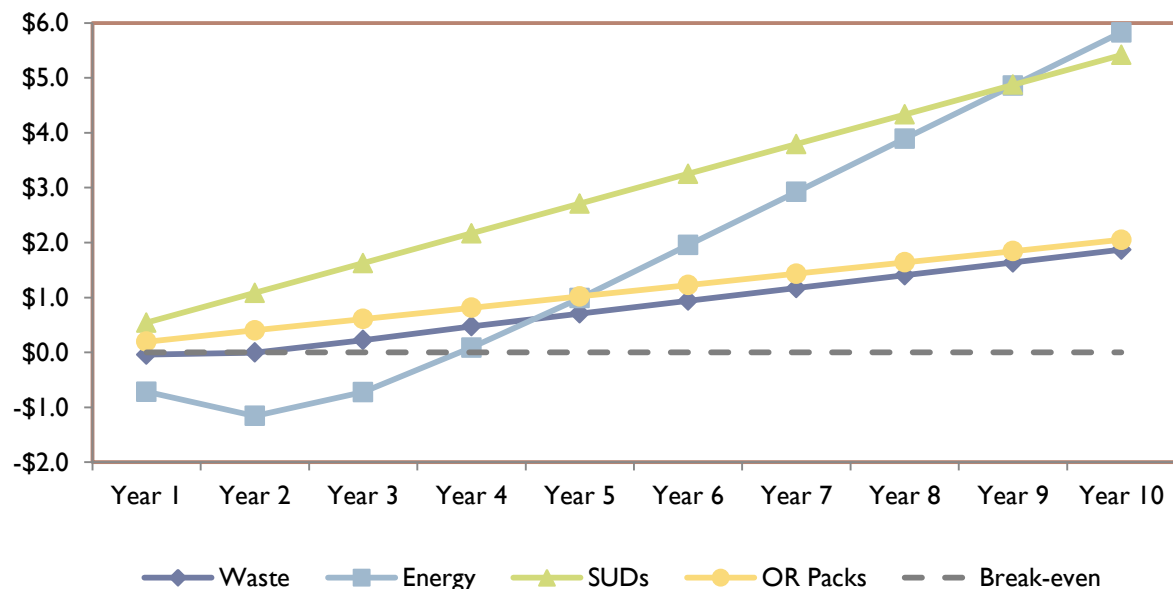


Study findings

- ▶ If all U.S. hospitals implemented these sustainability activities, cost savings could exceed \$5.4 billion over five years, and \$15 billion over 10.

Estimated Cumulative Net Savings	
\$ billions	
Year 1	-\$0.02
Year 2	\$0.32
Year 3	\$1.73
Year 4	\$3.54
Year 5	\$5.42
Year 6	\$7.37
Year 7	\$9.32
Year 8	\$11.3
Year 9	\$13.2
Year 10	\$15.2

Components of Estimated Cumulative Net Savings, \$ billions



Study findings

- ▶ Every one of these green activities saved money for the hospitals implementing them.
- ▶ Payback periods varied. For some activities, such as reprocessing of single-use devices, cost savings began immediately.
- ▶ For energy efficiency, there were two areas of improvement:
 - ▶ no cost/low cost interventions that can be undertaken any time
 - ▶ higher-cost interventions often best done as part of major renovation or new building



Conclusions and recommendations

- ▶ *The old understanding:* hospitals should implement sustainable practices because of the social costs of pollution, even though it will cost them more. *The new understanding:* hospitals should implement sustainable practices because it reduces costs to society AND to themselves.
- ▶ All hospitals should adopt these interventions.
- ▶ Where capital investments could be financially burdensome, public funds should be used to provide loans or grants, particularly to safety-net hospitals.