



Letting Data Drive The Mission

Environmental Sustainability in
Healthcare

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PRACTICE
Greenhealth™

Objectives

1. Learn how to gather **baseline data** for waste stream volume and disposal costs
2. Learn how to analyze opportunities for **reducing costs** and waste generated
3. Learn the value of organizing your waste profile data and how it can enable **goal setting, business case proposals, fact-based contract negotiation**
4. Lessons learned and gains made by DHMC



Linking Environmental Commitment to your Organization's MISSION



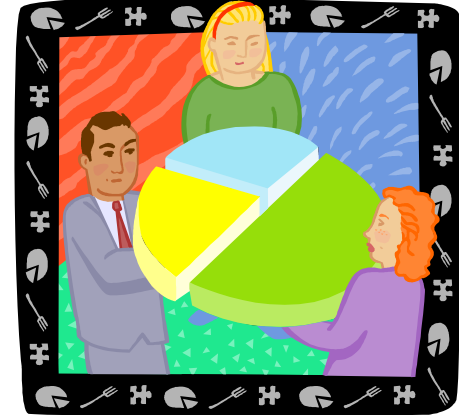
Stewardship



Environmental
Financial
Material

Requires a
Culture
Change

Environmental Stewardship: A Cultural Shift



Commitment from the
TOP-DOWN
and
BOTTOM-UP

LEADERSHIP

COORDINATION
Green team

COMMUNICATION
Inspire

EDUCATION
Teach best
practices

ACCOUNTABILITY
Measure to
manage better



Define Your Team's Identity and Intention

- Who should be at the **Green Team** table?
 - ❖ People with **PASSION**
 - ❖ Key Stakeholders: Nurses, Physicians, Public Relations, Facilities, Environmental Services, Infection Control, Materials Management, Pharmacy, Food & Nutrition, Construction, Ethics, Mission & Spiritual Care Leaders
- Mission Statement & Logo

“To reduce the environmental impact of hospital operations”



Keeping it Green

What Kinds of Waste Does Healthcare Produce?

Solid Waste	Regulated Medical Waste	Hazardous Waste	Chemotherapy Waste
Liquid Waste	Radiological Waste	Recycling	Organic Waste
C&D Waste	Pharmaceutical Waste	Sharps	Donations

Gathering the Data

- Identify:
 - Waste stream types
 - Departments managing and paying for disposal
 - Vendors responsible for disposal of each type
 - Don't forget reused and donate materials
- Obtain:
 - Source documentation from vendors for a defined time period (year, quarter, month)
 - Reports and invoices
 - Cost and volume data

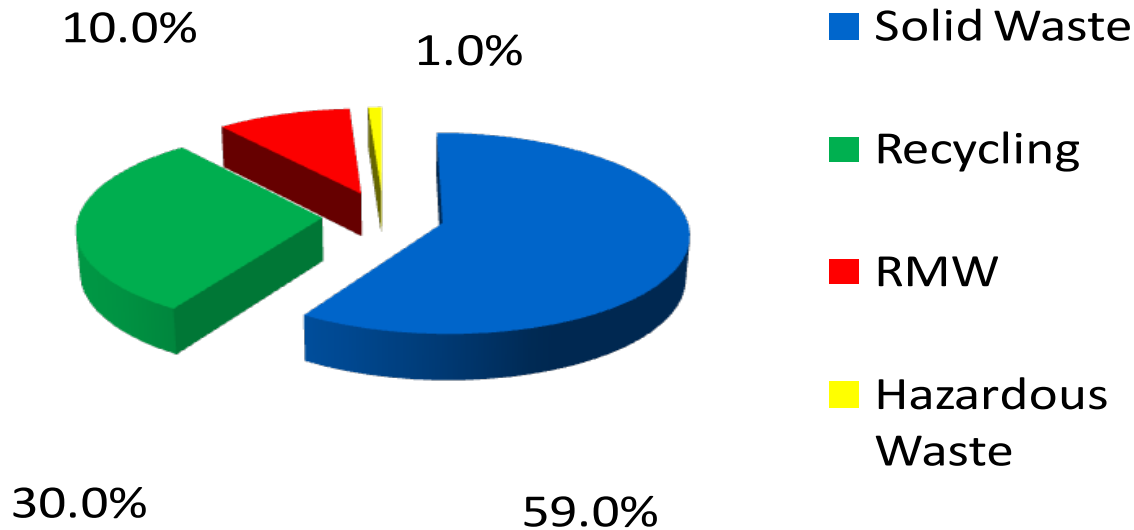
Don't forget to consider....

- Ice packs / coolers
- Computers /Electronic equipment
- Toner cartridges
- Printer ribbons
- Sharps containers
- Batteries
- Fluorescent lamps
- Landscape (composting waste)
- Construction/demolition
- Solvents
- Cardboard
- Paper, white
- Paper, mixed
- Newspaper
- Boxboard
- Plastic, #1PET
- Plastic, #2 HDPE
- Plastic, #5 polypropylene
- Plastic, #6 PS
- Plastic, mixed
- Shrink wrap
- Glass, clear
- Glass, colored
- Glass, mixed
- Oil (cooking, motor)
- Steel cans
- Aluminum cans
- Food waste (composting)
- Food donation
- Linens (reused for rags only)
- Pallets
- Wood
- Tyvek
- Transparencies
- Ink jet cartridges
- Foam peanuts



Baseline data: The First Step

Optimal Waste %



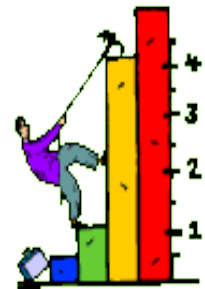
Baseline data defines your starting point



Foundation for goal setting

Create & Monitor Measurable Goals

- **Measurable** - define the goal in terms of 'how much' and 'by when'
- **Accountable** - define 'who' on the team and within the organization is responsible for managing and reporting on the goal
- **Strategic** - define tactics or action plan on how the goal is to be accomplished, how it fits with other goals of the organization, and provide regularly scheduled updates at green team meetings and to leadership



Sample Waste Reduction Goals



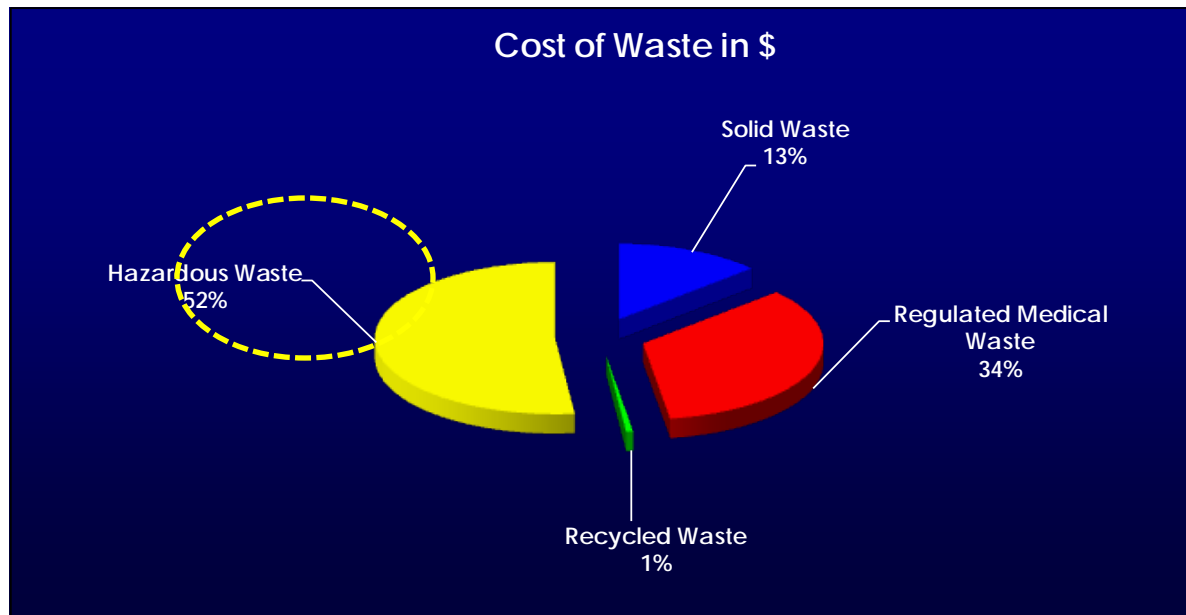
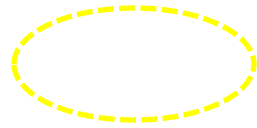
1. Reduce Hazardous waste by 1% by 12/31/09
1. Reduce Medical Waste disposal costs by 10% by 12/31/09
2. Increase Recycling by 5% with a stretch goal of 10% increase by 12/31/09

Analyze opportunities

- Compare to benchmark data
- Learn about best practices
- ASK:
 - Greatest financial gain?
 - Vendor 'add on' fees necessary?
 - Utilization changes? - fewer pick ups, larger dumpsters, reuse or recycling?
 - Maximizing revenue from recycling?
 - Workflow and training necessary to segregate waste more safely and less costly?
 - Changes in purchasing policies? i.e., packaging, take back programs, recycling?



How Data Drives Goals...



Reporting the Successes



- Spot trends and support goal achievement
- Business case to upper management
- Community benefit
- Demonstration of Mission
- Equate it to savings = \$\$\$, green house gas emissions, trees, water AND healthier environments for staff and patient



Where do I Start?

- 1. Make a list of waste streams**
- 2. Research data sources**
- 3. Compile the data – make it simple**
- 4. Determine the baseline proportion of all waste streams**
- 5. Set achievable goals**
- 6. Identify tactics and strategies to achieve goals**
- 7. Work with peer managers and others to create momentum and drive changes**
- 8. Don't give up!**

Reality at Dartmouth-Hitchcock Medical Center



John Leigh
Manager, Waste and Recycling Programs



DHMC: an academic medical center consisting of 3 major components: Hospital, Clinic, Med School

Figures regarding size

▫ Square feet, main facility	1.8 million
▫ Clinic outpatient visits	526,366
▫ Hosp. patients discharged	23,901
▫ OR Cases	18,000
▫ Employees	5,700
▫ Staffed beds	386
▫ Residents	360

Whom I gather waste data from

- Vendors (a dozen or so)
- Other departments (Pathology, Engineering, Med School, Safety, Radiology, Inventory & Logistics)
- My staff (Excel spreadsheets)





NO DRINKING OR EATING IN THIS ROOM

APPROXIMATE TO BE OPERATED BY AUTHORIZED PERSONNEL ONLY

6-1000

What I've done with data

- Track changes (generation, costs, composition)
- Generate ideas, prioritize actions
- Measure progress, see what needs attention
- Win environmental leadership awards
- Better manage our:
 - Haulers
 - Processors
 - Equipment
 - Budget

Thank You for your Attention!

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