

# Green Cleaning for a Healthy Facility



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&  
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Metro Health Hospital is a 208-bed LEED certified Osteopathic teaching hospital serving the Greater Grand Rapids, Michigan community.

Environmentally friendly features such as the 48,500 sq.ft. green roof, rain gardens, water conserving faucets and fixtures, motion sensitive lights, and paints and furnishings that are designed to improve air quality are all features that contribute to our recognition as a Clean Corporate Citizen by the MIDEQ.

Metro has taken numerous steps to provide a healthy environment. We have a strong focus on water and waste stream management, recycling and energy conservation, as well as green cleaning.

# Metro Health Hospital



# Metro Health

Built in 2006, moved October 2007



# Expectations of Clean

- Public Expectations
- Allows for reuse of space and materials
- Helps extend life of materials and space
- Helps maintain property value/reduces depreciation
- Reduces exposure to bacteria, viruses, and fungi



# Cleaning Industry Statistics

- 12% of work-related asthma is from cleaning products
- Average cleaning worker uses 23 gallons of chemicals/year. *American School & Hospital Facility*
- “35% of conventional cleaning products can cause blindness, severe skin damage, or damage to organs through the skin.”  
*Hospitals for a Healthy Environment*
- Average cost per chemical exposure in industry is \$625  
*Washington State*
- 18% loss in productivity due to IAQ problems related to chemical cleaners  
*BOMA*
- U.S. EPA study shows \$60B loss in productivity due to chemical cleaners

About 4.1 million people in the US are employed as janitors, cleaners, maids, and housekeeping staff, which further underscore that “cleaning” is big business.

US economy (Bureau of Labor Statistics 2009).



### **Improved Indoor Air Quality**

- › Use of Green Seal Certified cleaning products (hydrogen peroxide based) in place of harmful disinfection chemicals based on type of clean or disinfection needed.
- › Vacuuming of all patient rooms daily using ULPA filtered vacuum significantly increases indoor air quality

### **Reduction of water usage**

- › Microfiber mop system that cut annual water use by 43,000 gallons (\$\$) and led to a 90% reduction in chemical use

### **Better product utilization**

- › Saved \$11,500/year in cleaning products by re-evaluating and changing product line

### **Employee Safety**

- › Reduction in back and shoulder injuries

# Ground Work

- › **Start Small.**

Green cleaning was the first step Metro Health took to sustainability (2004). Looking back this was probably the easiest program to implement.

- › **Do your homework**

- › Build your Plan—Build your roadmap
- › Build your budget. (fiber mop, fiber towels, new chemicals, etc.)

- › **Sell your ideas to the “C suite”**

- › Reduction in employee injury's.
- › Reduction in water usage.
- › Reduction in chemical usage.
- › **Increase Patient Satisfaction Scores**



Groundwork

Assessment

Planning

Implementation

Evaluation

# Organizational Commitment

In order to have a successful sustainability program you must have the "C Suite" Involved.

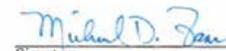


## Environmental Statement

Metro Health Hospital recognizes the interdependence mankind has with the natural environment. As an institution committed to improving the health and well being of our patients and the communities around us, Metropolitan Hospital will work to promote healthy and progressive business practices to enhance and protect the environment around us, thus maintaining a sustainable business.

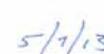
In order to foster the "Best" experience for our patients, employees, physicians and the communities that depend on us, Metropolitan Hospital will carry out this environmental policy in the following manner:

- Emphasize continuous quality improvement activities to promote and protect the needs of the environment.
- Promote the elimination, reduction, and recycling opportunities of waste wherever feasible and prudent.
- Work closely with knowledgeable organizations (i.e., Practice Green health, U.S. Green Building Council's West Michigan Chapter, West Michigan Sustainable Business Forum, and the Michigan Department of Environmental Quality) for guidance, knowledge and further understanding of sustainable business practices in West Michigan.
- Provide transparent information to our colleagues, patients, and the community on the environmental goals Metropolitan Hospital has set forth and achieved.
- Active membership in the Michigan Clean Corporate Citizen (C3) program.
- Facilitate effective training to our colleagues on the procedures and processes mandated by the local, state and federal regulations.
- Empower colleagues to voice their opinions to promote progressive thinking that benefits the environment, society and the economy (e.g., suggestion boxes, quarterly meetings).



  
 Signature Title Date



  
 Signature Title Date

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# Organizational Policy

- › **Mission Statement.** As a healthcare institution, there is an institutional commitment to improving the health and well being of our patients and the community around us.
- › In addition, an organization **Environmental Statement** that promotes healthy and progressive business practices that enhance and protect the environment around us to maintain a sustainable business is a commitment that should be created and signed by Senior Leadership.
- › Most **Environmental Statements** in healthcare organizations can be easily paired with the institution's **mission** and **vision**.

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## Assessment

- › Staffing: find the team leaders
- › Review all policies
- › Equipment inventory
- › Labor assessment. Time studies.

## Policies

- › Start to build your cleaning policies around sustainability.
- › “The Sustainable Management Plan”

## Equipment

- › Inventory your equipment and assess the lifecycle
- › Build your capital plan it may take 2-3 years to get all the right equipment.
- › Is leasing an option.

## Supplies.

- › Work with your current supplier or GPO. They need to be involved and will be a valuable resource for your program

# Hospital Cleaning Basics:



**"Excess product use increases occupational and environmental risks without improving infection prevention and control effectiveness."**

*Healthcare Research Collaborative*

## 2008 – CDC adopts *The Guideline for Disinfection and Sterilization in Healthcare Facilities*

- Critical 10%
- Semi-critical 25 – 45%
- Non-critical infection risk 45 – 65%

•**Cleaning** – *removal of visible soil from objects and surfaces using water with detergents or enzymatic products*

•**Disinfecting** – *process that eliminates many or all pathogenic micro-organisms, except bacterial spores, on inanimate objects*

•**Sterilizing** – *process that destroys or eliminates all forms of microbial life, including bacterial spores*

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# What does a sustainable EVS program include?

- › Products
- › Procedures
- › Equipment
- › Safety/ Training
- › Waste Stream management



# Products

- › Reduce the number of SKUs
- › Look to paper, plastic, and hand washing products that are environmentally conscious.
- › Purchase cleaning chemical that are environmentally and employee friendly.
- › Utilize microfiber cloths and mops
- › Find equipment that reduces chemical use and dust but still provides the desired outcomes.



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# Procedures

- › Create new procedures that revolve around your new green chemicals and equipment. Have your supplier help you with these. Some may have software available to produce the procedures.
- › Make EVERYTHING accessible, all employees should have access to these procedures, policies, and MSDS.
- › Training is key! Making sure the staff is using these products and procedures and that they a good understanding of how and why they work, so they can in turn explain to others with confidence.

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# Equipment

- › Purchase labor saving equipment. The reality is you are not going to get more FTE's to support this program so purchase the right equipment.
- › Purchase equipment that is quiet, saves water and chemicals. This will reduce your cleaning chemical expense.



## Safety/Training



On-going education  
&  
Methods for improvement

### Weekly In-Service Topics for Week of January 16

#### Safety Topic: Chemical Safety

- Make sure all chemicals are properly labeled.
- Do not mix chemicals.
- Wear gloves when using chemicals.
- Put carts away in closet when not in use.
- Keep dispatch and other wipes on shelves behind doors.

#### Method of Week: Commode Cleaning and Placement

- Clean commodes thoroughly including the bottom side and legs.
- Seat and seat cover come off for easy cleaning if necessary.
- Commodes to be left in patient rooms unless more than 1.
- If more than 1 commode in room it is to be cleaned and put in Clean Equip Room.
- **ABSOLUTELY NO COMMODOES IN SOILED UTILITY CLOSETS!!!!**

#### General Topic: White Board Cleaning

- All whiteboards to be cleaned with Oxivir wipes.
- If no Oxivir wipes are available only other option is Glass cleaner.
- **NO CRÈME CLEANSER ON WHITE BOARDS!!**

#### Daily Room Cleaning Reminders

- We are cleaning every room every day on patient floors. **DO NOT** write down your possible discharges or patients length of stay. These are non factors now and can be misleading.
- Duty lists are to be followed and used daily. All tasks should be done in order and in an efficient manner. If you feel a duty list needs to be changed you must discuss with management.

#### Isolation Discharges

- Remember we are now running Iris after Discharge clean is complete.
- **DO NOT** avoid isolation discharges. They are to be cleaned in order of discharge time like any other room.

#### Vacuums

- The upright vacuums without hepa filtration can no longer be used in most of the hospital.
- The only places non hepa vacuums may be used is in Professional building and on the lower level
- The ulpa filtered vacs on your cleaning carts should be used in rest of hospital.
- We do have one hepa filtered Clark upright vacuum that is ok for use anywhere in hospital.
- If you have one of the old non hepa uprights in your area it needs to be brought down to CUP Tuesday Jan 17<sup>th</sup>.

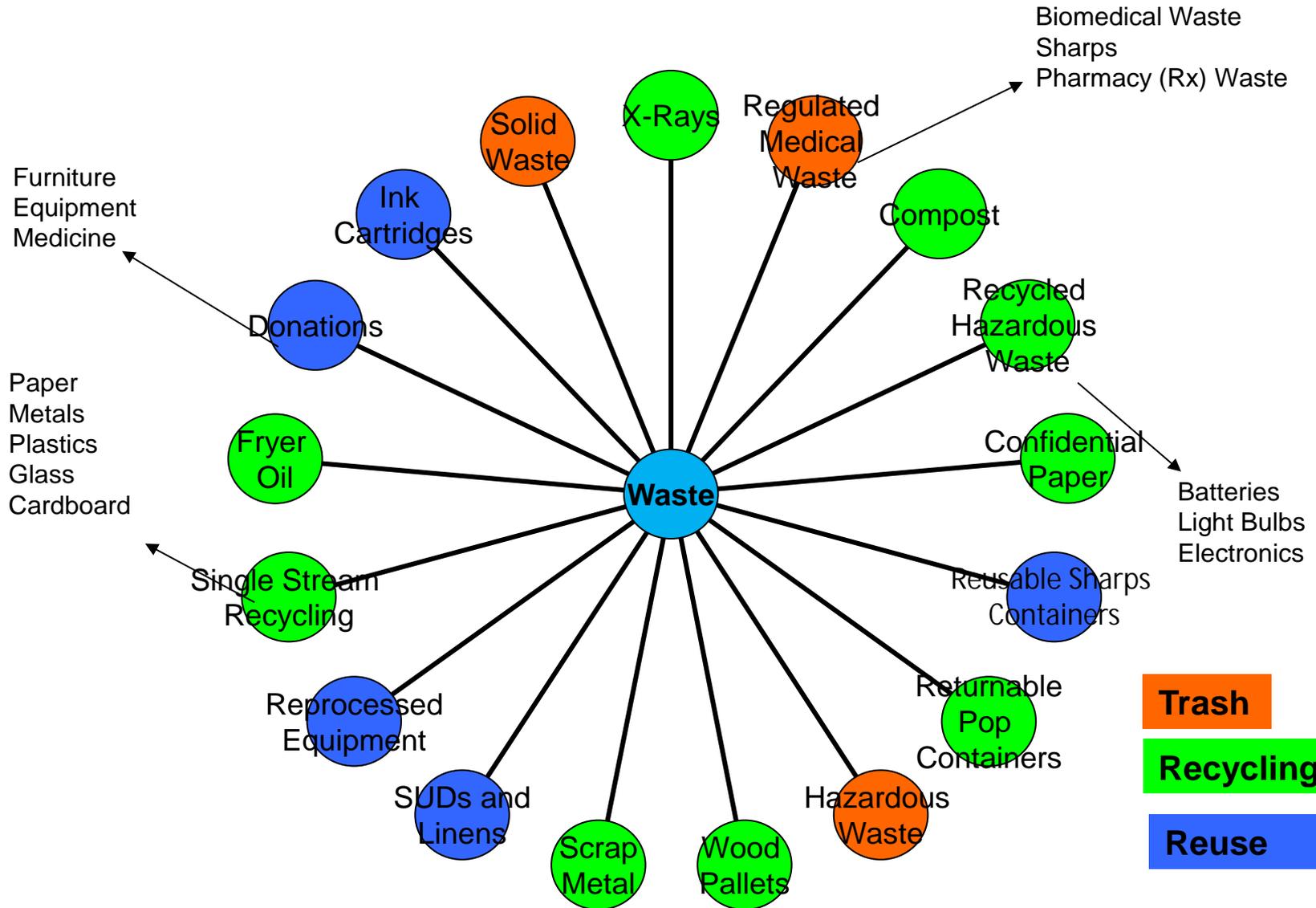
# Managing the Waste Streams

- › Analyze Waste Streams
- › Set Clear Goals
- › Start with education and Reuse
- › Maximize Recycling
- › Continue down the Sustainability Path
- › Involve People

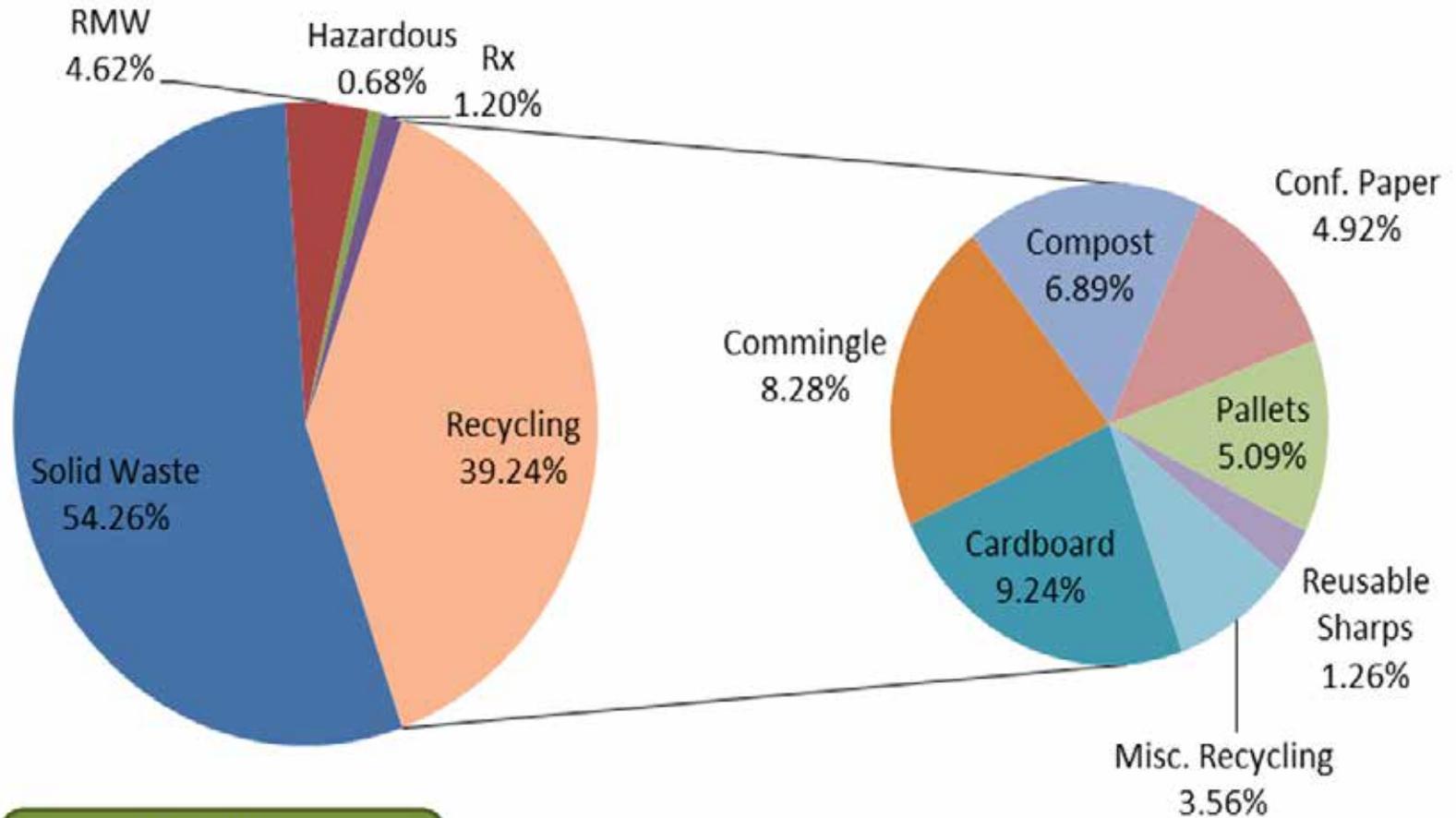
BOMA, Brian Green



# Waste Streams

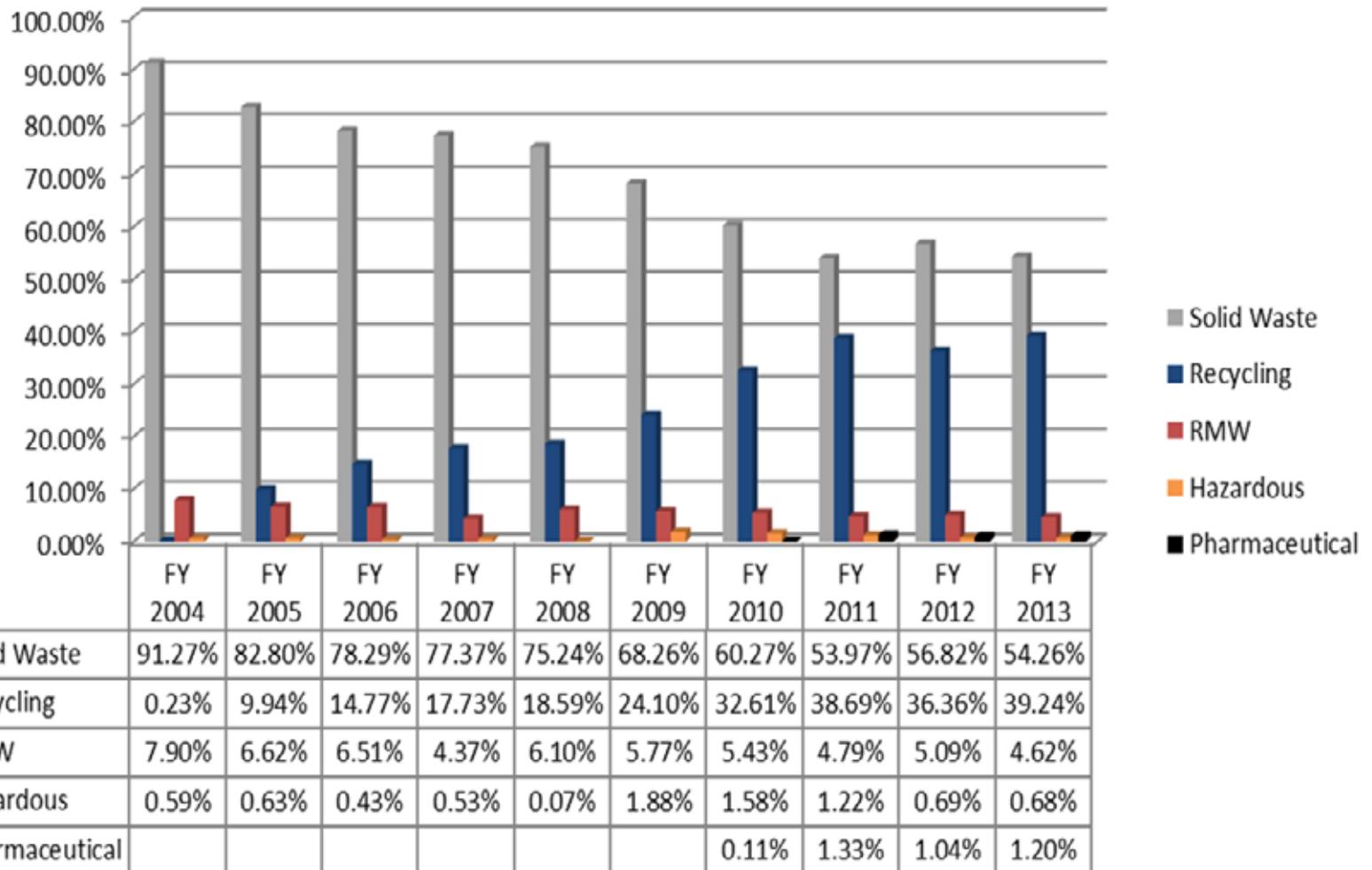


## FY13 Hospital Total Waste Breakdown

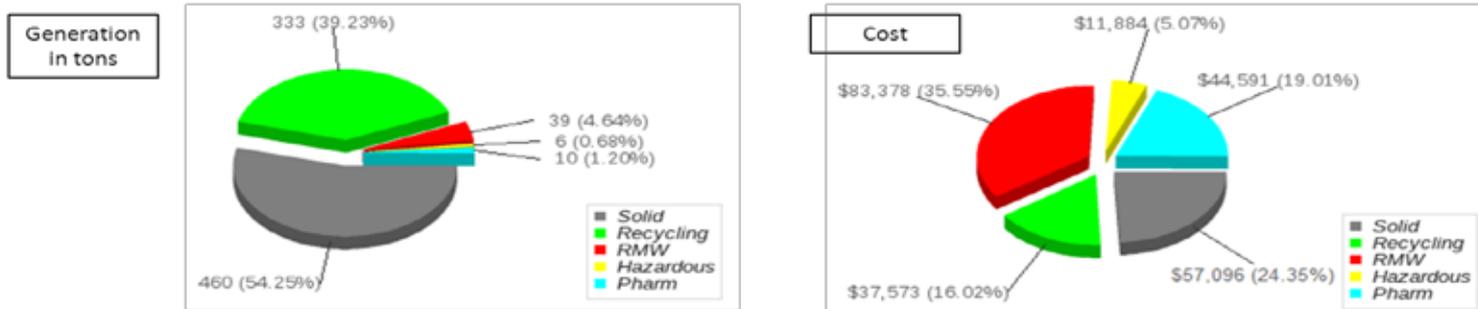


1.7 million  
pounds of recycling and  
a 39.24% recycle rate

## Metro Health Hospital Summary of Waste Generation FY04-Present



## FY13 Hospital Waste Generation versus Waste Cost



	Tons Generated	% of Total Waste Stream	Total Disposal (Net) Cost	% of Total Waste Costs	Disposal Cost/Ton (Net)
Solid Waste	460	<b>54.25%</b>	\$57,096	<b>24.35%</b>	\$124
Recycling	333	39.23%	\$37,573 (\$19,643)	16.02%	<b>\$113 (\$59)</b>
RMW-red bag	23	2.71%	\$12,293	5.24%	\$534
Sharps (service)	16	1.89%	\$71,085	<b>30.31%</b>	<b>\$4,443</b>
Hazardous	6	0.68%	\$11,884	5.07%	<b>\$1,981</b>
Rx	10	1.2%	\$44,591	19.01%	<b>\$4,459</b>
<b>Total</b>	<b>848</b>		<b>\$234,521</b>		

Total cost pie chart shows disposal costs and does not include rebates. Net costs are identified in the table for recycling.

RTD Chemical System:  
Ready to Dispense

Choose Chemicals and  
Cleaning Products Wisely.....



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*Metro Health EVS teams begin each day of routine cleaning with Trash and Recycling removal- assuring that the waste streams are managed properly*



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# *Team Cleaning with EVERY room vacuumed EVERY day*

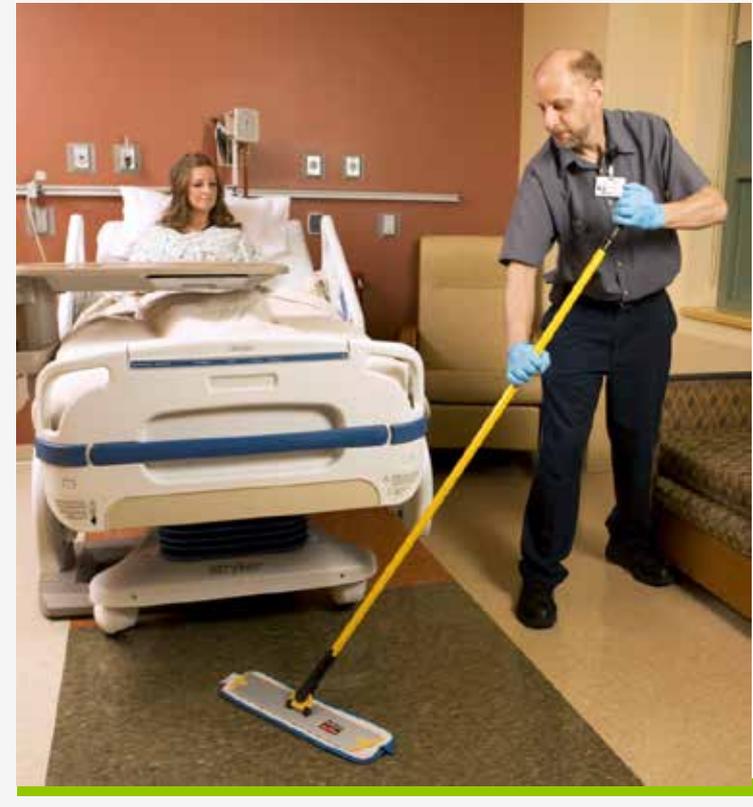
*-Removal of dust and particulate matter from floor and other surfaces via the XRO system, utilizing proprietary carts with ULPA filtration vacuum .*



Groundwork	Assessment	Planning	Implementation	Evaluation
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## Microfiber Cloths and Mops

Wiping of touch points with color coded single use microfiber cloths, presoaked in germicidal solution. Mopping with microfiber mop in neutral cleaner following the daily vacuuming.





Ride on  
Burnisher

BOOST  
autoscrubber



## Floor Care Program

Utilization of equipment that is best fit for facility needs, and that eliminates the need for harsh chemicals such as floor strippers

# Department Checklist Training Records

# Safety/Training

## Department Orientation Checklist

Name:		Location/Position:	
Date of Hire:		Shift:	
	Date	Supervisor Initials	Employee Initials
<b>Policies</b>			
Hospital Orientation Completed			
Review Mission Statement/Handbook			
Uniforms/ID issued			
Grooming and Appearance			
Sign-in/ Sign-out & Break Times Explained			
Days On/Off Schedule Reviewed			
Pay Day			
Parking			
Explain phone system/pager use			
Attendance Policy Explained			
Confidentiality/Ethics/Patient Privacy			
Job Description Reviewed			
Human Resources & Benefits explained			
Tour of Facility & Introductions			
<b>Safety</b>			
Bloodborne Pathogens			
Needle Stick Prevention			
VRE/MRSA/TB/C-Diff			
Standard Precautions			
Waste Handling			
Hand Washing			
Hazcom/MSDS			
Hospital Codes/Disaster Plan/Fire Safety			
Equipment Safety			
Safe Lifting			
Avoiding Falls, Slips and Trips			
Incident Reporting			
<b>Customer Service</b>			
Scripting			
Patient Interaction			
<b>Specific Skills Training - Cleaning</b>			
Patient Room Cleaning			
Restroom Cleaning			
Isolation Room Cleaning			
Chemicals			
<b>Specific Skills Training - Floorcare</b>			
Floor Care			

## Individual Training Record

Name:		Hire Date:		Position:			
1 Week Follow-up Due:		8 Week Certification Date Due:					
Completed by Supv.		Initial Training		8 Week Certification		Annual Training	
Date:	Supervisor	Employee	Supervisor	Employee	Supervisor	Employee	
Supv Sign:	Date	Initials	Date	Initials	Date	Initials	
<b>Infection Control/Safety</b>							
Personal Protective Equipment							
Glove Use							
Hand Washing							
Ergonomics							
Chemical Safety							
Electrical Safety							
Blood Borne Pathogens							
Universal and Isolation Precautions							
Hospital Acquired Infections							
Cross-Contamination Prevention							
Needlestick Prevention							
Right-to-Know/MSDS							
<b>General Cleaning</b>							
Cart Set-up							
Sanitizing Cloths Set-up/Use							
Preparing (Loading) Micro-Fiber Mops							
Review of cleaning chemicals							
How to dispense using RTD System							
Use of Germicide							
XRO 1&2 - Use							
Removing trash from room							
Vacuuming high ledges							
Vacuuming floor							
Damp Wipe Sanitizing							
Bathroom Cleaning							
Shower Cleaning							
Damp Mopping using Micro Fiber Mops							
Isolation Room Cleaning							
Bed Discharge Cleaning							
<b>Specific Skills Training</b>							
Waste Handling - Chemo, Bio-Haz, Clear							
Carpet - Spotting, Extracting							
Floor Burnishing							
Floor Top Scrubbing							
Floor Stripping							
Archiving Floor Finish							

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# Training, Rounding, & Customer Satisfaction



Stop Light Report: Rounding Follow-up

Date: \_\_\_\_\_

Take a look at some of the Facility and Support  
Services rounding results.

	ISSUES RESOLVED (GREEN)	IN PROGRESS (YELLOW)	CAN'T COMPLETE AT THIS TIME, AND HERE'S WHY (RED)
Childbirth Center			
L3			
L4			

Rounding Tool  
Facility Services Management: \_\_\_\_\_

Roundee: \_\_\_\_\_

Date: \_\_\_\_\_

1. What's working well as far as our interaction and presence in your department or area?

2. Anyone I should reward, thank, or recognize? Why?

3. What could be working better? Are there any concerns that you are aware of that I need to address?

4. What is one project or issue that we should focus on improving this month?

On a scale of 1 (poor) to 5 (very good) rate the following:

(N/A, 1-Very Poor, 2-Poor, 3-Fair, 4-Good, 5-Very Good)

-Overall Quality (Do you receive the service/product you expect?) \_\_\_\_\_

-Responsiveness of Management \_\_\_\_\_

-Day to day operations run effectively and efficiently \_\_\_\_\_

-Cleanliness of your area (EVS only) \_\_\_\_\_

-Cleanliness of public areas (EVS only) \_\_\_\_\_

-Ability to contact department via phone/person/system \_\_\_\_\_

- Attitude/friendliness of staff \_\_\_\_\_

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# Resources and Tools

- › Green Guard  
<http://www.GREENGUARD.org/en/index.aspx>
- › Practice Green Health  
<http://practicegreenhealth.org/>
- › Green Guide for Health care <http://gghc.org/>
- › Xanitos Cleaning <http://xanitos.com>
- › BOMA Magazine
- › ASHE <http://www.sustainabilityroadmap.org/>