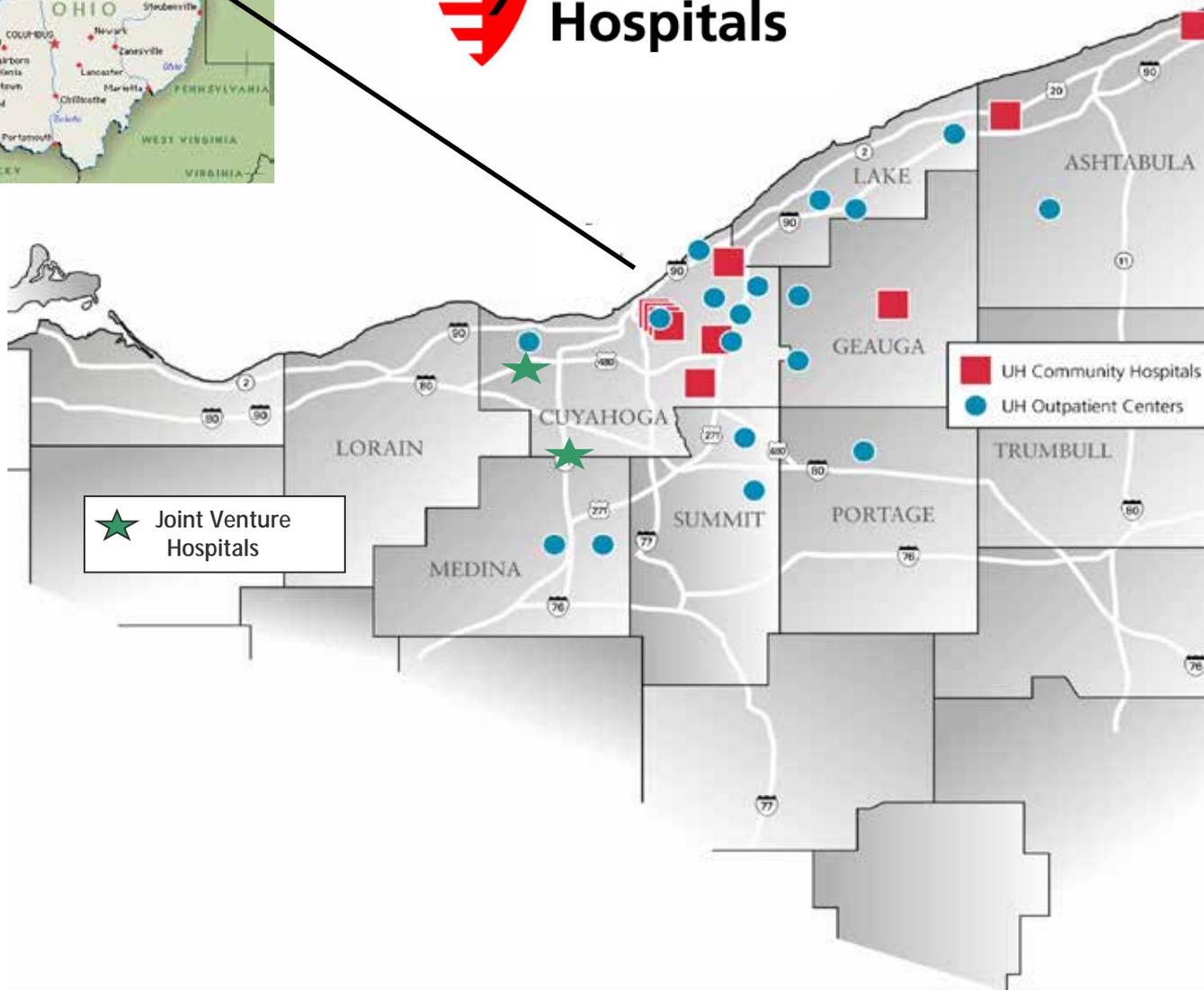


# Greening UH for a healthy community.



## **Clinical leadership in healthcare sustainability: focus on safer chemicals**

Aparna Bole, MD  
Sustainability Manager  
University Hospitals  
Assistant Professor, Department of Pediatrics  
UH Rainbow Babies & Children's Hospital



# University Hospitals Health System

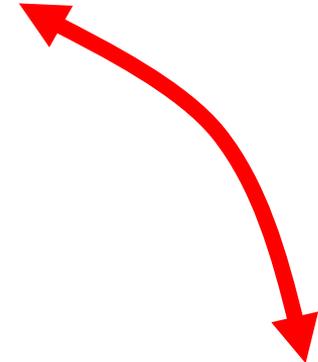


## Key Statistics:

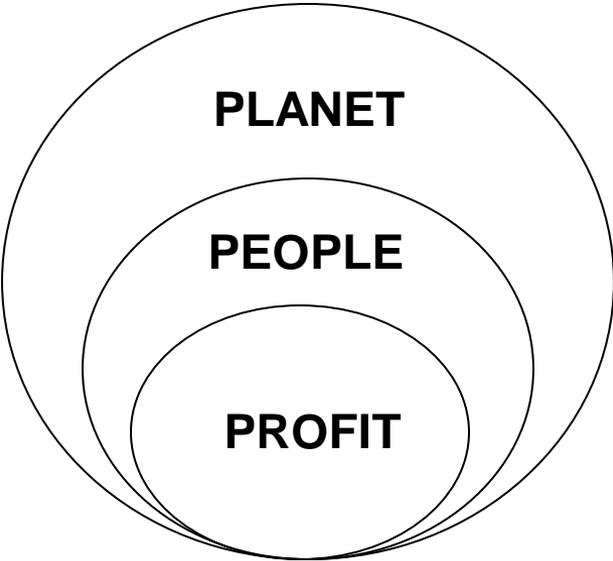
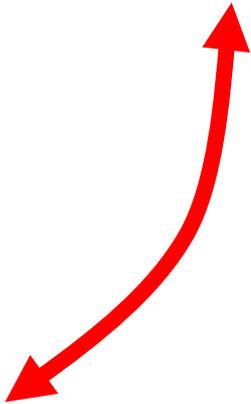
- 1752 registered beds
- 807 staffed-bed Academic Medical Center
- 6 Wholly-owned Community Medical Centers
- 2 Joint Venture Hospitals
- 21 Health Centers
- 5,308 Total Providers<sup>(a)</sup>
- Total Revenues of \$2.2 billion
- \$176 million NIH Grants in conjunction with Case Western Reserve University
- \$41 million Industry Sponsored Research
- 93,627 Discharges<sup>(a)</sup>
- 79,251 Surgeries<sup>(a)</sup>

(a) Includes Joint Venture Hospitals

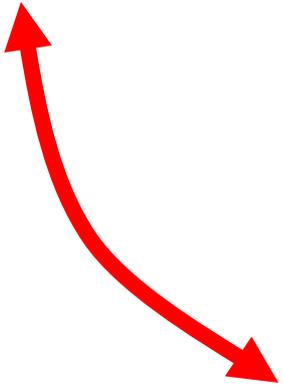
Operating Well



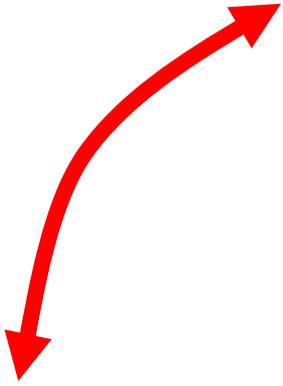
Building Well



Buying Well



Living Well



# UH Environmental Commitment Statement

“University Hospitals is committed to sustainability to enhance the health and well-being of our patients, employees and local community, and to steward our natural environment.”



***Our Environmental Commitment***

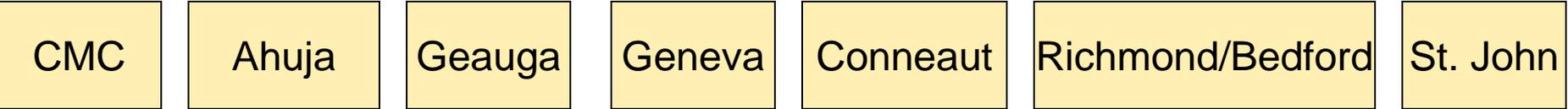
University Hospitals is committed to sustainability to enhance the health and well-being of our patients, employees and local community, and to steward our natural environment.

[Read our full environmental statement.](#)



- External partnerships**  
Practice Greenhealth  
Healthier Hospitals Initiative  
American Academy of Pediatrics  
Ohio Hospital Association  
City of Cleveland  
Corporate Sustainability Network  
Other community organizations

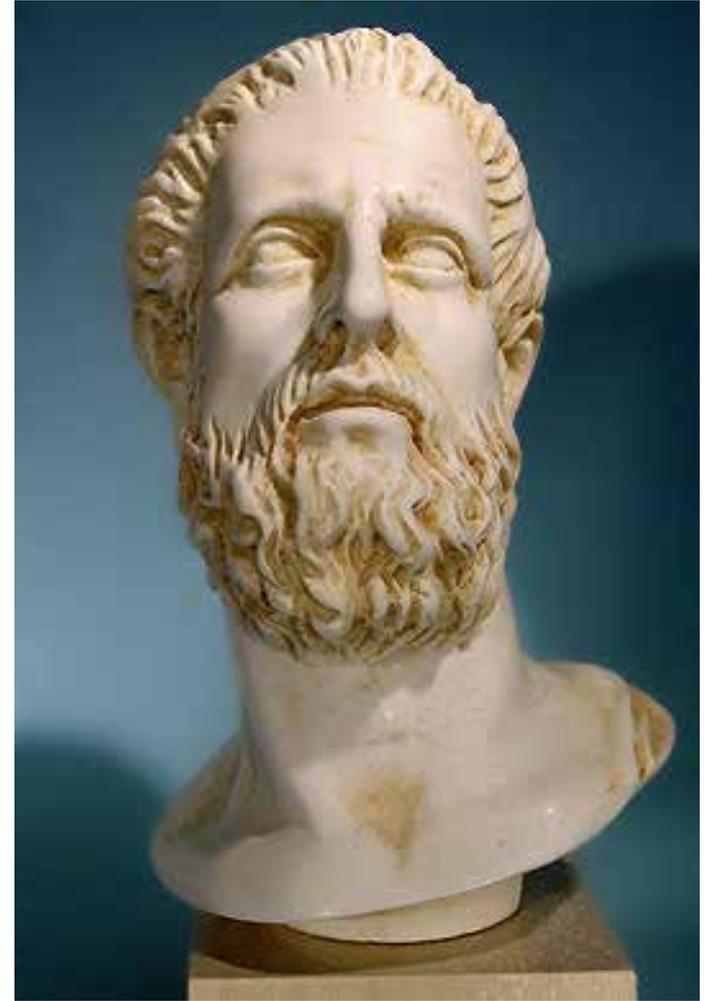
Facilities, Supply Chain, HR, Marketing/Communications



“What is good for the planet is good for the patient”

## Links between sustainability & human health

- Local
- Community & regional
- National
- Global
- Environmental justice

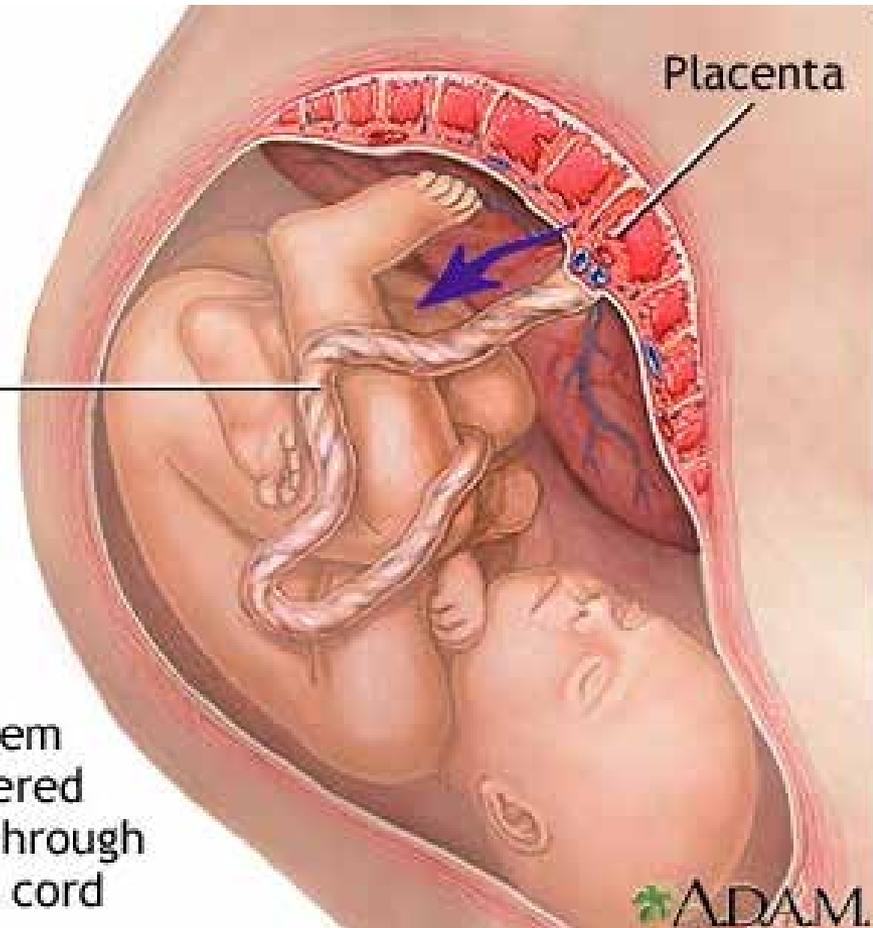


*“First, do no harm” -Hippocrates*

# Vulnerable populations: the developing fetus

- >200 chemicals found in umbilical cord blood in studies from 2005 & 2011
- Effects unknown
- Unknown interaction
- between these
- combinations of
- chemicals

Along with nutrients, toxins in the mother's system may be delivered to the fetus through the umbilical cord



# American Academy of Pediatrics Policy Statements

- *The Built Environment: Designing Communities to Promote Physical Activity in Children*
  - Advocates pedestrian friendly, mixed use, higher-density neighborhoods, which promote air quality & physical activity
- *Pesticide Exposures in Children*
- *Organic Foods and Children*

# Focus on fewer & safer chemicals

- DEHP-free NICU
  - Exploring additional product categories for PVC/DEHP avoidance
- Sustainable construction, renovation, & maintenance policy
- Environmentally preferable purchasing policy
- Green cleaning
- Healthy interiors
- Sustainable food procurement
- Landscaping & pest control

# Food procurement module



Food/Bev Procurement Data > US Foods > Ahuja Medical Center

## Add Food/Bev Procurement Data

Account	Purchase Date	Supplier	Brand	Category	Subcategory	Type	Certified	Local	Healthy Bev	Weight	Quantity	Total Cost
21010806				Baked Good	Beef	Sustainable	Animal Welfare Approved	Yes	Green	Pounds		
Clear		Close										
<Prev		Today		Next>								
September		2013										
Su	Mo	Tu	We	Th	Fr	Sa						
1	2	3	4	5	6	7						
8	9	10	11	12	13	14						
15	16	17	18	19	20	21						
22	23	24	25	26	27	28						
29	30											
				Baked Goods	Beef	Conventional	Animal Welfare Approved					
				Beverages	Chicken	Sustainable	Antibiotic Free					
				Dairy	Other		Bird Friendly					
				Eggs	Pork		Certified Humane Raised and Handled					
				Fish	Turkey		Fair Trade Certified					
				Fruit			Food Alliance Certified					
				Grains			GMO-free					
				Grocery			Grass-fed					
				Legumes			Hormone Free					
				Meat			Marine Stewardship Council					
				Nuts			Protected Harvest					
				Other			Rainforest Certified					
				Produce			rBGH/rBST-free					
				Supplies			Salmon Safe					
				Vegetable			USDA Organic					

High-priority “sustainable” criteria: local, antibiotic-free

Collaboration between Wellness/ACO program, Sustainability, Supply Chain, Nutrition Services vendor

# HHI – Healthier Food Scorecard

## Scorecard: HHI - Healthier Food 2013

Status Legend: ■ Not Participating ■ Not Initiated ■ Completed ■ In Progress ■ Not Applicable

Category	Program	Start	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Program Result Total
Ahuja Medical Center	Balanced Menus - Enter lbs of meat purchased <i>Goal: decrease amount of meat purchased by 20% within 3 years from baseline</i>	1/01/13					
	Balanced Menus - Enter total meals purchased	1/01/13					
	Healthy Beverages - Enter \$ spent on healthy beverages <i>Goal: Incr % of healthy bev purchases annually over baseline OR achieve purchases of 80% of total bev purchases throughout hospital within 3 yrs</i>	1/01/13					
	Healthy Beverages - Enter \$ spent on all beverages	1/01/13					
	Local/Sustainable Food - Enter \$ spent on local and/or sustainable foods <i>Goal: Incr 20% of local and/or sustainable food purchases annually over 2013 OR achieve 15% local and/or sustainable food purchases within 3 yrs</i>	1/01/13					
	Local/Sustainable Food - Enter \$ spent on food	1/01/13					
Bedford Medical Center	Balanced Menus - Enter lbs of meat purchased <i>Goal: decrease amount of meat purchased by 20% within 3 years from baseline</i>	1/01/13					
	Balanced Menus - Enter total meals purchased	1/01/13					
	Healthy Beverages - Enter \$ spent on healthy beverages <i>Goal: Incr % of healthy bev purchases annually over baseline OR achieve purchases of 80% of total bev purchases throughout hospital within 3 yrs</i>	1/01/13					
	Healthy Beverages - Enter \$ spent on all beverages	1/01/13					
	Local/Sustainable Food - Enter \$ spent on local and/or sustainable foods <i>Goal: Incr 20% of local and/or sustainable food purchases annually over 2013 OR achieve 15% local and/or sustainable food purchases within 3 yrs</i>	1/01/13					
	Local/Sustainable Food - Enter \$ spent on food	1/01/13					

## Baseline

Achieve mercury-free status or develop and implement mercury elimination plan.

Level **1** Commit to **one** of the following: Green cleaning, DEHP/PVC reduction, healthy interiors.

Level **2** Commit to **two** of the following: Green cleaning, DEHP/PVC reduction, healthy interiors.

Level **3** Commit to **three** of the following: Green cleaning, DEHP/PVC reduction, healthy interiors.

**Green Cleaning:**  
Purchase 90 percent Green Seal or EcoLogo certified cleaning products in these four categories: carpet, window, all purpose, and bathroom.

A

**DEHP/PVC Reduction:**  
Eliminate DEHP/PVC from at least one product line\*.

B

**Healthy Interiors:**  
Ensure that 25 percent of the annual volume of freestanding furniture and medical furnishings\*\*; purchases based on cost, eliminate the intentional use of halogenated flame retardants, formaldehyde, perfluorinated compounds and PVC (also known as vinyl).

C

\*1. Breast Pumps, 2. Enteral Nutrition Products, 3. Parenteral Infusion Devices and Sets, 4. General Urological (irrigation/urology sets and solutions, urinary catheters), 5. Exam Gloves, 6. Umbilical Vessel Catheters, and 7. Vascular Catheters.

\*\* This includes exam tables, patient recliners, mattresses, foams, panel fabrics, cubicle curtains, window coverings, fabric upholstery, and built-in or modular casework

# HHI – Safer Chemicals Scorecard

## Scorecard: HHI - Safer Chemicals 2013

Status Legend: ■ Not Participating ■ Not Initiated ■ Completed ■ In Progress ■ Not Applicable

Category	Program	Start	Jan-Jun	Jul-Dec	Program Result Total
Ahuja Medical Center	Dollars spent on PVC/DEHP free medical products <i>Goal: Eliminate DEHP/PVC from at least one product line</i>	1/01/13			
	Dollars spent on all medical products	1/01/13			
	Dollars for Green Seal or EcoLogo products <i>Goal: Purchase 90% Green Seal or EcoLogo certified cleaning products in these four categories: carpet, window, all purpose, and bathroom</i>	1/01/13			
	Dollars for all cleaning products	1/01/13			
	Dollars spent on compound- free products <i>Goal: Ensure that 25% of the annual volume of freestanding furniture and medical furnishings, based on cost</i>	1/01/13			
	Dollars spent on all products	1/01/13			
Bedford Medical Center	Dollars spent on PVC/DEHP free medical products <i>Goal: Eliminate DEHP/PVC from at least one product line</i>	1/01/13			
	Dollars spent on all medical products	1/01/13			
	Dollars for Green Seal or EcoLogo products <i>Goal: Purchase 90% Green Seal or EcoLogo certified cleaning products in these four categories: carpet, window, all purpose, and bathroom</i>	1/01/13			
	Dollars for all cleaning products	1/01/13			
	Dollars spent on compound- free products <i>Goal: Ensure that 25% of the annual volume of freestanding furniture and medical furnishings, based on cost</i>	1/01/13			
	Dollars spent on all products	1/01/13			

# PVC/DEHP reduction

- DEHP-free NICU for many years
- Of Safer Chemicals highlighted product areas: currently DEHP-free breast pumps/supplies, and umbilical catheters
- Gathering information on additional product categories: gloves, urologic supplies
- This kind of data management very challenging in our organization
- ? Additional tracking module

# Green cleaning strategies

- Integration of performance expectations into Environmental Services contracting process
  - HHI can be helpful in defining goals
- Microfiber mops
- Ionized water floor cleaner
- Steam-based bathroom cleaning
- Piloting UV light patient room cleaning
- Transitioning to Green-Seal certified carpet, floor, window, & all-purpose cleaner as 2013 stock runs out
  - 10% as of July 2013, should be 100% by end of year
  - Will be additional tracking module in our web-based dashboard
- Benefits: cost saving, often more effective, immediate improvement in front-line ES staff comfort
- Challenges: perception of cleanliness in absence of chemical smell & high polish/shine

# Ecolab bio-based cleaners

## ENSURE OPTIMAL CLEANING RESULTS WHILE REDUCING ENVIRONMENTAL IMPACT

### COMPREHENSIVE BIO-BASED FACILITY CARE SOLUTIONS



**PEROXIDE MULTI-SURFACE CLEANER\***  
Eliminate soils to help keep any surface looking its best



**GLASS CLEANER\***  
Impress with sparkling, streak-free results on glass and mirrors



**ACID BATHROOM CLEANER\***  
Erase tough hard water build-up and soap scum from tubs, showers, countertops, toilets and sinks



**NEUTRAL BATHROOM CLEANER\***  
Remove soap scum and water spots from tubs, showers, countertops, toilets and sinks

### REMOVE SOILS AND REFRESH SURFACES

- ▲ Best-in-class surface cleaning products
- ▲ Proven more effective than competitors in lab and field tests
- ▲ Easy-to-use solutions for all your housekeeping needs

### HELP PROTECT YOUR STAFF AND VISITORS

- ▲ No personal protective equipment required at use
- ▲ Designed with staff interactions in mind
- ▲ Formulated with trend forward fragrances

### REDUCE YOUR ENVIRONMENTAL IMPACT

- ▲ Chemicals made from plant derived natural resources
- ▲ Biodegradable and zero volatile organic compounds per CARB Regulations 2012
- ▲ Certified by Green Seal and the U.S. Department of Agriculture BioPreferred program

### MORE EFFECTIVE CLEANING THAN THE LEADING COMPETITOR



Recent lab test shows Ecolab Acid Bathroom Cleaner cleans the toughest soils 17% better than the leading competitor.



### ALSO AVAILABLE: ROOM REFRESHERS

Ecolab follows and often exceeds industry standards regarding fragrance materials in our chemistry.

- ▲ Room refreshers use IFRA (International Fragrance Association) compliant fragrances to limit potential for skin sensitization
- ▲ Products meet CARB (California Air Resources Board) VOC (Volatile Organic Compounds) thresholds designed to help reduce air pollution
- ▲ Products meet European Union Directive 2003/15/EC to limit potential allergens

\*Meets Green Seal® standard for Industrial and Institutional Cleaners (GS-37)



### GREEN SEAL

Certification to a Green Seal Standard ensures a product meets the same performance and quality requirements as its traditional, non-green counterparts, but is better for human health and the environment based on rigorous, science-based leadership standards.

### USDA BIO-BASED PRODUCTS

These sustainable products are derived from renewable resources - living matter such as soybeans and corn - to help you reduce your environmental footprint. Learn more about bio-based solutions by visiting [WWW.BIOPREFERRED.GOV](http://WWW.BIOPREFERRED.GOV).

# Healthy Interiors

- Included provisions of this challenge into Sustainable Construction, Renovation, & Maintenance policy (finalized by year end)
- Current office furniture & interiors purchasing through Construction Services likely already meet criteria
- Data management very challenging
  - Multiple vendors
  - Multiple purchasing entities
  - Working with vendors to provide Healthy Interiors info to end users at point of purchase
  - Additional procurement tracking module opportunity

# Next steps

- DEHP-free NICU
  - Exploring additional product categories for PVC/DEHP avoidance
- Sustainable construction, renovation, & maintenance policy – *under review*
- **Environmentally preferable purchasing policy**
- Green cleaning
- Healthy interiors
- Sustainable food procurement
- **Landscaping & pest control**

Data management, establishing reporting requirements with vendors



# Thank you!

- <http://www.uhhospitals.org/about/greening-uh>
- [Aparna.Bole@uhhospitals.org](mailto:Aparna.Bole@uhhospitals.org)
- **CleanMed Cleveland: June 2-5, 2014!**

