

Environmental Sustainability Considerations in Healthcare Waste Streams Management

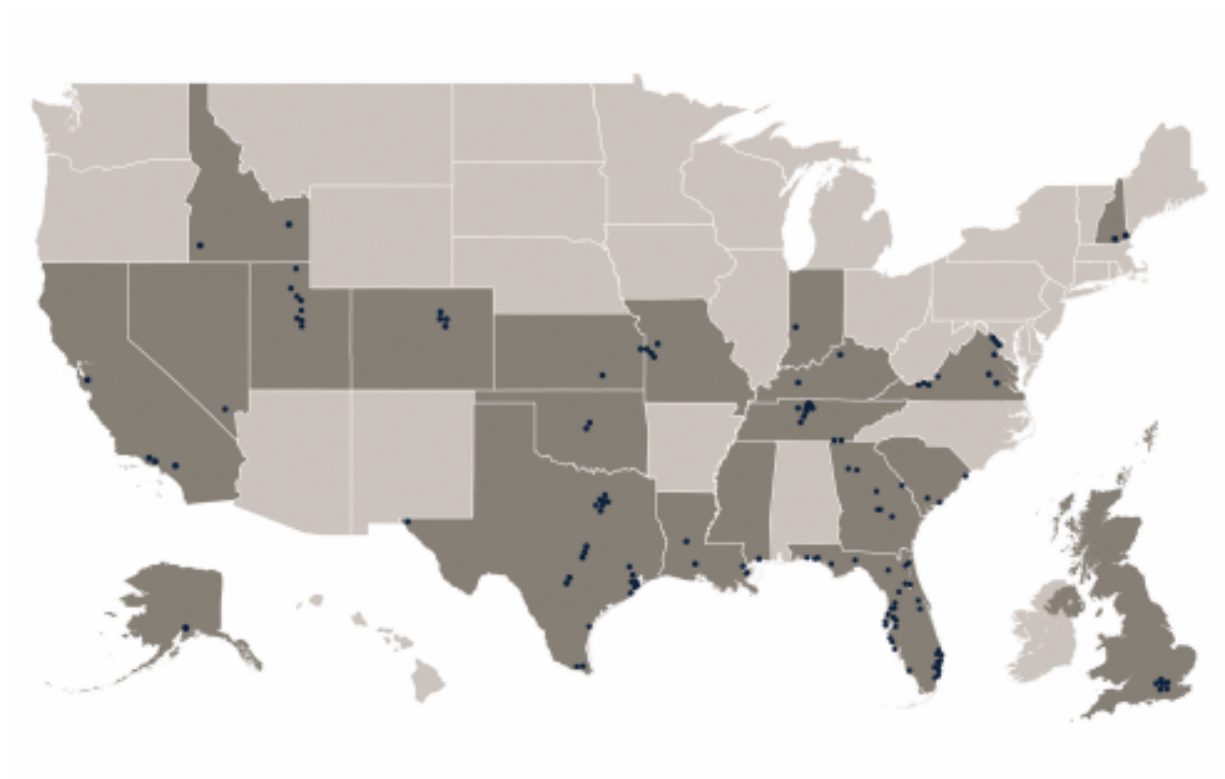
A HealthTrust Sustainability Program

March 23, 2017

**Anna Ward, Sustainability Manager, HCA
Chair, HCA's Waste Stream Task Force
Member, HealthTrust's ESN**



171 hospitals and **118** surgery centers located in **20** states and the United Kingdom



HCA is one of the nation's leading providers of healthcare services, comprised of locally managed facilities that include **171** hospitals and **118** freestanding surgery centers in **20** states and the United Kingdom. With its founding in 1968, Nashville-based HCA created a new model for hospital care in the United States. R. Milton Johnson is the company's chairman and CEO.

HCA Environmental Sustainability

ECHO – Environmentally Conscious Healthcare Operations

- Environmental Sustainability is an Everyday Focus at HCA
- HCA continues its comprehensive program of environmental sustainability to promote energy and water conservation, green buildings, and increase recycling and environmentally conscious purchasing
- HCA's environmental policies produce efficiency and savings



Organizational Structure

Sustainability Steering Committee provides overall guidance

- Chair is Alan Yuspeh, SVP and Chief Ethics and Compliance Officer
- Includes Operations, Facility Management, Quality, Risk and Insurance, HR, Communications, Finance, HealthTrust

Four Task Forces

- Environmentally Preferable Purchasing
- Construction and Major Renovation
- Energy & Water
- Waste Stream

Also, Sustainability Coordinators at hospitals

Sustainability Plan Updated Annually

HCA Sustainability Plan

Overall Policy

HCA is a responsible and concerned citizen of all communities where it operates. Therefore, the minimum standard for HCA's environmental stewardship is meeting or exceeding all environmental legal and regulatory standards. In addition, HCA will protect and preserve the environment through, at a minimum, the following practices:

- HCA will encourage the recycling of materials where recycling is commercially practical and the minimization, consistent with the law, of waste streams which require additional processing.
- HCA facilities will consider the effect on the indoor environment before introducing a new product into the facility.
- HCA will encourage the continued reduction of energy usage throughout its facilities.
- HCA will evaluate, and where appropriate, incorporate environmentally-preferable alternatives when designing new construction and major renovations.

Standards

HCA Sustainability Plan

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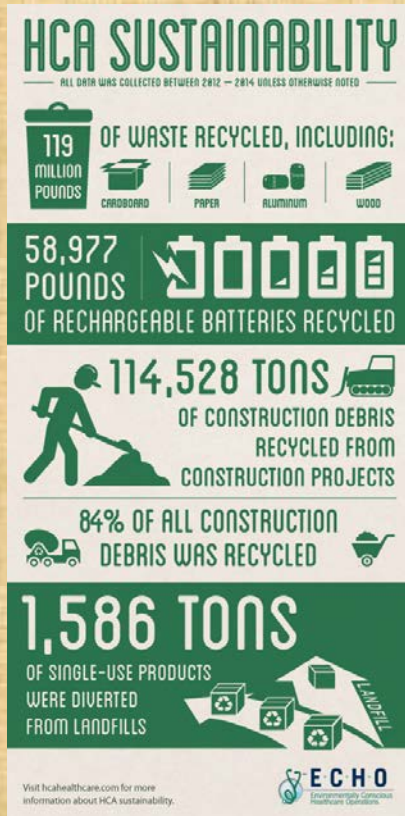
Working With the Healthcare Sector

- All HCA facilities are members of Practice Greenhealth (PGH)
- HCA facilities contribute to PGH's Annual Sustainability Benchmark Report
- HCA joined six other large health systems to form the three-year Healthier Hospitals Initiative
- HCA facilities take part in the Healthier Hospitals (HH) Less Waste Challenge
- HCA facilities contribute to HH's Sustainability Milestone Report
- HCA is a founding sponsor of the Greening the Operating Room initiative – seeks to identify key interventions that can reduce waste, energy and worker exposure to hazardous chemicals

Possible Ways to Include Environmental Sustainability in Waste Stream Discussions

- Environment of Care Committee (EOC)
- CEO appointed liason to EOC
- Sustainability Coordinators
- Green Teams
- Engaged employees
- Local projects
- Projects in a larger setting
- In some cases, vendors work directly with facilities
- **Communication**

Examples of Communicating Collective Impact



Examples of Communicating Waste Stream



- Between 2012 and 2014 HCA facilities recycled
- 119 million pounds of cardboard, paper, aluminum and wood waste
 - 58,977 pounds of rechargeable batteries
 - 229 million pounds of construction debris, an amount similar to more than 64,000 mid-size cars
 - And diverted 3.1 million pounds of waste from landfills by reprocessing single-use devices

Many types of waste disposal are regulated by the U.S. Environmental Protection Agency, yet that includes less than five percent of pharmaceutical waste generated at HCA facilities. HCA's proactive pharmaceutical waste program reduces the drugs going into the water supply by at least 90 percent.

Example Waste Streams

- Integrated Waste Management
- Pharmaceutical Waste
- Hazardous Waste, Universal Waste
- Infectious Waste
- Mercury Reduction
- Rechargeable Battery Recycling – and alkaline
- Cardboard/duplex printing
- Food Waste, increasing composting
- Category A Waste (Ebola)

Example Industry Waste Disposal Volumes

Your Business Likely Touches...

Hierarchy of Waste Disposal based on Volume



Identifying Items – Simplified and Streamlined

- Recyclables
- Hazardous, Universal Waste
- Non-hazardous pharmaceutical waste
- Original Equipment Manufacturer (OEM) designated Single Use Devices – reprocessing
- Food waste vs. composting (and food donation before waste!)
- Pharmaceutical waste vs. Regulated Medical Waste (RMW)



Examples – Considering Environmental Sustainability

Solid Waste or Universal Waste

- Cardboard & Pallets
- Kitchen Grease/Oil
- Remaining food, food waste, composting
- Shredded documents & mixed paper
- Batteries & Electronic-waste
- Cans-aluminum & mixed plastics
- Fluorescent tubes
- Blue Wrap

Reprocessing – different, but more than one use!

In Motion



How Do You Address Electronics?



How Do You Address Organics?



How Do You Address Reprocessing?



These could include items such as blood pressure cuffs and pulse oximeter probes, as well as diagnostic catheters and multiple devices used in the operating room.

All reprocessed items are FDA-approved, which means that they meet the same standards as other equipment. Facilities collect and send for reprocessing some of the medical devices they have used, which reduces waste and lowers costs for hospitals.

Tips: Planning Effective Waste Management

Selecting locations for bins – considering facilities needs

- Walk the facility – get to know people
- Teams & individual responsibilities
- Policies & implementation tools
- Dock space
- Internal space at facility
- Access during work flow
- Access to others?



Tips: Supporting Effective Waste Management

Education and Communication

- Define and use communication standards
- Policies and implementation tools
- Train staff – which staff and department(s)
- On all items?
- Request feedback



Tips: Continuing Effective Waste Management

Quality Assurance and Compliance

- Walk the floors – get to know people
- Test, conduct audits and assessment
- Provide results
- Request feedback
- Be able to respond to feedback
- Adjust as needed



Addressing Waste From the Operating Room

Types of Recycled Plastics

- Irrigation bottles
- Blue wrap
- Skin prep solution bottles
- Trays
- Basins
- Rigid Inserts
- Overwraps
- Tyvek
- Urinals/bedpans
- Other?

Regulated Medical Waste (RMW)

Pharmaceutical Waste

Example Pharmaceutical Waste Standards

- Environmental (EPA)
- Drug Enforcement (DEA)
- Transportation (DOT)
- Safety and Health (DOL – OSHA)
- Safety and Health – Illness (CDC – NIOSH)
- Food and Drug (FDA)
- Pharmacopeil Convention (UPS Chapter 800)
- State and Local and Community

Environmental Protection Agency (EPA)

The Resource Conservation and Recovery Act (RCRA).

Hazardous wastes cradle to grave:

- Generation
- Storage
- Transportation
- Treatment
- Disposal



Pharmaceutical Waste Under RCRA

U-listed (toxicity) and example

- Sole active ingredient; unused
- Choloral hydrate

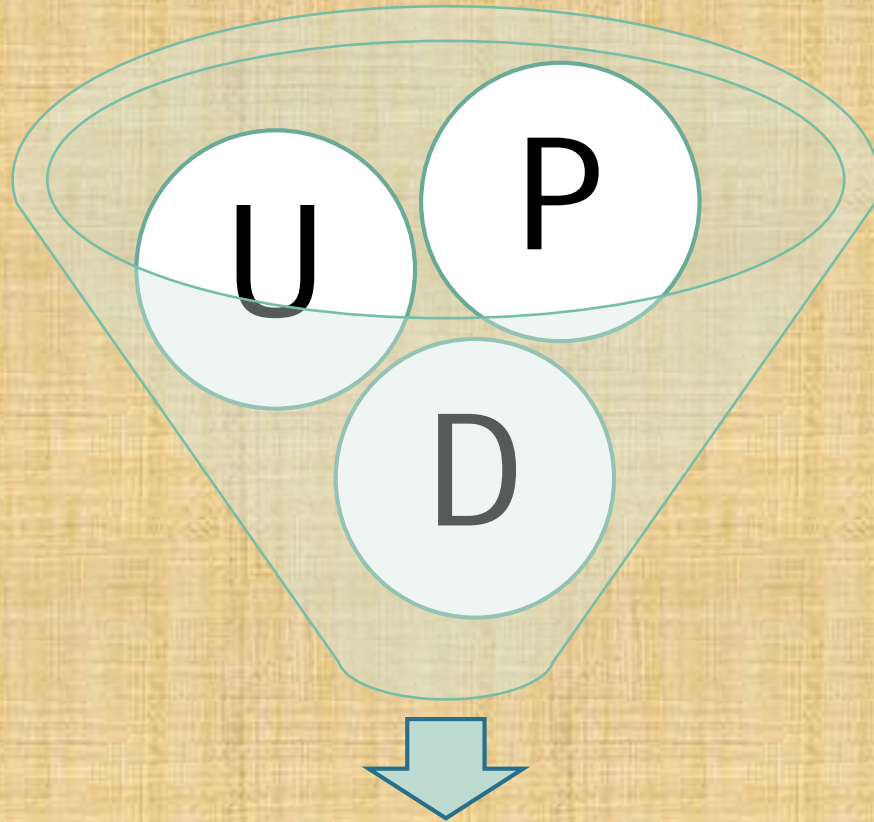
P-listed (acutely hazardous) and examples

- Unused, **and empty packaging**
- Warfarin >0.3%, nicotine, physostigmine, arsenic trioxide

D codes (characteristic hazardous waste)

- Ignitability – creating or exacerbating a fire
- Corrosivity – highly acidic or highly basic
- Reactivity – unstable under normal conditions
- Toxicity – Toxicity Characteristic Leaching Procedure (TCLP)

Percentage of Hazardous Pharmaceutical Waste Under RCRA?



Likely to be less than 5%

Tips From Earlier Slides Are Applicable Here

Tips: Planning Effective Waste Management

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Tips: Supporting Effective Waste Management

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Tips: Continuing Effective Waste Management

Quality Assurance and Compliance

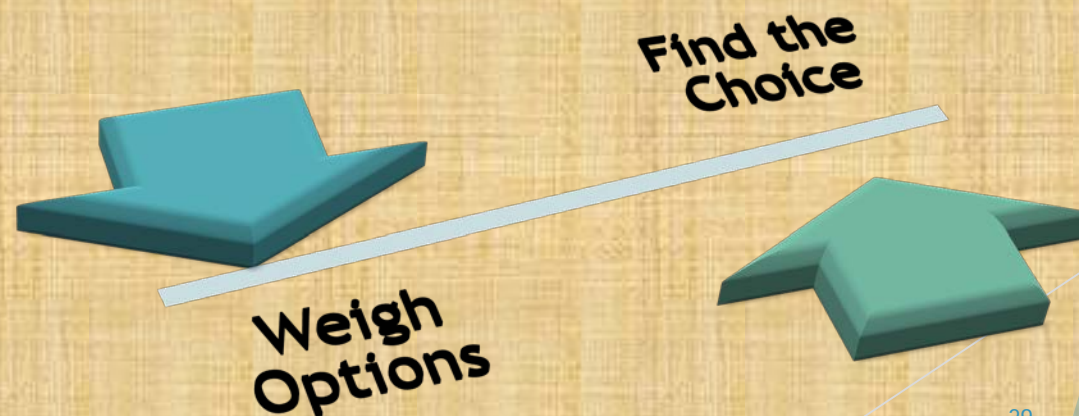
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- Test, conduct audits and assessment
- Provide results
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Possible Pharmaceutical Waste Management

Considerations

- How much hazardous waste is generated?
- Inventory analysis?
- Education and implementation?
- Consultant?
- **Set-up for different pharmaceutical waste generation points?**



Pharmaceutical Waste Satellite Accumulation Areas

Examples:

- Pharmacy
- Nursing Stations
- Medical-Surgical Care Areas
- Inpatient Critical Care Areas
- Operating Rooms
- Emergency Room
- **Different bins?**

Example Waste Stream Management Options



- **Hazardous pharmaceutical waste** – federally permitted RCRA incinerator (separate bins for aerosols and oxidizers)



- **Non-hazardous** – usually municipal incinerator special waste

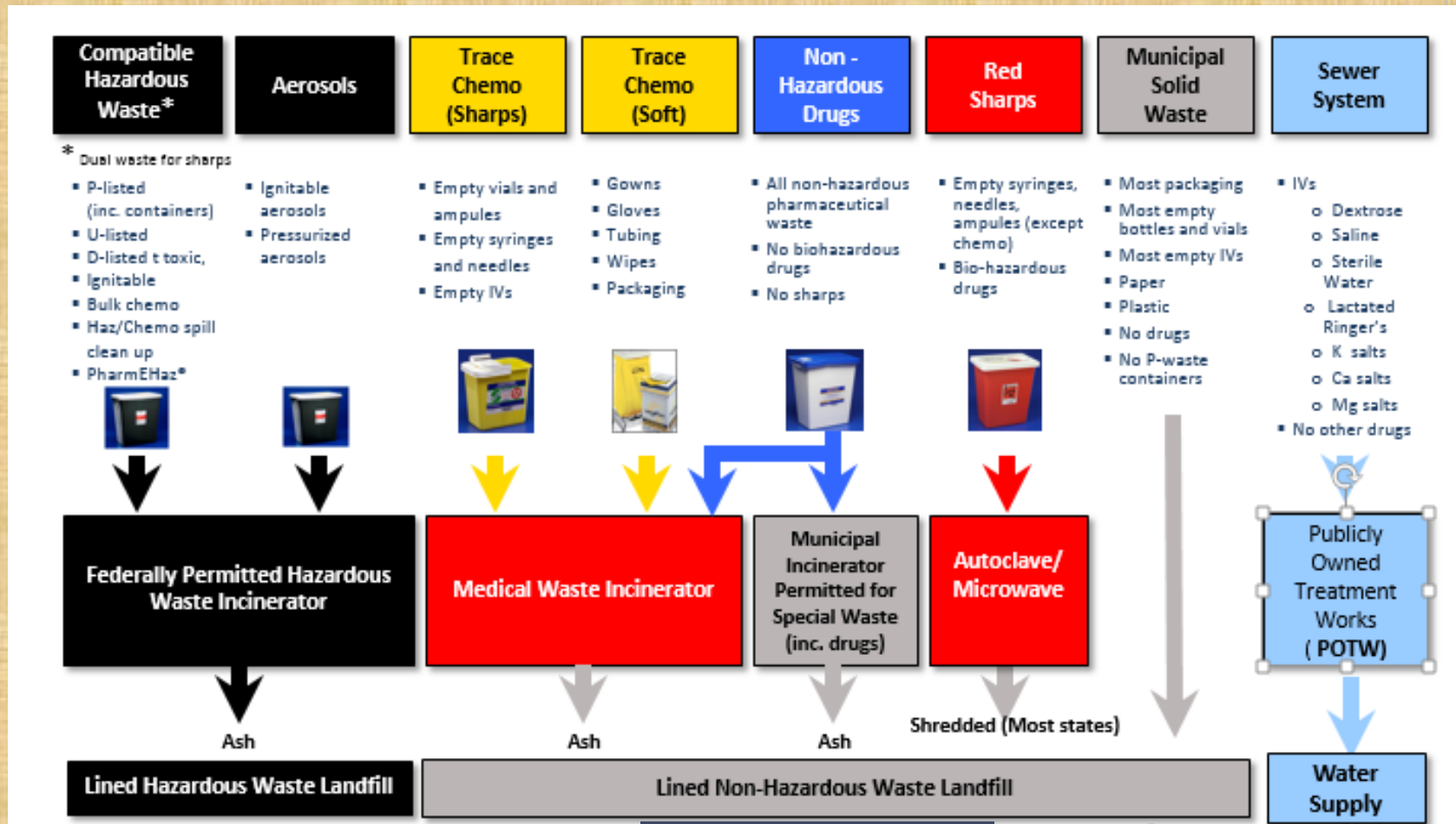


- **Trace chemotherapy** – usually medical waste incinerator



- **Biohazardous waste** – autoclave, microwave, incinerator

Example Pharmaceutical Waste Disposal



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Considerations for Controlled Substances

Example:

- DEA rule published *Federal Register* 09/09/14
- DEA 10/17/14 “Dear Practitioner”
- Is this inventory?
- Is this waste?



- EPA hazardous waste considerations

Pharmaceutical Waste Management Practices Considering Sustainability

- *Managing Pharmaceutical Waste, a 10-step Blueprint for Healthcare Facilities in the U.S.*
 - Practice Greenhealth and EPA
 - 2006, revised 2008
 - Referenced in EPA's Sept. 25, 2015 proposed rule for Subpart P: Management Standards for Hazardous Waste Pharmaceuticals

Tips: Including Waste Vendor in the Conversation

- Storage locations
- Frequency of pickup
- Who moves from rooms/floors
- Who is the contact (turnover?)
- Locating the right person for signature/approvals
- Vendor's choices?
 - Code of Conduct?
 - Training?
 - Ineligible Persons (contracting/payment)?
 - Environmental Sustainability?

Recap: Considering Environmental Sustainability in Waste Stream Management

- Generating waste cannot be completely avoided
- Discuss environmental sustainability and waste stream – generating, reducing, shifting and managing
- This is not a solo effort
- Waste stream is not static
- Work with your employees – get input, understand impact on operations, provide feedback about what you are doing
- Consider industry goals
- Partner with your vendors
- Communicate often

Presenter's Contact Information

Anna Ward, Sustainability Manager, HCA
Chair of HCA's Waste Stream Task Force,
Member of HealthTrust's Environmental Sustainability Network
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HealthTrust Sustainability Resources
<https://members.healthtrustpg.com/>

Member Portal

- Sustainability resources added to the Member Portal
- Three ways to find Sustainability info from the home page

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Member Portal

Welcome Paye Porter

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Member Portal

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Healthier Furniture & Furnishings

HealthTrust and many of its furniture and furnishing suppliers are proud to support you in meeting the Healthier Hospitals 1.0 and 2.0 Safer Chemicals Challenge.

Learn More

Learn more about the need for manufacturers to eliminate the use of formaldehyde, perfluorinated compounds, PVC, antimicrobials and flame retardants in hospital furniture and furnishings.

Download

New to HealthTrust?

If you are a new member or a new employee at one of our member facilities, review this document for important information on HealthTrust and Pharmacy including where and how to find what you need.

Download Packet

Sustainability

HealthTrust's goal is to support the sustainability initiatives of our members by effectively incorporating the principles of environmentally preferable purchasing (EPP) into the contracting process.

Learn More >

Contract Corner

Achieve maximum savings with your GPO membership through the Contracts area. Explore often and take advantage of HealthTrust's broad contract portfolio. Contact your Account Director for assistance.

Explore Contracts >

Meet Your Member Services Support Team

Ally Tatro
Member Support Analyst

Rebecca Taylor
Member Support Analyst

Debbi Spears
Member Support Analyst

The SOURCE Magazine

The Source magazine is our quarterly publication that gives you insights into healthcare best practices. In this issue - "Total Transformation: How Columbus Regional Health Earned Its First Financial Gain In Four Years"

Username: TheSourceOnline
Password: MemberBenefit2
Read Current Issue | View Archives

Message from HealthTrust CEO

In the Q1 issue, Senior Vice President of Marketing and Sales **Doug Swanson** shares his thoughts on what the "next-generation" GPO will look like, and why HealthTrust's committed model has all the key ingredients for long-term success.

More from Ed Jones >

Useful Links

Ethics & Compliance
Fee Disclosure Reports
Sustainability
Member & Company Knowledge Program
Terms of Use

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Graphic bars created for easy recognition of sustainability initiatives on:

- Sustainability page
- Related contract pages (i.e., food, FIS)

Member Portal

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Sustainability

Our goal
HealthTrust's goal is to support the sustainability initiatives of our members by effectively incorporating the principles of environmentally preferable purchasing (EPP) into the contracting process.

While lack of agreed upon standards within the industry makes capturing sustainability information extremely difficult, creating a process that is relevant and meaningful in assisting members with purchasing sustainable products is an ongoing process.

What is Environmentally Preferable Purchasing?
Environmentally Preferable Purchasing (EPP) involves actively contracting for and purchasing products or services whose environmental impacts have been considered and found to be less damaging to the environment and human health when compared to market competitors.

How HealthTrust Approaches EPP
Since 2008, HealthTrust has worked closely with Practice Greenhealth (PGH) and its GPO workgroup to develop language for industry-wide, contract-specific supplier question sets related to EPP attributes of products and services in applicable categories.

HealthTrust has developed an [Environmental Sustainability Network](#) made up of members to review related EPP questions as part of the supplier RFP process. Potential supplier responses are reviewed for feedback and sustainability-related attributes that can be used as differentiators in making recommendations to related advisory boards during the contract awards process.

While there is still a long way to go as an industry, HealthTrust will continue to work with PGH to refine the standardized questions, identify the critical information that is useful in making sourcing recommendations, and create question sets for categories that do not exist today.

Realizing that awareness is an issue, our goal is to share sustainability information with members as part of the contract launch process.

HealthTrust's long-term goal is to develop meaningful attributes that can be easily identified by members at the contract, and ultimately the line-item level to assist members with making decisions related to sustainability at the time of ordering.

For more information about HealthTrust's Sustainability Initiatives or to join the Environmental Sustainability Network, contact Faye Porter at sustainability@healthtrustpg.com.

Sustainability Topics

- Antibiotic-free Protein Sources
- Dioxin-free Diapers & Package Recycling
- Healthier Furniture & Furnishings
- Reprocessing Resources

Related Links

- HealthTrust's Environmental Sustainability Network
- Sustainability in Healthcare
- Sixth "Champion for Change" Award
- Practice Greenhealth
- Health Care Without Harm
- Healthier Hospitals Initiative

Related Resources

- Environmentally Preferable Product Certification
- A Greener OR
- Building Health-Informed Design
- Energy-focused Solution for FIS

HealthTrust 2017 Sustainability Webinar Series

Upcoming Sustainability Webinars:

- **April 27:** Safer chemicals and healthier food
- **May 25:** Transportation, LEED buildings, community connections
- **June 7:** Easy sustainability wins with EVS

Register for webinars at www.healthtrustpg.com/education

View past sustainability programs in the “On-demand” section at:
www.healthtrustpg.com/education