Sustainability: Investing in the Future of Texas

Linking Waste Management to Wellness

November, 2015
Objectives

• **Understand** a) the link between waste and wellness, b) best practices for the reduction of waste streams, and c) opportunities to effect the bottom line.
Problem Statement: Hospitals generate significant amounts of waste, not only in daily operations, but in hospital and departmental moves.

- 5.9 million tons of waste annually*
- 20-30% originates in operating rooms*
- Staff inappropriately disposes of up to 90%**
- 215 million metric tons of carbon-dioxide equivalent
- Air pollution from the health care sector's own electricity usage increases cases of asthma, respiratory illnesses, and emergency department visits to the tune of $600 million a year***
- Landfill can contaminate drinking-water if not properly constructed.****

*Practice Green Health
*** Healthcare Without Harm
**** World Health Organization
Latest Survey from American Hospital Association

Materials Healthcare Facilities are Recycling

- Cardboard 88%
- Batteries 83%
- Metal 70%
- Paper 80%
- Glass 51%
- Blue Wrap 24%
- X-ray film 44%
- Plastic 55%
- Beverage Containers 74%
- Construction Demolition and Debris 41%
- Ink Cartridges
- Excess Medical Supplies
- Electronics
- Clothing

- Only 69% are measuring energy
- Only 37% include in performance metrics
- Only 61% track waste volumes
- Only 62% use a recycling management company to manage waste

Health Facilities Management 2015, Sustainable Operations Survey, Burmahl, Hoppszallern, & Morgan
Additional Opportunities to Reduce Waste

- Medical device reprocessing and reuse
- Disposable Medical Supplies
- Redbag, Sharps, and Trash
- Cafeteria Operations
- Electronics: Batteries, Ink Cartridges and Toner
- Moves: Furniture, Equipment, Office Supplies
Desired Materials Hierarchy

- Return to Vendor
- Keep it on Campus
- Sell on Auction
- Donate to Charity
- Recycling
- Landfill

Tiana Lightfoot-Svendsen 2015
Return to Vendor: Stryker

Reprocessing can cut supply expense in half: $1 million opportunity

- SCD Sleeves
- Blood Pressure Cuffs
- Pulse Oximeters
- EP Catheters
- Trocars/Shavers and Scalpels
Keep it On Campus

Welcome to the UT Southwestern Supply Swap Site

This SharePoint site is a collaboration between the Office of Sustainable Business Solutions and the Health Sciences Digital Library and Learning Center.

The UT Southwestern Supply Swap Site is an online community message board where faculty, staff and students may offer or obtain new or gently used campus office supplies and equipment taking up valuable storage space or headed for your nearest dumpster.

Click on the video player image to the right to watch the brief orientation video to the Supply Swap Site for viewing on the UTSW Library’s YouTube Channel. Closed captioning is provided, if necessary.

Don’t have time to keep an eye on the site all day waiting for new entries? No problem! Set up an email alert to notify you when new items are posted.

Please watch the orientation video and familiarize yourself with the How To Use This Site Instructional page before posting or responding. This is a UT Southwestern community-operated website. Please report any technical issues or misuse to GreenChampions@UTSouthwestern.edu.

[Links to various search options and actions]
Sell on Auction

• Pennies on the Dollar, but better than nothing

• Create your own site vs. vendor

http://blog.wfmu.org/freeform/images/auctioneer.jpg
Providing community benefit is required for hospitals to be tax-exempt charitable organizations under section 501(c)(3) of the Internal Revenue Code.
Recycling: Bin Placement

- **Product:** Rubbermaid “slim jim” recycling bins and lids
- **Location:** Near copy machines
- **Results:** Priceless!

23 gallon container
Electronics Recycling

Fourth Annual
Nov. 13, 2015
7AM – 2PM
BioCenter Parking Lot
2330 Inwood Road, Dallas

Recycle your:
- Clothing & Shoes
- Electronics, Ink, Toner
- Books & Pens

Offer collections and drives for:
- Electronics
- Batteries
- Cell Phones
- Ink Cartridges, Toner

De-clutter closets, drop off unwanted or broken personal electronics. Anything that plugs-in or runs on batteries will be recycled. Textiles, books, plastic wrap, ink cartridges, and writing utensils also accepted.

For more information, contact 214-828-1083
Emma.Donachie@chbs.org
Hospital Landfill Impact

Waste Generation

- Typical American: 4.3 lbs. per day (Duke University)
- Typical U.S. Hospital: 33.9 lbs. per day/staffed bed

Should be: 85 – 90%

10 - 15%

Usually is: 50 - 60%

40 - 50%

Cost of Disposing 1 lb. waste

1 – 8 cents

20 – 50 cents

1 - 2.5 $

Agrawal, Shoup & Rockey, 2012 working paper.
Practice Green Health
Nicholson 2012, sustainable perioperative practices- reducing, reusing, or recycling.
Positive options

• By implementing programs to reduce waste, health care nationwide can save over $700 million dollars
• Education and enhanced awareness about medical waste disposal would conserve precious resources and save money
• Average opportunity 300 – 500 thousand dollars every year

Shredding is the most environmentally friendly option available, as the plastics may be recycled.
## Cafeteria Waste Reduction

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Recovery</td>
<td>Feed Hungry People</td>
</tr>
<tr>
<td>Food Digesters</td>
<td>↓ Grease Trap Maintenance</td>
</tr>
<tr>
<td>Cooking Oil Recycling</td>
<td>↓ Grease Trap Maintenance</td>
</tr>
<tr>
<td>Tray-less Dining/Reusable Trays</td>
<td>Keeps the Café Classy</td>
</tr>
<tr>
<td>Discounts for Reusable Mugs, China Plates</td>
<td>↑ Employee Engagement</td>
</tr>
<tr>
<td>Compostable Take-Away Containers</td>
<td>Air Quality</td>
</tr>
<tr>
<td>Local and Organic Food</td>
<td>Supports Local Economy, ↑ Health</td>
</tr>
<tr>
<td>Healthy Dining Options</td>
<td>↓ Healthcare Costs</td>
</tr>
</tbody>
</table>
Make Moves Sustainable

**LAB GLASSWARE**
Laboratory glassware in good, usable condition should be posted on the supply swap website: utsouthwestern.net/supplieswap. Contact: 214-648-5893 to notify Green Champions of large quantities available.

**MEDICAL SUPPLIES**
Expired and unwanted medical supplies should be boxed and labeled. Pick-up is available through hospital materials management: 214-645-1115.

**ASSET TAGS**
Items with asset tags (pictured) must be returned to inventory control when broken or otherwise unwanted. If uncertain about an item, call: 214-648-6042.

**BENEFITS OF "GREEN" MOVES:**
1. Less material is sent to the landfill
2. Disposal costs are reduced or eliminated
3. Supplies and books are given to those in need
4. Increased recycling revenue
5. Confidential information is protected

**UT Southwestern Medical Center**

**CAMPUS MOVES**
Your guide to responsible management of UT Southwestern Medical Center resources during transitions.

For more information, contact: 214-648-5893,
GreenChampions@utsouthwestern.edu
Make Moves Sustainable

Office Supplies

- Desk Supplies
- Ink Cartridges/Toner (unused)
- Asset Tagged Items
- Holiday Decor
- Picture Frames
- Equipment

YES

NO

Blue Bin Recycling

- Cardboard
- Junk Mail
- Confidential Documents
- Carbon Paper
- Office Paper
- Grocery Boxes
- Glossy Paper
- Magazines
- Paper Recycling
- Journals
- Periodicals

Books

- Board Books
- Magazines (paper recycling)
- Paperback Books
- Journals
- Hardcover Books
- Periodicals

Office supplies in good, usable condition should be made available to other departments on campus through the supply swap website: utsouthwestern.net/supplyswap.

Items not exchanged on the site should be boxed and labeled “Recycle: Office Supplies” for pick-up by campus movers.

Roughly 50% of waste is paper and cardboard. Please request a temporary recycling bin through housekeeping, 214-648-6066 or use blue bins already in place for paper recycling. Staples and paper clips may be left on paper.

Confidential documents should be shredded. Contact Shred-it: 469-322-1123, or reach out to another vendor for document destruction needs.

Books should be boxed separately and labeled, “Recycle: Books” for pick-up by campus movers. During renovations yellow crates may be placed in communal areas for collection.

Books are taken to the Better World Books dropbox located in the solar panel parking lot at the Bass Center.

BWB donates a book to someone in need for every book sold on betterworldbooks.com. Donated books that are outdated or otherwise unusable are recycled.

For more information, contact GreenChampions@utsouthwestern.edu, 214-648-5853
Know Where to Throw

Education is crucial to success:
• Green Champions
• In-person training
• Online training
• Recycling video
• Recycling plant tours
• Earth Day, events
• Bin audits
• Newsletters
• Website
• Posters

http://www.clipartbest.com/cliparts/4ib/L49/4ibL499ig.jpeg
Mixed Recycling

**YES!**

**What should you feed Ben?**

- Mixed Paper
- Plastic Containers (#1-5, 7)
- Cardboard & Boxboard
- Metal Cans
- Cartons

**NO!**

- Plastic Bags & Plastic Film
- Shredded Paper
- Plastic & Styrofoam Utensils
- Paper Towels & Tissue Papers
- Toys
- Metal Hangers
- Diapers
- Clothes

**What?**

- **Books:** Better World Books drop box - Forrest Park Bass Parking Lot
- **Clothing:** Bryan Williams Student Center
- **Excess/Expired Medical Supplies:** NL Building
- **Electronics/Furniture:** Fill out Warehouse pick-up form
- **Film:** Bags return to grocery store, other film trash
- **Glass bottles:** Not recyclable at UT Southwestern, take home
- **Ink Cartridges/Toner:** Send to: Recycling mail services
- **Lab/Office Supplies:** Supply Swap Website
- **Light Bulbs:** Physical Plant
- **Metal:** Physical Plant Warehouse
- **Paper Towels/Tissues:** Trash
- **Shredded Paper:** Contracted vendors on campus/blue bin
- **Styrofoam:** Trash
- **Toys:** Donate to a local charity

**Where?**

- **UT Southwestern Medical Center**
**Call to action**

Learn from the past!
Make change with passion!
Have hope for the Future!

**Medical Waste**

- **Train** policy
- **Measure/Track Results**
- **Collect/Minimize**
- **Disposal:** Incinerate; Autoclave; Microwave; Shred

**Segregate**

<table>
<thead>
<tr>
<th>YELLOW BAGS</th>
<th>RED BAGS</th>
<th>BLUE BAGS</th>
<th>BLACK CARBOY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious waste, bandages, gauze, cotton or any other objects in contact with body fluids, human body parts, placenta etc.</td>
<td>Plastic waste such as catheters, injection syringes, tubing, IV bottles</td>
<td>All types of glass bottles and broken glass articles, outdated &amp; discarded medicines</td>
<td>Needles without syringes, blades, sharps and all metal articles</td>
</tr>
</tbody>
</table>

**Document And Data Capture**