



Mountain States Health Alliance's Supply Chain Transformation

prepared for
HFMA Tennessee Chapter Fall Institute
October 12-14, 2011

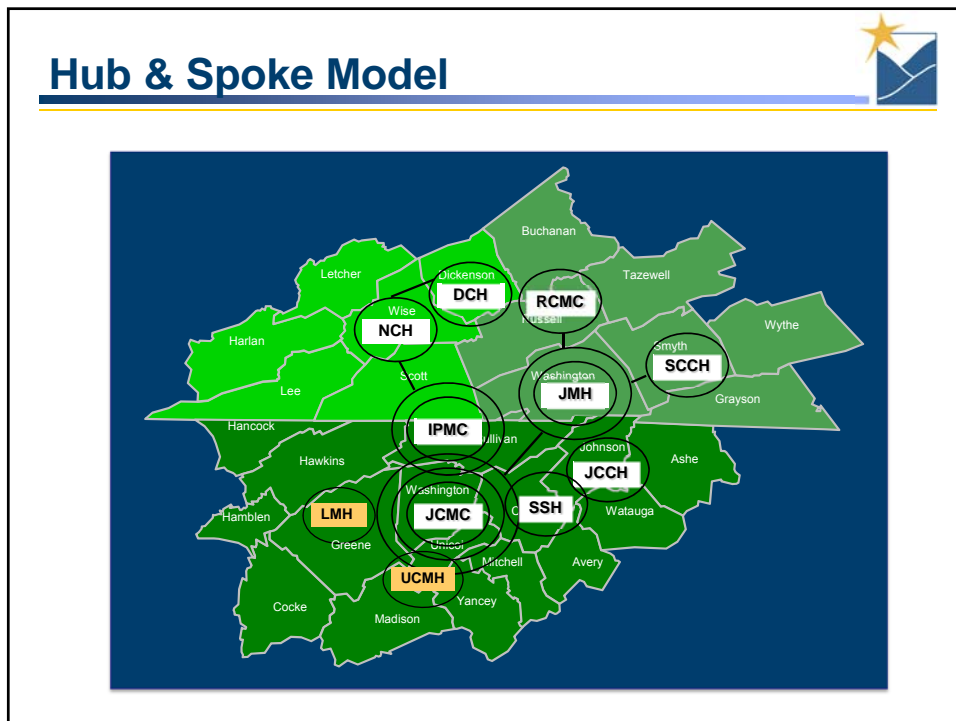
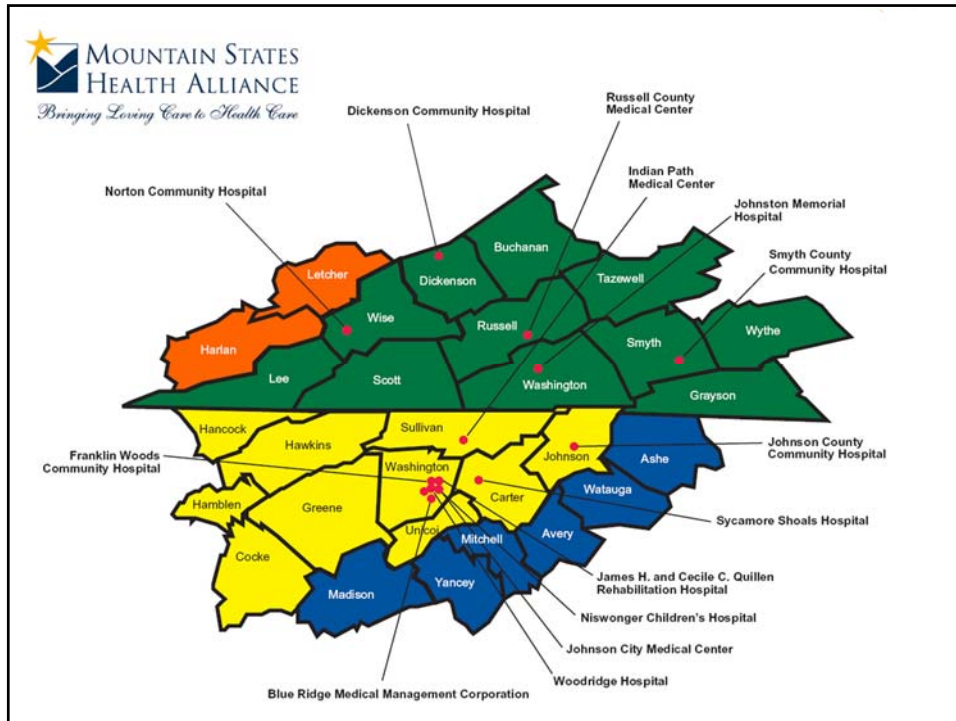
W. Dale Claytore
Vice President, MSHA



**MOUNTAIN STATES
HEALTH ALLIANCE**



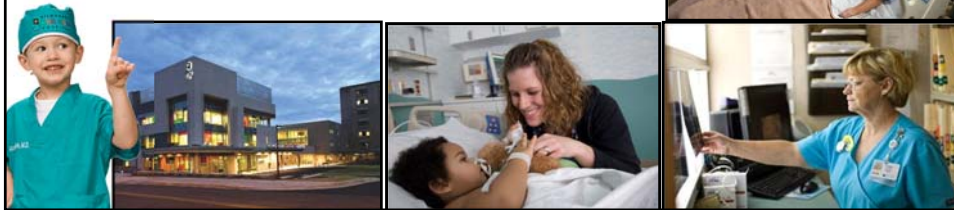
Organizational Overview



Mountain States Health Alliance



- **Largest Regional Integrated Health Care Delivery System (29 County, Four State Region)**
- **13 Hospitals with 1,749 beds**
- **\$1.2B Net Revenue**
- **Approximately 9,000 Team Members, as well as 1,220 physician medical staff, 3,500 volunteers, and 1,000 students**



Mountain States Health Alliance



Tennessee Hospitals

- Johnson City Medical Center - Johnson City, TN
- Niswonger Children's Hospital - Johnson City, TN
- Indian Path Medical Center - Kingsport, TN
- James H. & Cecile C. Quillen Rehabilitation Hospital - Johnson City, TN
- Franklin Woods Community Hospital - Johnson City, TN
- Johnson County Community Hospital - Mountain City, TN
- Sycamore Shoals Hospital - Elizabethton, TN
- Woodridge Hospital - Johnson City, TN

Virginia Hospitals

- Dickenson Community Hospital - Clintwood, VA
- Norton Community Hospital - Norton, VA
- Russell County Medical Center - Lebanon, VA
- Smyth County Community Hospital - Marion, VA
- Johnston Memorial Hospital - Abingdon, VA

Additional Services

- | | | |
|-----------------------------|---------------------------------|-----------------------|
| • 400 employed physicians | • Outpatient diagnostic centers | • Urgent care centers |
| • Home health, hospice, DME | • Ambulatory surgery centers | • Medical call center |
| • Nursing home | • Occupational medicine centers | • Wellness centers |
| • SNF beds | | |



Johnson City Medical Center



- 645 Licensed Beds
- A Level I Trauma Center (one of only six in the State of Tennessee)
- The leading Heart Hospital by volume in East Tennessee (Top 100 in the nation)
- The leading Cancer Center in the region, enjoying relationships with Harvard, Duke and Vanderbilt
- The region's only State-designated Perinatal Center (one of only five in Tennessee)

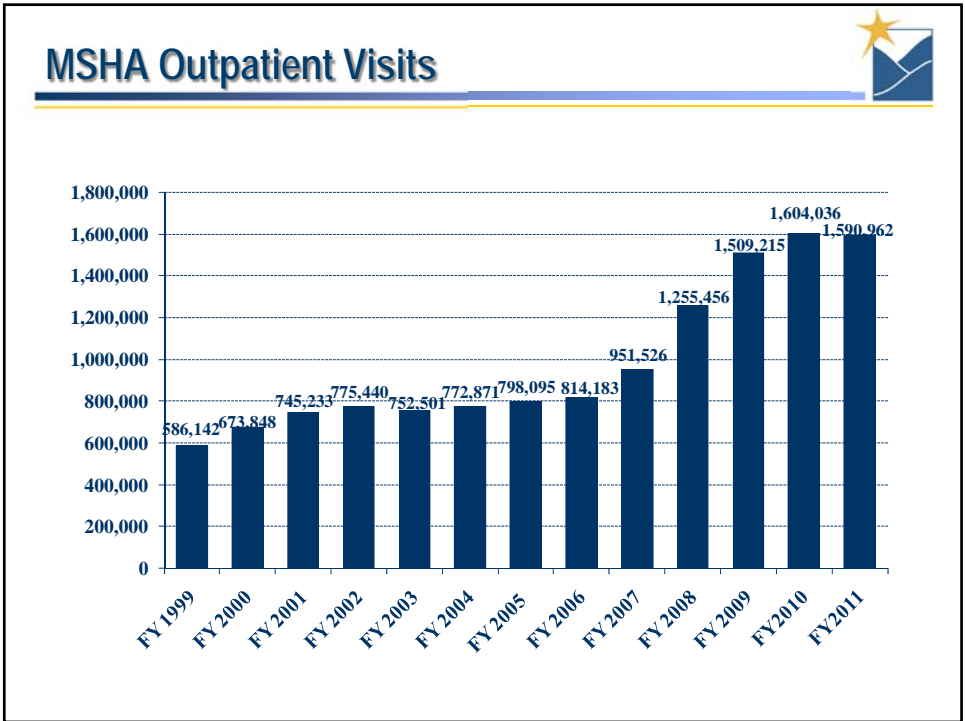
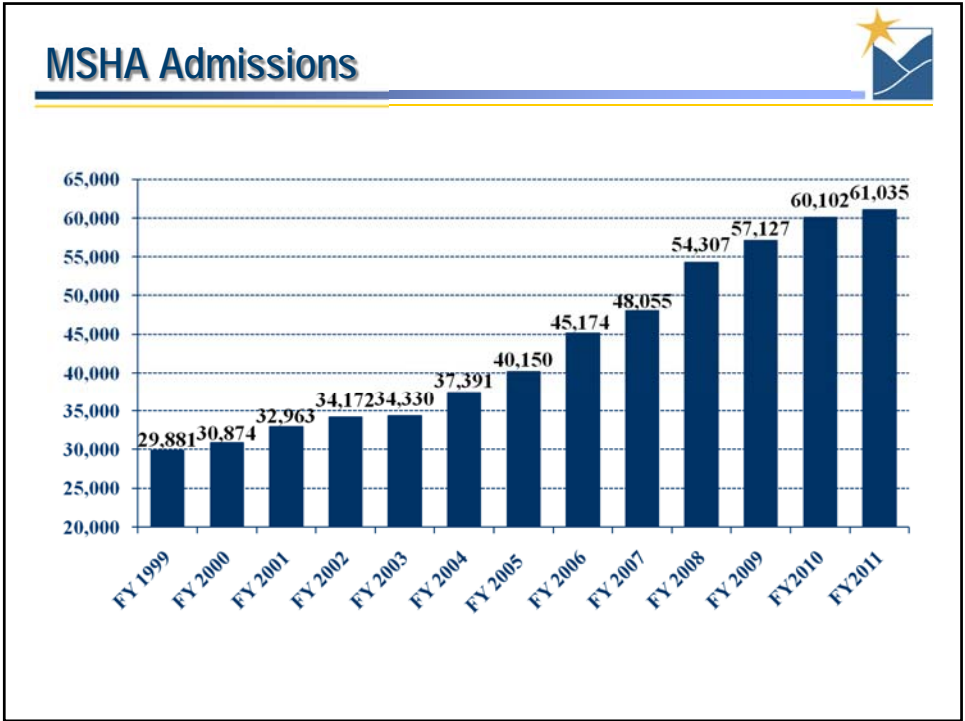


Johnson City Medical Center



- The region's first hospital-based air ambulance service (Wings Air Rescue) with four helicopters
- The region's only Children's Hospital (69 beds), one of only six NACHRI institutional members in Tennessee, and one of only six St. Jude affiliates in the U.S.
- A teaching hospital affiliated with Quillen College of Medicine at ETSU
- First Nurse Magnet Hospital in the State of Tennessee







Supply Chain Transformation

Why is Supply Chain Management Important?

- Clinical outcomes
- Financial viability
 - 2nd largest operational expense
 - “Bottom-line” impact
 - 20:1 gross revenue to bottom-line impact
 - Critical to providing healthcare for all patients at a cost that averages what Medicare pays.

MSHA's Supply Chain Circa 2004

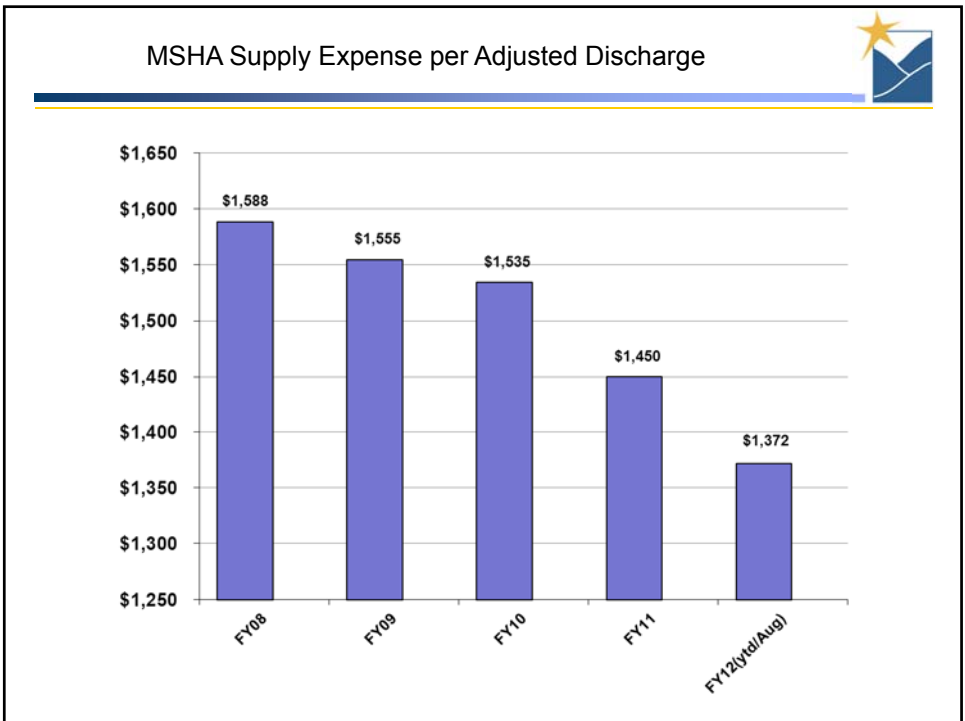
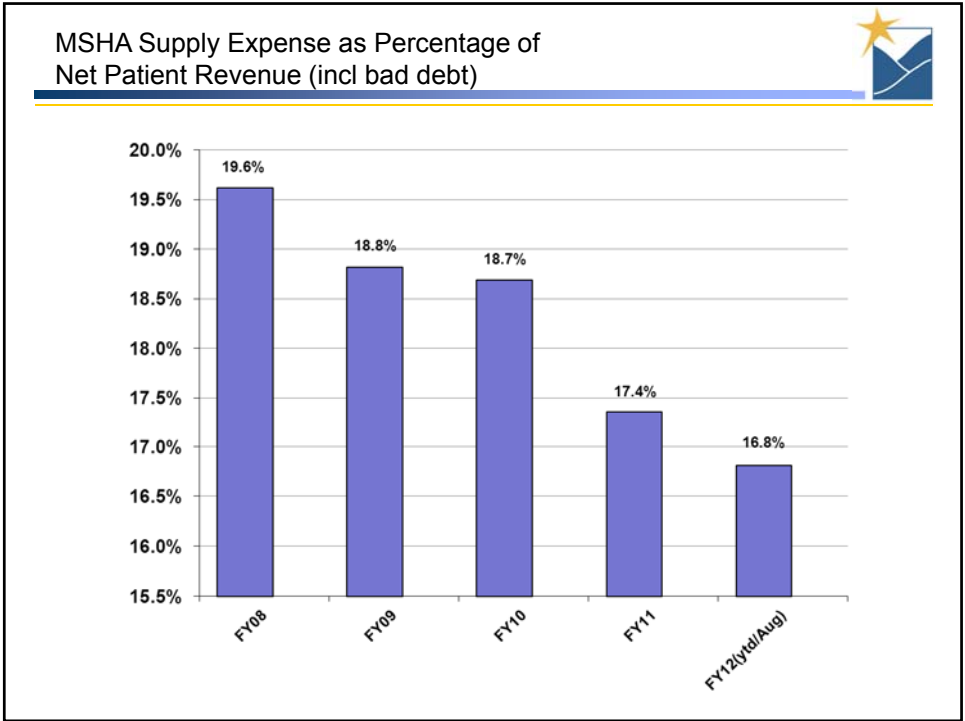


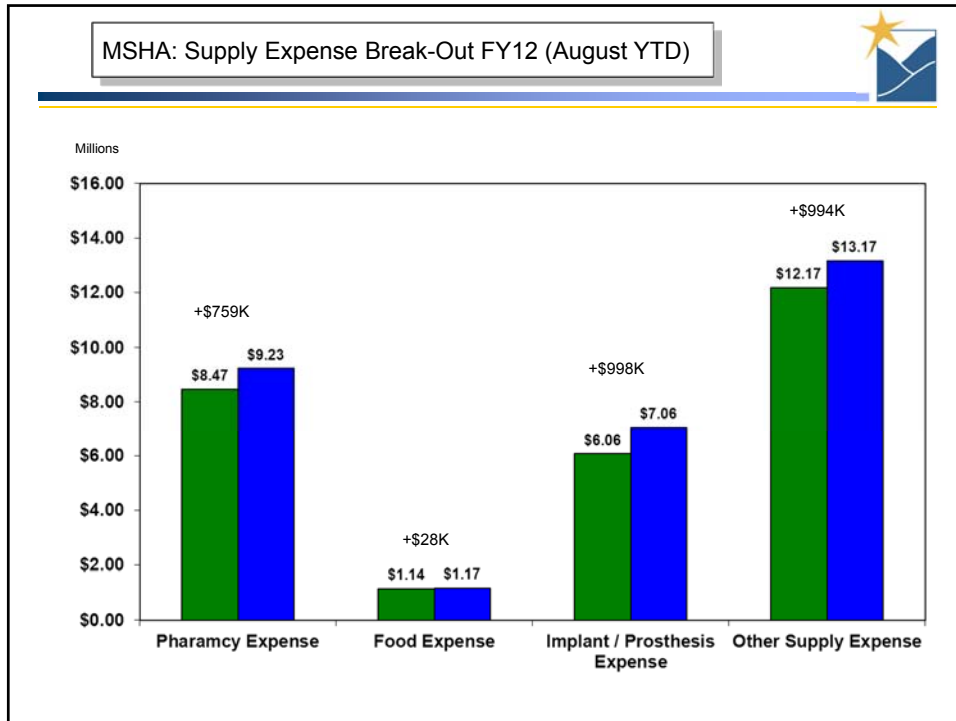
- Manual systems
 - De-Centralized Purchasing (buyers at each hospital)
 - Paper Non-Stock Requisitions
 - Faxing Purchase Orders
 - Reactive Negotiation
 - Paper PMDF's through Premier
- Materials Management staff
 - Majority of purchasing staff had no college education
 - Poor communication in purchasing department due to De-Centralization

MSHA's Supply Chain Today (i.e., 2011)



- Automated systems
 - GHX (Global Healthcare Exchange) – over 90% of all purchase orders transmitted via EDI
 - RSS (Requisition Self-Service) – Lawson Module that further automates supply requisitions and eliminates “paper” orders
 - MetaTrade – further automates purchasing process by directing faxed requisitions through the GHX portal
 - JCMC OR supply automation – over 200 items now setup in Lawson and replenished by using Symbol handhelds
 - StrataJazz – on-line, capital equipment software package
 - On-Line electronic price activations through Premier
- Materials Management staff
 - Centralized Purchasing Office (CPO) established in 2006
 - Department consists of Purchasing Director, and 12 highly trained and educated procurement specialists and senior supply chain specialists (5 team members with MBA's, and one Six-Sigma Green Belt)





Contracts



- “Trade volume for price”
 - Supply chain standardization
- GPO “extra value” contract
- Regional buying entities
- IDN contracts
 - Need business savvy contracting staff
 - Create a strategy
 - Contracting checklist: greater discounts, increase warranty, include repair parts, free training for IDN technicians.

Premier ASCEND Program



- ASCEND (Accelerated Supply Chain Endeavor)
- Premier program designed to drive deeper discounts on medical supplies, equipment, services, including physician preference items
- Contracts are awarded using Premier's standard "bid calendar", and are typically 3-year agreements
- Program launched 4/1/2009
- MSHA was one of the early adopters of the program
- Over 200 hospitals in the U.S. are now participating in the program
- To date, MSHA has realized cost savings of ~ \$433K, by taking advantage of over 52 ASCEND contracts

Premier ASCEND Program



Line #	General Category	Vendor Name	MSHA Annual	3 YR Extended Savings
1	Trash Can Liners	Berry Plastics	\$17,532	\$52,596
2	Clinical Reference Lab	Quest Diagnostics	\$46,500	\$139,500
3	Patient Bedside Products	Medline	\$12,736	\$38,208
4	Liquid Medical Waste	DeRoyal and Stryker	\$8,000	\$24,000
5	Infant Care Capital	Draeger	\$2,600	\$7,800
6	Patient Prep (Clippers/Blades)	Medline	\$23,000	\$69,000
7	Patient Warming	Arizant	\$7,716	\$23,148
8	OR Basins and Trays	Medline	\$1,750	\$5,250
9	Blood Bank Analyzers	Biotest Diagnostics	\$110,000	\$330,000
10	Orthopedic Soft Goods	DeRoyal	\$12,000	\$36,000
11-52	(Total of Multiple Contracts)	(Various)	\$433,720	\$1,301,160

Cost Savings (and *Revenue*) Programs

Project or Program	JCMC	IPMC	SSH	PTC	FWCH
Soft Drinks (Annual distribution)	\$73,000	\$12,500	\$5,000	\$750	\$3,750
Soft Drink (new commission structure)	\$48,275	\$21,214	\$7,754	\$1,120	\$6,750
Supply Distribution (lower distribution fee)	\$12,450	\$5,280	\$2,845	\$1,590	\$2,740
New ASCEND Contracts	\$4,280	\$1,670	\$905	\$539	\$1,280
New WNCHN Agreements	\$3,850	\$1,285	\$905	\$380	\$958
Staples Office Supplies	\$24,680	\$9,545	\$4,680	\$1,120	\$5,850
Ascent Healthcare Reprocessing	\$197,594	\$72,186	\$20,179	\$0	\$13,742
Cardinal Custom Procedure Trays	\$21,585	\$6,250	\$2,842	\$0	\$4,956
Shred-It Contract re-negotiation	\$5,890	\$2,845	\$1,580	\$680	\$2,145
Medline CPT Agreement (JMH only)	\$0	\$0	\$0	\$0	\$0
ECRI Capital	\$61,980	\$87,343	\$0	\$0	\$96,722
ECRI Supply (CRM / Cath Lab)	\$78,500	\$0	\$0	\$0	\$0
Totals	\$532,084	\$220,118	\$46,492	\$6,179	\$138,893

Cost Savings (and *Revenue*) Programs

Project or Program	RCMC	SCCH	NCH	DCCH	QRH	JMH
Soft Drinks (Annual distribution)	\$2,000	\$2,000	\$0	\$0	\$1,000	Will begin 7/1/2011
Soft Drink (new commission structure)	\$1,455	\$6,058	\$0	\$0	\$1,420	\$0
Supply Distribution (lower distribution fee)	\$1,360	\$1,985	\$1,650	\$950	\$850	\$4,280
New ASCEND Contracts	\$854	\$680	\$958	\$390	\$720	\$1,685
New WNCHN Agreements	\$454	\$1,254	\$925	\$350	\$390	\$1,957
Staples Office Supplies	\$3,320	\$2,358	\$3,120	\$1,120	\$1,458	\$3,850
Ascent Healthcare Reprocessing	\$0	\$16,876	\$18,004	\$0	\$0	\$3,555
Cardinal Custom Procedure Trays	\$4,408	\$6,980	\$6,250	\$950	\$1,250	\$0
Shred-It Contract re-negotiation	\$1,574	\$1,680	\$1,850	\$625	\$1,020	\$0
Medline CPT Agreement (JMH only)	\$0	\$0	\$0	\$0	\$0	\$102,850
ECRI Capital	\$0	\$62,000	\$45,988	\$0	\$0	\$55,470
ECRI Supply (CRM / Cath Lab)	\$0	\$0	\$0	\$0	\$0	\$0
Totals	\$15,425	\$101,744	\$79,584	\$4,385	\$8,108	\$173,641
Totals (All Hospitals)						\$1,326,653

Ascent Reprocessing

Facility	Customer #	Total Device Savings	Waste Savings	Avg. Waste Cost/lb	Total Weight (lbs)	FY 11 (Jan) YTD Savings
Franklin Woods Community Hosp	79648	\$13,586	\$156	\$0.30	520	\$13,742
Indian Path Medical Center	79364	\$71,584	\$602	\$0.30	2,007	\$72,186
Johnson City Med Center	79300	\$196,591	\$1,003	\$0.30	3,344	\$197,594
Johnston Memorial Hospital	124905	\$3,549	\$6	\$0.30	20	\$3,555
North Side Hospital	79658	\$0	\$0	\$0.30	0	\$0
Norton Community Hospital	99278	\$17,843	\$161	\$0.30	538	\$18,004
Smyth County Community Hosp	79708	\$16,749	\$127	\$0.30	423	\$16,876
Sycamore Shoals Hospital	79631	\$19,981	\$198	\$0.30	661	\$20,179
Combined Totals		\$339,883	\$2,261		7,538	\$342,144

- ### Requisition Self-Serve (RSS)
- RSS is a Lawson module that gives end-users the ability to order medical and other supply items electronically, eliminating paper requisitions.
 - Benefits:
 - Reduced errors
 - No lost requisitions – automated ordering process
 - Faster order processing
 - Eliminates phone, fax, or email order requisitions
 - As of 07/1/2011: 1702 team members have been trained
 - Prior to RSS, only 10-15% of requisitions were submitted electronically.
 - That number has now grown to over 90%
 - FY12 Blueprint Goal = 92% system-wide compliance

Waste Stream Management



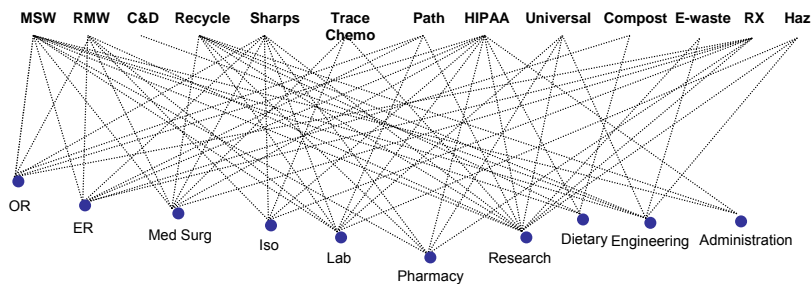
- Stericycle is streamlining our current waste process through their Integrated Waste Stream Solutions Program.
 - Most importantly Stericycle focus on Environmental Best Practices with their comprehensive/sustainable recycling program with improves hospitals GREEN initiatives.
- MSHA established a baseline spend for JMH and JCMC and determined our annual waste disposal cost was \$553K for these two facilities.



Integrated Waste Stream Solutions Proposal



No single department is responsible for managing all hospital waste streams



STERICYCLE MANAGES THE MULTIPLE WASTE STREAMS FOR JMH & JCMC with 1 Point of Contact, 1 Invoice, and GUARANTEED SAVINGS (~\$55K).

Freight Management Challenges



- Freight is a cost that is out of sight out of mind
- Sometimes business owners do not inquire or attempt to negotiate freight
- Vendors are using freight charges as an additional revenue stream for their companies
- It's hard to monitor vendor compliance on freight charges
- No reporting capabilities to assist business owners in making them more aware of the charges and opportunities to manage them



Triose Freight Management



- Triose is a 3rd Party Freight Management Company that has over 2400 contracts with medical supply companies across the US.
- Triose is heavily tied to UPS. UPS is a strong corporate partner and preferred vendor for MSHA.
- Estimated savings on this program for the system is \$150K.
- We are in the process of implementing this program.



ECRI



Who is ECRI and What do they do?

- ECRI is an organization comprised of Physicians, Nurses, Lawyers, Supply Chain Professionals and many other Healthcare Professionals.
- ECRI has more than 40 years of applied research in healthcare. From its research roots and early transition to an evaluator of medical technologies, ECRI Institute now plays a major role in the following:
 - Technology planning
 - Procurement management
 - Patient safety, quality and risk management
 - Healthcare policy and research
 - Healthcare environmental management



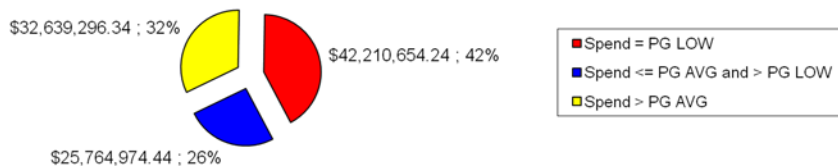
MSHA Supply Spend Benchmarked



- 42% of what we purchased was \geq to the best price in the country
- 26% was \geq AVG and $<$ PG LOW
- 32% showed areas of opportunity

Note: ECRI does not have the capability to recognize “buy one, get one free” deals, so part of this 32% would roll into the red or blue portion of the pie chart. We are working to validate all opportunities.

Member Item Spend vs. PriceGuide Low and Average



Value Analysis Teams (VATs)



Seven teams meet monthly or quarterly

- OR VAT
- Clinical VAT
- Lab VAT
- Respiratory Therapy
- Safe Sharps
- EVS
- S.W.O.T. (Skin Care, Wound, Ostomy)



Items are submitted by

- MSHA Team Members- [New Product Request Form](#)
- Supply Chain (Contracts, Standardization Opportunities)
- Vendor Partners

VA Team –VA Coordinator and Standardization Manager

- Collect, analyze and report data on requested products at VAT meetings
- VA Coordinator acts as a facilitator for all product introductions and changes
- Team reports to and takes direction from Corporate Supply Chain Leadership

Paid Physician Value Analysis Teams



MSHA Supply Chain responding to individual physician via the hospital CEOs. MSHA unable to aggregate volume in order to realize deeper discount.



Organize physician Value Analysis Teams judiciously for Physician Preference Items (PPIs).

Paid Physician Value Analysis Teams



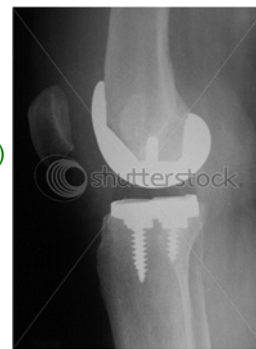
- Select a PPI that has significant savings opportunity; e.g.
 - surgical mesh, bone cement, nerve stimulators...
- Carefully select team of physicians willing to be a Paid Value Analysis Team (PVAT) member.
- Build VAT product comparison book based upon vendor marketing information, scientific studies, and pricing information.
- Pay physician X hours to read vendor information and also pay physician to attend VAT meeting.
- Physician VAT makes informed product selection.
- Hospital CEO support is key to success.
- Paid physicians defend their decision.



Orthopedic Joint Implant Cost Reduction Initiative



- MSHA has recognized a ~1.7M opportunity
 - Capped price, 35% (on average) of Medicare reimbursement
 - System-wide pricing (same price all hospitals)
 - All vendors are allowed to participate
 - MSHA negotiation team: CEOs from MSHA's 3 largest hospitals and Supply Chain VP.
 - Initial meeting went well during Dec 2010
 - Vendor written proposals submitted on Jan 14, 2011
 - Final round of meetings February 2011
 - Monday, May 2, 2011 new price structure started.



Preferred Vendor Contracts (PVC)



- Establish a **“Corporate Standard”** for all major supply items throughout our IDN
- There maybe 2, and possibly 3 vendors in a category (i.e., surgical mesh), but a corporate contract would be established
- Major departments targeted for PVC establishment are the OR, Cath Lab, Materials Management, Laboratory, Radiology, RT, Biomedical Engineering, Facilities/Plant Operations, and Environmental Services
- The Premier ASCEND program will help establish many PVC contracts on standard commodity, med/surg supplies
- Once established, Materials Management will post all PVC contracts on the MSHA Intranet

Vendor Certification



All Vendors must swipe **IN** and **OUT** at the Materials Management Vendor Kiosk located at the Vendor Entrance. Sign in at the Materials Management office at all other MSHA facilities.

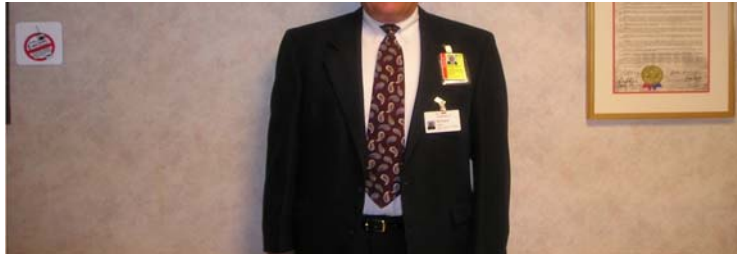


Vendor Representative Roles



Sales Representative: Vendor sales representatives' roles are to sell, detail, and provide in-services. These representatives include those individuals who market products to MSHA related to any pharmaceutical, supply, equipment, instrument, or medical device used by MSHA.

Technical Advisor: Vendor technical advisors' role includes providing support on a specific product in the OR and otherwise. When providing support during the case, the technical advisor should only be present during the time period in which their product is being used. Technical Advisors may not participate in patient care for any reason.



Vendor Conduct



While the following list is not all-inclusive, the list does provide some general procedures that vendors are expected to follow:

1. There will be **no unscheduled calls** to MSHA facilities. Vendors will make appointments with appropriate staff prior to arriving at MSHA facilities.
2. **Appointments** should be scheduled between 8:00 a.m. and 4:30 p.m., Monday through Friday. Exceptions may be granted by the Director of the respective department and his or her designated representative.
3. If **scrub** clothing is appropriate for vendor's visit, MSHA will provide scrubs.
4. When permission is granted to a vendor to be on MSHA premises, the vendor is expected to **proceed directly to the area of his or her appointment**, succinctly conduct their business and depart the premises. Roaming around the hospital looking for opportunities to solicit is forbidden.

Vendor Orientation



- 1 hour on-sight orientation
 - Expectations
 - Gifts and gratuities
 - Introduction of new products
 - Penalty for Non-compliance
 - Warning
 - Restriction of privileges in varying degrees
 - Termination
- Photo badge
 - 2 years; \$50

Emergency Preparedness Plan



- Seasonal flu v. large scale disaster
 - Additional flu, respiratory, and PPE supply levels have been increased inventory stored at our primary distributor warehouse.
- Create a very detailed plan
 - The plan provides team members with key information in the event of a disaster or emergency.
 - Proactive plan to mitigate supply shortages by storing 3-5 days of medical supplies at each hospital.
 - Collaboration with primary distributor ensures medical supplies will be readily available in the event of a disaster or emergency.
 - Infection Control, Safety, Engineering, and Materials Management have worked together to determine specific supply lists, as well as a strategy to procure these supplies.

Decision-Making Algorithm for Pricy Supplies & Implants



- **Proposed – this concept is being developed / refined**
- Step 1 – Identification of new request
 - “Business owner” identifies / presents new process, new implant, or new pricy supply to committee
- Step 2 – Financial analysis
 - Profitable or money-loser
 - What is the financial break-even point
 - What is maximum the organization is willing to pay
 - Any upstream or down stream additional revenue
 - Capital considerations
 - Hospital staff (FTE) considerations

Decision-Making Algorithm for Pricy Supplies & Implants



- Step 3 – Other considerations
 - Elective or emergent procedure
 - Consistent with organization’s mission, vision, & values
 - Consistent with organization’s core & support strategies
 - Political implications / considerations
 - “Lost leader” – is it okay to lose money on this procedure in order to strengthen the entire portfolio of business
 - Can hospital and / or physician meet patient need by using another technique, procedure, or implant
- Step 4 – Assessment
 - Hospital CEO(s), CFO(s), CMO(s), “business owner(s),” and other leaders consider the information above
 - The aforementioned leaders discuss the pros & cons with the requesting physician(s)

Decision-Making Algorithm for Pricy Supplies & Implants



- Step 5 – Final Decision
 - Hospital CEO(s), CFO(s), CMO(s), “business owner(s),” and other leaders make final decision
 - CMO, medical directors, et al, share final decision with requesting physician



Supply Chain Metrics



- “Deming” quote
- Numerous supply chain metrics:
 - Corporate and hospital metrics
 - Supply expense as a percentage of net patient revenue
 - Supply expense per adjusted discharge
 - Intra-Departmental metrics
 - Supply cost per patient encounter
 - Etc.
- Tie metrics to a viable reward system!

Other...



- Utilization Reviews

- Standardization v. customization

- It is cheaper to standardize and subsequently not use certain items in surgical packs or...

- Point-of-use cabinets

- Healthcare reform

- Hospitals and physicians have experienced reductions in reimbursement...

Comments, Questions, Ideas

