

SUPPLY CHAIN MANAGEMENT DEPARTMENT OF THE YEAR

# Broward patient advocates for flexible supply chain

*Public system saving lives, money through effective logistics*

by Rick Dana Barlow

With the healthcare industry anticipating and debating the merits of federal and state reform efforts, Brian Bravo's supply chain team at Ft. Lauderdale, FL-based Broward Health refused to wait around for the smoke to clear before foundationally redesigning operations.

No stranger to a challenge, Bravo left the hustle and bustle of helming New York-based Mount Sinai Hospital's materials management department five years ago, heading due south for one of the top public health systems in the country.

Serving Broward County in Southeast Florida, the public county system comprises four hospitals and 35 ambulatory sites.

While Broward Health achieved national renown for its clinical services in the community, Bravo's department didn't even come close. In fact, he characterized Broward's purchasing program as nothing short of "anemic" when he inherited the post.

Taking over as director of corporate resources and materials management (CRMM), Bravo attributed the department's performance to a lack of process.

"There were no value analysis teams in place, there was no technology for requisitions, so the staff was overwhelmed with paperwork," he recalled. "There was no process to put contracts in place, so our non-contract spend was dramatically high. We only had [electronic data interchange] with two vendors and our item master was corrupt."

Bravo admitted the difficulty "to determine the best place to start when you begin to prioritize the most critical obstacles in approaching a multitude of supply chain challenges - especially when many of the areas need significant overhauling." Plus, he had to work within the framework of county government.

"Being in a public system has its challenges," he continued. "There is a tighter process to get things done and to change any policy, so things tend to take much longer than in your normal non-profit hospital. But we have accomplished so much in five years. I find it amazing and I have to thank my staff for the great teamwork in making this happen."

During the past five years, Bravo's team of nearly 49 full-time equivalents developed collaborative relationships with clinicians and senior administrators, forged critical thinking value analysis teams, simplified systems and decision-making processes with sustainable metrics without sacrificing creativity or performance and service, established a detailed and later hurricane-tested disaster preparedness plan and invested in technology to marshal \$185 million in annual purchasing volume in a near-paperless environment.

Through its supply chain initiatives, Bravo's team managed to slice \$7 million in costs in general, medical/surgical and physician preference products within the last year alone, devoted almost 11 percent of its total procurement volume in the first three quarters of fiscal year 2010, or nearly \$35.5 million, to diverse supplies; ratcheted up environmentally focused purchasing of products and services to about 1 percent of its total and growing; and even dedicated considerable human resources and supplies to earthquake-stricken Haiti.

For refashioning materials management into an integrated, self-supporting corporate

resources team, hinging on clinical and operational partnerships, *Healthcare Purchasing News* selected **Broward Health** as its **2010 Supply Chain Management Department of the Year**.

### Making IT work

Bravo credited teamwork, shared accountability and responsibility and comprehensive strategic analysis as hallmarks of a "world-class supply chain process" with his staff generating and representing success.

Besides holding monthly "think-tank" forums to discuss best practices, risk assessments, customer satisfaction and savings initiatives that educate and motivate a cohesive group, Bravo's department also upgraded its materials management information system (MMIS) and focused on revenue cycle-spend analytics processes through MedAssets.

During a six-month period, CRMM worked with the corporate information technology department, as well as Lawson Software and GHX to beef up its departmental IT muscle and enable them to drill down to the item level for results.



**Corporate Resource & Materials Management (CRMM) Team - Left to Right:**

- Ruben Hernandez, Materials Management Supervisor; Georgine Welch, Purchasing Manager;
  - Brian Hurt, Supply Chain Information Systems Manager; Larry Kemp, Bids Coordinator;
  - Brian Bravo, Director; Eileen Danielson, Print Shop Supervisor; Omar Santos, Print Shop Manager; Alexandra Babendererde, Supply Chain Information Systems Coordinator; Richie Persaud, Materials Management Manager;
  - Maria Biggs, Purchasing Coordinator; Patricio Villacreses, Sourcing Manager
- Not Pictured:** LaRae Floyd, Supplier Diversity Manager

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"We went from a paper-driven system to a user-friendly, electronic-based system, providing the capability to view complex, real-time accurate databases that have the ability to speak to one another," Bravo said.

With IT's programming, CRMM launched a home-grown website on the organization's intranet to support internal clients that also reflected its department-centric buyer assignments so one person handles all "like" purchases, according to Bravo. "This resulted in a number of economies of scale while allowing the buyer to become more of an expert in specialized purchasing offering a better sense of individualized treatment per departmental client," he noted. "This [also] increased customer satisfaction by giving a central point of resource for both internal and external clients."

CRMM outsourced complete cleansing of the MMIS item master, including descriptions, manufacturer numbers, packaging and other pertinent attributes as a key starting point for data accuracy.

"To make the website useful, we first inactivated all items that had not been in use for 18 months, reducing the item master by 20 percent and eliminating 7,000 items," he said. "This improved efficiency in other departments such as Contracts and Value Analysis because there was less irrelevant data for them to analyze and track."

During the summer of 2009, CRMM began closely analyzing monthly supply expenses as they related to the budget. They created a monthly "Supply Trend Report" that details supply expenses reported in financial statements and compared to the actual supplies purchased. "This report provides comprehensive information about each item, such as contract vs. non contract, cataloged vs. non-cataloged, all vendor information, so department managers and purchasing staff can take immediate action to address budget issues," he noted.

CRMM also hard-coded expense codes. "We loaded our item master with expense codes so end users could not manipulate the expense code to which an item is charged," he said. "This allowed us to ensure that supplies are charged consistently which made it easier to investigate supply related budget issues."

CRMM worked with GHX to implement electronic requisitioning and order processing but they did face some "unforeseen" challenges, such as processing "bill only" and "service" type requisitions that ultimately were solved, according to Bravo.

"At the same time we saw the need to implement a strict online requisition approval process in accordance with Broward Health procurement policies mandating acceptable authorization limits," he noted. "Once these

obstacles were eliminated via critical coordination with key clinical and operational teams establishing vital processes and policies, we were able to create and process 95 percent of our requisitions electronically." In fact, paper requisitions plunged to less than 5,000 from nearly 30,000 annually while purchase order volume increased. Further, the new system guarantees that all requisitions receive the required authorizations because the spending approval path is built in, he added.

Bravo estimated that staff workload decreased by 30 percent, enabling them to focus on other areas needing improvement.

CRMM also wanted to ensure it transmitted POs to vendors via EDI. "We were already processing orders utilizing EDI and an automated fax server, but we wanted a more comprehensive solution that utilized true EDI functionality," he indicated. GHX provided that. Consequently, CRMM submits and confirms 60 percent of all orders via EDI and transmits 98 percent of all orders electronically via either EDI or a fax server.

Bravo admitted that he'd like to transmit orders via EDI or even online in lieu of fax. "If we could implement EDI with every vendor, we would, but not every vendor has the technology to connect via EDI," he said. "If we could do this, it would improve the ordering process and make it more electronic, leaving less room for error and a faster process from order to payment."

In 2006, CRMM's average buyer processed approximately 10,000 purchase orders per year. By 2009, buyer productivity increased more than 50 percent to almost 16,000 purchase orders per year.

Further, more than half, or 55 percent, of all POs flow directly from the person entering the requisition to the vendor without any interaction from any purchasing or technical staff, Bravo noted.

## Value in analysis

Bravo's team not only infused its IT capabilities but also added muscle to its value analysis process last year.

To improve purchasing, contracting, distribution and inventory management, CRMM developed stronger business partnerships with internal and external clients, including clinicians and consultants through multidisciplinary value analysis teams.

To date, value analysis spans four teams that cover products, technology and services. A steering committee oversees the other three that focus on nursing, surgery and lab. "Everyone at the table has a voice in the process and there is a common goal," Bravo noted. "Ownership of the process and the actual end results belong to the group, hence there is a vested interest for a great end result." They

## Fast Facts on Broward Health

**Headquarters:** Fort Lauderdale, FL

**Facilities:**

4 acute care hospitals, 35 ambulatory sites

**Beds (licensed and average operating):**  
1,529 and 1,396

**Employees:** 7,582

**Inpatient Admissions (2009 vs. 2010):**  
63,717 vs. 65,099

**Outpatient Visits (2009 vs. 2010):**  
1,007,878 vs. 1,069,349

**Surgical cases (2009 vs. 2010):**  
30,357 vs. 31,193

**Total net revenue (2009 vs. 2010):**  
\$886,953,000 vs. \$944,541,000  
(projected for 2010 and excludes tax revenues)

**CEO:** Frank Nask

**CFO:** Robert K. Martin

**COO:** Joseph Rogers

## Corporate Resource & Materials Management (CRMM)

**Director:** Brian Bravo

**Joined organization:** 2005

**Previous position:** Director, Materials Management, Mount Sinai Hospital, New York  
**Started supply chain career:** 1995, Materials Management Clerk, Mary Immaculate Hospital, Jamaica, NY

**Managers (at Broward):** La Rae Floyd, Brian Hurt, Richie Persaud, Omar Santos, Patrick Villacreses and Georgine Welch.

**Employees/FTEs (at Broward):** 48.5 in CRMM  
**Conduit to CEO:** Senior Vice President and CFO

**GPO affiliation:** MedAssets

**Annual purchasing volume/supply expense:** \$185M

**Annual purchase order volume:** \$118M

**Percentage of purchase orders transmitted electronically:** 98%

**Percentage of requisitions processed electronically:** 95%

**Department functions:** Purchasing, Sourcing, Systems, Materials Management, Supplier Diversity, Graphics & Communications.

**Purchasing and contract management:** Centralized

**Total annual operating expenses:** \$115,192,000 for budget 2011

may launch two more in the future to focus on radiology and new technology.

"Prior to 2009, this structure did not exist and there was no support or buy-in to the value analysis program," he said. "The value analysis team was not productive and did not produce results. By bringing a strong value analysis leader on board, Broward Health was able to successfully drive the overall program and gain the support of senior administration, physicians, department managers, clinicians

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and other personnel as necessary. Members of teams were changed, processes were updated, goals were set by the teams and effective organizational communication were the first steps in turning the value analysis program into a successful respected function of the supply chain."

A procurement steering committee oversees and evaluates capital acquisitions, which Broward Health defines as being valued at \$50,000 and above.

Last year, the value analysis program generated more than \$2.7 million in annual savings with another \$1.2 million pending.

Bravo convinced and recruited doctors and other clinicians to participate merely by promoting what value analysis was and how it could improve the supply chain, presenting good data at administrative meetings to show areas of opportunity. "It was not difficult to recruit clinicians," he acknowledged. "They all really wanted to help. The clinicians just did not have the chance [in the past]."

Bravo extolled the value of supply chain leadership, too, something the CRMM team strove to attain and earned to the extent that they have been labeled the organization's "Purchasing University" by Broward Health.

"We are actually teaching others what we do," Bravo said. "We take pride that many hospitals call and visit us to see how we are doing things here at Broward Health. My goal has always been to teach others the success we

have made here and see if others can be successful as well."

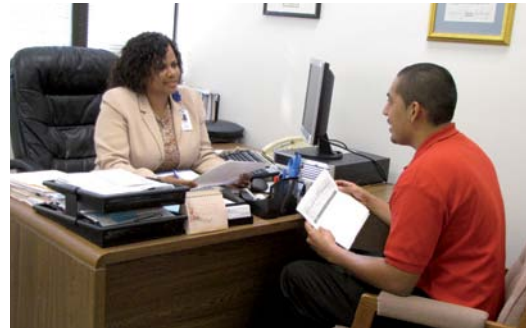
## Bread and butter

Broward's CRMM team may have invested considerable efforts and funding in technology and value analysis but they also overhauled the fundamentals - contracting, purchasing, distribution and inventory management - that comprise the supply chain's framework.

Their efforts so far have generated \$7 million in cost reductions, including value analysis-driven efforts; physician preference item contracts for orthopedic, cardiac rhythm management, interventional cardiology and spine products; and the remainder in special initiatives, such as freight management. It also changed GPOs to MedAssets three years ago.

Bravo started with a dedicated sourcing team that monitors, manages and maintains its contract portfolio for clinical and non-clinical products and equipment, reviewing pricing and ordering accuracy.

"Once items are placed on contract, these items are then subject to continual fiscal review to obtain the highest level of cost savings," Bravo noted. "This should provide a sense of assurance that once the client chooses to order an item, the unit of measure, the cost and description is accurate, ensuring the order will be expeditiously placed. This assurance



will also assist those maintaining their departmental budgets to ensure accuracy of orders and final invoicing."

CRMM's sourcing team uses ECRI Institute for financial and qualitative comparisons for clinical products on a local and national basis to benchmark performance.

For distribution, Broward works with Medline Industries Inc., which delivers products on a just-in-time basis. CRMM plans to go "completely stockless" sometime in the future, Bravo told *HPN*, to help decrease costs and increase inventory turns.

One key CRMM internal distribution win involved blood and specimen test results. Broward requires all specimen samples to be transported to a central repository for testing so a courier service was needed. When Broward received numerous complaints about the vendor, including no shows, lost specimens, lateness, poor communication, ineffective route scheduling, lack of training and certification of drivers and massive billing issues, it turned to CRMM to intervene and take control of the process.

After consulting with lab managers, risk management, contracts and physicians, CRMM developed a blueprint to handle the service, enabling the clinicians to focus on patient care, according to Bravo. The results so far? "With the appropriate management, governance and oversight, service satisfaction and compliance are at a 98 percent," he chimed. "This is a victory for patients and an important element in achieving high levels of patient satisfaction."

When CRMM debuted as a Broward Health department under Bravo they started to work on product and equipment evaluation, selection, pricing and outcomes but also noticed something crucial was missing - a freight management strategy.

"Not only did a freight management program not exist, there were no tools in place to effectively identify the annual freight spend, vendors were capitalizing on excessive freight charges, accountability measures and audit processes were the missing link and freight budgets were out of control," he said. "With the understanding that freight charges forms a huge revenue generating scheme for many

## Broward Health boasts diverse, green stewardship

Broward Health cares so much about supplier diversity and green purchasing that both programs have been intricately woven into the organization's supply chain fabric.

Poised to enter its third decade in operation, Broward Health's Supplier Diversity Program grants access to minority- and women-owned businesses.

Managed by Corporate Resource & Materials Management's Office of Supplier Diversity, the program hosts vendor expos and open houses, as well as quarterly vendor orientation sessions on Broward Health's procurement process, and an interactive online Diverse Vendor Directory.

Diverse vendor spending accounts for nearly 11 percent of CRMM's total procurement budget this year, according to CRMM Director Brian Bravo who lauds their efforts. "Through a good supplier diversity program, we help the economy both locally and nationally, and in turn promote more competition amongst vendors," he added. "This is healthy in the supply chain because through competition we achieve savings."

CRMM takes seriously Broward Health's responsibility to minimize waste, to use less toxic products, to improve occupational and patient health, and to reduce the use of hazardous material, while maintaining tight control on expenses and improving community relations, according to Bravo. They extend that philosophy to their vendors by including feasible green/sustainability initiatives in solicitation and selection processes that support environmentally responsible products and services without compromising existing sourcing practices and patient care and safety, he noted.

Broward Health works with UniShred for recycling and waste reduction efforts of paper, surplus material and electrical components; Envirocycle for recycling of construction debris, such as cardboard, metals and wood; Smurfit Recycling Co. for end-of-life medical records recycling; Tech Optic for recycled printer, fax and copier toners; AERC Recycling Solutions for fluorescent lamps, mercury-containing fluorescent lamps, "U-Tube" lamps and batteries; Solvent Recycling Systems for reclaiming and recycling xylene, formalin and alcohol; and Stericycle for pharmaceutical waste management.

Bravo indicated that green purchasing accounts for about 1 percent of CRMM's total annual purchasing volume but he anticipates growth. "We are putting new language in our contract boiler plate and also in our bids that encourages vendors to implement a green solution," he said. "We hope this will drive the percentage up."

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suppliers and manufacturers, materials management wasted no time in putting controls in place to manage freight cost, while reaffirming our commitment to hold our vendor partners accountable to our guidelines relating to freight."

CRMM reached out to a third-party freight management firm, FDSI, to manage the process, including determining the best shipping and transportation modes, tracking freight charges and transactions by vendor, carrier, service level, weight, origin and destination. CRMM shares audit process data with Accounts Payable and Accounting Services to ensure product invoice and freight payment accuracy. So far, CRMM is generating 80 percent vendor compliance for inbound shipments and 99 percent employee compliance for outbound shipments, according to Bravo. To date, CRMM has reduced its freight expense by approximately \$180,000, he added.

CRMM also tackled what Bravo called a "systemic problem" in vendor access.

"One of the biggest challenges healthcare organizations face is their inability to control the flow of products outside of the procurement process," he noted. "While many may see this as a failure of the procurement process, the focus needs to be on vendors that have free access to display and promote their products to our physicians, clinicians and other key personnel without following established procurement guidelines."

Without proper evaluation, demands for new products outpace the use of existing products, transferring control to the vendors.

No longer. CRMM tapped the IT and contract administration departments to develop an in-house vendor registration system to streamline communications with the nearly 3,000 vendors conducting business with Broward Health. CRMM also installed REPtrax kiosks at facility entrances that require vendors to sign in before entering the building, eliminating "free access without authorization and reducing the peddling of products outside of the procurement process," Bravo stated. Properly credentialed vendor representatives sport badges that grant them access to patient care areas.

The vendor credentialing system also reinforces mandatory adherence to Broward Health procurement policies, according to Bravo. "Vendors are now informed that any product introduced to BH facilities without prior authorization by corporate materials will be considered a gift to the organization," he said. "This has been an effective method so far and vendors are adhering to the policy requirements." To date, the system has certified more than 4,600 vendor reps from more than 2,200 companies.



## Safety matters

Because healthcare organizations have a "fiduciary responsibility" to the public, and particularly to patients, they must effectively manage product recalls, according to Bravo. That requires clearly defined standard procedures and expectations to monitor product lifecycles.

Before Bravo's revamped CRMM team took charge, "the recall process was very limited in scope and largely ineffective," he said. "No effective process was in place for managing FDA-mandated recalls, high risk levels or waste from expired products," he added.

Consequently, CRMM established an automated process with ECRI Institute to facilitate communication, share intelligence, foster accountability, and manage specific audit trails for all internal notifications, strict reporting guidelines and timely removal of all affected products from supply areas.

In addition, CRMM set specific inventory management standards for supply lifecycle management. The policy, which contains specific inventory reporting matrices, mandates monthly reporting requirements for all products that have a shelf life, according to Bravo. These reports help CRMM measure the effectiveness of inventory management, safety standards, financial impact and the overall effectiveness of the supply chain process. All clinicians and physicians support this process, Bravo assured.

## Rescue heroes

When Hurricane Wilma slammed into Florida in mid-October 2005, the violent Category 5 storm tested Broward Health's supply chain disaster preparedness plans as well as Bravo's mettle in that he was relatively new to the organization.

Hailing from New York where he spent the bulk of his career, Bravo was ready. And so was the CRMM team in making sure critical supplies for every patient care area were available when any disaster struck.

As part of Broward Health's strategic emergency/disaster supply distribution process, CRMM worked with the Emergency Preparedness department and its JIT distributor to maintain and stage 96 hours worth of

disaster supplies that can be deployed within a very short window if necessary, according to Bravo. To prevent product expiration, the distributor rotates the stock into Broward Health's inventory.

When an earthquake rocked Haiti, CRMM launched into relief mode to aid the Haitians. It started with "a simple phone call that materialized into a massive outreach effort," Bravo indicated. "This effort grew into many phases that included regular conference calls that were sometimes conducted at midnight, collaboration with vendor partners, hospital executives, clinicians, physicians, relief agencies and many other groups that were willing to assist.

"I remember being out sick that day and as I was watching the news I felt we needed to do something," Bravo recalled. He scheduled a conference call with all of CRMM's supply chain leaders and the executive staff, including the CEO. "We all agreed to make something happen so we started to blitz every vendor, asking to help and we also looked at our own supplies to see what we could donate," he continued. "We had some old equipment that was out of commission and got a rental company to give us the parts. [Broward Health's] Biomed department repaired the equipment and we shipped it via Partners In Health."

Bravo personally secured CEO approval to travel to Haiti via Partners In Health Haiti to assess some of the logistical hurdles that were affecting the flow of critical supplies and equipment from the airport to supply staging areas, as well as distribution from the supply staging areas to makeshift treatment facilities within Port-au-Prince.

In the end, CRMM secured approximately 161 pallets of medical supplies and multiple pieces of medical equipment, including anesthesia machines, physiological monitors and pulse oximeters for physicians and clinicians saving lives on the ground in Haiti. Bravo specifically credited Medline, Broward Health's JIT distributor, for stepping up to the plate.

"We all have a duty and we must help all those in need," Bravo explained. "This is the reason why I got involved in healthcare."

The CRMM team dedicated much of its off-hours time to aiding Haiti without sacrificing service to its internal customers, according to Bravo.

"The [CRMM] staff was privileged to be a part of the relief efforts while demonstrating the impact of supply chain in the patient care world," he said. "The value and expertise that supply chain brings to the table was immeasurable and the fact that we were able to get the essential items and equipment to physicians and clinicians in the field was an honor." **HPN**