



CASE STUDY

Our customer's viewpoint

Summary

University of Missouri System Supply Chain (UM System)

The University of Missouri System Supply Chain supports MU Health Care and the University of Missouri

MU Health Care consists of:

- » University Hospital
- » Ellis Fischel Cancer Center
- » Missouri Psychiatric Center
- » Women's and Children's Hospital
- » Missouri Orthopaedic Institute
- » More than 50 primary and specialty clinics

The University of Missouri includes:

- » MU in Columbia, MO
- » UMSL in St. Louis, MO
- » MS&T in Rolla, MO
- » UMKC in Kansas City, MO
- » UM System

2018 Supply Budget
\$700 million

Executive Summary

Having successfully merged its health care and university supply chains into one system, University of Missouri System Supply Chain (UM System) was looking for a new distribution partner that could help maximize the economics of their shared health care and university system while also supporting the highest quality patient care and optimizing the student experience. UM awarded their distribution contract to Medline in November 2017 because the vertically integrated business model allows UM to maximize efficiencies across their shared system. At just nine months into the agreement, UM System is on schedule to save a projected \$14.7 million by the end of the seven-year agreement.

Achieving Supply Chain Efficiencies Through Our Distributor's Vertical Integration Model

By Tony Hall

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UM System Supply Chain



Background

The University of Missouri is one of only a handful of academic health care organizations across the country that has a centralized, full service supply chain team (including logistics) that supports our academic institutions and our health system, MU Health Care.

The University of Missouri was founded in 1839 as the first public university west of the Mississippi River. It's the state's flagship university with combined enrollment of approximately 71,000 students across all campuses.

The main campus in Columbia is also headquarters for MU Health Care, which officially became an academic health system in 1952. Today, MU Health Care is a groundbreaking research center and an international

health care destination that trains future health care professionals to provide advanced, patient-centered care. Specialty areas include the only Level I Trauma Center in central Missouri, orthopaedic surgery, and comprehensive cancer care.

Evolution of University of Missouri System Supply Chain

Our program to centralize the health care and university purchasing supply chain began after I joined MU Health Care in 2009. The goal was to leverage economies of scale, improve collaboration between the academic campuses and MU Health Care, and remove redundant operational support activities — all while ensuring the lowest possible overhead with increased service levels.

“ We needed a partner experienced in identifying and sustaining systemic savings, introducing supply chain performance improvements and enhancing purchasing visibility and tracking. ”

Over the next couple of years the alignment continued, ultimately resulting in a shared service model for all of the academic campuses and MU Health Care. Our first major initiative was to introduce a product evaluation process. The result of this effort was the development of physician- and clinician-centered value analysis teams (VATs), which included an executive oversight team (EOT) responsible for governance and oversight.

Our desire to continue to create a best-in-class supply chain requires us to stay ahead of the curve amid the ever-changing health care landscape. This reaches beyond just maintaining our shared service platform.

As we continue to build upon our previous experiences and investigate peers' best practices, our shared program is advancing through innovation and continuously evolving programs and processes. To summarize, our major priority has been to optimize the economies of our system, focusing on lowest possible cost while also supporting the highest quality patient care and optimizing the student experience.

Our Keys to Success

To accomplish our goals, we have been strategically seeking partners to support us in a number of initiatives, including narrowing our pool of vendors to those that offer a greater breadth of service and support.

Identifying the Right Distribution Partner

The opportunity to seek a partner to help us streamline operations and integrate improvements for the university campuses began about nine months before our previous distribution contract expired in 2017. Our needs included supporting areas where the business overlapped with

MU Health Care at the university, i.e., the School of Medicine, etc. We sought a partner experienced in delivering the right mix of identifying, delivering and sustaining systemic savings while introducing supply chain performance improvements and enhancing the purchasing supply chain's value proposition.

Based on their experience with educational institutions through E & I (a purchasing cooperative), we had begun to utilize Medline to support our academic campuses in 2016. At that time we were contracted with a different distribution partner for MU Health Care. Medline was one of our key manufacturing partners driving savings and continuously bringing resources and solutions to our relationship and owning nearly 30 percent of our item volume.

A lengthy and comprehensive process for analyzing potential suppliers identified Medline and one other potential partner. Both candidates participated in multiple presentations, site visits, analysis and then, execution of an RFI that resulted in the award of our new contractual relationship with Medline that began in November 2017.

Initial Positive Results

Our new partnership focuses on Medline's vertically integrated business model and their infrastructure that allows them to service our entire continuum of care. Partnering with one prime vendor across our entire supply chain, particularly in areas

where our academic campuses and MU Health Care intersect (i.e., schools of medicine, nursing, veterinary and dental, as well as in the school of health professions and others) helps our entire system collaborate as a single unit.

So far, we are on a track to save \$14.7 million over the next seven years. We have also seen over a 50 percent reduction in our blended distribution rate, our price accuracy rate is on track to reaching our 98 percent goal, and the distribution fill rate is tracking above our 98 percent target. Each of these areas greatly impacts the UM System's service to our clinicians and patients.

What factors are making this new relationship successful and sustainable? The answers are vertical integration, on-site analysts and sales specialists, as well as diversity spend growth and support that reaches all the way to the Medline management team. We have also experienced a smooth transition and more movement of spend onto our ecommerce platform, Show Me Shop (SMS).

Vertical integration. Our new distributor is also a manufacturer, which allows their product teams to work directly with us to co-create innovative solutions designed for our specific needs. Examples include custom University of Missouri branded kits and the Complete Delivery System (CDS) designed to create efficiencies in our perioperative process. Medline does not outsource services such as technology, ecommerce or marketing support, which

Results as of August 2018

Blended distribution	2.5% total savings
Price accuracy rate	On track to reach our 98% goal
Distribution fill rate	Tracking above our 98% goal
New purchases moved to SMS from One Card	\$810,000

allows us to leverage these capabilities to create solutions that are tailored to meet our specific needs.

On-site analyst. As part of our agreement, our new distribution partner employs a full-time prime vendor analyst who works on-site with our team to enhance and streamline many of our day-to-day activities. This includes always being available for questions and to lend a hand with our integration efforts, allowing us to focus on other value-added projects.

Sales specialists. By providing two dedicated sales specialists: one for MU Health Care and one for our academic campuses, Medline is delivering on the objectives that were part of our selection process.

Diversity spend growth and support. With Medline tracking and reporting diversity spend across all vendors, we now have the right metrics available to help with our efforts to increase diversity spending.

Easy access to the corporate leadership team. As a privately owned business, the Medline leadership team is nimble

and flexible. This became evident early on, as they established their ability to focus on our system's individual needs.

A transition team exclusively dedicated to our account. The team arrived with a well-designed transition plan, including a timetable and a list of responsible parties. The process they implemented ensured that our conversion was smooth and relatively pain-free.

Show Me Shop (SMS) implementation. We added the Medline.com catalog of products to our SMS ecommerce site to increase the number of suppliers available on the university side. Requestors from departments now see this new catalog option with a larger selection of products. As of August 2018, we already moved \$810,000 from our university card to SMS for campus departments, including our veterinary school. We will continue to promote Medline's portfolio of products in SMS through supplier showcases, special promotions and sales rep visits with our departments to further increase savings during the next year. As more products are purchased through SMS,

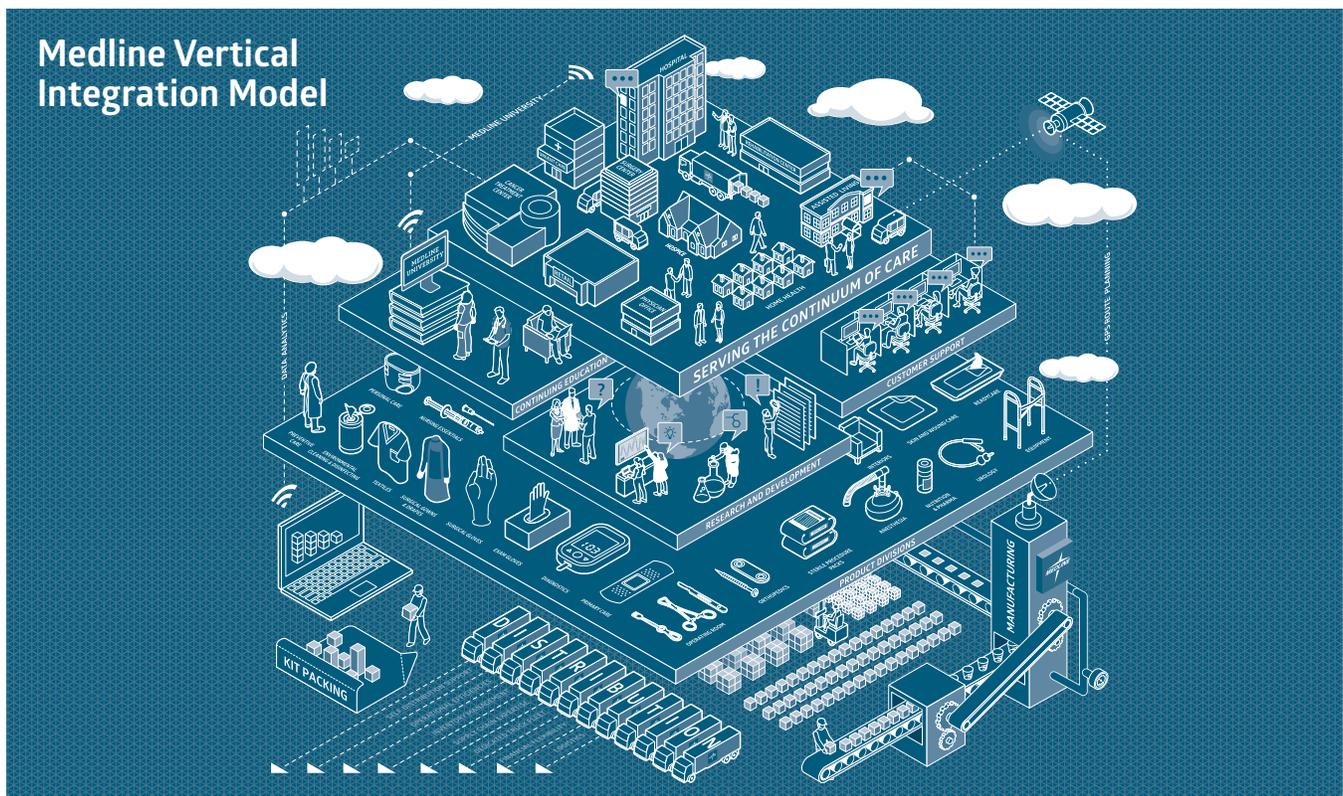
we can better analyze purchases and potentially find opportunities for standardization, align contract opportunities and maximize our economies of scale.

Commodity management and standardization. As a truly vertical organization, Medline manufactures its own brand of a wide variety of industry leading products. Their manufacturer direct approach provides significant cost savings. As of August 2018, we have targeted 11 new product categories to convert, resulting in over \$500,000 in annual savings while improving systemwide standardization.

Looking to the Future

Although our seven-year agreement with Medline is in its earliest stages, we have already seen impressive savings, and many new initiatives are on the way.

Focusing on physician preference items (PPI). Another key initiative within our new distribution partnership is to challenge the traditional method for managing PPI items. Historically, PPI has been managed as rep "trunk stock" or



consignment items. In other cases, clinical users or team leaders have been responsible for PPI. All of these methods are costly for both the manufacturer and the university. By identifying and utilizing more efficient processes within the traditional buy/sell distribution environment, we expect significant economies, including better UOM purchases, reductions in freight expenditures, and most importantly, allowing our clinicians more time to focus on patient care instead of managing supplies.

Our top 10 vendors comprise over 21,000 annual orders in a nontraditional manner. Under this model, with multiple deliveries, multiple purchase orders and multiple accounts payable transactions per manufacturer, we've spent inordinate amounts of time managing inventory. Our time will be better spent in targeted areas like cardiology and interventional radiology. By shaking up the dynamics of PPI logistics with a model not yet commonplace in health care, we expect significant opportunities and efficiencies to present themselves.

PPI will be delivered (and/or inventoried) to the local distribution center, and made available for delivery in the appropriate unit of measure, minimizing inventory on hand and reducing freight costs.

Logistics support. Through various levels of LUM services, from decasing goods offsite to putting away products at our facilities, in addition to customized storage space design, we know we can rely on Medline's logistics expertise to assist us in continually identifying solutions to manage our supplies more efficiently.

Custom branding. Another way that we have begun to leverage Medline's

vertical capabilities is through custom University of Missouri branding on our welcome kits for new babies. Our MU Health Care-branded diaper bag contains a onesie, blanket, cap and socks featuring TJ the Tiger.



We began giving out the kits shortly after renovating our labor and delivery suites to help improve the patient experience. We also have UM-branded pre-op wash kits for patients. Our infection control director appreciates the detailed instructions and patient education, which have helped improve compliance. One more branded item is a Wellness Kit for our Orthopaedic Institute. The kit is designed to enhance the patient's hospital stay, which in turn can help with HCAHPS scores.

Measuring efficacy. Measurement is key to determining the results of our efforts. We will continue to track card moves, SMS utilization and overall savings.

Conclusion

In a short time, our new partnership has us on track to stay ahead of the curve amid the rapidly changing health care landscape. Results so far showcase Medline's flexibility and fast action to work together collaboratively toward our mission to achieve greater cost savings, reduce waste, improve labor efficiency and deliver outstanding patient experience and outcomes.

About the author

Tony Hall is Assistant Vice President and Chief Procurement Officer for UM System Supply Chain in Columbia, MO. His team oversees a staff of 105 people and manages nearly \$700 million in annual supplies and services. He joined MU Health Care in 2009 and after overseeing the development of the model for centralized procurement, he was promoted to director and moved to UM System Supply Chain. He progressed to chief procurement officer and ultimately to assistant vice president for the entire shared system.



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