Intermountain Healthcare follows WERC’s prescription for best practices; becomes first healthcare DC to earn WERC Certification

Headquartered in Salt Lake City, Utah, Intermountain Healthcare is a not-for-profit organization of 36,000 employees serving the market through 22 hospitals, over 200 clinics, 26 retail pharmacies and home-care services. As an integrated delivery network (IDN)—and the state’s largest private employer—Intermountain’s facilities share common services including human resources, accounting and supply chain.

In 2005, Intermountain hired Brent Johnson as Vice President of Supply Chain, challenging him with building a better supply chain to reduce operating costs and improve value to the organization. Johnson brought 30-plus years of supply chain experience outside of healthcare (including 21 years in the electric utility industry) and a new team of 25 supply chain procurement experts and logistics strategists to the organization.

On the team Johnson built is Gordon Slade, Intermountain’s Director of Supply Chain Logistics.

“Under Brent Johnson’s leadership, the Intermountain Supply Chain Organization was formed using a strategy of centralizing and leveraging services for optimal efficiency across our system. The team looked for ways to bring supply chain literally up and out of each hospital’s basement,” Slade explains. “Each hospital had a large storeroom in the basement where supplies were stored for that one facility. Similarly, each had its own area for purchasing, clinical engineering, information technology (IT), printing and more.”

Intermountain hospitals also used third party distributors to source medical supplies, and contracted with other partners for pharmaceuticals and certain support services. Slade, whose background is in medical device manufacturing and supply distribution, helped put together the business case and design for a new approach: unifying all supply chain related functions into one centralized location that serves Intermountain’s entire network.

The result was a $40 million investment in the new Kem C. Gardner Supply Chain Center. Opened in 2012, the 327,000-square-foot facility houses not only a 160,000-square-foot logistics and distribution center (DC), but also almost every other function associated with supply chain, explains Slade.
“The other half of the facility includes departments that are better leveraged by the logistics support within the same building,” he says. “That includes pharmacy packaging and distribution, sourcing, procurement, purchasing, accounts payable, analytics, printing, information technology (IT), and clinical engineering maintenance, repair and operations (MRO) parts for repair technicians who service medical equipment.”

The DC maintains just over 5,000 stock keeping units (SKUs). To keep that number manageable (and control costs), the Intermountain supply chain team works extensively with hospitals and clinicians to establish item standardization throughout the organization.

“For example, clinical outcomes are not improved by stocking 35 different types of what we call children’s ‘boo-boo’ bandages,” he says. “That represents 35 different stocking units for one size of bandage; we couldn’t build a warehouse big enough if we didn’t standardize. So we worked with our clinicians to narrow our bandage varieties down to the nine cartoon characters most requested by our youngest patients.”

With 80% of Intermountain’s hospital beds located within a 1-hour drive of the Center, the centralized, standardized approach has worked well. The facility has increased service levels and has justified its investment with additional value that couldn’t have been imagined initially.

Efforts like that landed the organization in the number 3 spot on analyst firm Gartner Inc.’s sixth annual Healthcare Supply Chain Top 25 list in 2014.

High praise, says Slade, but he and his other supply chain colleagues weren’t satisfied: “As a culture, we’re very value- and metrics-centric. We believe that what you don’t measure, you can’t improve. We know we still have room for improvement and we’re collectively committed to drive additional value.”

The WERC Connection

In 2011, Slade attended his first Warehousing Education and Research Council (WERC) annual conference event. It was, he recalls, nothing less than an epiphany.

“I realized that this was the group we needed to work with in order to build the best possible facility we could to improve our logistics,” he said. “WERC also allows us to benchmark how our operations are doing against others outside of the healthcare field, because they might be more efficient—and indeed, I believe we can improve.”

The healthcare industry has some areas of supply chain inefficiencies, acknowledges Slade. In his opinion, one reason is the absence of defined universal standards for product identification.

“Some of the large medical supply manufacturers have not yet elected to participate in unique product identification standards, like GS1,” he says. “That makes it very difficult for users like us to be efficient in tracking products and recalls in our supply chain. Intermountain is one of many notable hospital systems that are leading the charge for an industry-wide universal product identification standard.”

About Intermountain Healthcare’s Kem C. Gardner Supply Chain Center

**Facility Size:** 327,000 square feet, divided into:
- 160,000-square-foot DC
- 60,000-square-foot administrative building
- 40,000-square-foot logistics management, inventory management, demand planning and fleet/courier operations
- 60,000-square-foot ancillary services space housing acute and retail pharmacy operations, IT asset management, clinical engineering and print services and design

**Facility Age:** Opened in 2012

**Serving:** Distributes more than 2.5 million medical items annually to locations within a 500 mile radius, including:
- 22 hospitals
- 200-plus clinics
- 26 retail pharmacies
- Home-care services

**Staffing:** 450 employees throughout location; 55 in the DC working 1.5 shifts

**Fleet Services:** 85 vehicles—ranging from small courier vans to 53-foot-long tractor/trailers—making 2,400 stops/day for a total of 12,000 miles/day. Services include transport of medical supplies, laboratory specimens, blood, tissue, linens and pharmaceuticals.

**SKUs:** 5,000-plus including medical and surgical supplies, pharmaceuticals, MRO parts and more

**Warehousing Technologies:**
- Warehouse management system (TECSYS)
- Voice-directed picking (visual-voice)
- Two-level unit pick module for low unit of measure totes
- Pick-and-pass conveyor with sortation and spiral conveyors
- Robotic pharmaceutical handling and packaging
In practice, that means the Intermountain DC has to create its own identifiers and generate barcode labels for each product received. Using barcode scanners facilitates inventory storage and management, as well as speeds traceability should an item be recalled. That was just one challenge faced by Slade and his team when designing optimal supply chain processes and the facility that supports them.

“We didn’t want to match other healthcare systems’ distribution methodology; instead, we built our strategic objectives for efficiency and value around best practices in supply chain and distribution in general,” he explains. “WERC really met that need for us.”

During the design of the facility and the development of the processes used within it, Slade referred to multiple WERC resources, including the Warehousing & Fulfillment Process Benchmark & Best Practices Guide—which he refers to as his operation’s “Bible.” So it made sense to him, on the two-year anniversary of the DC’s opening, to participate in WERC’s Warehouse Certification Program.

Slade and his DC management team—representing inventory, processes, operations, safety, quality, demand planning, inbound and outbound shipments and management software—agreed that attaining Certification would be great. “More importantly than getting certified, however, was that the evaluation process would tell us where we are today and what we need to work on tomorrow to continuously improve,” he says.

Intermountain signed on for an assessment in December 2014.

**Assessment and Certification**

During the first day of the two-day assessment process, WERC Lead Auditor Steve Murray walked through all eight of the key warehousing process areas rated in the Certification process. These include:

- Receiving and inspection
- Material handling and putaway
- Slotting
- Storage and inventory control
- Picking and packing
- Load consolidation and shipping
- Shipping documentation
- Warehouse management system (WMS)

Throughout the facility tour, Murray queried associates for input as they performed their work—something Slade calls invaluable. “Steve wanted to make sure that whatever the task, the process itself is sustainable. So he interviewed the frontline employees, asking key questions about the resources they have or lack, the training they’ve completed, and their knowledge of our mission and values,” he explains. “He looked for consistency in the messaging, processes, and methods to make sure there’s not a disconnect from managers to employees.”

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— Gordon Slade, Director of Supply Chain Logistics for Intermountain Healthcare
On the second day, Murray returned with a nearly 150-page-long report that he reviewed—page-by-page—with the entire Intermountain DC leadership and management team, including warehouse supervisors, managers and leads.

“We purposely made the WERC evaluation process all-inclusive,” recalls Slade. “Everybody was involved, and that's probably one of the better things we've done. It got our team excited, and gave them a chance to step out of the day-to-day and take a look at the 114 different process attributes that were graded.”

Overall, Slade says that Murray’s findings were somewhat expected, as the team was already well versed in WERC’s Best Practices Guide. Indeed, the facility rated as having attained “Best Practice” status in five of the eight process groups, and “Good Practice” in the remaining three.

“Intermountain Healthcare did extremely well,” adds WERC’s Murray. “They have a very well run operation, and—in fact—theirs is the first DC in the healthcare field to achieve a WERC Certification.”

Murray notes that the facility’s highest scoring processes were related to its WMS from TECSYS, which integrated WERC’s best practices benchmarking metrics into the software in 2013 at Intermountain’s behest.

“This was the first time I audited a facility using TECSYS’ WMS, and I was very impressed. Plus, Intermountain has a partnership with their software vendor, who is willing to continually make enhancements that better support their industry-specific needs,” Murray continued. “When you couple that with Intermountain’s culture of wanting to make things better all the time—those things add up to an excellent operation.”

That said, Slade’s team did get their wish for a list of improvement areas. “Nothing was really major, but Steve asked us ‘why?’ a lot during the findings review,” recalls Slade. “After five ‘whys’ we would look around the table and say, ‘hmm, why do we do that?’ Having an outsider’s perspective to objectively assess how we tackle the tasks at hand was very refreshing. We thought we were creating a value, and he would ask ‘do you really know that’s creating a value?’”

One questioned process involved shipping. Having implemented a reusable, tote-based “low unit of measure” shipment process, the DC routes supplies directly to each department’s nursing station (“practically bedside” as Slade describes it). This means each area of a hospital or clinic gets exactly what they need when they need it and no longer needs to store a case of an item they don’t have space for and/or don’t use very often—eliminating excessive amounts of inventory on site.

“Steve noticed that all of our totes had a considerable amount of paper packing slips accompanying each item,” Slade says. “He asked if it wouldn’t make more sense to send electronic documentation instead, and he was right. We discovered we were printing 200,000 sheets of paper annually. We’ve since shut that off and now are sending those packing slips electronically.”

Additionally, the Certification process gave Slade and his team ideas about adapting concepts used in other industries to our own healthcare processes—such as kitting. “We saw an opportunity to ask our clinicians if it would help their workflow to have us assemble non-sterile kits here, rather than supplying the individual items used for a procedure at the hospital level, so we’re beginning to do that now.”

Although receipt of the WERC Certification prompted both a facility-wide celebration—and network-wide praise through Intermountain Healthcare’s employee newsletter—to Slade, the most important outcome of the audit was the list of areas for improvement. Based on that information, he has assigned specific teams to work on bettering each of those processes through 2015.

“Our motivation for excellence is centered on our organization’s mission of helping people live the healthiest lives possible. We do this by reducing the cost of healthcare and supporting best practices that improve outcomes for our patients. We believe the supply chain plays a key role in our collective ability to support our mission. The WERC Certification program serves as an opportunity for us to benchmark ourselves in our journey toward excellence in warehousing and distribution; WERC enables us to get there even faster,” Slade concludes.

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— Gordon Slade, Director of Supply Chain Logistics for Intermountain Healthcare