



The Supply Chain Fellowship

a transformative approach to collaboration

The increasing need for efficient and responsive healthcare supply chains necessitates that providers and suppliers work together. Additionally, the needs for new talent and fresh ideas are growing. In a collaborative effort to enhance the transparency and efficiency of healthcare supply chains, and to funnel in new supply chain talent, Cook Medical launched the transformative Supply Chain Fellowship program in 2023.

Background

Cook Medical invents, manufactures, and delivers a unique portfolio of medical devices to the healthcare systems of the world. Cook products serve nearly 60 specialties, ranging from staples such as wire guides to specialized devices like abdominal aortic aneurysm grafts. Seeking to collaborate with like-minded individuals and organizations, Cook determined that BJC Healthcare was an ideal partner for the first Supply Chain Fellowship.

BJC Healthcare is a provider network with 14 hospitals and numerous clinics in the St. Louis area. Like Cook, BJC focuses on innovation and collaboration. Their forward-thinking mindset pushes them to optimize their supply chain and provide the best care for patients, which is part of what makes them a great partner.

Together, the organizations created the ideal project for the inaugural Supply Chain Fellow: a comprehensive supplier-provider supply chain study. The project goal was twofold: to create an end-to-end value stream map (VSM) and to identify gaps, inefficiencies, and cost-saving opportunities.



Resa Wise
Supply Chain Fellow
Cook Medical

Supply Chain Fellowship model

The Supply Chain Fellowship model applies the same basic principles as clinical fellowships. The fellow is intended to be a supply chain professional who is early in their career and has an interest in making a difference in healthcare. They bring fresh eyes to ongoing challenges. Like a clinical fellow, the Supply Chain Fellow works closely with various functions at the host and receiving organizations, working to bridge gaps between the two. The fellowship is focused on researching to create an accurate picture of current-state processes.

Key principles guiding the fellowship are education, transparency, and collaboration. Adopting this program versus a traditional continuous improvement event or consultant increases focus on accelerated progress and information gathering for large-scale processes, putting seemingly isolated challenges into perspective. A cohesive story emerges to help supply chain stakeholders connect dots between these challenges. The fellow freely investigates without preconceived ideas.

Value stream mapping

A value stream map (VSM) helps the fellow identify challenges by visually representing all of the processes and steps involved in delivering a product or service to a customer. It includes both material and information flow and data about the time and resources required. A VSM helps identify inefficiencies, gaps, and areas for improvement in order to optimize value to the customer. Product sales from Cook to BJC mark the midway point of the map and signify the first customer relationship. Patients are the ultimate customer.

Traditional VSMs focus on one “value stream,” however, the fellowship adapted the VSM to encapsulate the end-to-end supply chain between Cook and BJC. The fellow built the VSM over four months by researching each major supply chain process through site tours, interviews, and follow-up reviews with subject-matter experts. Areas investigated include: SIOP, raw materials, manufacturing, sterilization/post-sterilization, Cook distribution, BJC distribution, and health service organizations. Each area was broken down into steps of material flow and the accompanying information, which signaled material to move down the chain. Additionally, the fellow investigated the organizations’ communication channels. She identified large-scale improvement opportunities, many spanning several functions.

Improvement opportunities

The improvement opportunities identified fell into two categories: material flow and information flow. Examples of improvement opportunities include centralized consigned inventory, case quantity order optimization, and data congruency. After comprehensively compiling a list of improvement opportunities, each opportunity was scored on effort and priority by the supplier and provider. The immediately actionable items were high-priority/low-effort, and the fellow will help facilitate these projects. Several projects are currently in progress. For example, the fellow initiated research within Cook to support BJC’s new effort to consolidate consigned inventory to its centralized warehouse. This will improve product utilization and reduce product expiration, among other benefits. This improvement is an example of a collaborative effort that BJC can trial with Cook and expand to other suppliers, and vice versa.

Challenges

One barrier that was identified early was narrowing the scope of the project to an actionable size. Research was limited to relevant processes between Cook and BJC and did not include a study of second-tier suppliers or other providers. Additionally, the fellowship was completed remotely, with limited access to facilities and in-person communication. One week-long visit to each organization’s primary locations supplemented virtual meetings. Responsiveness and accessibility were additional barriers, enhanced by the broad scope and unfamiliar project concept. Support from high-level leadership alleviated this barrier.

Results

The fellowship was created as a research tool used to gather information and report findings. This was accomplished by thoroughly investigating the steps required to implement solutions for each improvement opportunity and suggesting these solutions to decision-makers. Solutions fell into three categories: ready to implement, ongoing initiative, and no action.

A significant advantage of utilizing the fellow was her capacity to share comprehensive feedback and various perspectives with stakeholders. BJC feedback was considered by Cook and vice versa. It was a unique opportunity to provide candid feedback without transactional conditions. The fellowship motivated and informed future decisions and current projects alike.

Additionally, the fellow was new to both organizations and the healthcare industry in general. She was purposely shielded from preconceived notions of challenges, allowing her to conclude for herself what gaps and inefficiencies exist. This experience was her first with the healthcare supply chain, forcing her to learn quickly. At the conclusion of the research phase, she identified many issues that management had also identified, and she was able to provide new and additional insight into these existing challenges.

Replicability and applications

How can the Supply Chain Fellowship be replicated in other healthcare organizations?

1 Culture and executive support: The organizations must value honesty, trust, innovation, strategic partnerships, and collaboration. Without a culture that accepts change, this project is unlikely to yield actionable results.

Compatibility: Selecting a supplier or customer partner with which there are existing relationships will decrease the barriers to entry for the fellow. Additionally, the fellow needs to be a motivated individual who is not afraid to question existing practices.

3 Fellowship format: This project can be completed remotely but benefits from in-person interaction. For a more intensive study of individual processes, a fellow could become fully immersed in daily operations for an extended period. The format that the organizations select depends entirely on the desired outcomes.

Goals and deliverables: Deliverables should align with goals. Is the goal increased transparency? Resiliency? Efficiency? Quality? Identify which tools provide these results and enable all parties to use these tools to their full potential. Equip the fellow with required resources, including leadership support.

5 Scope: A project like this can quickly become unwieldy if strict limits are not set, especially when studying a global supply chain. Define the scope early with all parties' consensus. Continually review the scope. If opportunities arise outside the scope, note them for future fellowships.

Starting the fellowship: Make initial introductions to key players and connections. Outline a roadmap, but give the fellow room to investigate. Set deadlines for initial research to be completed and offer the fellow continual support.

7 Opportunities and action: As the initial research concludes, evaluate the opportunities, decide which are worth pursuing, and take action. In this case, the fellowship lasted only 12 months, promoting quick action. The goal is not to rush change, but to maximize resources in moving forward.

The first Supply Chain Fellowship provides Cook and other healthcare organizations with opportunities to apply and scale the findings reported. End-to-end value stream maps inform decisions and improve stakeholders' ability to visualize the supply chain. These maps could be constructed with any number of suppliers or providers internally or with a fellow.

By inviting the fellow to investigate the end-to-end supply chain, both organizations uncovered improvement opportunities. The new insights provided by the fellow initiated cost-saving activities and supported existing supply chain efforts. Many opportunities are scalable or replicable for Cook and BJC with other partners. For example, the insight gained regarding optimized carton quantities for shipping to BJC's distribution is supporting a new Cook effort to improve shipping efficiency for all customers.

Conclusion

The Cook Medical Supply Chain Fellowship demonstrates the gains made from intensive, transparent collaboration. This level of cooperation strengthened the supplier-provider partnership and created a pattern that future collaborations can follow. The fellow gained unprecedented and immersive experience in both supplier and provider supply chains, positioning her for a future career in the healthcare supply chain industry.

Now more than ever, healthcare supply chains need innovation, resiliency, and transparency to support patient care. The Supply Chain Fellowship exemplifies the bold steps healthcare organizations should take to move the industry forward together. Organizations willing to differentiate themselves through unique, open-minded opportunities can capitalize on gains only available through this type of collaboration. In addition, this fellowship encourages talent growth in an industry that needs new perspectives.