



Innovating demand planning and order behavior with the Supply Chain Fellowship

Bridging the gap between the supply chains of medical providers and suppliers has been a pivotal goal for Cook Medical in the past two years. As such, the Supply Chain Fellowship program was established to study and formulate solutions to gaps, hurdles, and potential obstacles. The fellow is trained over the course of a year to become a developed professional in the industry. This year's fellowship focuses on two areas: one, improving and creating new demand planning approaches between suppliers and providers, and two, understanding the provider's order behavior patterns to reduce stockouts and backorders.

Company backgrounds and fellowship overview

About the Supply Chain Fellowship | Several years ago, Cook Medical discovered that a new solution was needed to connect the supply chains of providers and suppliers more efficiently. This need, combined with Cook's desire to help bring supply chain talent into the healthcare provider landscape, resulted in the introduction of the Cook Medical Supply Chain Fellowship program in 2023. The second instance of the fellowship, which is in collaboration with Cleveland Clinic, allows Cook Medical to partner with a like-minded organization to research and implement innovative solutions that could be replicated throughout the industry.



About the fellow | Rajeev Rohira, the 2024-2025 Supply Chain fellow, is a recent graduate of the University of Tennessee's MBA program. The fellow holds extensive experience within the field of data analytics and automation due to past roles and internships. Although he possesses a vast array of analytical and technical skills, Rajeev Rohira sought to improve his knowledge on supply chain operations and processes. He hopes to attain a role in leadership one day so he can mentor others to bring out the best of their ability. As such, he has spent his fellowship working with individuals from a variety of positions ranging from sales to operations. By holistically exploring the ins and outs of both the supplier and the provider, the fellow was able to construct his solutions with precise and updated knowledge of how the supply chains work on both ends.

About Cook Medical | Cook Medical strives to make unique, quality medical devices and connect with people to improve lives. Founded on inventing, manufacturing, and delivering medical devices, Cook Medical provides healthcare professionals with the tools they need to help their patients return to living their lives.

Cook Medical's commitment to innovation involves bringing new products to market and keeping existing products relevant to a changing healthcare landscape. Cook Medical believes in using business to help people and communities thrive by creating inclusive, supportive, and healthy environments.

Cook Medical is known for innovative firsts and the impact they have on patients and communities. With headquarters in Bloomington, Indiana, and manufacturing facilities and offices in various global locations, Cook Medical maintains a global perspective while focusing on local impact.



About Cleveland Clinic | Cleveland Clinic is a global healthcare provider, recognized for providing world-class care. With 23 hospitals and 276 outpatient facilities in countries across the world, Cleveland Clinic's more than 80,000 providers treat an estimated 3.3 million patients per year.

Cleveland Clinic has been recognized by Newsweek as the "World's Best Smart Hospital" in 2025 and the #2 "Best Hospital" in 2024. For its 2024-2025 list, the U.S. News & World Report named Cleveland Clinic the top heart hospital, an award it has won for 30 years. In 2024, Gartner named the health system among the "Top 25 Healthcare Supply Chains."



Supply Chain Fellowship model

Outline of the fellowship

The fellowship enables a recent MBA graduate with an interest in healthcare supply chains to study, research, gain unique experience in both supplier and provider settings, and formulate new methods between both the supplier and provider. The methods formulated by the fellow are meant to be scalable, in order to benefit the healthcare industry as a whole. The fellowship lasts for 12 months and is sponsored by Cook Medical. During those 12 months, the fellow spends time at each facility, followed by virtual connections to continue research on the projects. During the initial trips, the fellow is introduced to a holistic overview of the supply chains of both the supplier and the provider and is also introduced to their main contacts within both entities. The fellow then gathers data and information from both entities and develops innovative solutions that could potentially be scaled. Once all the solutions are formulated and the white paper is published, the fellow presents the findings to both organizations for feedback and potential adoption. Lastly, the fellow shares their experience—including their solutions—at key industry conferences.

Purpose of establishing the fellowship

Creating an established role for these objectives ensures that these goals are met with complete focus and transparency. The fellow is not side-tracked with projects that are unrelated to the main goals of the position and collaborates heavily with both sides to derive solutions and/or enhancements to existing methods.

This year's fellowship goals included formulating a new demand planning approach between the partnered organizations as well as understanding the provider's order behavior. The fellow, with his experience in both the fields of supply chain management and data analysis, has formulated several solutions and tools to meet these objectives. He has begun to implement these solutions and execute other improvement opportunities through the remaining weeks of the fellowship.

Data automation and tool implementation

Origination and purpose of instituted tools

Because the fellow possessed an extensive background in data analysis and visualization, the projects followed from his knowledge through data automation methods and collaborative tools. The fellow created these tools with the intent for them to be owned by both the supplier and the provider. The first solution allowed for an end-to-end automation of data to be sent from the providers to the suppliers. To elaborate, the flow on the provider's end delivers the data to the supplier, while the supplier retrieves the file from the email and uploads it to a data directory. This newly delivered data is then used to update the visualizations and KPIs within the visualization tools. Both parties co-own the solutions and ensure that the supplier and the provider allocate resources to update necessary data.

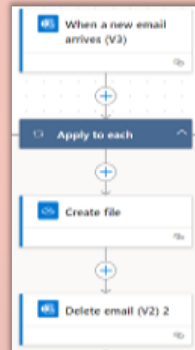
The two tools have different primary uses. The first is allocated to bringing visibility to on-time in-full (OTIF) metrics and shipment status updates. It reflects OTIF data from the provider and sends updates whenever a product's or hospital's OTIF score falls below a certain threshold. This tool also reflects shipment status updates for open purchase orders and provides automated updates via email whenever they occur.

Demand planning tool

The second tool is solely focused on demand planning purposes. To properly aggregate the provider's data into one visual, a master data list was created to seamlessly allow the flow of data into a final output. This is achieved by following a template with specific columns and data types. To clarify, if multiple providers agree to forward their data to the supplier while following the supplier's template, it will be reflected in the final visualization output with no issue. The supplier can then compare their overall yearly forecast with that of an aggregate of multiple suppliers.

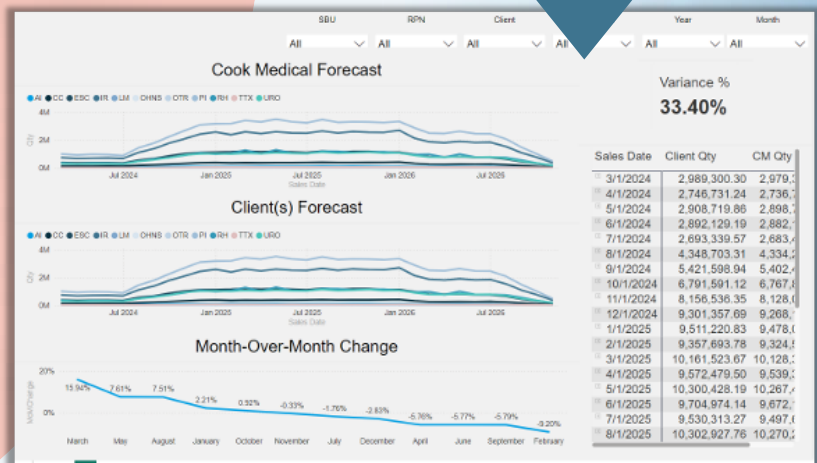
Rather than focusing solely on SKU-level planning, the demand planning tool offers a way to provide insight into directional change in a simple format. Utilizing trend analysis is crucial to formulate high-level decisions on which gaps to resolve and which product families to focus resources on. While SKU-level demand planning is useful for purposes such as operational accuracy and providing precise inventory needs, the fellow focused on utilizing a more holistic, strategic approach with his tool.

Data automation



Multiple files aggregated

Item	SKU	Client	QTY	OTIF
11/1/2025	CLSD F-3	ICC	450	100%
11/1/2025	OTDW 25 310-5	RI	6047	100%
11/1/2025	PELS 35 60 F 300	RI	692	100%
11/1/2025	US 22K 811	URO	43	100%
11/1/2025	TSCF 35-143-13	RI	2701	100%
11/1/2025	CD-840	ICC	611	100%
11/1/2024	RT-RET-3-230-10	RIC	7027	100%



Forecast comparison

Improvement opportunities

Functional alignments

Follow-ups function as the backbone of the fellowship. Ensuring proper communication and data sharing has been of critical importance for both the supplier and healthcare provider. As such, the fellow has dedicated significant time to constructing ways to ensure alignment between the two organizations.

Quarterly cadence meetings are taking place to ensure the roster of the provider's locations are aligned in the supplier's directory. The supplier will now be able to provide updates on a timely basis for why a location is not included within their directory, and the provider will be able to update the supplier if a location is to be bought or constructed on their end. By enabling this on a singular basis every 3 months, this ensures that the updates are met and any discrepancies are closed.

During the fellow's initial weeks, he noticed that feedback he received from the provider was otherwise not being sent to the supplier. Rather than functioning as an intermediary channel of communication that would disappear at the end of the fellowship, the fellow initiated a cadence meeting between the account executives and managers from both the supplier and provider. While a quarterly business review was already in place between the two organizations, it only focused on topics related to contractual obligations. The newly instituted meeting ensures that any operational gaps are identified, and any feedback is delivered directly via meeting rather than delayed communication channels (e.g., email, intermediary departments, representatives). These meetings shall take place once every three months and have already garnered support from both entities.

One process that caught the fellow's attention was the constant updates for product pricing and similar attributes. To simplify this, the fellow implemented a quarterly update of sharing the supplier's product information with the provider to identify any discrepancies. This is done via email and, if needed due to wide discrepancies, via virtual meetings between the supplier and provider. Due to this, the frequency of redundant updates on pricing has decreased.

Additional improvements

Any other process improvements have been shared with the managerial teams of both entities. They rank in importance of which improvements should be prioritized and to which entity the task belongs. The primary process of focus was order behavior tracking and patterns. Some improvements made in that area include identifying the occurrence of orders made on discontinued products. To prevent the ordering of discontinued products, a dedicated email was created to facilitate the delivery of notices regarding a product's availability. Other efforts included providing stocking recommendations and identifying the most optimal reorder time frames. The fellow was provided with crucial data by the provider that allowed him to make decisions on metrics related to their order behavior. The Fellow was then able to provide targeted stocking recommendations tailored to the provider's needs. By implementing these measures, the supplier benefitted from a higher OTIF score on the provider's end, the provider should anticipate lower stockouts, and the fellow was also able to lower shipping costs by planning orders more efficiently.

Challenges

The scope of the fellow's tools required access to programs allocated to only a few data analysts and IT professionals on the supplier's side. To gain access to the necessary software, the fellow had to pitch his idea to certain department heads within IT. While this took some time, the fellow was able to retrieve the permissions in a timely manner. The other issues that arose mainly focused on spreading awareness of the Fellowship's goals to contacts who were distanced from this position (e.g., field sales reps, non-supply-chain-oriented roles, IT professionals).

Results

Simplified data-sharing and discrepancy reduction

The main goals of the fellowship proved to be beneficial to both entities and the fellow himself. The outcome resulted in massive improvements in the way both companies shared feedback, data, and information with each other. Two mutually owned tools that would normally require intensive coding and support from IT, analytics, and other software-savvy professionals were simplified and created solely by the fellow, with the provider and supplier assisting with feedback and the necessary data required for the tools.

Discrepancies in several fields, such as location alignment, product attributes, and product availability, were reduced through continuous updates that are ongoing. Furthermore, to understand which items are affecting the provider's OTIF metric of the supplier, any confusion of the prevalence of products that are made-to-stock or nonstock have been clarified. By running an exploratory data analysis at the start of his fellowship, the fellow was able to communicate that non-stock items consist of barely over 2% of all orders made by the provider in the past six months. This allowed both entities to realize that nonstock products contribute very little to the OTIF scoring, enabling them to focus on other factors to improve.

Takeaways and continuation plans

The fellow was introduced to the healthcare industry for the first time as a result of the fellowship. This prevented any preconceived biases being introduced into his work and allowed him to facilitate feedback to both entities in a clear manner. The fellow was able to bridge many gaps related to demand planning and order behavior improvements while at the same time learning from both the provider's and supplier's point of view.

To prepare for the continuation of these tools and solutions once the fellowship ends, the fellow has contacted the relevant parties both on the supplier's and the provider's end. The fellow has created business requirement documents (BRDs) for every solution formulated and has sent these to data analysts at both the supplier and the provider. Meetings were also held to explain how both tools work and what is needed to maintain them.

Scalability

Ease of adoption

All of the recommendations made by the fellow were made with intent of scalability by both organizations, and by any other healthcare suppliers and providers. The solutions that were discovered solve an array of issues while at the same time being relatively simple for organizations to replicate. Ensuring timely meetings on roster alignment, product attributes, and operational feedback can be initiated as long as organizations have allocated resources for these objectives.

No code, no problem

As for the tools, they were made with widely available, low-coding programs rather than more intensive coding software. The applications used by the fellow tend to be the standard in many companies, as most organizations in the healthcare industry are shifting to these tools and/or at least have access to such. The barrier of entry is relatively low for these tools and allows for a relatively inexpensive way to duplicate such findings.

The tools themselves provide a simple, low-code way to automate data and observe discrepancies in forecasts. Healthcare entities can easily replicate this and are able to divide and delegate the work between both the supplier and the provider if they please. As a result, the tools prove to provide ease of collaboration, ease of use, and ease of replication.

Conclusion

The Cook Medical Supply Chain Fellowship highlights the importance of cooperation and bringing supply chain talent and innovation into this space. The gains made throughout the fellowship brought many different sectors of both entities together to formulate solutions that were sought after for some time. The solutions left in place by the fellow will continue to allow both organizations to collaborate more effectively even post-fellowship.

The fellowship was not created to only benefit the supplier and provider but was also made to provide a valuable learning experience for the fellow himself. By allowing someone with little experience in the healthcare industry and just beginning a supply chain career to work in this arrangement, the fellowship trained the fellow to be ready for objectives faced by either end of the supply chain. He has also learned valuable perspectives and gained experiences from both sides, which will enable him to offer unique insights in future roles. He has also developed himself as a capable professional ready to tackle an array of problems and improved upon his ability to learn at a quick pace. His desire to help and make an impact on others will be achieved by his aspiration to continue work within the healthcare industry.