Optimizing the healthcare supply chain operating model
In recent years, healthcare provider organizations have been confronted with supply chain disruptions that have complicated the ability to provide consistent high-quality patient care. These challenges have included raw material scarcity and product backorders limiting the ability to maintain steady supply, a competitive and narrowing labor market jeopardizing workforce retention, inflationary pressures and product shortages increasing supply costs, and a rapidly advancing technology landscape requiring substantial capital investment. These unsettling circumstances combined with the urgency of providing patient care have made supply chain management in healthcare significantly more complex than other industries.

Historically, healthcare supply chains have operated tactically, reacting to immediate needs versus purposefully structuring their operating model to mitigate potential supply chain disruptions. The current environment has continued to strain hospital supply chain teams to prove themselves as a valuable, strategic asset to an organization while simultaneously focusing on day-to-day operations. As we move into a post pandemic environment, we are at an opportune time to transform hospital supply chains from tactical, response-driven operations toward a more strategic and resilient operating model.

KPMG utilizes a framework to guide organizations preparing to restructure their operating model. There are six key dimensions that should be considered when revamping your operating model, as shown on the following page.
Target Operating Model Framework

Service Delivery Model Dimension
Identifies what and how functional capabilities are delivered to the organization. Includes leveraging leading practices for shared service centers, outsourcing services, business partners, centers of excellence, employee and manager self-service etc. Incorporates automation as a mode of service delivery and identifies opportunities for service delivery options that span across traditional function silos, such as multi-function shared services.

People Dimension
Describes how the people are organized, including lines of reporting and spans of control. Outlines skills, roles, responsibilities and support activities for each process area and where they reside.

Functional Process Dimension
Outlines how specific process steps link to functions or departments that perform each step and accompanying policies/procedures to be followed when performing the process steps. From the deep understanding of the processes, services experience that impact the workforce and cross-functional silos, are identified and validated.

Technology Dimension
The application, infrastructure, and operational components and elements that support enterprise technology services and functions. These components come together to create the user experience and interaction points for customers. Applications are used to enable the processes, policy compliance, internal controls and generation of reports. Based on the service experiences the technology enablement is architected from system of engagement through to system of record.

Performance Insights and Data Dimension
Includes information requirements, master data strategy and key process indicator (KPI) frameworks, to drive key business insight and optimized decision making, which enables key financial reporting needs, management reporting needs, and analytics. The service experience data is leveraged to plan further improvements in both the end-to-end processes as well as the service delivery model.

Governance Dimension
Comprises of strategic and operational governance that sets the vision, ensures value delivery, and aligns business services to the organization’s objectives. Also, identifies the specific controls that are in place to mitigate operational and financial risks, and governance to manage data, processes and other assets.
Organizational maturity across each dimension can significantly differ. To determine the strategic vision for your organization, it is essential to assess your current-state maturity level within each dimension to better target the areas of opportunity. Organizations can conduct a workshop to score each dimension of the structured operating model.

Supply Chain Management (SCM) Maturity Model

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Lagging Practices</th>
<th>Leading Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Delivery Model</td>
<td>Decentralized; managed within the BU with SCM teams housed within the BUs</td>
<td>Centralized teams manage key SCM activities, but with centralized manual processes</td>
</tr>
<tr>
<td>People</td>
<td>Focused on transactional activities and lacking an understanding of policies and processes; low span of control</td>
<td>Leadership and vision exists but lack of ability at a function level limits the ability to implement the vision; medium span of control</td>
</tr>
<tr>
<td>Functional Process</td>
<td>Fragmented, non-integrated, and manual processes that are non-standardized across BUs</td>
<td>Varied and limited enforcement of SCM processes across the organization using automation</td>
</tr>
<tr>
<td>Technology</td>
<td>Low level of automation; disparate systems, tools and manual work</td>
<td>Similar processes implemented leveraging automation opportunities to reduce manual transactional efforts</td>
</tr>
<tr>
<td>Performance Insights &amp; Data</td>
<td>Offline processes to generate reporting; significant adjustment requests from internal users</td>
<td>Comprehensive use of analytic systems to produce reporting; limited adjustments required from internal users</td>
</tr>
<tr>
<td>Governance</td>
<td>SCM functional activities are performed manually with no identified controls or signatories</td>
<td>SCM functional activities are automated, performed in a specific system, and adhere to policies</td>
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CoE is enabled by automation managing end to end processes utilizing KPIs to drive performance improvement.
Once your current-state maturity is assessed, the scoring results can help identify the most significant areas affecting your supply chain team’s ability to optimally perform their functions. The next step is to set the aspirational score along the same maturity chart that your organization would like to attain over time. The maturity map may look something like this:

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<td>Siloed organizations provide directional guidance to manage SCM processes but minimal enforcement from leadership</td>
<td>Limited leadership oversight, vision and maturity within the organization on end to end SCM processes</td>
<td>Limited standardization across BUs on key SCM processes</td>
<td>Limited automation of key processes potentially on multiple system</td>
<td>Manual use of systems to produce reporting; some adjustments required from internal users</td>
<td>SCM functional activities are performed manually with signatories identified; policies are inconsistently enforced</td>
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<td>Centralized teams manage key SCM activities, but with centralized manual processes</td>
<td>Leadership and vision exists but lack of ability at a function level limits the ability to implement the vision; medium span of control</td>
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<td>Similar processes implemented leveraging automation opportunities to reduce manual transactional efforts</td>
<td>Varied and limited use of analytic systems to produce reporting; some adjustments required from internal users</td>
<td>SCM functional activities are performed with some automation and built-in controls</td>
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<td>Centralized SCM functional activities</td>
<td>SCM organization is aware of the vision and the goals and their respective roles in the organization to achieve the goal</td>
<td>Standard system on multiple instances with utilization</td>
<td>Standard system on multiple instances with utilization</td>
<td>Comprehensive use of analytic systems to produce reporting; limited adjustments required from internal users</td>
<td>SCM functional activities are mostly automated, some manual activities are still performed</td>
</tr>
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<td>ColEs enabled by automation manage end to end process utilizing KPIs to drive performance improvement</td>
<td>Performance of the organization and progress to goals are measured using structured metrics; high span of control</td>
<td>Robust automated and metrics driven process to govern end to end process</td>
<td>Leading practice technology solutions leveraged to manage end to end process</td>
<td>Systems and processes fully support reporting needs (i.e. spend visibility, error report, duplicate invoices); limited adjustments</td>
<td>SCM functional activities are automated, performed in a specific system, and adhere to policies</td>
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Current State \hspace{1cm} Future State

It is important to set realistic expectations on how your organization can move from its current state to the identified aspirational score. Your estimated timeline to meet the desired target must consider potential blockers such as financial constraints, competing priorities, resourcing limitations, and executive level buy-in, among other organization-specific limitations.
Sample questions for consideration when evaluating current and desired future-state maturity may include the following:

**Service delivery model**

- How centralized is our supply chain organization? Are there departments (such as operating room (OR) or other clinical departments, information technology (IT), etc.) that are operating independent sourcing, contracting, procurement, or inventory management functions?
- What “extra” functions does the supply chain manage to provide additional value to the organization (e.g., sterile processing, print and copy, linen, laundry, etc.)?
- How are we working with clinicians to improve our ability to provide customer service?
- What self-service options are available for purchasing, obtaining order status, generating custom analytics, etc.?

**People**

- Do we have the correct number of full-time equivalents supporting our strategic sourcing, contracting, procurement, and inventory management functions?
- Where are there resource skill gaps today, and what can be done to fill those gaps?
- Are we placing people in jobs that match their natural skill sets? What can be done to distribute staff in a way that reaches the most optimal output?
- Are supply chain career paths appropriately defined in a way that allows for upward and/ or lateral mobility?

**Functional process**

- How defined and efficient are our sourcing, contracting, procurement, and inventory management processes?
Where are the predominant blockers, areas of bottleneck, or points of friction limiting optimal processes?

**Technology**

- Do we have the appropriate technologies in place to digitize and automate our processes?
- Is advanced automation such as robotic process automation, intelligent automation, and predictive analytics (e.g., a supply chain control tower), warehouse automation, etc., being appropriately leveraged today or planned for future state?

**Performance insights and data**

- What key performance indicators (KPIs) are we measuring today, and how are they distributed across functions?
- How are KPI baselines captured? How are target goals set and how is data/reporting used to monitor progress?
- Are KPIs helping to drive business decision-making?
- How are the insights we are capturing contributing to our ability to reduce spending?

**Governance**

- Is responsibility and accountability clearly defined, communicated, and aligned across the supply chain organization, as well as upstream and downstream functions such as Accounts Payable, the Operating Room, etc.?
- How are we governing master data, and do we have the appropriate level of cross-functional input?
- Do we have robust risk management measures in place to prevent supply chain disruption?
In crafting your strategic vision, our recommended exercise includes conducting workshops specific to the distinct supply chain work streams to discuss and document each team’s current state, aspirational goals, and potential blockers to close the gap. KPMG leans on supply chain taxonomies to conduct these discussions to help ensure that each work stream within an organization’s supply chain has been represented.

Process scope—Source to Pay (S2P)
KPMG can work with your team to conduct these discussions as well as support your workshops with industry observations of common, leading, and emerging practices across these taxonomies. Improvement initiatives should be customized based on your organization’s specific priorities. In addition, we can share our observations of how model healthcare supply chain teams are structured.
KPMG has observed that organizations that establish quantifiable improvement targets are able to implement their improvement initiatives with measurable success. These quantifiable improvement targets should be based on leading practice benchmarks, should be specific to the improvement initiative being implemented, and should have a current-state baseline from which to monitor progress. As an example, an organization implementing robotic process automation (RPA) to automate monitoring of vendor performance against contractual service line agreements may look to increase the percentage of high-priority vendors under a formal supplier performance management process (based on supplier segmentation) by a certain percentage. This increased automation can result in additional efficiencies—the percentage of automation may result in shifting category manager attention to more strategic activities, potentially decreasing the cycle time between reviewing sourcing agreements and contract execution. To measure success, baseline values (in this case, the percentage of RPA automation and cycle time for contract execution) and the desired target improvement (i.e., increase RPA from baseline of 5 percent to target of 20 percent and improve contract execution cycle time from 90 days to 30 days) should be captured immediately prior to implementation so that progress against targets can be tracked on a regular basis.

Other elements that can contribute to a successful supply chain operating model transformation are leadership buy-in and support, end-user input during the detailed design phase, a comprehensive approach to transformation that incorporates all Target Operating Model (TOM) dimensions, sufficient access to funding, and a departmental culture that promotes willingness to train their employees and encourage adopting change.
Supply chain operating model transformation is a complex and time-intensive undertaking that may take multiple years to accomplish. There is no one-size-fits-all approach; as leading practices continue to evolve and become more technologically advanced, supply chain leaders should periodically reevaluate their operating model for improvement opportunities to stay ahead of the curve.

KPMG is a market leader in working with healthcare providers to support operating model transformation efforts; for decades, KPMG has focused on conducting leading practice research, developing proprietary and healthcare-specific tools and accelerators, and hiring clinicians and healthcare management professionals into consulting to help maximize the value that we are able to deliver to our clients. Our team has provided services to nearly two-thirds (62 percent) of all healthcare systems in the United States, including 50 percent of the top 200 healthcare systems. If you or a peer is interested in learning more about where to focus your supply chain operating model improvement efforts, then please feel free to reach out to us.
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