Next-Generation Supply Cost Savings
Remaking Partnerships with Suppliers and Physicians to Achieve Sustainable Value

Cindy Lin
Senior Analyst
202-568-7084
linc@advisory.com

Rivka Friedman
Senior Consultant
202-266-6929
friedmar@advisory.com

Tom Liu
Analyst
202-568-7998
liuto@advisory.com

Carolyn Mansfield
Senior Director
202-266-5879
mansfiec@advisory.com
LEGAL CAVEAT
The Advisory Board Company has made efforts to verify the accuracy of the information it provides to members. This report relies on data obtained from many sources, however, and The Advisory Board Company cannot guarantee the accuracy of the information provided or any analysis based thereon. In addition, The Advisory Board Company is not in the business of giving legal, medical, accounting, or other professional advice, and its reports should not be construed as professional advice. In particular, members should not rely on any legal commentary in this report as a basis for action, or assume that any tactics described herein would be permitted by applicable law or appropriate for a given member’s situation. Members are advised to consult with appropriate professionals concerning legal, medical, tax, or accounting issues, before implementing any of these tactics. Neither The Advisory Board Company nor its officers, directors, trustees, employees and agents shall be liable for any claims, liabilities, or expenses relating to (a) any errors or omissions in this report, whether caused by The Advisory Board Company or any of its employees or agents, or sources or other third parties, (b) any recommendation or graded ranking by The Advisory Board Company, or (c) failure of member and its employees and agents to adhere to the terms set forth herein. The Advisory Board is a registered trademark of The Advisory Board Company in the United States and other countries. Members are not permitted to use this trademark, or any other Advisory Board trademark, product name, service name, trade name and logo, without the prior written consent of The Advisory Board Company. All other trademarks, product names, service names, trade names, and logos used within these pages are the property of their respective holders. Use of other company trademarks, product names, service names, trade names and logos of the same does not necessarily constitute (c) an endorsement by each company of The Advisory Board Company and its products and services, or (b) an endorsement of the company or its products or services by The Advisory Board Company. The Advisory Board Company is not affiliated with any such company.

IMPORTANT: Please read the following.
The Advisory Board Company has prepared this report for the exclusive use of its members. Each member acknowledges and agrees that this report and the information contained herein (collectively, the “Report”) are confidential and proprietary to The Advisory Board Company. By accepting delivery of this Report, each member agrees to abide by the terms as stated herein, including the following:
1. The Advisory Board Company owns all right, title and interest in and to this Report. Except as stated herein, no right, license, permission or interest of any kind in this Report is intended to be given, transferred to or acquired by a member. Each member is authorized to use this Report only to the extent expressly authorized herein.
2. Each member shall not sell, license or republish this Report. Each member shall not disseminate or permit the use of, and shall take reasonable precautions to prevent such dissemination or use of, this Report by (a) any of its employees and agents (except as stated below), or (b) any third party.
3. Each member may make this Report available solely to those of its employees and agents who (a) are registered for the workshop or membership program of which this Report is a part, (b) require access to this Report in order to learn from the information described herein, and (c) agree not to disclose this Report to other employees or agents or any third party. Each member shall use, and shall ensure that its employees and agents use, this Report for its internal use only. Each member may make a limited number of copies, solely as adequate for use by its employees and agents in accordance with the terms herein.
4. Each member shall not remove from this Report any confidential markings, copyright notices and other similar indicia herein.
5. Each member is responsible for any breach of its obligations as stated herein by any of its employees or agents.
6. If a member is unwilling to abide by any of the foregoing obligations, then such member shall promptly return this Report and all copies thereof to The Advisory Board Company.
## Table of Contents

**Executive Summary** ............................................................................................................. 6
**Transforming Supply Chain Strategy** .................................................................................. 9
**Negotiating on Total Value** .................................................................................................. 13
  - Unbundle Physician Preferences ......................................................................................... 13
  - Assess Total Cost of Ownership .......................................................................................... 15
  - Normalize Conditional Offers Around Total Value ............................................................... 17
**Ensuring Data Transparency Across Stakeholders** ................................................................. 19
  - Achieve 360° Utilization and Spend Visibility ..................................................................... 19
  - Tighten Purchasing Channels for Low-Preference Items ....................................................... 22
  - Engage Physicians in Rationalizing PPI Utilization ............................................................... 22
  - Demonstrate Commitment to Unlock Savings from Suppliers ............................................. 23
**Capturing Shared Value with Suppliers** ............................................................................... 25
  - Map Demand to Reduce Over-Utilization and Waste .......................................................... 26
  - Reduce Utilization of Low-Value Services ........................................................................... 26
  - Streamline Distribution to Reduce Costs and Errors ........................................................... 27
  - Leverage Supplier Expertise to Improve Process Efficiency ............................................... 29
  - Improve Utilization Management Through Performance-Based Contracts .................... 29
**Conclusion** ............................................................................................................................ 31
Within Your Health Care Advisory Board Membership

The Medicare Breakeven Project is a multiyear research service and peer working group for providers looking to strengthen margins in the face of demographic, pricing, expense, and case-mix pressures.

Operated by Health Care Advisory Board staff, the project offers ongoing guidance and practical support to organizations preparing for the challenges of a market focused on affordability and characterized by a growing reliance on publicly insured volumes.

Participation in The Medicare Breakeven Project is available free of charge to all Health Care Advisory Board members.

Four Forces Shaping Margins

<table>
<thead>
<tr>
<th>Decelerating Price Growth</th>
<th>Continuing Cost Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Federal, state budget pressures constraining public payer price growth</td>
<td>• No sign of slower cost growth ahead</td>
</tr>
<tr>
<td>• Payments subject to quality, cost-based risks</td>
<td>• Drivers of new cost growth largely non-accrative</td>
</tr>
<tr>
<td>• Commercial cost shifting stretched to the limit</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shifting Payer Mix</th>
<th>Deteriorating Case Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Baby boomers entering Medicare rolls</td>
<td>• Medical demand from aging population threatens to crowd out profitable procedures</td>
</tr>
<tr>
<td>• Coverage expansion boosting Medicaid eligibility</td>
<td>• Incidence of chronic disease, multiple comorbidities rising</td>
</tr>
<tr>
<td>• Most demand growth over the next decade comes from publicly insured patients</td>
<td></td>
</tr>
</tbody>
</table>

A Disciplined Approach to Defining the Path Forward

Use the Total Margin Scenario Planner, which combines user-submitted qualitative and quantitative responses with Advisory Board research and data, to generate an institution-specific outlook for payer mix, case mix, volume, occupancy, and operating margins.

Once you have completed the assessment, a Health Care Advisory Board expert will come to your organization to facilitate a discussion of your assessment results and deliver a tactical road map tailored to your most pressing improvement opportunities.

Through collaboration with your executive team, our experts will also prepare a customized summary and detailed workplan. As always, this service is available to Health Care Advisory Board members at no additional charge, and our staff will be available throughout the Margin Improvement Intensive to answer questions and provide support.

Scenario Planning Diagnostic  Executive Management Workshop  Improvement Opportunity Identification  Customized Action Plan

| Customized forecasts for future volumes, operating margin, payer mix, and case mix | Facilitated onsite session to establish a detailed understanding of challenges across the next decade | Collaboration with management to identify, prioritize specific improvement opportunities | Detailed summary of forecasting effort, prioritized workplan for execution |

Additional Information

For more information on the Scenario Planner or the Intensive and access to these resources, contact Christopher Kerns at kernsc@advisory.com or 202-266-6148 or visit advisory.com/MedicareBreakeven.
Beyond the Health Care Advisory Board

Comprehensive Spend Management

**Spend Performance Solutions**

The Advisory Board Company offers solutions from analytics to strategic sourcing, in support of members’ cost management efforts.

- **Clinical Sourcing Impact**
  - Optimizing for value in PPI
- **Services Sourcing Impact**
  - Optimizing services spend

Spend Performance Solutions integrates into The Advisory Board Company’s suite of cost-discipline solutions. Clinical Sourcing Impact offers hospitals a way to negotiate with their suppliers, not their physicians, when self-contracting for clinical implants, devices, and procedural supplies. Services Sourcing Impact optimizes service contracting to meet the unique demand profile of end-users at your hospital, instead of reverting to the lowest common service denominator. Both optimize value, by compressing prices and improving end-user satisfaction. Instead of asking end users and physicians to trade away their preferences, these solutions unlock latent price opportunity to deliver preferred supplies and services at significantly lower prices.

**Source for your unique needs**

**Improve Incumbent Pricing**

- Enloe Medical Center, 391-bed medical center
- Incumbent bids creatively, unlocks **19% savings** on $3M basket of orthopedic implants

  $566K

**Put a Price on Preferences**

- Beaumont Health System, 1,750-bed, three-hospital system
- Physicians learn price difference for preferred items, agree to shift to reach **14.4% savings** on bone and tissue supplies

  $618K

**Hardwire Future Options**

- University of Tennessee Medical Center, 500-bed AMC
- On top of **16.9% savings** on $4.7M CRM supply basket, hospital will unlock additional 3% savings by meeting volume triggers

  $793K

**Leverage Alignment**

- Munroe Regional Med. Center, 400-bed community hospital
- Non-employed orthopedists in intensely competitive market agree to demand-matching protocol after learning premium prices

  $400K

**Additional Information**

For more information, case studies, or expert advice please contact: beyond@advisory.com.
Executive Summary

In today’s shifting health care landscape, four key economic forces—decelerating price growth, continuing cost pressure, shifting payer mix, and deteriorating case mix—are challenging hospitals to execute against growth goals in a tougher operating environment.

As hospitals and health systems begin to address these challenges, the supply chain has again come into focus as an area of untapped cost savings opportunity, prompting executives to elevate supply chain improvement to the forefront of their margin preservation strategies.

Supply Chain at the Forefront of Margin Preservation

For most hospitals and health systems, supplies and services account for the fastest growing spend category. As such, strategies for supply chain improvement have traditionally focused on cost containment to curtail potential losses.

While cost containment is a crucial objective, it is not the only way supply chain can be leveraged to drive margin improvement. The Health Care Advisory Board’s Medicare Breakeven Project research has found that progressive institutions are beginning to unlock new sources of latent value in supply chain, bolstering their cost containment efforts while simultaneously improving operational processes and clinical outcomes, inflecting performance across multiple levers beyond cost.

In addition, unlike various labor-related practices (such as care-team remodeling) that require upwards of 18 months and substantial up-front investment to achieve tangible results, supply chain strategies often involve shorter implementation timelines or up-front cost reductions. Thus, a well-executed supply chain strategy can substantially improve hospital cash flow.

Two Problems with the Traditional Approach

1) The vast majority of current sourcing and purchasing strategies leverage scale and volume commitments to garner incremental price reductions. Regardless of the sourcing channels hospitals deploy, these cost reduction strategies center around negotiating down unit price and often fail to consider the total, long-term cost associated with the product.

2) The current approach of negotiating on scale often requires that physicians limit their purchases to a short set of options, and is too frequently decided with limited physician input or insight. Doing so often creates oppositional, zero-sum relationships between hospitals and their physicians—especially proceduralists—who often have strong attachments to the products they use. Furthermore, such an approach may impede physician engagement, which has been shown to garner more optimal prices than volume alone.


The Medicare Breakeven Project’s “Pleasantville” analysis identifies four distinct levers, each addressing one of the four economic forces, discussed earlier, which are imperative to margin recovery and sustainability. While most current sourcing strategies target only a subset of cost growth containment opportunities, our research indicates that there is ample opportunity within supply chain to inflect all four performance levers. Some of these levers represent threats to margin sustainability if left unaddressed, while others represent future opportunities within supply chain.

Supply Chain Threats to Margin Sustainability

As hospitals continue to target supply chain, traditional volume-for-price negotiating strategies are reaching their limits in garnering lower prices. Our research suggests that scale discounts are not only beginning to plateau, but also fail to capture the total cost and value of high-preference devices, as well as numerous hidden costs that are shared by hospitals and suppliers. Failure to evaluate and reduce these total costs will impede margin recovery efforts, potentially negating gains made through other initiatives.

An older and more chronically ill population means that future demand will be weighted more toward less profitable medical care rather than the lucrative procedural volumes that have sustained the industry in the past. Previous Medicare Breakeven Project analyses have shown that hospitals, on average, require a 10% to 14% increase in surgical volume to remain profitable. However, organic population growth alone is insufficient to support this volume increase; 90.7% of these volumes, on average, must come from capturing market share from competitors. As competition for procedural cases increases, hospital relationships with their proceduralists will be vital to margin preservation efforts.

Traditional supply cost reduction efforts, however, often force physicians to standardize to a limited menu set of devices without soliciting up-front physician feedback, jeopardizing relationships with hospitals’ most valuable partners. Failure to adopt more collaborative, mutually beneficial relationships with key physician partners will threaten cost reduction efforts and revenue generation.

1 Average of hospitals’ Total Margin Scenario Planner surgical volume growth analyses; n=62 hospitals; median: 90.4%.
Future Opportunities Within Supply Chain Beyond Cost

Organizations with robust supply chain strategies in place are looking to leverage their supplies and supplier relationships to improve hospital operations. For some institutions, reducing average length-of-stay represents a potent margin recovery strategy by allowing them to capture more profitable surgical cases. While supply chain has traditionally not been seen as an effective lever for reducing length-of-stay, progressive institutions are discovering new ways to do so by carefully evaluating product outcomes, or by utilizing suppliers' expertise in Lean or Six Sigma approaches to improve throughput.

As health care moves toward a value-based payment environment, hospital revenues will become increasingly tied to performance on clinical process and outcome measures. Well-executed supply chain strategies are able to not only stave off threats to margin sustainability, but also assist hospitals in downstream revenue generation to bolster margin performance.

Suppliers are responding to this shift by highlighting their products' benefits in preventing medication errors, reducing central-line infections, minimizing readmissions, and more. Our research and interviews revealed that some progressive institutions are not only evaluating these claims, but also entering into performance-based agreements with suppliers to hold suppliers accountable for product performance while augmenting the institution's own clinical performance, and thus, assure future revenue.

Three Aspects of Future Supply Chain Strategy

#1: Negotiating on Total Value
Progressive supply chain executives broaden negotiating levers and value indicators with more comprehensive product evaluation strategies, moving beyond volume-for-price trading to consider total cost incurred over time and impact on end-user satisfaction.

#2: Ensuring Data Transparency
Organizations with optimal contracts in place are beginning to focus on extracting value through the post-contract period by leveraging physician supply utilization data with suppliers to demonstrate contract commitment.

#3: Capturing Shared Value with Suppliers
A fully realized sourcing strategy lays the groundwork to explore longer-term strategic partnerships with suppliers. Progressive institutions are working with key suppliers to reduce mutual costs, realize collaborative efficiencies, and achieve better outcomes.
Transforming Supply Chain Strategy

Supply chain improvement elevated to margin recovery strategy

In today’s shifting health care landscape, four economic forces—decelerating price growth, continuing cost pressure, shifting payer mix, and deteriorating case mix—are challenging hospitals to execute against growth goals in a tougher operating environment. Unlike historical market changes, which were cyclical and thus could be addressed by stopgap measures or staved off with incremental solutions, these four forces indicate a structural change in the hospital operating model as providers reorganize to treat older, sicker, and increasingly publicly insured volumes. To maintain healthy margins in this climate, hospital and health system executives must move beyond tried-and-true cost-reduction strategies and identify deeper, more sustainable value.

Bending the cost growth curve is critical to this effort. In recent years, supply chain has again come into focus as a principal area of cost savings opportunity, accounting for the fastest growing percentage of hospital spending.

Cost management, however, represents only a portion of the total value opportunity available across supply chain functions. To capture all the value currentlylatent in supply chain, hospitals must fundamentally redefine their relationships with end users and suppliers.

As both hospital executives and supply chain leaders focus their agendas on supply chain functions, many are recalibrating legacy sourcing strategies in an attempt to extract more value from their supply contracts and ensure the sustainability of their relationships with supply chain stakeholders.

Reevaluating Legacy Approaches to Sourcing

Historically, hospitals and health systems have worked to standardize physician ordering to a smaller list of preferred supplies to increase the volume of committed purchases and drive down unit price. Advisory Board research and interviews suggest that this narrow focus has resulted in widespread misalignment between most organizations’ supply chain strategies and their long-term goals, not only hindering financial performance, but also straining crucial stakeholder relationships. To center supply chain transformation around value creation, hospitals and health systems must recalibrate their sourcing strategies to address performance targets and realign their relationships with both end users and suppliers.

Average Three-Year Compound Annual Growth Rate

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Wages, Salaries</th>
<th>Supplies, Services</th>
<th>Total Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>5.9%</td>
<td>5.7%</td>
<td>9.8%</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

Increasing at almost twice the rate of labor

Recalibrating Sourcing Strategies

In interviews with Advisory Board researchers, hospital and health system executives said they mostly rely on three main purchasing channels:

- National group purchasing organizations (GPOs)
- Regional, affiliate purchasing coalitions
- Self-contracting teams within the health system

Each of these channels has distinct strengths. Most organizations use a combination of these channels to source strategically for different situations and supplies.

But all three of these platforms utilize the same essential strategy of leveraging scale and volume commitments to drive down price, whether through tiered volume discounts or pre-commitments of volume thresholds from physicians. While these strategies have been effective with garnering incremental price cuts, each platform’s value proposition varies widely by supply category and, if executed improperly, can jeopardize valuable relationships with physicians and suppliers.

While volume is an effective negotiating lever, suppliers increasingly are placing a premium on contract compliance—a hospital’s ability to actually deliver on its market share commitments. This shift in supplier priorities raises questions about the expediency of the current approach of most hospitals.

Instead of taking a one-size-fits-all approach to sourcing, progressive supply chain leaders are first determining strategies based on specific objectives for each supply category, and then choosing the channel and strategy accordingly. For some supply categories—typically limited to low-preference, high-volume items—hospitals and health systems may simply seek price reductions, and trading volume for price remains an effective strategy. For others—primarily high-preference items—the value proposition of volume-for-price trading varies dramatically, depending on volume of supplies needed, physicians’ willingness to standardize, and associated non-product costs.

Prioritizing Cost Savings at Expense of Physician, Supplier Relationships

Streamlining Portfolio Limits, Overlooks Physician Preferences
- Requires physicians to comply with product switches
- Occurs without physician input, insight into product, brand attachments
- Increases risk for off-contract purchasing

Leveraging Volume-for-Price Fails to Ensure Commitment to Supplier
- Grants price reductions on premise of greater volume commitments
- No guarantee that hospital can deliver on promised volumes
- Hinders opportunity for long-term collaboration
Such price-driven objectives are often a handicap to organizations seeking sustainable improvements in total supply chain value. If hospitals define successful physician participation in supply chain initiatives as simply compliance with product and market share shifts, they miss an opportunity to expand the value of purchased supplies by meeting clinicians’ needs more fully. If hospitals limit supplier participation to offering incremental price concessions, they miss opportunities to uncover shared savings across the board.

To realize true supply chain value, hospital and health systems must look beyond zero-sum negotiations and collaborate with stakeholders to foster win-win partnerships. Despite seemingly competing objectives, an increasingly value-based environment presents new opportunities to realign stakeholder interests to achieve not only cost savings for the hospital, but also sustainable value creation for all stakeholders.

**New Strategies to Curb Supply Cost Growth**

The organizations achieving breakthrough supply chain performance have successfully aligned with both physicians and suppliers around a common goal of increased “value discovery” within the supply chain, with all partners focused on securing maximum satisfaction for end users at the lowest price, and clinical quality as a shared objective rather than a hurdle to cost management.

This research characterizes a new sourcing strategy that affords the greatest opportunities to compress costs while unlocking value for the hospital and other stakeholders. The new strategy has three main aspects, outlined below.

**Three Aspects of Future Supply Chain Strategy**

1. **Negotiating on Total Value**
   - Expand scope of contracting levers beyond price considerations

2. **Ensuring Data Transparency**
   - Leverage data to manage utilization and demonstrate commitment

3. **Capturing Shared Value with Suppliers**
   - Collaborate to uncover mutually beneficial sources of long-term value

**#1: Negotiating on Total Value**

Supply chain executives must broaden their negotiating levers and value indicators. Rather than offering solely volume commitments in exchange for price concessions, executives must consider the total costs incurred over time, as well as the impact on preference satisfaction. To accurately assess a contract’s total value, executives must engage physicians up-front to understand what drives their current preferences and purchasing decisions. Suppliers with comprehensive information about physician preferences can tailor contracts to meet both physicians’ needs and hospitals’ cost savings and business demands.
#2: Ensuring Data Transparency Across Stakeholders

Most supply chain optimization efforts focus on finding savings during the contracting process. This narrow focus misses substantial savings opportunities after the contract has been signed—through rationalizing utilization with physicians and demonstrating ongoing commitment to suppliers. Hospitals and health systems can find savings across the sourcing cycle by implementing a three-step process to track spending, manage utilization, and demonstrate commitment.

#3: Capturing Shared Value with Suppliers

A fully realized sourcing strategy lays the groundwork to explore longer-term strategic partnerships with suppliers. Progressive institutions are working with key suppliers to reduce mutual costs, realize collaborative efficiencies, and achieve better outcomes. Such partnerships allow hospitals to truly leverage supply chain operations to drive overall system performance.
Negotiating on Total Value

Deploying a broader definition of value

Most hospitals currently overlook valuable negotiating dimensions beyond volume and unit price, jeopardizing valuable physician relationships in the process. Incorporating non-price levers into negotiation creates the opportunity to improve value by improving end user satisfaction, accounting for total cost of ownership in the contracting process, and discovering new cost savings opportunities across product lines.

Unbundle Physician Preferences

Most volume-for-price sourcing strategies hinge on persuading physicians to limit their purchases to a short set of options. Supply chain leaders typically standardize purchasing before requesting bids from suppliers, precluding physicians from incorporating their preferences into contract negotiations. In clinical supply negotiations, executives often seek a price for a dual-source or single-source award, a method of securing better prices for greater volume commitments.

When efforts to direct physician selections are principled extensions of a well-functioning supply chain, they serve as guardrails in the system and can curb outlier spend. When these initiatives are used to drastically curtail physician choice without physician support, they put the hospital at risk of jeopardizing long-standing physician relationships. Furthermore, industry surveys have consistently shown that strong physician engagement—not committed volume—yields greater pricing improvements for high-preference items.

Physician Engagement Drives Price Improvement

Physicians have held strong attachments to the specific devices they use, and cling to preferred brands even when those brands cost significantly more than competitor products. Not infrequently, physicians express strong preference for supplies that have less expensive clinical equivalents. Determinations of clinical equivalency, though, can be confounded by brand attachment or confections of strong clinical performance differentiators with weak ones: suppliers typically bundle attributes that physicians strongly prefer with attributes that do not improve clinical performance.

Instead of viewing physician preference as an inhibitor to maximizing supply chain value, hospitals and health systems can create permanent infrastructure that enables up-front and ongoing physician involvement in sourcing decisions to disaggregate brand loyalty and clinical performance drivers. Doing so can not only can strengthen a hospital’s relationships with its physicians, but also provide valuable insight into how they developed their preferences in the first place, highlighting differences in product attributes, supplier services, and other offers.

Supply chain leaders at Mayhew Medical Center, an 800-bed hospital located in the Midwest, caucused with their physicians to understand why they prefer specific brands over others. Instead of approaching clinicians with a limited, predetermined set of products and multiple-choice questions—which of these products do you like?—supply chain leaders asked open-ended questions to ascertain the characteristics of preferred supplies and brands.

In these conversations, Mayhew’s purchasing team learned the specific materials, sizes, and additional service offerings that physicians require. Mayhew also solicited candid assessments of where physicians would willingly switch supplies to achieve a lower price point, and also about which preference items truly have no lower-priced equivalent. Armed with this information, both clinicians and the purchasing team could assess clinical equivalency between products to determine if product transitions were feasible.

Mayhew used this rich preference data to seek competitive supplier bids, centered around physicians’ valued attributes. The process enabled Mayhew to identify supplies that met the needs of both physicians and the hospital. By eliminating brand loyalty as a limiting factor in negotiations, Mayhew lowered cardiovascular supply expenses by 12%.

Physicians Selecting Attributes, Not Brands

Representative Attribute Matrix: Angioplasty Balloon Dilation Catheters

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Unit Price</th>
<th>Volume</th>
<th>Compliancy</th>
<th>RBP²</th>
<th>GWC³</th>
<th>Type</th>
<th>Delivery⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$210</td>
<td>2</td>
<td>Non-compliant</td>
<td>18-20 ATM⁵</td>
<td>0.014</td>
<td>High pressure</td>
<td>OTW, MR</td>
</tr>
<tr>
<td>B</td>
<td>$230</td>
<td>76</td>
<td>Non-compliant</td>
<td>18-20 ATM</td>
<td>0.014</td>
<td>High pressure</td>
<td>RX, MR</td>
</tr>
<tr>
<td>C</td>
<td>$200</td>
<td>7</td>
<td>Semi-compliant</td>
<td>18 ATM</td>
<td>N/A</td>
<td>High pressure</td>
<td>RX, OTW</td>
</tr>
<tr>
<td>D</td>
<td>$220</td>
<td>95</td>
<td>Semi-compliant</td>
<td>12-14 ATM</td>
<td>0.014</td>
<td>High pressure</td>
<td>RX, MR</td>
</tr>
<tr>
<td>E</td>
<td>$215</td>
<td>10</td>
<td>Non-compliant</td>
<td>12-14 ATM</td>
<td>0.014</td>
<td>High pressure</td>
<td>OTW, RX</td>
</tr>
<tr>
<td>F</td>
<td>$770</td>
<td>1</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Cutting</td>
<td>N/A</td>
</tr>
</tbody>
</table>

1. Pseudonym.
2. Rated burst pressure: indicates the guaranteed pressure to which a balloon can be inflated without failing.
4. Method of inserting the guidewire and balloon. Types include over-the-wire, magnetic resonance, rapid exchange, etc.
5. Atmospheres; unit of pressure.
True assessment of cost requires evaluating financial commitments beyond direct unit price. Only with a holistic calculation of total cost can hospitals accurately assess, and make informed decisions around, the supplier and product value.

**Assess Total Cost of Ownership**

Historically, supply chain leaders have pursued supply cost savings by negotiating down the purchase price. While lowering direct unit cost is a necessary first step, it is not an accurate evaluation of the total cost the hospital will incur from using the supplies over time.

As the health care industry moves toward value-based payments, supply chain leaders must increase their visibility into the total cost of the supplies used, independent of the price-based considerations governing most decisions today. Progressive organizations are beginning to evaluate costs associated with additional supplies needed, extra supplier services, diminishing product quality over time, impact on patient outcomes, etc. Conducting a more comprehensive assessment of total cost enables hospitals to better understand the relative value of supplies and more effectively negotiate for the best options.

Suppliers, aware of hospitals’ new performance risk, are becoming savvier in demonstrating value beyond low price. Suppliers such as B. Braun Medical are highlighting their products’ downstream benefits, including their ability to help prevent medication errors, reduce central-line infections, minimize readmissions, and more.¹

Executives naturally should approach these claims with some skepticism and objectively evaluate suppliers’ data wherever possible. Suppliers most confident in their claims may even assist providers in confirming them.

**Evaluating Total Cost of Custom Cutting Guides for Total Knee Replacements**

*Projected Potential Net Savings Across All Levels of Cost Consideration*²

<table>
<thead>
<tr>
<th>Unit Cost</th>
<th>Procedure Cost</th>
<th>Episode of Care Cost</th>
<th>Lifetime Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra premium cost for custom cutting guide, per procedure³</td>
<td>• Reduced OR time</td>
<td>• Reduced risk of infection</td>
<td>Reduced revision rates⁴</td>
</tr>
<tr>
<td></td>
<td>• Fewer surgical trays needed</td>
<td>• Shorter length-of-stay</td>
<td>+80-200%</td>
</tr>
<tr>
<td></td>
<td>• Reduced blood loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$(1,000-2,000)</td>
<td>+30-60%</td>
<td>+15-20%</td>
<td></td>
</tr>
</tbody>
</table>

² Estimates from The Advisory Board Company’s Technology Insights interviews and analysis.
³ Average cost for primary knee: $5,800.
⁴ Average cost for primary knee revision: $6,200.
As outlined above, there are multiple steps to evaluating total cost. Our research has shown that progressive institutions are beginning to consider these total cost calculations in up-front supplier negotiations. Factors that affect procedure cost, such as operating room time or personnel costs, may be the easiest place to start. As hospitals become more sophisticated in evaluating total cost, broadening the scope of evaluations to include episode of care costs or lifetime costs can more accurately capture the impact of supply chain decisions on hospital margins.

Supplier-Health Plan Arrangements Foreshadow Outcomes-Based Contracts

Due to limitations of current data collection capabilities, tracking long-term benefits of new products and costs is incredibly difficult and puts the hospital at financial risk—if a hospital purchases a more expensive product on the premise that it will decrease downstream costs, the hospital usually has no recourse if the product does not deliver the promised results. One way to overcome this challenge of total cost evaluation would be to craft a contract that shifts some financial risk to the supplier. While such contracts between hospitals and suppliers are rare, some payers have entered into such arrangements with their supplier partners, providing a potential blueprint for hospitals to adopt. In 2009, two manufacturers of Actonel, an osteoporosis drug designed to prevent non-spinal fractures, signed an outcomes-based contract with the health plan Health Alliance. To demonstrate support for the effectiveness of their drug, the manufacturers agreed to pay for the cost of treating any non-spinal fracture that a patient taking Actonel suffered. After a nine-month pilot run of the arrangement, Actonel demonstrated its worth; reimbursements to the manufacturers were 79% lower than the maximum level agreed upon in the contract.¹

Other examples of similar arrangements between suppliers and payers are listed in the table below.² For hospitals with the capacity to track the outcomes of specific products, these arrangements present a way to evaluate suppliers’ claims while minimizing financial risk.

### Supplier-Health Plan Arrangements Evaluating Total Cost

<table>
<thead>
<tr>
<th>Manufacturer(s) and Health Plans</th>
<th>Drug</th>
<th>Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proctor &amp; Gamble, Sanofi-Aventis, Health Alliance</td>
<td>Actonel (osteoporosis drug to prevent non-spinal fractures)</td>
<td>Manufacturers agreed to pay for the cost of treating any non-spinal fracture that a patient taking Actonel suffered.</td>
</tr>
<tr>
<td>Johnson &amp; Johnson, National Health Service (United Kingdom)</td>
<td>Velcade (drug to treat multiple myeloma)</td>
<td>Manufacturer agreed to reimburse the payer for cases in which Velcade did not exhibit clinical effectiveness.</td>
</tr>
<tr>
<td>Merck, CIGNA</td>
<td>Janumet and Januvia (diabetes drugs)</td>
<td>Manufacturer agreed to greater discounts if patients were adherent to Janumet/Januvia, and if patients’ blood sugar was better controlled regardless of drug.³</td>
</tr>
</tbody>
</table>


³ Although this means that the manufacturer receives a lower price for better patient outcomes, this arrangement allows the manufacturer to demonstrate product performance, leading to greater sales volumes.
Normalize Conditional Offers Around Total Value

Once organizations have a comprehensive understanding of what their clinicians value and of how supplies perform against key hospital performance metrics, normalizing offers enables all stakeholders to make apples-to-apples comparisons across supplies. Because every supplier has a different set of offerings, hospitals inevitably see variation in what bids include and at what price point. A higher price tag may reflect a larger profit margin for the supplier, but it may also reflect more volume, more service, or higher-quality supplies. Normalization helps hospitals discern true value across disparate contracts.

Meriter Health System, a 400-bed community hospital located in Madison, Wisconsin, enlisted technological support from the Advisory Board’s Clinical Spend Solutions to engineer a more comprehensive bidding process for orthopedic supplies that enabled it to quickly and easily evaluate complex bundles across suppliers.

Similarly to Mayhew Hospital, Meriter’s supply chain leaders engaged physicians in up-front discussions to determine their preferences. Clinical Sourcing Impact hosted an online sourcing portal for Meriter, where suppliers could submit bids on a multi-category basket of orthopedic supplies—enabling a portfolio-based (rather than product-by-product) approach. Suppliers were free to attach conditions to their bids, serving their own business needs, but managed recalibration during the event ensured that those conditions unlocked lower pricing for the hospital.

This process highlighted the disconnect between product attribute and price. Meriter’s physicians questioned supplier determinations of premium status (and associated pricing): the implant coatings that bumped a product from mid- to premium-tier pricing were not preferred in their clinical practice.

Before sharing the bids with physicians, Meriter’s purchasing team normalized each supplier bid around clinical preferences physicians defined as important—factors such as implant time, durability, size, and extra supplies or personnel required.

Enabling Physicians to Make Informed Decisions Around Total Value

- Physician bids required to offer specific service terms for consideration
  - Incorporates specific physician preferences
  - Bids often bundle items together for portfolio-based approach

- Final bids normalized around physician-defined parameters
  - Factors in changes to procedure process/time, personnel requirements
  - Accounts for variation in product quality, supplemental supplies required

Physicians, suppliers can compare blinded bids in real time
- Engages physicians throughout entire bidding process
- Fosters competition among suppliers

Physicians compare normalized offers, determine final purchase
- Provides equal, non-biased comparisons across products
- Enables decisions based on total value of offer, not item-by-item price
For example, one of Meriter’s suppliers offered a substantially lower price on one product in exchange for being awarded new business in another category. Normalizing bids across suppliers enabled stakeholders to evaluate contracts swiftly and thoroughly. More important, the executives had insight into where physicians had strong preferences and where they did not; knowing that their physicians did not hold strong preferences in the category this supplier wished to penetrate, Meriter awarded the new business to the supplier, unlocking the additional discount. With the additive impact of price compression during bidding and conditional bidding by suppliers across a portfolio of products, Meriter saved 17% on a spend segment worth $4 million.
Ensuring Data Transparency Across Stakeholders

Most of hospitals’ supply chain optimization efforts focus on finding savings during the contracting process. This narrow focus misses substantial opportunities for shared value after the contract—through rationalizing utilization with physicians, and through demonstrating commitment to suppliers. Lacking visibility into utilization and spending patterns, both hospitals and clinicians operate largely unaware of avoidable costs incurred by their decisions. Suppliers have learned to assume that hospitals rarely can follow through on contract commitments, and thus they incorporate some measure of compliance risk into their pricing, resulting in added expenses for the hospital.

The following tactics explore ways that hospitals can leverage post-contract data transparency to uncover shared value with both end users and suppliers. Broadly speaking, hospitals should continuously implement a three-step process: track utilization and spending, engage end users to manage utilization, and demonstrate commitment to suppliers.

### Three Steps to Unlocking Post-Contract Value

1. **Achieve 360° Utilization and Spend Visibility**
2. **Demonstrate Commitment to Suppliers**
3. **Manage Utilization**

#### Achieve 360° Utilization and Spend Visibility

**Two Objectives for “Actionable” Visibility**

To unlock additional value through contract compliance, hospitals must first gain 360° visibility into supply utilization and spending. Achieving such comprehensive visibility requires tracking two metrics with regularity: (1) supply utilization and spending by physician and procedure, and (2) volume and market share by supplier. For the former, achieving a granular view of spending at the physician and procedure level allows for targeted interventions to reduce utilization variance and improve demand predictability. For the latter, demonstrating the ability to follow through on promised volumes or market share often garners further savings.

The most straightforward way to capture these data is to link data on supply utilization with data on cost and spending. Unfortunately, few hospitals have made the necessary data investments to capture these data. As of 2009, 29% of hospitals did not collect physician supply cost performance at all, while another 29% collected aggregate information but did not share it with physicians.

---

1. Operating room.
Furthermore, Advisory Board research indicates that only 31% of interviewed hospitals believe their supply data is very accurate, suggesting that most organizations would benefit from baseline data scrubbing before further data integration and analysis.¹

### Most Hospitals Not Tracking Physician Supply Cost Performance¹

**Hospitals’ Practices on Tracking and Sharing Physician Supply Cost Performance**

- **No Collection of Physician Performance Information**
  - 29%

- **Collect and Distribute Physician Performance Information**
  - 42%

- **Information Collected but Not Shared with Physician**
  - 29%

### Additional Challenges in Gaining Visibility into Physician Preference Items

While most hospitals use GPO tools to track contract compliance with commodity contracts, few are able to regularly track utilization and spending for physician preference items (PPIs). Tracking PPI utilization and spending is difficult for a number of reasons. First, the rapid rate of new technology adoption makes it difficult to track the financial and clinical impact of different products over meaningful periods. Furthermore, the complexity of implant pricing—which tends to include multiple components in a single set price—obscures visibility into usage of specific components. Finally, PPIs are often purchased on consignment, which means they are not purchased until the point of use and thus do not enter the hospital’s MMIS.² Datamonitor Group estimates that 40% of the average hospital’s annual spending is not captured in the hospital’s MMIS or ERP³ systems; the hospital would therefore have no knowledge of utilization of or spending on these items.⁴

Advisory Board research has uncovered a few solutions to help hospitals track PPI utilization and spending. To address the lack of PPI data in hospitals’ systems, a few private companies have begun assembling “virtual item masters” (VIMs), remotely hosted product repositories that are continually updated with data from suppliers, distributors, and hospital users. VIMs can track information on items outside of an individual hospital’s MMIS, such as PPIs or other bill-only items. The alternative is to manually add PPIs to the item master based on OR case records. Once PPIs are documented in the system, a number of products can be used to link utilization and spending, including The Advisory Board Company’s Surgical Profitability Compass. Surgical Profitability Compass pulls data from the hospital’s MMIS and ORIS⁵ and matches items based on internal item numbers to link spending and utilization. Using OR

---


² Materials management information system.

³ Enterprise Resource Planning.


⁵ Operating room information system.
case supply files to determine utilization allows Surgical Profitability Compass to capture the actual items used during surgery and provide accurate utilization analytics.

### Linking Spend and Utilization

*Data Sources Used by Surgical Profitability Compass*

Using Surgical Profitability Compass, Shore Medical Center, a 296-bed not-for-profit hospital in Somers Point, New Jersey, identified one surgeon who was using an additional small unit of BMP\(^1\) per case compared to his colleagues. By presenting this data to the physician, supply chain executives discovered that the physician did not need to use the extra BMP and was happy to reduce its use. By rationalizing the use of BMP and other surgical supplies that exhibited unnecessary variation, Shore Medical Center achieved a total of $181,000 in savings.

---

**Achieving True Transparency**

"Finally now I’ve taken the proverbial mask off and I can actually see what’s going on. ‘By the way, do you know that we’re opening two BMPs, a large and a small, on every one of your cases?’ And the doctor says, ‘Well, they open it for me. I don’t need it.’ Bingo, that’s $2,400 a case right there."

Patrick Stewart
Director of Materials Management
Shore Medical Center

---

**Technology in Brief: Surgical Profitability Compass**

- The Advisory Board Company’s business intelligence tool that aggregates data from legacy systems to allow for procedure-level benchmarking and comparative analytics
- Leverages four basic levers—utilization, price, standardization, and substitution—to decrease costs
- Dedicated team of advisors to provide rollout planning, custom opportunity assessment, and on-call implementation support

Once hospitals track utilization and spending patterns, they can share this data with clinicians to encourage more judicious purchasing and utilization habits. When end users do not exhibit strong preferences, strategies to direct utilization toward preferred supplier contracts may garner the greatest savings. Alternatively, for high-preference items, enacting clinically appropriate utilization standards can increase a hospital’s ability to predict and communicate demand to suppliers, without necessarily standardizing to a single product or supplier.

---

\(^1\) Bone morphogenetic protein.
Tighten Purchasing Channels for Low-Preference Items

For low-preference items, hospitals’ greatest challenges are off-contract purchasing and noncompliance with preferred supplier contracts. Clinicians and other end users have several sources from which to order products, including supplier websites, eCatalogs, “PunchOut Websites,” and internal services. While purchasing departments are designed to direct all purchases to contracted items, an overly long or complex requisitioning process can tempt users to bypass internal purchasing channels and purchase directly through external sources. As a result, hospitals not only end up paying full list price for contracted items, they also lose the ability to take advantage of volume- or market share-based contract tiers.

To address the problem of off-contract purchasing at its roots, some hospitals are looking to simplify the purchasing process, eliminating opportunities for users to bypass established purchasing channels. Several existing private solutions aim to direct users to on-contract purchasing through online portals. Such solutions aggregate offerings from all contracted suppliers and present them in a user-friendly interface to clinicians, similar to Amazon.com. Features include search-as-you-type recognition, the ability to save items as favorites, and the option to share shopping lists with others. These user-friendly portals can entice users to purchase through the hospital-sanctioned website rather than directly through suppliers’ sites.

Some solutions can actively steer purchasers toward preferred suppliers or contracts. For example, when multiple suppliers provide functionally equivalent products, one solution displays the preferred supplier’s product as a suggested substitute. Another solution offers hospital administrators the ability to directly filter search results, so that only preferred suppliers’ products show up. In either case, the end result is that more purchases are made on-contract and more often with preferred suppliers, automatically improving the hospital’s compliance and achieving additional price savings.

“Our suppliers know that we’re driving compliance. And in reward for that compliance, they’ve given us lower pricing.”

E-Purchasing Solution User

It is important to note that e-purchasing technologies may be cost-prohibitive for capital-constrained smaller hospitals and health systems. However, even without e-purchasing technologies, hospitals can manually simplify the purchasing process to encourage on-contract purchasing.

Engage Physicians in Rationalizing PPI Utilization

Unlike the process for low-preference items, supply chain executives should be cautious about using utilization data or e-purchasing solutions to force compliance with PPI contracts. Doing so without first engaging physicians in contract formation may cause discontent and risk defection. Rather, executives should leverage visibility into utilization patterns to engage physicians in a discussion about clinical use protocols that can lead to more rational, consistent utilization.

To make a compelling case to physicians about clinical equivalency, purchasing executives will need to go beyond utilization patterns and incorporate clinician-defined product attributes or outcomes data. At Altoona Regional Health System, a 297-bed not-for-profit teaching hospital system in Altoona, Pennsylvania, administrators approached one orthopedic surgeon who was using high-cost implantable bone stimulators rather than external stimulators in

For high-preference items, hospitals should use data on variation in utilization to engage physicians in developing clinically appropriate protocols. Doing so will reduce costly rogue utilization and improve demand predictability.
Hospitals should use spend visibility to demonstrate commitment to suppliers. Doing so will result in reduced costs for the supplier and shared savings for the hospital.

spinal fusion patients. The physician expressed concern that patients historically had not complied with instructions for external stimulators. The CMO pulled system-specific data showing that peers within the system were achieving similar quality outcomes using external stimulators as well as lower levels of bone graft infuse. Convinced by this data, the surgeon stopped using implantable stimulators and limited his use of bone graft infuse, reducing his average cost per spinal fusion case by over $29,000 and achieving a savings for the system of $176,000 over one year.

**Leveraging Data to Manage Utilization and Drive Savings**

*Surgeon’s Average Cost per Case for Spinal Fusion Patients*

- Oct 2008 - Nov 2009: $93,512
- Dec 2009 - Oct 2010: $64,461

- Annual savings from reduced utilization of implantable stimulators: $56K
- Annual savings from decreased utilization of bone graft infuse: $120K

**Demonstrate Commitment to Unlock Savings from Suppliers**

As institutions collect more data on spending patterns and work with physicians to utilize supplies more predictably, hospitals can simultaneously use these data to demonstrate to suppliers that they are capable of following through on contract commitments. Lacking visibility into hospital utilization and compliance at the front end of contract negotiations, suppliers traditionally have relied on rebates to provide retrospective volume discounts after they have been assured of compliance. This has been particularly prevalent among GPO contracts, which must be crafted to be applicable to a wide range of hospitals and thus cannot guarantee compliance up-front. However, rebates are not an ideal solution for either hospitals or suppliers. Excessive reliance on rebates obscures true product pricing and prevents accurate benchmarking, and most hospitals fail to adequately track and collect rebate credits in any event. For suppliers, internal management of rebates across multiple varying contracts creates huge inefficiencies that prevent them from offering their lowest price. Furthermore, rebates offer no confidence to suppliers that hospitals are actually capable of moving the dial on utilization.

Almost across the board, suppliers express that they place more value on demand predictability and commitment than on promises of increased volumes. This is especially true with PPIs, which can exhibit up to threefold variation in pricing for the same item, with hospital volume explaining less than 20% of price variability.¹ A lack of predictability creates added risk and costs for suppliers, who account for this uncertainty by raising their prices. Commitment to promised contract volumes or market share represents value to suppliers in a number of ways by:

• Guaranteeing minimum volume of sales
• Ensuring predictable revenue stream across contract period
• Reducing cost of post-contract sales
• Enabling production planning in advance

It follows that hospitals that can effectively demonstrate commitment to suppliers can also reduce supplier risk and post-contract selling costs. Hospitals can leverage this benefit during supplier negotiations to garner savings beyond what is possible from traditional contracting strategies, resulting in gains for both the hospital and suppliers.

If hospitals can demonstrate commitment up-front, they may be able to bypass the GPO contract and achieve savings from suppliers in excess of the lowest GPO rate. For example, after monitoring the utilization of a given interventional radiology (IR) product and establishing a proven utilization rate, supply managers at Banner Health, a 23-hospital health system based in Phoenix, Arizona, were able to receive additional discounts of 8% to 10% below contracted prices for future bulk buys. Furthermore, these bulk-buy opportunities were often initiated by the supplier, underscoring the importance of demonstrated compliance to suppliers. These arrangements can be scaled on an iterative basis to build physician buy-in and supplier confidence. For example, Dignity Health, a 40-hospital not-for-profit health system based in San Francisco, California, negotiated a compliance pricing agreement for IR supplies that achieved incrementally lower prices with increasing utilization levels. By scaling utilization levels from 30% to 75%, Dignity Health saved a total of $1 million on supplies.

Scaling Utilization to Achieve Progressive Savings

Utilization Level Requirements in Self-Negotiated Agreement for IR Supplies

Predictable supply utilization and contract compliance can yield a significant discount for high-preference items without endangering physician relationships. Shore Medical Center used The Advisory Board Company’s Surgical Profitability Compass to examine purchasing patterns and discovered that 80% of orthopedic surgeons consistently used one supplier’s premium knee implants. Because of the strong preferences associated with this item, supply chain administrators decided not to approach physicians about reducing use of this item. Rather, they aim to bring their utilization data to the implant supplier, demonstrating adherence to that contract and requesting a discount. Through this strategy, Shore Medical Center identified savings of $30,000 to $50,000 per year without having to alter utilization patterns.
Capturing Shared Value with Suppliers

From Zero-Sum to True Partnership

As described in the beginning of this white paper, hospitals and suppliers face a pressing need to shift their focus away from incremental price concessions and toward achieving shared value. The previous sections have outlined strategies for hospitals to unlock shared value with suppliers both during and following the contract negotiation process. The most progressive purchasing teams are taking this one step further, seeking savings opportunities that can be obtained only through long-term hospital-supplier collaboration.

Progressive suppliers have already begun shifting their business model from one that generates siloed, product-focused sales, toward one that fosters strategic relationships with key customers. Suppliers in essence are segmenting their customer base, strategically reserving their best prices and value-added services for their highest-priority provider partners. In response, hospitals should evaluate their own strategic goals and begin segmenting their supplier relationships based on factors such as product characteristics, market dynamics, and potential to drive mutual growth.

Segmenting Supplier Relationships by Strategic Importance

The above graphic shows one example of a supplier segmentation model. At the bottom of the pyramid are low-preference commodity supplies, which hospitals typically purchase at a low price point and thus offer only modest savings opportunities. The second segment of the pyramid reflects supplies for which physician preference is so strong that efforts to encourage different choices may fall short. The “strategic supplies” at the middle of the pyramid represent the largest opportunity: these supplies are deemed critical to the hospital’s growth strategy, but can be quite costly. For these supplies, however, physicians may be amenable to switching suppliers, meaning efforts would be rewarded.

“Strategic supplies” warrant investment in a strategic supplier relationship. The remainder of this paper outlines some ways progressive hospitals and their strategic supplier partners are working together to reduce mutual costs and achieve improved outcomes.

Reducing Mutual Costs

The earlier section, “Negotiating on Total Value,” highlighted the importance of evaluating total cost of ownership across supplier bids. However, by working together, hospitals and
By sharing a more accurate picture of demand, hospitals can work with suppliers to identify and reduce over-utilization and waste.

Examples of Opportunities for Achieving Shared Savings
- Reduced waste and overproduction
- More judicious use of supplier-provided services (e.g., OR representatives, in-service training)
- Reduced carrying costs
- Fewer ordering, delivery, and payment errors
- Avoided emergency shipments

Map Demand to Reduce Over-Utilization and Waste

In a value-based model, unnecessary utilization presents little value for hospitals or suppliers. Given the right incentives, suppliers can offer assistance in identifying and reducing potential over-utilization and waste.

Print services represent an example in which collaborative pre-planning can reduce costly over-utilization and waste. Carrock Health System, a 350-bed academic medical center in the Northeast, accessed the contract expertise and benchmarking services of The Advisory Board Company's legal partners in Services Sourcing Impact to source print and document services. Suppliers were informed of both service level requirements and guaranteed savings stipulations, which created strong incentives for suppliers to find ways of serving Carrock more efficiently. The winning supplier submitted a bid offering to reduce unnecessary utilization and waste. Typically, a print services supplier will set up a network based on the needs approximated by the hospital. However, most hospitals do not track their print utilization patterns and therefore cannot give suppliers an accurate picture of demand. To preemptively address this problem, Carrock leveraged the winning supplier’s diagnostic software to determine its historical demand and utilization patterns. Through these analytics, the supplier determined that the hospital had an excessive number of printers per user (greater than a two-to-one ratio) and reduced the number of printers, reducing the cost for both the hospital and the supplier. Furthermore, by analyzing utilization patterns, the supplier rerouted print jobs to more efficient devices and significantly reduced the use of color printing. Together, this collaborative exercise allowed Carrock to identify over $75,000 in savings the first year through lower utilization alone and achieve a total savings of $680,000 compared to previous expenditures.

Reduce Utilization of Low-Value Services

Traditionally, the cost of many supplier-provided services such as OR support and in-service training have been factored into the price of the supplies. However, facing increasing margin pressures, even suppliers are recognizing the need to reduce or eliminate add-on services.

“The margins on some of these services make it better for us to not have to even deal with them.”

Large supplier in the Midwest

1 Pseudonym.
By increasing communication with suppliers and/or co-investing in distribution systems, hospitals can reduce avoidable costs and potentially dangerous errors.

One supplier-provided service that is facing increased scrutiny is the OR representative. At Gondolin Hospital, a 500-bed nonprofit hospital in the South, fees for OR representatives often constitute a significant part of surgery costs. Recognizing the value that the OR representative does provide in complex cases, Gondolin is exploring a principled reduction in use of representatives, limiting them to 75% of routine surgeries. To prepare for cases in which unforeseen complications occur, Gondolin is considering leveraging historical expertise with telemedicine, allowing doctors or nurses to communicate with a representative at the supplier via telecommunication. The suppliers have shown support for this initiative, offering to disaggregate the cost of the OR representative from the cost of the actual implants and reducing the price by 56%.

The recent rise of “rep-less” generic surgical supply companies such as General Medical Device, Emerge Medical, and ROG Sports Medicine portend a potentially decreasing reliance on the traditional OR representative model. While a sustainable alternative to the traditional OR representative model has yet to emerge, market trends and increasing hospital and supplier awareness underline the need for critical evaluation of the value of OR representatives and other added services. In some cases, a principled separation of the service from the contract may reveal savings opportunities for both sides.

Streamline Distribution to Reduce Costs and Errors

Traditionally, hospitals and health systems have not scrutinized the distribution process, managing inventory only when it is delivered to their loading docks. But inefficient distribution systems can create high carrying and shipping costs, and furthermore can contribute to potentially dangerous errors. Institutions may want to consider collaborating with suppliers to identify distribution inefficiencies, since suppliers have more expertise in logistics and are usually eager to contribute. By collaborating with suppliers to standardize and streamline the distribution process, hospitals can improve demand visibility, reduce costly errors, and achieve shared efficiency savings.

One way hospitals and suppliers can collaborate is to improve communication regarding demand and delivery. For example, Intermountain Healthcare, a 22-hospital health system based in Salt Lake City, Utah, recently engaged in a high-level collaboration with one of its orthopedic implant suppliers to reduce logistics costs. At an executive meeting in which Intermountain’s physicians were present, the supplier brought in its chief purchasing officer to transparently demonstrate how the physicians’ demands and behaviors were creating unnecessary costs in the system. Because every physician wanted his or her own variation of the implant, the supplier was stocking multiple implant variants, reducing inventory turns to 1.2 per year. These variants then had to be stored for up to 15 years in case of revision surgery. Finally, the supplier was shipping all of these variants to Intermountain overnight because it was not receiving advance notice of product demand. Altogether, the logistics costs alone constituted a substantial percentage of the price of the product.

“The cost of the problems that the manufacturing community wants to own is much greater than any product they would ever buy from [us] or any of our competitors.”

Large clinical commodity supplier

---

1 Pseudonym.
Coming out of the meeting, many physicians and executives admitted they did not know this was occurring. In the near future, Intermountain plans to bring their supply partner on site to do a comprehensive assessment, mapping out the total cost of ownership of that supplier’s products through Intermountain’s system. Based on the supply partner’s findings, Intermountain plans to work with its supplier to change their practices collectively.

For hospitals and suppliers with the resources and willingness to engage in long-term partnerships, collaborating to adopt standardized product labels can yield myriad benefits. Mercy, a 31-hospital not-for-profit health system based in Chesterfield, Missouri, and its purchasing organization, Resource Optimization & Innovation (ROI), collaborated with global medical technology supplier BD to become the first U.S. health system to implement GS1 Standards at each step of the supply chain, from manufacturing to utilization at the patient bedside. Since implementing GS1 standards, Mercy and ROI have reported several positive outcomes, including:

- A 73% reduction in ordering discrepancies, which reduces costly and potentially dangerous errors for the hospital
- A 30% reduction in days payable outstanding, which resulted in additional early pay discounts for the hospital

Collaborating to Improve Outcomes

Given the historical approach to supply chain savings, supplies are often viewed as a cost to control. However, this view can obscure the fact that many supplies are life-saving technologies that directly assist hospitals in their mission to deliver better value. Some progressive hospitals are now working with their suppliers to identify ways in which supply chain strategies and functions can streamline processes, improve utilization management, and augment quality performance.

As hospitals move toward value-based business models, understanding how supplies can be leveraged as an asset to “move the dial” on value-based metrics will be crucial in achieving future growth. Recognizing the need for mutual interdependence and growth, progressive suppliers have begun to explore the following ways to help hospitals uncover new value:

- Designing new products to elevate care quality and lower total cost
- Identifying common bottlenecks and redesigning supply utilization processes to minimize errors and improve efficiency
- Identifying causes of supply overutilization and restructuring processes or purchases to reduce unwarranted utilization

Hospitals and health systems benefiting from this partnership should be prepared to objectively evaluate the true value of any services that suppliers offer, especially services that include a separate charge or result in increased prices. In many cases, revenue- or risk-sharing agreements can align hospitals’ and suppliers’ incentives in achieving shared goals.

---

1 A series of barcoding and data interchange standards developed by GS1, an international not-for-profit association, designed to improve supply-chain management. Available at: [http://www.gs1.org/](http://www.gs1.org/).

**Leverage Supplier Expertise to Improve Process Efficiency**

A hospital’s ability to improve performance on process efficiency measures will become an important determinant of margin sustainability. Several measures in Medicare’s Value-Based Purchasing program focus on process efficiency,¹ putting revenue at risk for poor process performance. Furthermore, as increased information transparency is likely to heighten patients’ awareness and sensitivity to provider value, hospitals will face new pressures to streamline operations while maintaining quality.

Select suppliers are bringing Six Sigma specialists to their hospital customers to analyze inefficiencies in workflow processes and discover ways to increase throughput. Areas of focus may include laboratory diagnostics and emergency room testing processes. Furthermore, to minimize risk for the hospital, some suppliers have created revenue-sharing arrangements with hospitals based on the effectiveness of the services, rather than charging for the services up-front. With such arrangements, the supplier gets to share in the gains only if the hospital sees increased revenue as a result of the efficiency improvements, helping align incentives between provider and supplier.

**Improve Utilization Management Through Performance-Based Contracts**

Hospitals and health systems are constantly seeking opportunities to reduce utilization of supplies and services without negatively affecting quality. Historically, suppliers have not partnered with hospitals on these efforts because reduced use of supplies translates into lower profits for suppliers. By aligning supplier and provider incentives around safely reducing utilization, providers create new opportunities to partner with suppliers to ensure that utilization of supplies is both clinically effective and cost-effective.

Indiana University (IU) Health, an 18-hospital health system headquartered in Indianapolis, Indiana, collaborated with its pharmaceutical wholesaler to minimize waste and reduce costs for both stakeholders. Because of continued downward pressure on pharmaceuticals pricing, much of the latent contract value resides in better utilization management. The wholesaler values a guaranteed long-term revenue stream because most of its profitable businesses require continuous cash investments. On the other hand, the hospital values improvements in pharmacy margins and adherence to evidence-based prescribing guidelines. To help both sides achieve their respective goals, IU Health offered to sign a five-year contract—instead of its traditional three-year term—in return for a guarantee that the wholesaler would find the hospital at least $12 million in savings over the first 36 months through utilization management programs. To fulfill its side of the partnership, IU Health offered complete transparency into its operations data and contributed resources to hire 13 new pharmacy staff.

Achieving Shared Value
Anatomy of Collaboration Between IU Health and a Drug Wholesaler

<table>
<thead>
<tr>
<th></th>
<th>IU Health</th>
<th>Drug Wholesaler</th>
</tr>
</thead>
</table>
| **Definition of “Value”** | • Improved pharmacy margins  
                        |      • Improved quality metrics               | • Long-term revenue                           |
| **Contributions**    | • Five-year contract agreement  
                        |      • Transparency about operations data     | • Three FTEs, including project lead          |
|                      | • 13 new pharmacist hires                  | • Responsibility of implementing 32 pharmacy projects |
| **Results**          | • $34M margin improvement over three years ($22M more than promised) | • Five-year guaranteed revenue                |
|                      | • Increase from 350,000 to 1 million prescriptions | • Opportunity to demonstrate value of own programs |
|                      | • Improved prescribing patterns            |                                               |

In the first 36 months, IU Health experienced a net margin improvement of $34 million—$22 million more than what was originally promised, even after accounting for up-front investments in personnel and equipment. In addition, the organization experienced significant improvements in adherence to medication utilization protocols compared to the national average, producing quality gains that will become increasingly important in a value-based environment.¹

“Everybody talks about being a partner, but they’re not; they don’t have anything at risk. True partnership occurs when goals and incentives are aligned. Both partners are at risk and have something to gain by moving in the same direction.”

Jim Jorgenson  
Chief Pharmacy Officer, IU Health

Conclusion

*Two Ingredients for Supply Chain Transformation*

Across the United States, hospitals and health systems are at markedly different stages along the path toward supply chain transformation. For institutions just starting down this path, incremental steps are foundational to build confidence and trust with both suppliers and end users. However, Advisory Board research and interviews highlight two integral components all hospitals must possess to succeed, regardless of the current stage of their supply chain transformation:

1. **Executive support.** Altering ingrained supply chain practices will require not only a change in tactics, but also modifications to supply chain structure, processes, and overall culture. To succeed in supply chain transformation, hospitals and health systems need continuous and visible support from high-level executives across the organization.

2. **Commitment to trust.** Successful collaboration with end users and suppliers requires constant communication and a dedication to transparency. Hospital and health system leaders must demonstrate their commitment to all supply chain stakeholders to facilitate true win-win partnerships.

*Transparency and Trust*

“‘Trust, as of today, is a given. We trust you until you give us a reason not to trust you.’ We basically said that in front of all our suppliers, and I think from a credibility standpoint, that has gone miles. I can’t tell you the outpouring [of support] we received from suppliers just by being transparent.”

Joe Walsh  
AVP of Category Management, Intermountain Healthcare