



Insights on Building a Healthcare Value Network

A Closer Look at Trading Partner Relationships in Healthcare

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By Lora Cecere
Founder and CEO

Supply Chain Insights LLC

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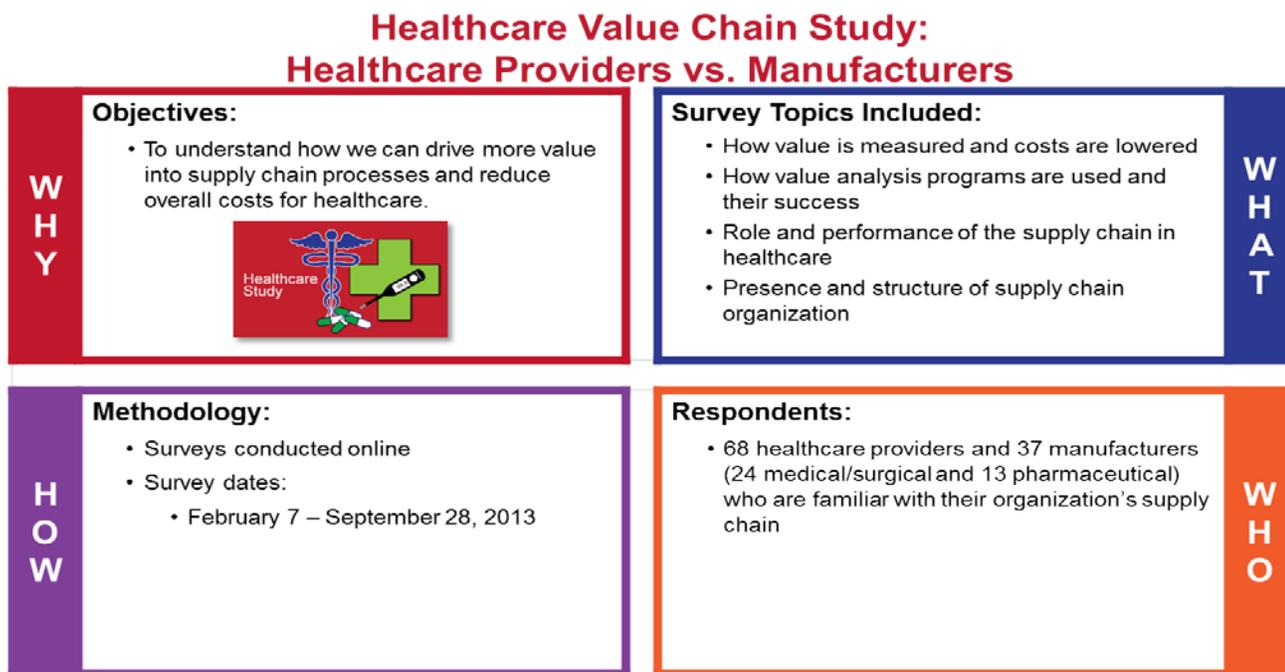
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Research

The healthcare value chain is stuck. While much has changed on the surface over the last decade, the industry is paralyzed by a lack of well-functioning end-to-end processes. In the face of rising complexity, taxation and compliance, the industry cannot afford to continue to ignore the dysfunction in value network relationships.

This report combines analysis of supply chain financial ratios, a quantitative study (overview in figure 1) and highlights from interviews of healthcare providers and suppliers. While we have reported many of the findings from this study for providers in another detailed report, [How Do We Heal the Healthcare Value Chain?](#), here we share insights on the role between manufacturers (suppliers to healthcare providers) and hospitals (providers of healthcare services) and the state of the relationships. For more detailed respondent demographics from the quantitative study, reference the additional charts in the Appendix of this report.

Figure 1. Overview of the Healthcare Study Used to Develop This Report



Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)

Disclosure

This report was solely funded by Supply Chain Insights. The analysis is an independent and objective report on the healthcare value network.

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Executive Overview

You cannot escape it. Healthcare is front and center in international news. In the last decade, so much has changed—value analysis programs by the provider, pharmaceutical serialization, Unique Device Identification (UDI) of medical devices, greater dependency on cold chains for new forms of distribution, custom drugs for specialized therapies, and the automation of hospitals through custom cabinets and the Internet of Things—yet, so much remains the same. The industry is struggling to move forward.

The healthcare value chain is being pressured by legislation, taxation, and compliance, but the relationships in the value chain are dysfunctional. While companies say that they are collaborating, there is little progress. As a result, companies are not able to make progress to balance health outcomes in the face of rising costs and complexity.

A major issue in this value chain is a clear definition of the “customer.” At the start of the decade, the manufacturer sold to the physician. Over time, there was a shift to sell to the healthcare provider. The future state is the delivery of patient-based outcomes and the recognition of the patient as the customer. However, the design of buy/sell relationships and the associated incentives have been slow to change to accommodate the shift. The gap between the supply chain organization and the commercial functions within the supplier’s organization is a fault line in the building of an effective value network in healthcare.

Table 1. Value Network Performance on Supply Chain Metrics

Healthcare Value Chain Financial Metrics (2000-2012)				
Industry Segments	Average Operating Margin	Average Percent Changes (2000-2012)		
		Operating Margin	Days of Inventory	Revenue per Employee (K\$)**
Hospitals*	0.07	13%	130%	90%
Medical Device Manufacturers	0.17	-69%	10%	50%
Pharmaceutical Manufacturers	0.23	-34%	18%	78%

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012

Hospitals: Community Health Systems, HCA Holdings Inc., Tenet Healthcare Corporation, Universal Health Services, Inc.

Medical Device Manufacturers: Baxter International Inc., Boston Scientific Corp., Stryker Corp., St. Jude Medical, Inc., Zimmer Holdings Inc.

Pharmaceutical Manufacturers: Abbott Laboratories, Amgen Inc., Eli Lilly & Co., Merck & Co., Inc., Novartis International AG, Pfizer, Inc

*Hospital percentage change for operating margin and days of inventory was calculated using data from 2001 and 2012

**Revenue per Employee calculations limited to average percentage change from 2002 to 2012 due to data availability issues.

With high margins, suppliers’ supply chain organizations have had little reason to drive meaningful change. In fact, we find that the best balance of metrics in the healthcare supply chain happens in supplier organizations

with lower margins. In the words of Philippe Lambotte, prior SVP of Merck, at the Supply Chain Insights Global Supply Chain Insights conference, *“It is hard to build a guiding coalition to build supply chain muscle when times are good.”*

In table 1 we show the shifts in the industry trading partners over the last decade. The ‘patent cliff’ and the slowing rate of bringing new drugs to market have significantly cut pharmaceutical margins.

While all of the segments of the industry have improved productivity, as measured by revenue/employee, they have been unable to find a balance and resiliency of cost, working capital cycles and complexity. These productivity improvements are due to advances in technology, connectivity, and work processes.

The parties in the value chain are not equal partners. Suppliers not only have higher margins, but they are also 3–4X larger in size.

The industry is crying for supply chain leadership. There is opportunity to drive new outcomes through new business models. In this report, we share the latest insights from quantitative research, value chain analysis, and client interviews to provide insights on the state of the healthcare value chain.

State of the Value Network

The healthcare provider network is fragmented. Today, for both the supplier and provider of healthcare, most of the energy is focused on improving the efficiency of their organizations. There is little focus on building successful end-to-end networks.

Effective relationship building is in its infancy. Here are some of the highlights of our research:

- **Success.** The supplier is roughly three times the size of the healthcare provider with four times the profits, but they are 18% less likely than their customers to rate themselves as successful at delivering on their supply chain goals.
- **Increase in Complexity.** Nearly two-thirds of manufacturers are offshoring to reduce costs. They have longer and more complex supply chains, but rate themselves low on their ability to manage profitability. They rate their largest opportunities as the areas of demand planning and network design.
- **Enterprise Integration.** Only one-third of suppliers feel that they effectively integrate their supply chain and sales processes within their own organization. This is a barrier to forming a successful value network.
- **Value Analysis and Supplier Collaboration Programs by Hospitals Just Starting.** Over 70% of healthcare providers now have value analysis programs to evaluate new products and services, and 67% of that group rates the programs as effective in meeting the goals of managing costs, determining physician preferences and reducing infection rates.
- **End-To-End Focus not in Sight for Suppliers.** Two out of five manufacturers have someone responsible for the end-to-end supply chain. The focus to move from a supply chain to a value network is just starting.
- **Business Model Innovation Needed.** Unlike other industries, Intel in the semiconductor industry, IBM in High-tech or Walmart in retail, no company in the healthcare value chain has stepped forward to use power to drive business model innovation to significantly improve the end-to-end value chain.
- **Stalled Progress on Inventory Cycles and Cash-To-Cash Cycles.** While hospitals have improved inventory turns by pushing the responsibility backwards onto the supplier, in the last decade there has been no improvement in cash-to-cash and inventory cycles for the value network in its entirety.
- **Lack of Alignment on Outcomes.** All parties in the value network are treading water. The top three challenges for providers are reducing costs, using data, and keeping up with regulations. In parallel, using data, reducing costs and keeping up with new business requirements are the top three business challenges for suppliers.

How Can We Collaborate If We Cannot Align?

Neither the supplier nor the provider has strong supply chain maturity and competency. While hospital providers are focused on building value analysis programs and automating procurement, the suppliers are focused on improving enterprise transactional efficiency through Enterprise Resource Planning (ERP). In table 2, we share some of the open-ended comments from the quantitative survey and the interviews with supply chain leaders.

Table 2. Open-Ended Comments

Providers	Suppliers
<i>We spend half our time looking for what we need and the other half using it to improve patient outcomes.</i>	<i>We have a lack of integration throughout the supply chain. There is better integration from us to the suppliers than from our organization to the customer.</i>
<i>We have a better chance of a satisfactory recall on peanut butter than a cardiac stent.</i>	<i>The medical device tax has resulted in the reduction of a supply chain position.</i>
<i>We have old school thoughts trying to run a new game.</i>	<i>There is a major transformation effort underway. We began the implementation of SAP in 2013 and it will be concluded in two years.</i>
<i>Our supply chain is less than five years old and is totally decentralized locally, regionally and nationally.</i>	<i>The lack of integration from manufacturing through sales and customer engagement needs to be addressed quickly if we are going to successfully compete with changing market dynamics.</i>
<i>We have a bureaucratic mess. To order one single contracted item takes fifteen pages of paper.</i>	<i>Suppliers and manufacturers could work together. GHX is a great way of achieving this for healthcare.</i>

**Some comments have been paraphrased or edited for summary purposes.*

A Closer Look at the Relationship

As shown in tables 3 and 4, and in figure 2, neither the hospital provider nor the manufacturer is good at managing inventory and cash-to-cash cycles. While hospitals have pushed inventory responsibility back in the supply chain to suppliers, the total inventories of the value network have not declined despite multiple joint initiatives and the investments in technology and connectivity.

Over the course of the last decade, the pharmaceutical sector has improved inventory turns by 47%, but the starting level was very low at two turns a year. In parallel, cash-to-cash cycles, where smaller is better, have grown by 25%. Medical device companies have a pattern similar to pharmaceuticals. The manufacturers have been unable to redesign from the outside-in to reduce the total inventory in the healthcare value chain.

The gaps are growing between healthcare suppliers and progress being made in parallel industries. In table 3, note that while the healthcare suppliers—pharmaceutical and medical device manufacturer—have elongated cash-to-cash cycles, making them worse, other industries including consumer packaged goods, food and beverage, consumer electronics, chemical and automotive industries have improved their cash-to-cash cycles.

Table 3. Comparison of Inventory Turns and Cash-To-Cash Cycles

Industry	Average Operating Margin	Average Cash-to-Cash Cycle	Cash-to-Cash Cycle Percentage Change (2000-2012)	Average Inventory Turns	Inventory Turns Percentage Change (2000-2012)
Pharmaceutical	0.25	190.3	25%	2.0	47%
Medical Device Manufacturers	0.18	211.6	7%	2.2	6%
Consumer Packaged Goods	0.17	28.3	-68%	5.6	9%
Food	0.16	38.1	-17%	6.4	16%
Consumer Electronics	0.12	9.3	-45%	43.8	-35%
Apparel	0.10	127.7	3%	3.2	-4%
Chemical	0.09	78.1	-12%	5.3	5%
Automotive	0.04	75.9	-28%	9.9	-16%

Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012
 Apparel: American Apparel, Inc., Columbia Sportswear Co., Hanesbrands, Inc., PVH Corp, Ralph Lauren Corp., VF Corp.
 Automotive: Daimler AG, Ford Motor Co., General Motors Co., Honda Motor Co., Ltd., Toyota Motor Corp., Volkswagen AG
 Chemical: BASF SE, E. I. du Pont de Nemours and Co., The Dow Chemical Co.
 Consumer Electronics: Apple Inc., Dell Inc., Intel Corp., Motorola, Inc. (now Motorola Solutions, Inc.)
 Consumer Packaged Goods: Colgate-Palmolive Co., The Procter & Gamble Co., Unilever N.V./PLC
 Food: Campbell Soup Co., General Mills, Inc., Kellogg Co.
 Medical Device Manufacturers: Boston Scientific Corp., Medtronic, Inc., St. Jude Medical, Inc. Zimmer Holdings Inc.
 Pharmaceutical: Eli Lilly and Co., Merck & Co., Inc., Pfizer, Inc.

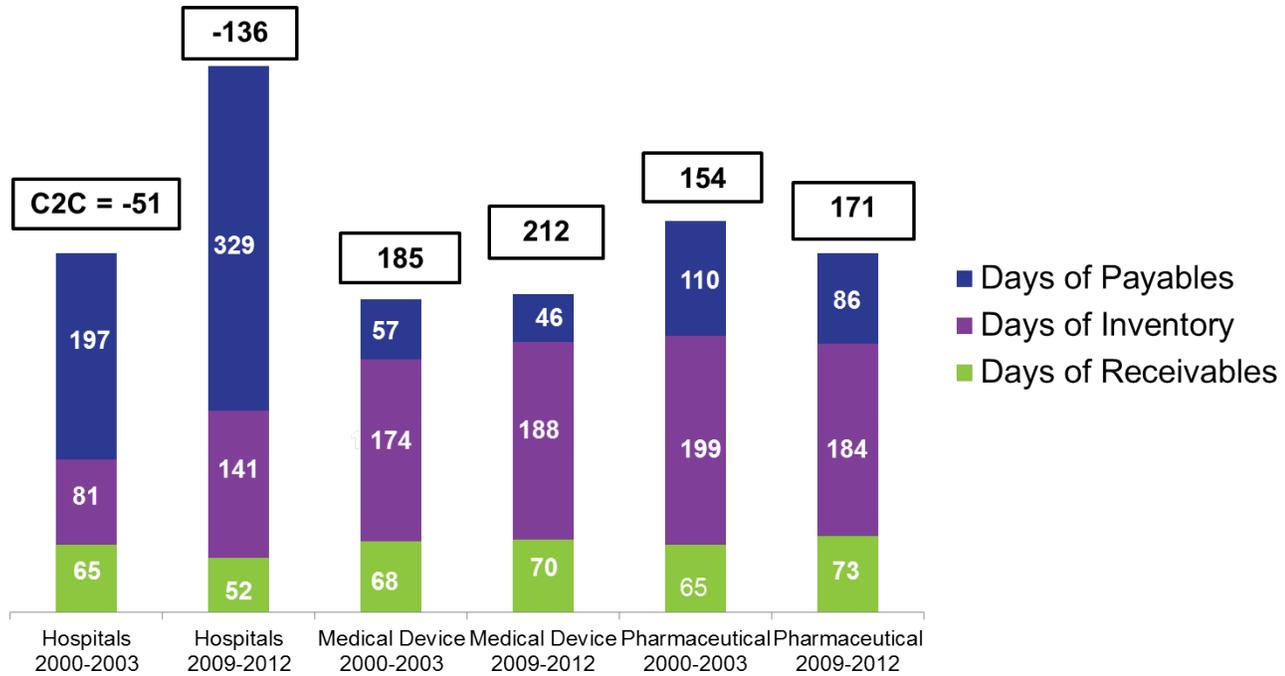
The most significant change in inventory turns happened in the hospitals. These numbers have largely improved by shifting the inventory burden to suppliers. Not only did the hospital shift the burden of inventory, as shown in figure 2, but they also greatly lengthened payables putting pressure on the supplier.

Table 4. Changes in Inventory Turns for Healthcare Value Chains

Healthcare Value Chain Inventory Turns Performance (2000-2012)			
Industry Segments	Inventory Turns		Change
	2000	2012	
Hospitals*	7.7	12.4	4.7
Medical Device Manufacturers	2.2	2.2	-0.1
Pharmaceutical Manufacturers	3.4	2.2	-1.2

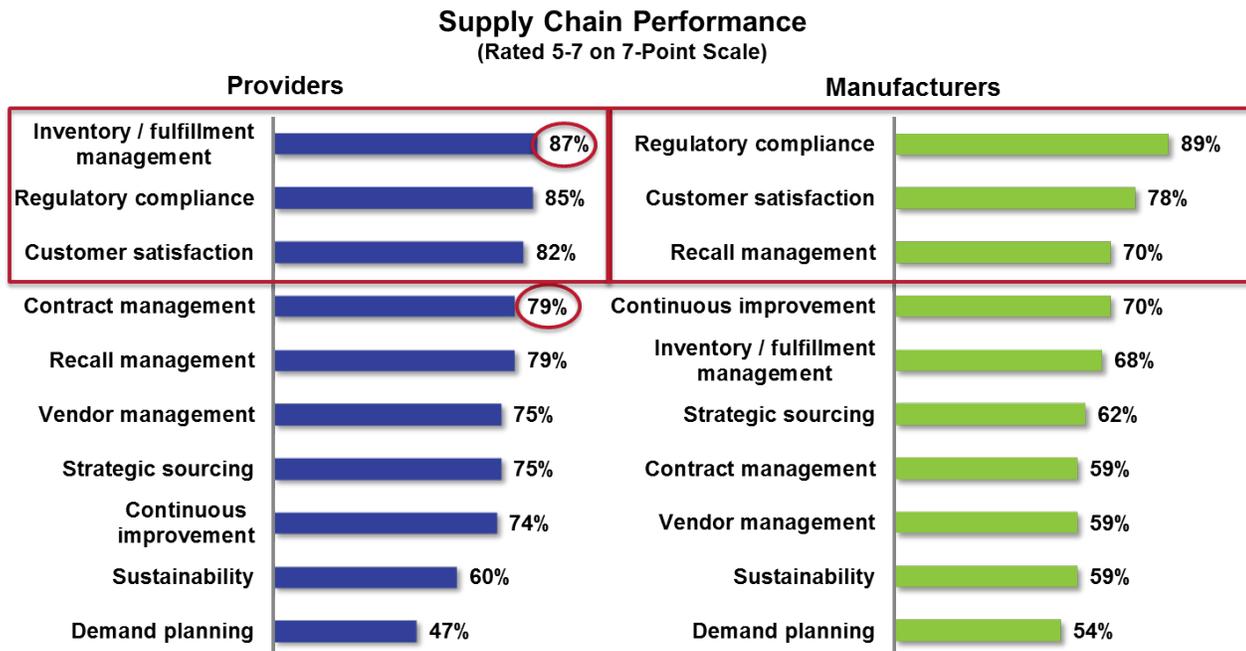
Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2012
 Hospitals: Community Health Systems, HCA Holdings Inc., Tenet Healthcare Corporation, Universal Health Services, Inc.
 Medical Device Manufacturers: Baxter International Inc., Boston Scientific Corp., Stryker Corp., St. Jude Medical, Inc., Zimmer Holdings Inc.
 Pharmaceutical Manufacturers: Abbott Laboratories, Amgen Inc., Eli Lilly & Co., Merck & Co., Inc., Novartis International AG, Pfizer, Inc.
 *Hospital inventory turns value unavailable in 2000. Data was sourced from 2001 performance.
 Numbers have been rounded.

Figure 2. Changes in Cash-To-Cash for Healthcare Value Chains



Source: Supply Chain Insights LLC, Corporate Annual Reports 2000-2003, 2009-2012
 Hospitals: Community Health Systems, HCA Holdings Inc., Tenet Healthcare Corporation, Universal Health Services, Inc.
 Medical Device Manufacturers: Baxter International Inc., Boston Scientific Corp., Stryker Corp., St. Jude Medical, Inc., Zimmer Holdings Inc.
 Pharmaceutical Manufacturers: Abbott Laboratories, Amgen Inc., Eli Lilly & Co., Merck & Co., Inc., Novartis International AG, Pfizer, Inc

Figure 3. Top-Rated Elements of Supply Chain Performance by the Provider and the Supplier



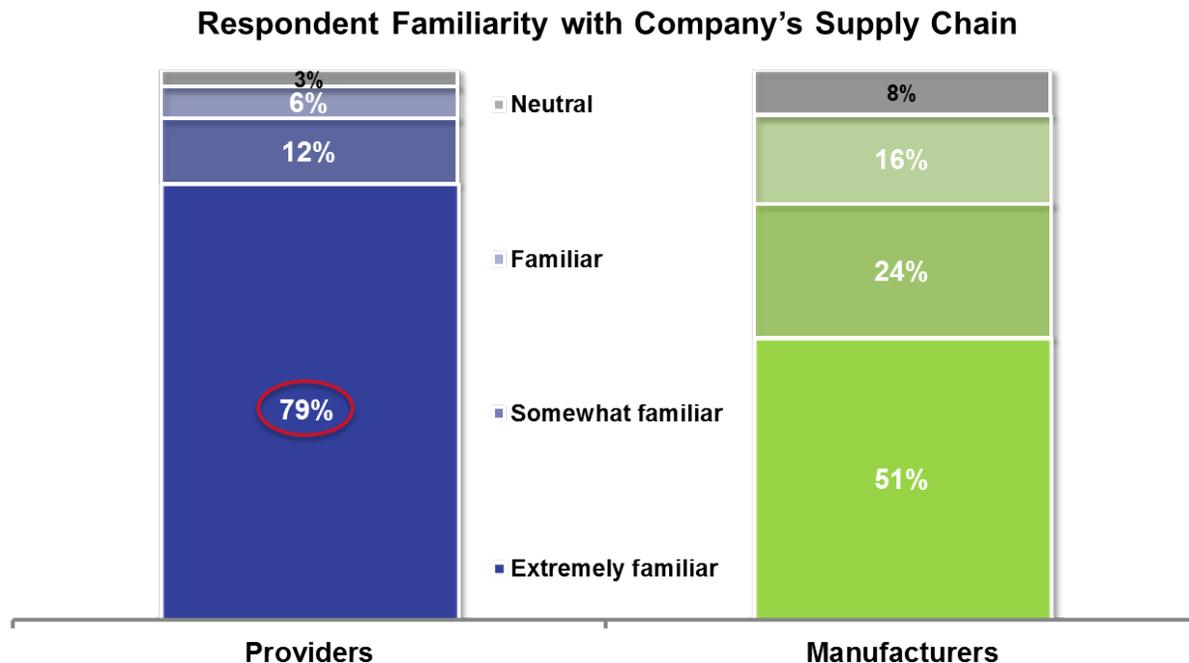
Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare providers (n=68), Healthcare manufacturers (n=37)
 Q35. How would you rate the performance of your organization's supply chain on each of the following? SCALE: 1=Poor, 7=Excellent
 Higher than the other group at a 90% level of confidence

A Closer Look at the Relationship

So, what does each party feel that they are good at? As shown in figure 3, both the supplier and the provider rate themselves high in the management of regulatory compliance. Much of the energies of both organizations have been focused on meeting the ever-changing set of regulations. Note that for both the provider and supplier, demand planning ranks at the bottom of the list. No party in the healthcare value chain rates themselves high on planning.

Interestingly, as shown in figure 4, while the manufacturer's supply chain organization was formed in the mid-1990s and the hospital's supply chain organization is newer, hospital providers report feeling far more familiar with their own supply chain than do manufacturers.

Figure 4. Respondent Familiarity with Their Own Supply Chain



Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)

Base: Healthcare providers (n=68), Healthcare manufacturers (n=37)

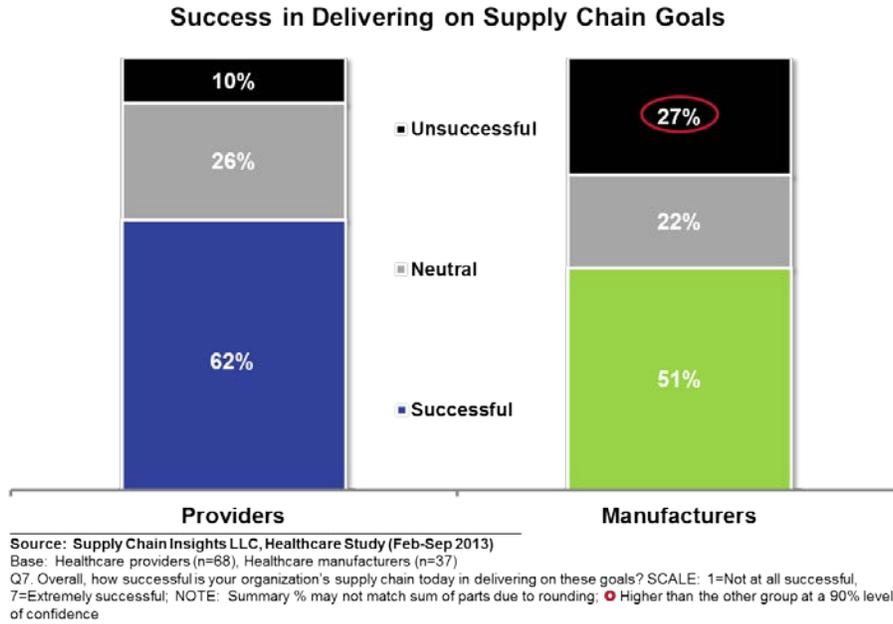
Q3. How familiar are you personally with the supply chain in your organization?

NOTE: Respondents had to rate themselves at least a 3 on a 7-point scale in order to qualify for the study.

● Higher than the other group at a 90% level of confidence.

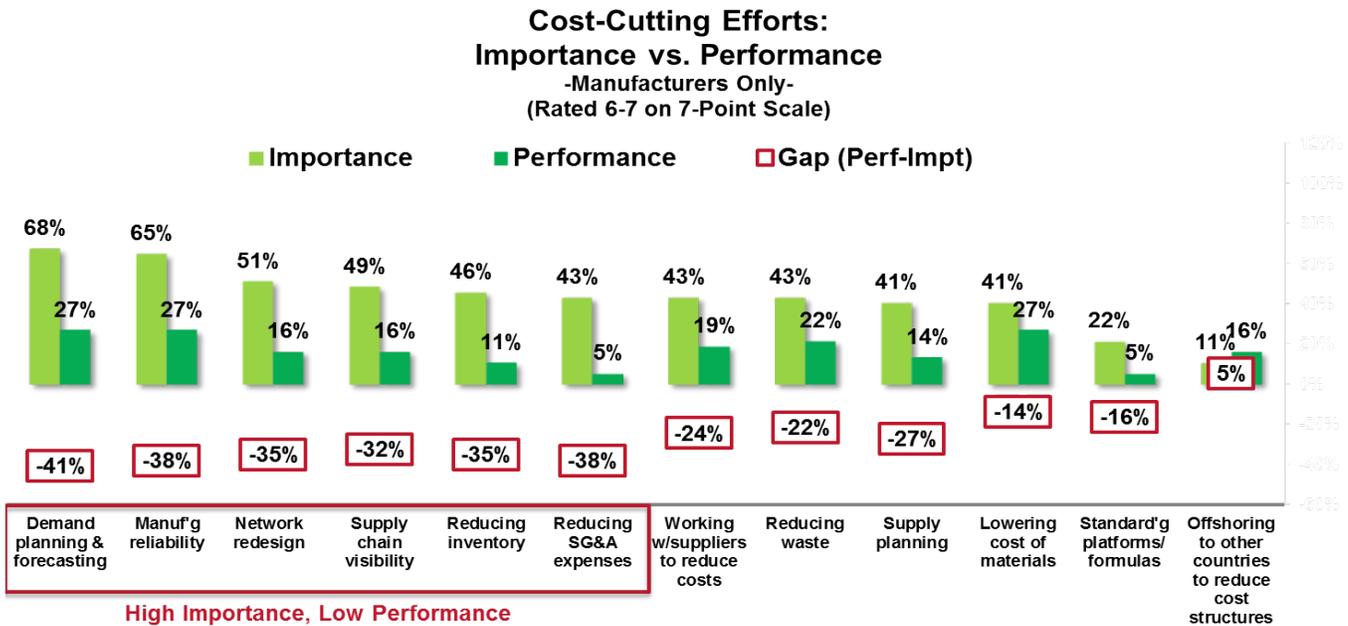
Ironically, despite the larger size of the supplier's organization, and the higher margins, the manufacturer rates itself significantly worse in their ability to deliver on their supply chain goals than the provider. A major factor is the gap between the supply chain and commercial functions within the manufacturer's organization. For many suppliers the supply chain has taken a back seat. The primary focus has been on R&D and the manufacturer has been less willing to own the entire supply chain.

Figure 5. Self-Assessment of Supply Chain Performance



Not surprising, as shown in figure 6, suppliers rate themselves low in the basics of supply chain cost-cutting efforts. Major gaps exist in demand planning, manufacturing reliability and network design. Many are involved in long ERP roll-outs. The length of time of the deployment is an opportunity cost to the organization and is sapping the organizations' ability to build supply chain muscle at the core.

Figure 6. Supplier Gaps between Importance and Performance of Cost-Cutting Efforts



Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare manufacturers (n=37)
 Q20. How would you rate the importance of each of the following when it comes to lowering overall costs of your organization? SCALE: 1=Not at all important, 7=Extremely important; Q21. How well does your organization perform on these same cost-cutting efforts? SCALE: 1=Poor, 7=Excellent

Recommendations for Suppliers

With the Affordable Healthcare Act happening in the United States, and falling margins for suppliers, there is a compelling need to ACT quickly. They need to step up to the plate and provide the leadership that has been missing in this value network over the course of the last decade. It is time for the suppliers of goods and services to the healthcare value chain to get serious about supply chain management. Here we provide four recommendations:

1. **Close the Gap between the Supply Chain and the Commercial Teams:** Parties in the healthcare value chain need to start outside-in and redesign sales incentives with a focus on patient outcomes. They need to take a hard look at traditional processes and incentives that rewarded sales to physicians. The healthcare system has the most complicated rebate and incentive system for bifurcated trade which creates waste and inefficiency. This needs to be rethought as it adds unnecessary complexity to a struggling industry.
2. **Invest in Supply Chain Basics.** Most manufacturers in the healthcare value chain are five to ten years behind other industries in the management of demand and the design of value networks. There is a need to focus end-to-end to deliver value-based outcomes. To streamline the time to market, the suppliers should not hijack their planning systems waiting for the completion of ERP investments. As medical device and pharmaceutical supply chains get more complex, they need to quickly mobilize to use new technologies. This includes cloud-based planning systems for attribute-based forecasting, what-if analysis for Sales and Operations planning, and the aggressive design of supply networks to improve flexibility including push-pull decoupling points and the analysis of the form and function of inventory.
3. **Build New Business Models. Seize the Opportunity.** With revolutionary technology advances on the horizon—like 3-D printing and cell regeneration, and the evolution of wearable devices—the healthcare supplier has a new opportunity to focus on value-based outcomes and serve the patient. Suppliers to the healthcare industry should be aggressively studying and rethinking supply chain practices against these new and emerging value-network opportunities.
4. **Invest in Inter-Enterprise Systems of Record.** With visibility in the healthcare channel so poor for manufacturers, there should be growing excitement about the evolution of inter-enterprise systems of record to improve the processes for the implantable device supply chain to increase visibility into highly dynamic case scheduling of patients, and the associated demand and supply usage that is being provided by the Global Healthcare Exchange (GHX). This type of system innovation offers promise to manufacturers, but will only be successful if they are able to bridge the gap between the sales and supply chain teams within the manufacturing organization.

Recommendations for Providers

For the healthcare provider, there is a compelling value proposition to work with suppliers to bring innovation to their patients and improve medical outcomes. Here we share four recommendations:

1. **Bring Suppliers to the Table.** Focus on value-based outcomes for patients. Force suppliers to build strong relationships not only with the physician and the buying organization, but also introduce the supplier's supply chain organization to the hospital's supply chain. Open up lines of communication and focus on structuring incentives to reward value. Use value analysis programs as the vehicle. Push suppliers to gain a better understanding of the provider's needs.
2. **Document What Is Used and Analyze Results.** Work collaboratively with suppliers to drive continuous improvement programs by tracking cause and effect.
3. **Share Data and Drive Supply Chain Innovation.** Share usage data with suppliers and push for inter-enterprise process improvement. Don't just push cost and waste backwards in the supply chain by forcing suppliers to hold inventory; instead, use new business models to design the supply chain to reduce the total inventories in the system. Aggressively work with medical distributors and trading exchanges to improve data sharing and the building of inter-enterprise outcomes. Adopt emerging industry standards and case management through GHX to improve data sharing.
4. **Encourage Muscle at the Core and Innovation at the Edge.** Work with suppliers to ensure that the organization has a good way to assess new techniques and products that can drive innovation and improve medical outcomes. Adapt value analysis programs to embrace innovation.

Conclusion

This is an industry where the basics of supply chain management could make a needed sea change quickly if there were an end-to-end based supply chain focus based on patient outcomes. However, the industry is in a gridlock. Suppliers, with higher margins and larger size, could step up and define new business models to improve patient outcomes, but no supplier has taken this initiative. In a similar fashion, hospitals, smaller and more fragmented, have more limited options, but they could actively participate in data sharing programs and work to change the legacy programs of suppliers to align supply chain to supply chain to make improvements. The industry is in a standoff of unequal partners.

Appendix

Prior Reports Related to this Topic:

[Supply Chain Metrics That Matter: A Focus on the Pharmaceutical Industry](#)

[Supply Chain Metrics That Matter: A Focus on Hospitals](#)

[Supply Chain Metrics That Matter: A Focus on Medical Device Manufacturers](#)

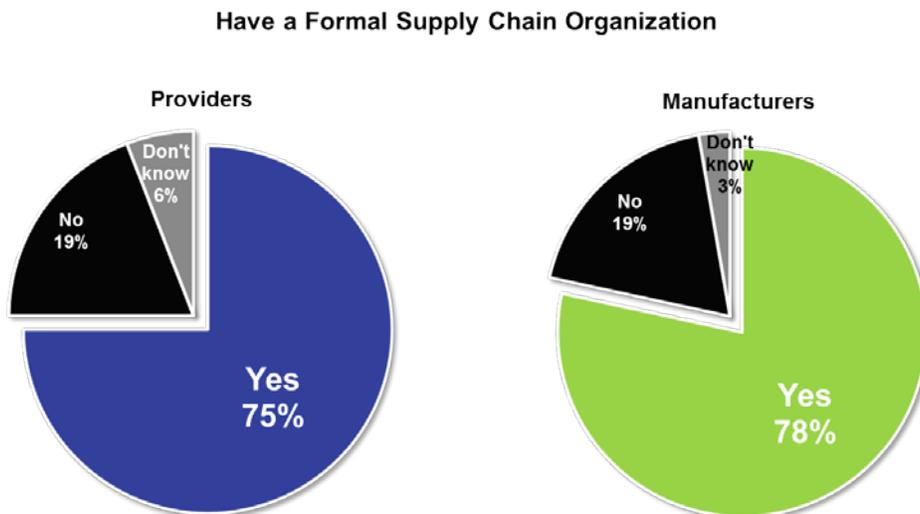
[How Do We Heal the Healthcare Value Chain?](#)

Demographics

In this section, we share the demographic information of survey respondents as well as additional charts referenced in the report. The participants in this research answered the surveys of their own free will. There was no exchange of currency to drive an improved response rate. The only offer made to stimulate a response was an offer to share and discuss the survey results in the form of Open Content research at the end of the study.

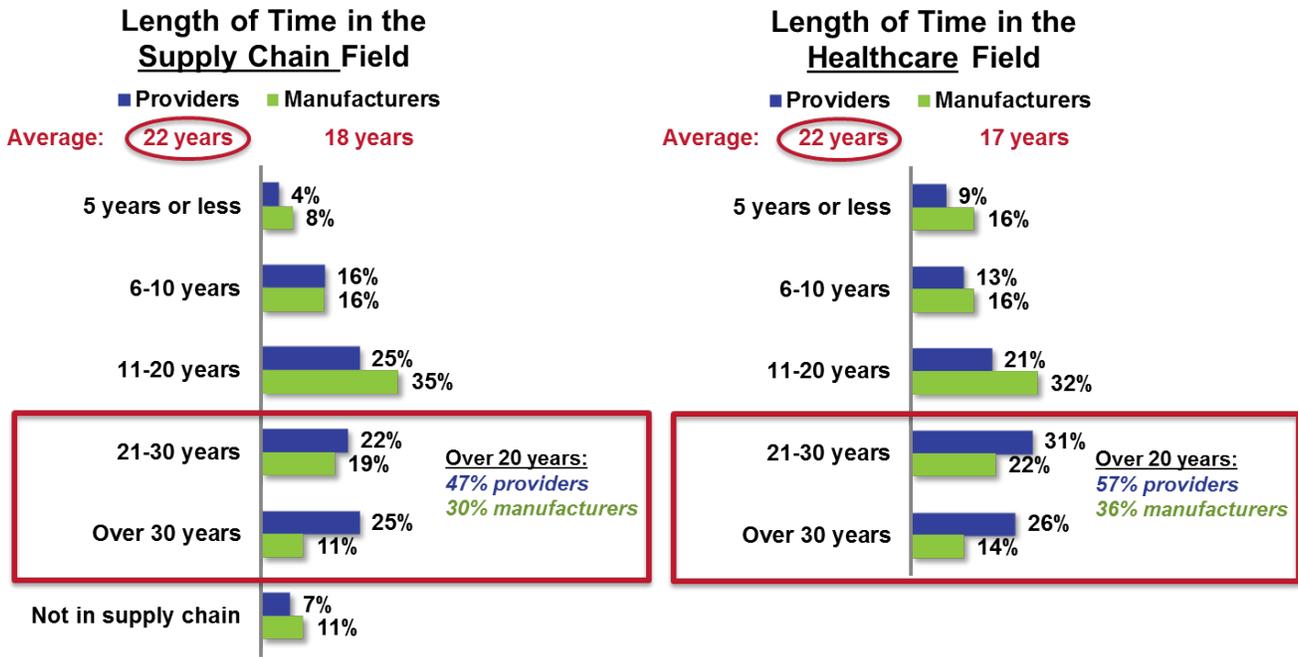
The names, both of individual respondents and companies participating, are held in confidence, but the demographics are shared to help the readers of this report gain a better perspective on the results. The demographics and additional charts are found below in figures A–L.

Figure A. Presence of a Supply Chain Organization



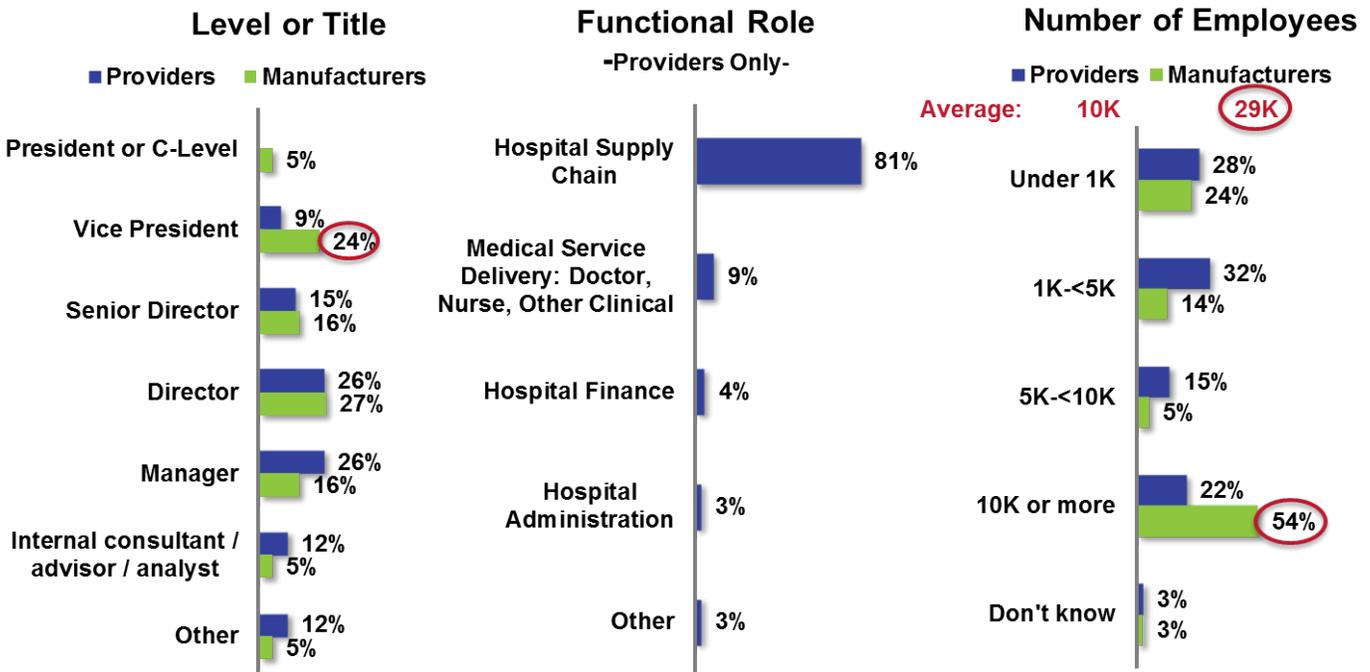
Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
Base: Healthcare providers (n=68), Healthcare manufacturers (n=37)
Q36. Does your company have a FORMAL supply chain organization?

Figure B. Tenure in Supply Chain Management and Healthcare Professions



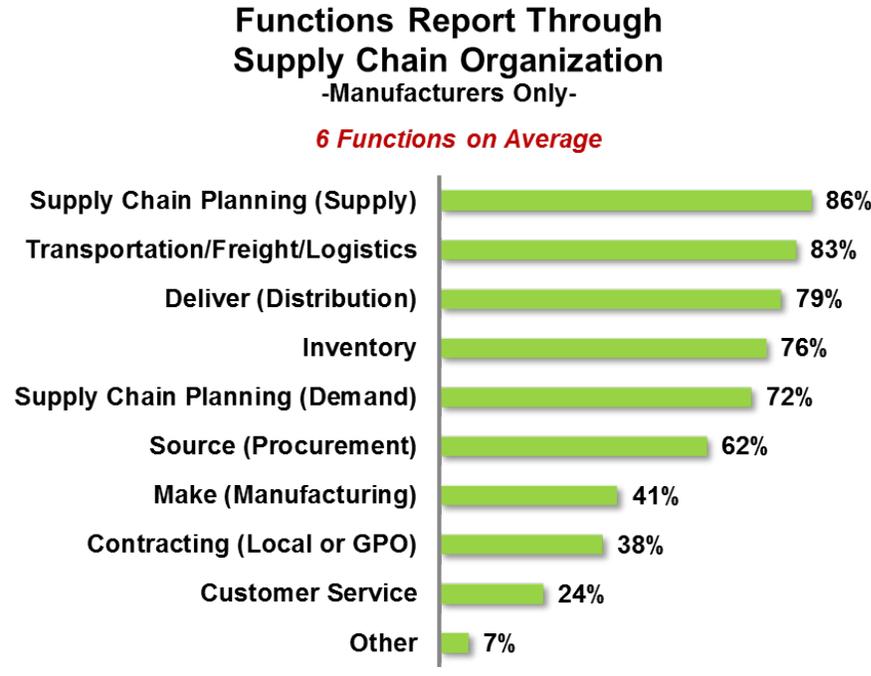
Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare providers (n=68), Healthcare manufacturers (n=37)
 Q47. For how long have you been a supply chain management professional? Q48. For how long have you been working in the healthcare field?
 Higher than the other group at a 90% level of confidence or higher.

Figure C. Overview of Demographics of Respondents Answering the Study



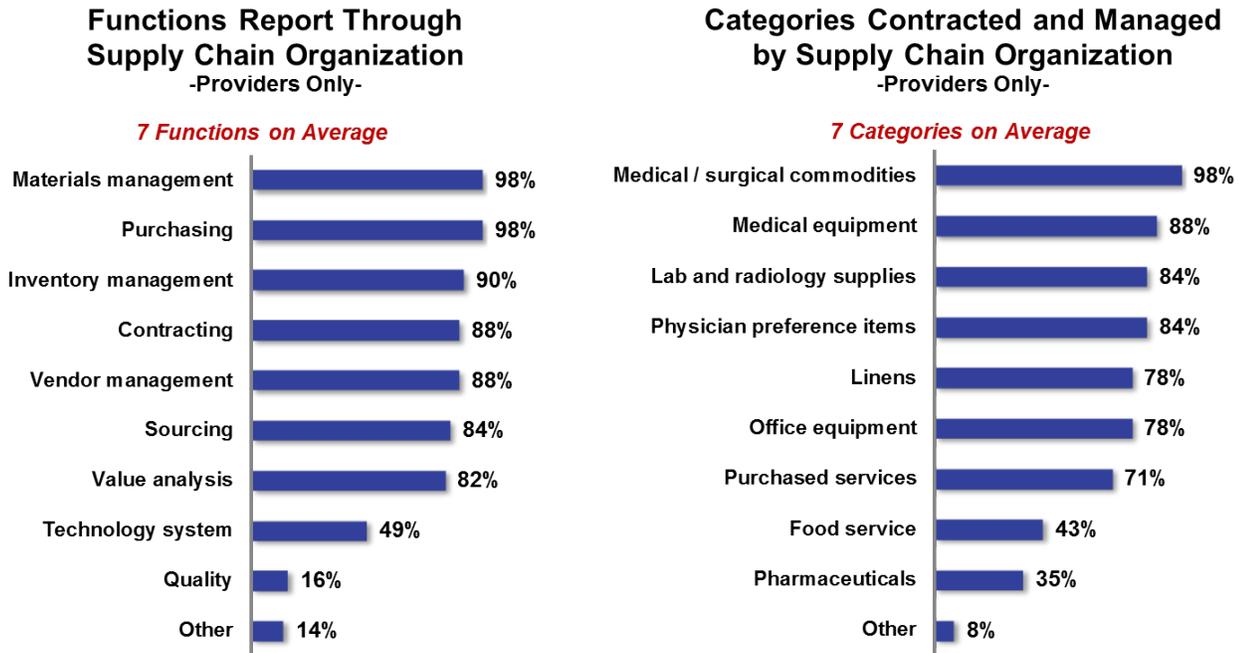
Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare providers (n=68), Healthcare manufacturers (n=37)
 Q46. Which of the following best describes your current level or title? Please pick the one that fits best. Q43. What is the size of your organization, in terms of number of employees? Please write in your best estimate below. OPEN-ENDED Q45. Which of the following best describes your functional role within your organization? Please select the one that fits best. Higher than the other group at a 90% level of confidence

Figure D. Composition of the Supplier's Supply Chain Organization



Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare manufacturers with supply chain organization (n=29)
 Q38. Companies define their supply chain organizations in different ways. Please tell us how your organization defines its supply chain by selecting which function(s) report through the supply chain organization. Please select all that apply.

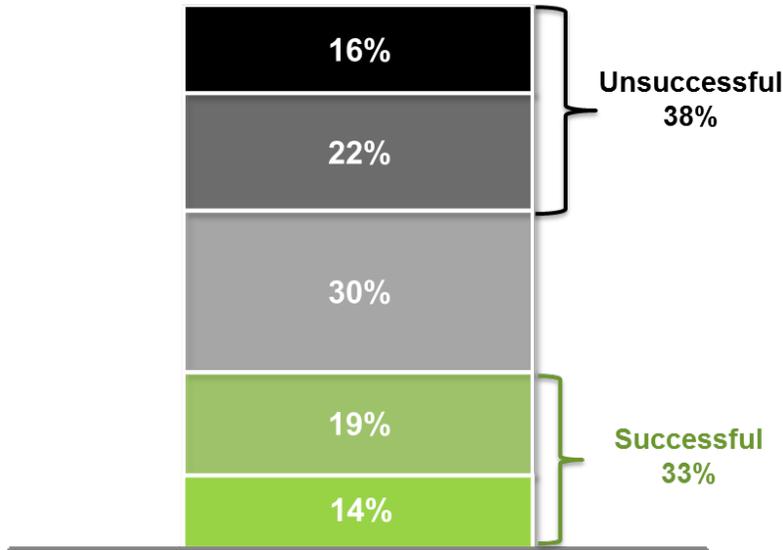
Figure E. Composition of the Provider's Supply Chain Organization



Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare providers with supply chain organization (n=51)
 Q39. Companies define their supply chain organizations in different ways. Please tell us how your organization defines its supply chain by selecting which function(s) report through the supply chain organization. Please select all that apply.
 Q40. For which of the following categories does your company's supply chain organization actively contract and manage in the delivery of patient services?

Figure F. Supplier's View on the Success of Integration of Sales and Supply Chain

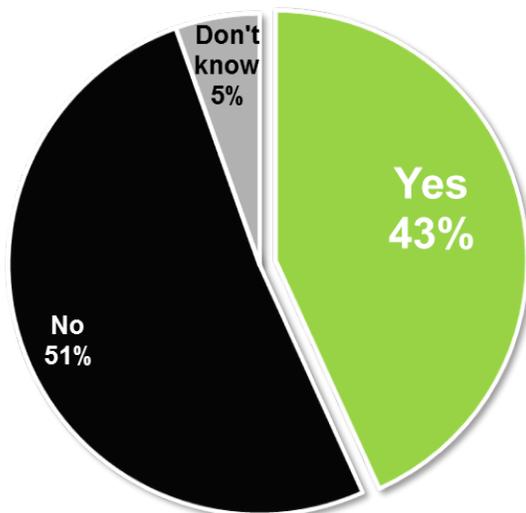
Ability to Integrate Supply Chain and Sales Processes
-Manufacturers Only-



Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
Base: Healthcare manufacturers (n=37)
Q29. How would you rate your organization on its ability to integrate the processes of supply chain and sales?

Figure G. Supplier Presence of Someone Responsible for the End-to-End Value Chain

Person Responsible for End-to-End Supply Chain
-Manufacturers Only-

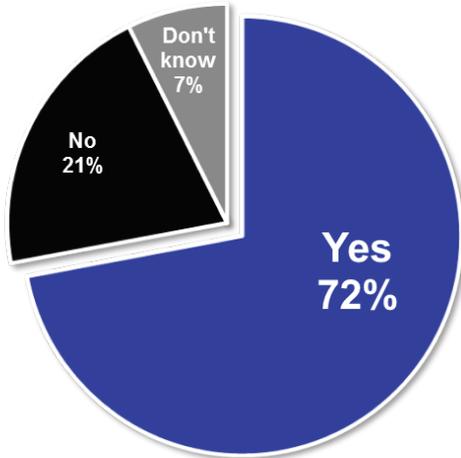


Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
Base: Healthcare manufacturers (n=37)
Q28. Does your organization have an individual who is accountable for the improvement of the end-to-end supply chain, from the customer's customer to the supplier's supplier?

Figure H. Provider Presence of Value Analysis Programs

Have a Formal Value Analysis Program or Group
-Providers Only-

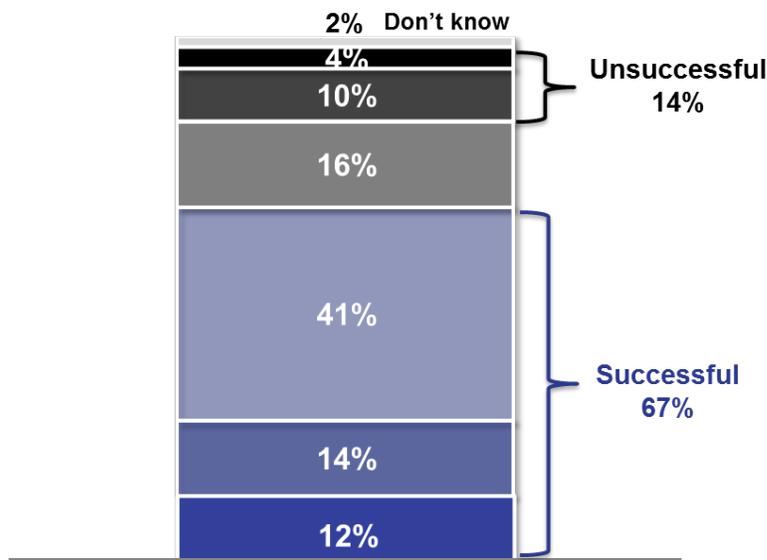
Value Analysis Program = where value analysis is focused on the selection of products and/or services



Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare providers (n=68)
 Q12. Does your organization have a formal value analysis program or group, where value analysis is focused on selection of products and/or services?

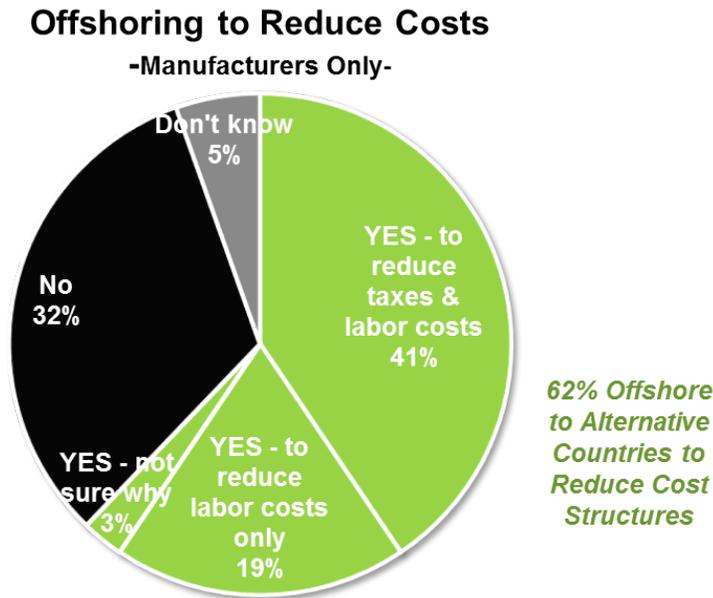
Figure I. Provider Assessment of Value Analysis Programs

Value Analysis Program Success
-Providers Only-



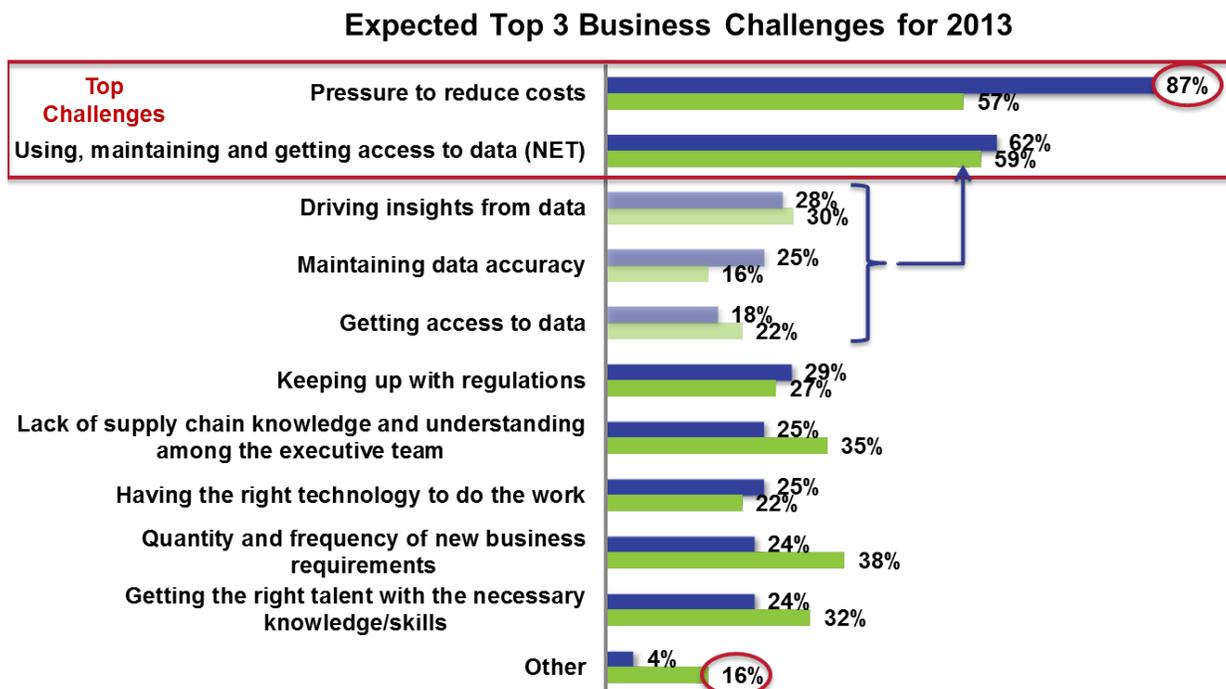
Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare providers with value analysis program (n=49)
 Q16. How would you rate the success of your organization's value analysis program or group, in terms of meeting the operating unit's goals? SCALE: 1=Not at all successful, 7=Extremely successful; NOTE: Summary % may not match sum of parts due to rounding

Figure J. Manufacturer Offshoring to Reduce Costs



Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare manufacturers (n=37)
 Q22. Do you offshore to alternative countries to reduce cost structures?
 Q23. Do you offshore to alternative countries in order to reduce taxes, labor costs or both?

Figure K. Expected Top 3 Business Challenges



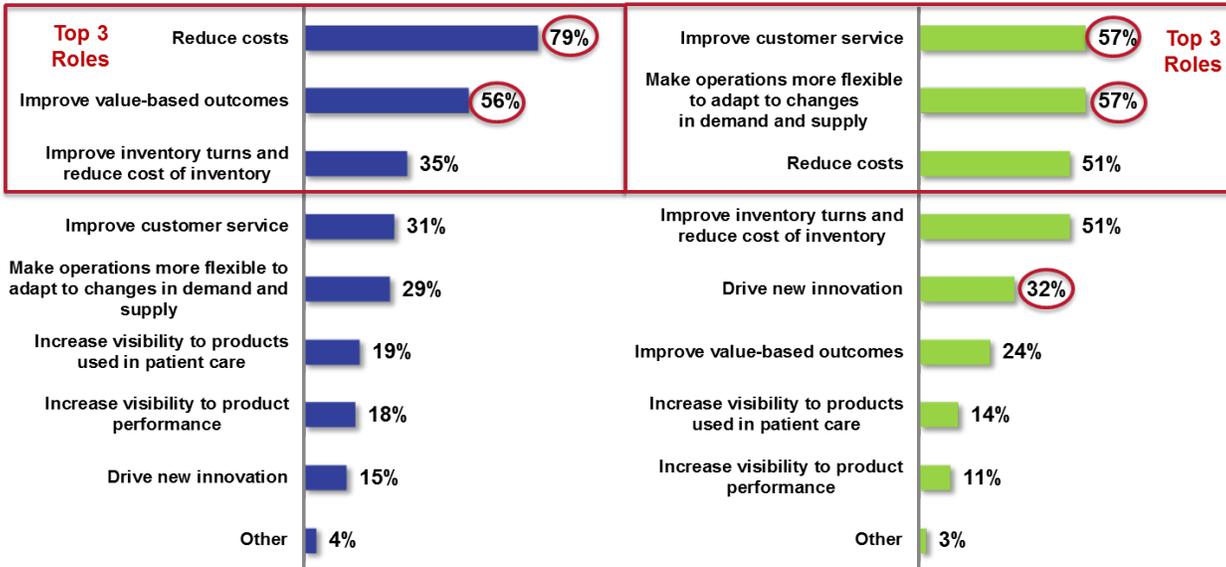
Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)
 Base: Healthcare providers (n=68), Healthcare manufacturers (n=37)
 Q5. What do you expect will be your organization's top 3 business challenges in 2013? Please select no more than three.
 ● Higher than the other group at a 90% level of confidence

Figure L. Role of the Supply Chain

Top Three Roles Supply Chain Can Play

Healthcare Provider View

Healthcare Manufacturer View



Source: Supply Chain Insights LLC, Healthcare Study (Feb-Sep 2013)

Base: Healthcare providers (n=68), Healthcare manufacturers (n=37)

Q6. As you think about 2013, what are the top three roles you believe the supply chain can play in your organization?

● Higher than the other group at a 90% level of confidence

About Supply Chain Insights LLC

Founded in February, 2012 by Lora Cecere, [Supply Chain Insights LLC](#) is focused on delivering **independent, actionable and objective advice for supply chain leaders**. If you need to know which practices and technologies make the biggest difference to corporate performance, turn to us. We are a company dedicated to this research. We help you understand supply chain trends, evolving technologies and which metrics matter.

About Lora Cecere



Lora Cecere (twitter ID [@lcecere](#)) is the Founder of [Supply Chain Insights LLC](#) and the author of popular enterprise software blog [Supply Chain Shaman](#) currently read by 5,000 supply chain professionals. Her book, ***Bricks Matter***, (co-authored with Charlie Chase) published on December 26th, 2012. She is currently working on a second book, *Metrics That Matter*, to publish in 2014.

With over nine years as a research analyst with **AMR Research, Altimeter Group, and Gartner Group** and now as a Founder of Supply Chain Insights, Lora understands supply chain. She has worked with over 600 companies on their supply chain strategy and speaks at over 50 conferences a year on the evolution of supply chain processes and technologies. Her research is designed for the early adopter seeking first mover advantage.