

An HSRC-ASU White Paper

HEALTH SECTOR SUPPLY CHAIN RESEARCH CONSORTIUM



Department of Supply Chain Management
W.P.Carey School of Business
Arizona State University
Tempe, Arizona 85287

Value for Money (VFM): Supply Chain Strategies and Potential Contributions¹

HSRC-ASU Staff:

Bushra Rahman, MBA, MHSM, Research Administrator
Eugene Schneller, PhD, Co-director
Natalia Wilson, MD, MPH, Co-director



¹ In May 2011 the Health Sector Supply Chain Research Consortium brought together a group of U.S. and international supply chain management experts to address three major themes associated with supply chain practice including (1) Innovation through purchasing, (2) Strategic thinking and strategic action in supply chain management and, (3) Transformation through practitioner/hospital/supplier/distributor alliances. This paper draws heavily upon the contributions made by the speakers and participants in that event. A full list of speakers and the agenda for that event appears in Appendix 1.

Oct 4, 2011

HEALTH SECTOR SUPPLY CHAIN RESEARCH CONSORTIUM



About HSRC-ASU

The Health Sector Supply Chain Research Consortium (HSRC-ASU) is a research group within the Department of Supply Chain Management at the W. P. Carey School of Business at Arizona State University. The Consortium was founded in 2004 to bring together health sector organizations and academic researchers to conduct research on topics related to the strategic management of the health care supply chain. HSRC-ASU embodies:

- **Research** – We engage in cutting-edge research on the health care supply chain.
- **Thought Leadership** – We function as a boiler room for new ideas to drive excellence and innovation in the health care supply chain.
- **Collaboration** – Our research is developed through collaboration with member organizations representing multiple stakeholders across the health care supply chain.
- **Industry Guidance** – HSRC-ASU research is responsive to industry needs and provides guidance and opportunity to raise the standard of management and policy practice surrounding the health care supply chain.

If you have comments on this paper or would like to learn more about HSRC-ASU please contact us at contacthsrc@asu.edu. Our website is wpcarey.asu.edu/hsrc-asu

Contents

Executive Summary	3
Overview	4
Study Background and	
Methodology	4
Research Findings	5
Discussion	14
Conclusion	16
APPENDIX 1	17
APPENDIX 2	18
APPENDIX 3	21

Executive Summary

As the U.S. health care system is challenged by changes brought about by health care reform and the difficult economic climate, achievement of “value for money (VFM)” has become an increasingly important concept depicting a health care system that seeks to achieve maximum benefit and quality for the funds it expends for both clinical and administrative services. This white paper, based on the HSRC-ASU 2011 Dissemination Conference, discusses six factors pertaining to achieving value for money including:

VFM 1 - Value for Money Is Achieved By a New View of the Organization of Care and New Payment Schemes

VFM 2 - Value for Money is Dependent upon Overcoming Fragmentation in Purchasing and Logistics

VFM 3 - Value for Money is Achieved By Having Information on Products and their Contribution to Care

VFM 4 - Value for Money is Dependent Upon Reducing Transaction Costs for Moving Products to the Point of Use

VFM 5 - Value for Money is Dependent Upon Suppliers Seeing Opportunity and Policies Supporting Innovation

VFM 6 - Value for Money is Best Managed Around Aligned Incentives

The importance of both vertical and horizontal collaboration is stressed across health care providers, suppliers and intermediaries in achieving savings as well as improved clinical outcomes.

Joining forces with similar partners (horizontal collaboration) and with those providing support for one's efforts (vertical collaboration) is a key to achieving value for money.

Overview

As the U.S. health care system is challenged by changes brought about by health care reform and the difficult economic climate, achievement of VFM has become a concept depicting a health care system that seeks to achieve maximum benefit and quality for the funds it expends for clinical and administrative services. One area, relatively ignored in the search for solutions, has been the health care materials supply chain. This is a curious omission, since costs of supplies and operational costs associated with the supply chain have risen significantly over the years. This paper written in follow-up of the HSRC-ASU 2011 Dissemination Conference, pulls-together observations and strategies associated with achieving VFM within the U.S. and considers the applicability of international strategies in the U.S.

A unique contribution of the paper is identification of a variety of collaborative efforts across the health care value chain. The suggestion is that changes and improvements in the system are attributable to the ability of competing and supporting entities to see and accrue advantage within a context of trust and mutuality of goals with such efforts requiring information exchange, the sharing of resources, openness and improved communication.²

Study Background and Methodology

This paper is grounded in qualitative research carried out in the fall of 2010 by Eugene Schneller and the deliberations and presentations at the HSRC-ASU 2011 Dissemination Conference under the guidance of Eugene Schneller, Natalia Wilson and Bushra Rahman. It reflects information proffered by experts on group purchasing who gathered from across Europe, the U.S and Canada at the International Meeting on Hospital Purchasing in Paris, France on September 7, 2010 and for the *International Association for Hospital Buyers and AsFAH (French association of Hospital Buyers)*. Information was also gathered in the course of over 20 interviews, utilizing the interview guide in Appendix I with hospital and group purchasing organization (GPO) leaders as well as academic informants in France, Holland, Italy, Portugal and the U.K. Extensive notes from these interviews were transcribed and serve as the basis for many of the observations. This report does not provide a full accounting of the information gathered but is focused around the general principles pertaining to achieving VFM.

In the spring of 2011 key European leaders were invited to participate in the HSRC-ASU 2011 Dissemination Conference (Appendix 1). We are especially grateful to Christine Harland, University of Bath; Scott Pryde, ExoRoc Solutions; and Manuela Consito, University of Turin who traveled to the U.S. to provide information at the conference and to reflect upon our observations of the

² Mark Barratt, Understanding the Meaning of Trust in the Supply Chain, Supply Chain Management: An International Journal. Vol. 9: 1, pp.30 - 42

VFM1-Value for Money is Achieved By a New View of the Organization of Care and New Payment Schemes.

Collaboration across the care continuum is the key to success requiring feedback from both patients and analysis of the outcomes of care.

potential contributions of the European experience to the U.S. We also learned a great deal from the academic writings on the European health care landscape. Impressions of the U.S. and European experiences were presented by Eugene Schneller in seminars at the University of Bath, University of Turin, Porto University and Imperial College London. Feedback from the many executives and students at those seminars has been invaluable in gaining a better understanding of the health care environment. Finally, it is clear that European countries have frequently looked toward the U.S. for guidance. Many have adopted DRGs as a way to better understand their delivery of health care and are looking to the U.S. for information technology to better carry out transactions and become more strategic. While U.S. lead in these areas is notable, the attention across Europe to driving innovation through purchasing, developing regionalized models for group purchasing, and collaboration strategies provide notable opportunities for cross-Atlantic collaboration. We hope that this report is a first step in that direction.

Research Findings

VFM 1 - Value for Money Is Achieved By a New View of the Organization of Care and New Payment Schemes

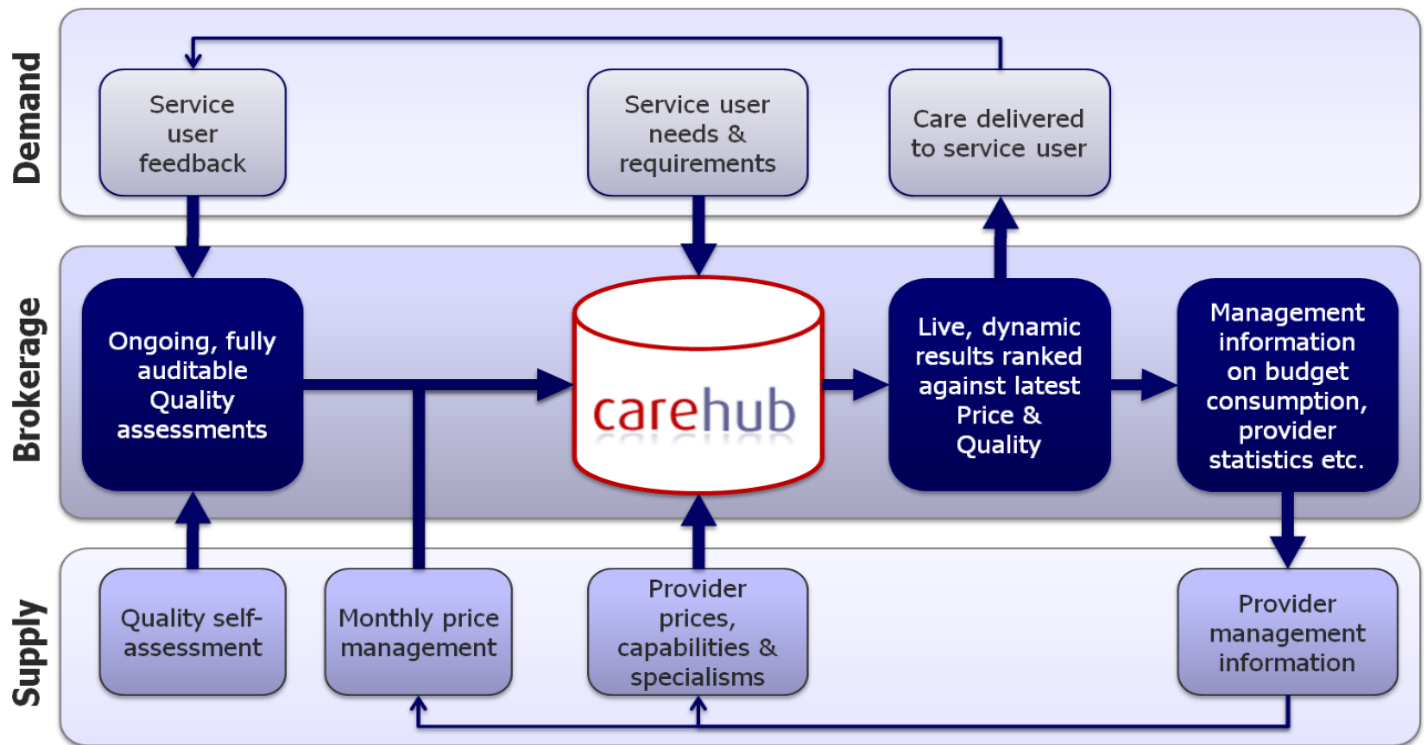
Payment for health care services has frequently been focused on episode of care with emphasis on hospitalization. In the U.S. and increasingly in Europe, DRG systems have been utilized to encompass the costs associated with such patient encounters. Accountable care organizations (ACOs) in the U.S. and “care hubs” in the U.K. have shifted focus to the patient moving through the health care system, in and outside of the acute care environment, with contributions by participating entities to optimize care for the patient.

The idea of bundled payments challenges clinical and business managers to develop plans to sustain, if not improve quality of care, and reduce cost. This is an environment demanding, for the first time, high levels of accountability for evidence basis, quality and cost. It considers the constellation of services and products associated with a patient’s illness and recovery. As purchasers of services and materials will be highly incentivized to seek the best performing entities, there is little doubt that the ability to collaborate, both formally and informally, across care and supply platforms will be a prerequisite to become a best performing entity.

Figure 1, developed by Scott Pryde, an analyst working principally in the U.K. at ExoRoc,³ captures many of the dynamic environment requirements for achieving accountability in the materials supply chain. Patient feedback and timely (if not live) results from the clinical environment will be necessary to capture the consequences of integration and collaboration for patient care and to craft a more comprehensive picture for achieving accountability.

³ <http://exoroc.com/default.aspx>

Figure 1- The Dynamic Environment of Accountability



Source: "Using Data to Drive Strategic, Business and Clinical Performance", Scott Pryde, ExoRoc, Presentation at the 2011 HSRC-ASU Dissemination Conference.

VFM – 2 Value for Money is Dependent upon Overcoming Fragmentation in Purchasing and Logistics

Fragmented purchasing and logistics strategies reduce the opportunity to bring buyers and sellers together to (1) reduce costs associated with the supply chain function and (2) achieve both clinical and broader policy goals through purchasing. Within the U.S. and abroad, collaborative purchasing continues to provoke interest and scrutiny by policymakers, buyers and sellers.

In the U.S. several decades of group purchasing efforts have led to a consolidated set of organizations engaging in collaborative purchasing, especially in the area of commodities. While there is variable penetration of collaborative purchasing efforts across Europe, there is, as in the U.S., a strong interest in designing and refining group purchasing platforms to achieve the best VFM. Such refinement includes decision making as to the best geographical and governance configuration for collaborative purchasing platforms. In England, as described by Christine Harland from the University of Bath's Centre for Research in Strategic Purchasing and Supply, there has been a measured consideration regarding the benefits of centralization or decentralization of purchasing efforts and their privatization. This is reflected in the recent decommissioning of the national Purchasing and Supply Agency (PASA) and its privatization in collaboration with DHL. It is also reflected in HealthTrust Purchasing Group's (HPG), recent efforts, as described by Ed Jones, Chief Operating Officer, to manage one of the largest U.K. purchasing hubs.

As depicted by Manuela Consito, assistant professor in Administrative Law, University of Turin, Italy, there are both national and regional purchasing groups in Italy, Holland, and other European nations. In the U.S. there is a strong belief that regional and national groups can be complimentary and in fact by having unique competencies and capabilities different levels of purchasing groups have the potential to provide value to one another. Large GPOs have worked to take advantage of the opportunities posed by developing regional groupings to secure enhanced contract pricing and services in return for contract compliance. How large national groups as compared to regional entities actually drive

VFM – 2 Value for Money is Dependent upon Overcoming Fragmentation in Purchasing and Logistics.

Touting the idea of mutualisation, an attentiveness to the bringing together of buyer and supplier centric incentives, is critical to both avoid cost and to set the stage for innovation to meet cost, clinical and policy goals.

The London Consortium of Academic Medical Centers demonstrates that competitors even in the same environment, can mutually employ strategy and technology to work together (horizontal collaboration) and with suppliers (vertical collaboration) to achieve value for money.

value and collective opportunities, benefiting the broader system, remains unexplored.

The benefits of collaborative/group purchasing, especially for the buyer (hospital and system), have long been studied. Given sustained membership in such organizations by the vast majority of U.S. hospitals and systems, participation in such group contracts is, in the eyes of the purchaser, associated with enhanced value. From a supplier perspective, the benefits have been less studied. To our knowledge, there are no published studies of supplier derived benefits from collaborative purchasing nor is there scrutiny of how collaborative purchasing can buffer strained agency relationships between buyers and sellers or contribute to a less fragmented marketplace. European GPOs have come together to further the idea of “mutualisation” in buying as a means to optimize VFM. Mutualisation is a very descriptive term referring to an enhanced vision for collaborative/group purchasing. It is, on the one hand, a buyer-centric concept since it seeks cost avoidance through supplier consolidation, supplier base reduction and supply rationalization and seeks to achieve greater transparency due to symmetry of information. It also involves the pooling of volumes; avoiding unleveraged and “maverick” spends through contract compliance; outsourcing from a single unit to a large purchasing entity; pooling skills; and pooling risk & obligation to community/members. On the other hand there is a strong belief that mutualisation will reduce costs to suppliers, drive innovation and better engage suppliers in the provision of services (ie., vertical integration between buyers and sellers). Under European purchasing directives, there is a broader “societal-centric” focus, beyond dollar savings to achievement of sustainability goals, support of evolution and success for small and medium entities (SMEs), and drive of innovation in products and services.

Collaborative efforts in logistics are only emerging in the U.S. and abroad. Outsourcing of distribution as exemplified by Cardinal’s management of distribution at the hospital at University of Nebraska Medical Center, documented by Schneller and Smeltzer, has not proliferated in the U.S. Similarly full outsourcing of purchasing to GPOs remains a relatively rare occurrence. Rather hospitals and systems tend to be very selective in their choice and use of partnerships. Paul Higday, Owens and Minor’s Chief Architect & Director, External Systems, points out that Owens and Minor has sought to bring savings to hospital systems through innovative pricing models whose success is dependent on strong collaboration between the hospital system and Owens & Minor. The London Consortium of Academic Medical Centers, a group of four competing academic health centers that collectively own a warehouse facility illuminates the benefits by which suppliers can gain better visibility into the utilization of supplies, reduce the costs of distribution and more efficiently service the competing organizations. This is a good example of a mixed strategy involving vertical collaboration (hospitals working with suppliers) and horizontal collaboration (competing hospitals working together). By working together these organizations have

VFM 3- Value for Money is Achieved by Having Information on Products and their Contribution to Care.

Advocacy for the establishment of clinical standards of care challenges buyers to consistently work with clinicians to assure that their purchasing efforts match evidence.

The establishment of clinical standards of care provides suppliers with incentives for innovation and an opportunity to adjust their strategies for engaging the marketplace and purveyors of information to meet clinician and patient needs.

incentivized suppliers to deliver pallet level goods rather than store goods in small quantities for delivery to the individual entities, made suppliers responsible for their own costs, incentivized their collaborative warehouse effort to become accountable in driving savings, and have reduced the number of SKUs by over 200. In recent months, under the guidance of David Lawson, Director of Procurement at Guys and St. Thomas Hospital, the London Procurement Program has been launched, bringing together London hospitals and primary care practices, to benefit from collaborative purchasing. Similar efforts are in progress in France, Portugal and other European countries.

VFM-3 Value for Money is Achieved by Having Information on Products and their Contribution to Care

Over the last decade there has been increased interest in documentation of best clinical practices, development of clinical guidelines and dissemination of findings into the clinical arena. In the U.K., the National Institute for Health and Clinical Excellence (NICE) has scrutinized practices as well as materials. In the U.S., comparative effectiveness research (CER) is viewed as an avenue to provide evidence basis to clinical decision-making and provide information for clinicians, policymakers and patients.

Scott Pryde identified a variety of factors affecting the ability to carry out CER including:

1. Increasing meta evidence /economic sources
2. Emerging policy & business implications
3. Aligned outcome & benchmark spend data already 'in-play'
4. Availability of outcomes & spend datasets
5. Supply chain efficiency & safety registers
6. The lack of global standards/nomenclature for products

As in other industries where buyers count on supplier innovation to help accomplish their product development and economic goals, achieving VFM is dependent on the existence of upstream/downstream information exchanges on unmet patient need and a need for products to meet the goals of safety, value and affordability.

Scott McCallum, Vice President of Global Corporate Sales, Boston Scientific, suggests that a variety of changes, including strengthening of hospital physician relationships, increased physician employment, and reimbursement schemes that allow for gainsharing (as one strategy for cost reduction) are motivating hospitals and physicians to develop more collaborative relationships that drive product and service development. McCallum provides deep insight into the necessity of integrating the clinical and economic voices of the supply chain customer. (Table 1)

Table 1 – The Clinical and Economic Voice of the Customer

	Clinical Voice as Customer	Blended Clinical and Economic Voice as Customer
Product Development	Clinically Feature rich	Tiered Portfolio with Expanded Options
Cadence of Information	Continuous Incremental Improvement	Shift Towards Breakthrough Innovations
Services	Product Focused	Comprehensive Product & Supply Chain
Sales Model	Siloed Clinical Support & Education	Integrated Clinical & Economic Service
Research & Education	Clinical Efficiency	Evidence Based Medicine
Distribution	Direct	Channel Flexibility

Source: “Innovation in the Supplier Environment”, B. Scott McCallum, Boston Scientific, Presentation at the 2011 HSRC-ASU Dissemination Conference.

While CER studies have been conducted for years, systematic support for CER (as funded by the American Recovery and Reinvestment Act of 2009 and the Affordable Care Act) looking at the spectrum of treatments for a clinical condition, is in its early stages. It is important to recognize that the extension of such research to the isolation of specific products is at an even earlier stage. Studies on side-by-side comparisons of similar products used for a particular clinical procedure are relatively few in peer-reviewed literature. Enlightened suppliers for devices, recognize that such study can provide competitive advantage and provide the stimulus to invest deeply in research and development (R&D) for achieving products that are superior.

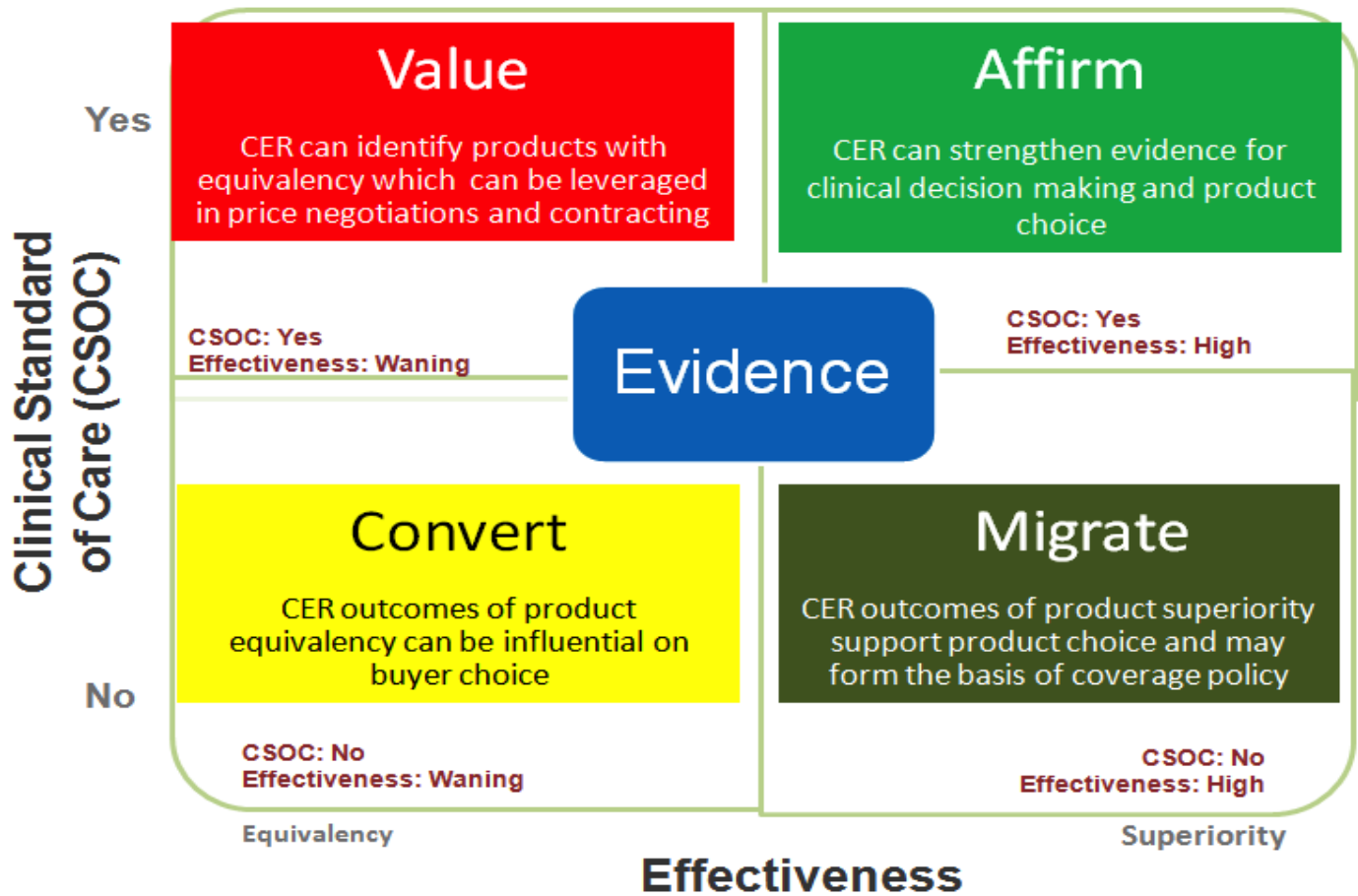
Figure 2, developed by Eugene Schneller, Co-director HSRC-ASU, characterizes the consequences for supplier engagement when clinical evidence and a standard of care are present or absent along with availability of evidence of product superiority or equivalency. For products where an existing clinical standard of care supports their use and data is available supporting product effectiveness (Affirm), suppliers find themselves in a strong marketplace position with buyers who are increasingly confident that their clinical constituents have good reason to exercise preference. Alternatively, when there is no existing standard of care and no data supporting product differentials, suppliers will be disadvantaged in their ability to attract physician loyalty/preference and will find it necessary to compete (Compete), not just on the basis of product but on service pertaining to the management of the product in the clinical environment including order, inventory and payment management and by providing education and other clinical support. Similarly, buyers will utilize standard of care and product equivalency information in their value analysis team efforts and subsequent collaborative efforts with clinicians in product selection and in negotiations with the supplier community.

VFM – 4 Value for Money is Dependent Upon Reducing Transaction Costs for Moving Products to the Point of Use.

Future success in distribution is highly dependent on the development of new technologies and strategies to improve system performance. It is also dependent on using technology in a “smart way.”

The use of automated dispensing cabinets to provide information both upstream to the distributor and supplier and downstream to the hospital, regarding cost and utilization, suggests the value in seeking further benefits from technology.

Figure 2-Information Impacts Strategy As A Result of CER



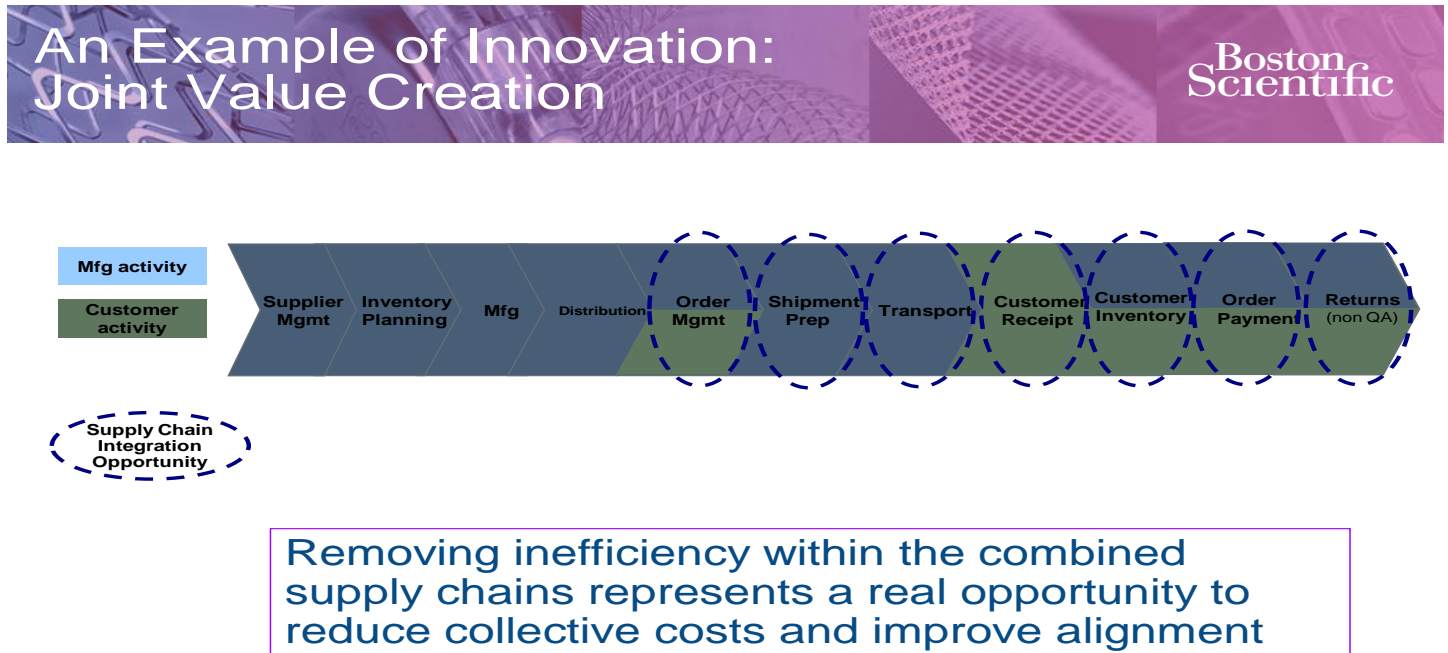
Source: “Changing European Landscape Through Innovation and Purchasing”, Eugene Schneller, HSRC-ASU, Presentation at the 2011 HSRC-ASU Dissemination Conference.

VFM – 4 Value for Money is Dependent Upon Reducing Transaction Costs for Moving Products to the Point of Use

The health care supply chain is characterized by high costs for multiple reasons including the impact of advancing technology on product costs, lack of collaborative relationships, lack of comprehensive alignment between provider organizations and clinicians, the inability to comprehensively track and capture product movement and cost across the supply chain, inconsistent data and fragmented Information Technology (IT), insufficient connectivity and data, the absence of unique device identification (UDI) and unresolved difficulties associated with order transactions and distribution inefficiencies. Development of joint value creation between buyers and sellers, as detailed in Figure 3, and the adoption of global UDI holds out promise for greater efficiency and reduction of transaction costs. While not fully reaching this potential is frequently attributed to a variety of technical infrastructure barriers, the lack of a business case for bridging the gaps along the supply chain remains a principal barrier to progress.

IT fragmentation and lack of connectivity is an issue in the U.S. as well as within and between European countries. Although some IT companies in the U.S. have helped to bridge the gap, full implementation of these systems has not taken place. IT fragmentation is even more pronounced across the 27 European health care systems, making it difficult for suppliers to craft solutions that are common to multiple partners. This leads to expensive and unnecessary duplication of effort.

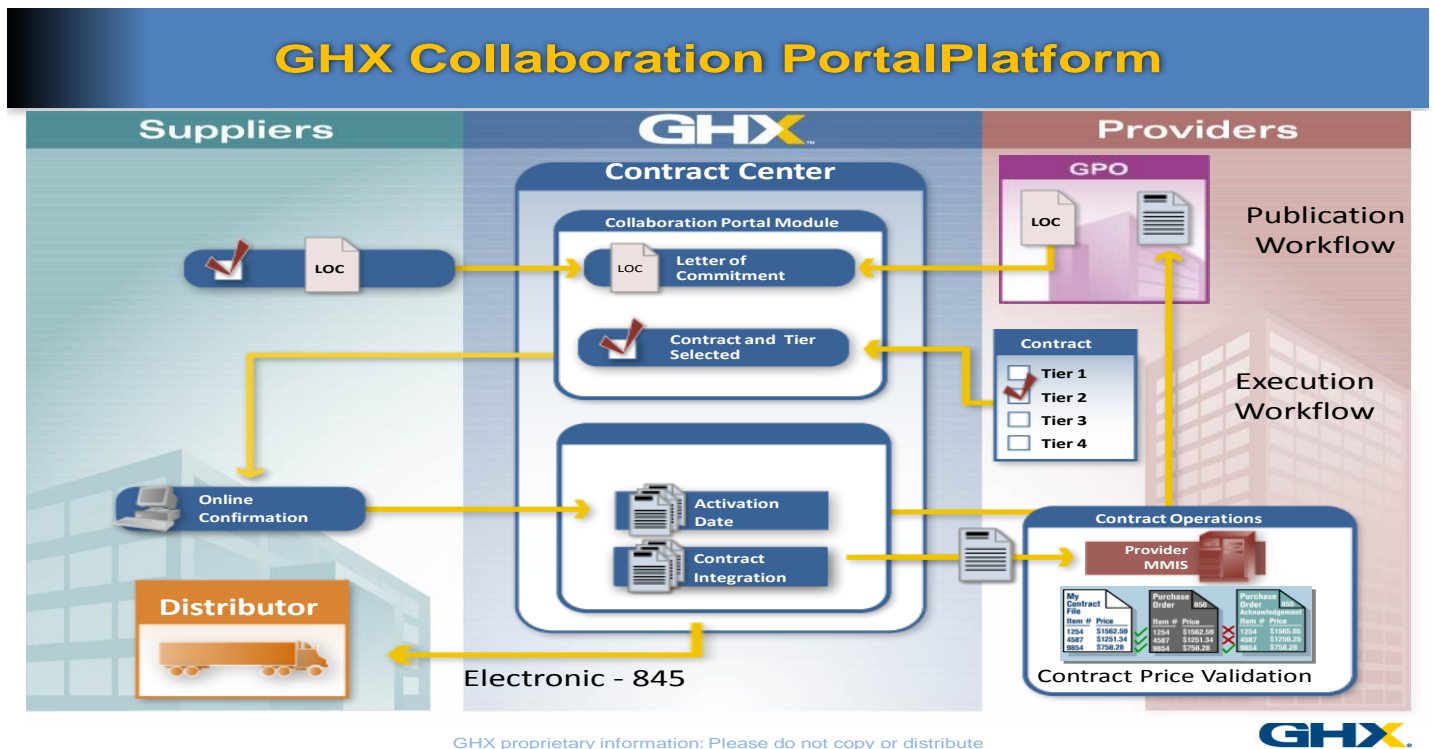
Figure 3-Joint Value Creation



Source: "Innovation and the Supplier Environment", B. Scott McCallum, Boston Scientific, Presentation at the 2011 HSRC-ASU Dissemination Conference.

Lack of global product labeling and nomenclature standards, information technology system standardization and duplicative contracting efforts multiply the challenges faced both in the U.S. and Europe. Leigh Anderson, Chief Technology Officer for GHX, has described how its Global Collaboration Platform (Figure 4) works to overcome some of the fragmentation that inhibits implementation of collaborative strategies.

Figure 4-GHX Collaboration Portal Platform



Source: "Supply Chain Innovation and Technology", Leigh Anderson, GHX, Presentation at the 2011 HSRC-ASU Dissemination Conference.

Collaborative efforts at the aforementioned London Consortium of Academic Health Centers suggests that mutualisation can extend beyond purchasing and contracting to yield other supply chain efficiencies for competing organizations within the same geographical proximity. Automated dispensing cabinet technology is an important London Consortium investment to allow capture of utilization data that supports demand planning and the need for products in the collective distribution center. This is consistent with the observation of Paul Higday from Owens & Minor that future success in distribution is highly dependent on the development of new technologies and strategies designed to improve system performance.

VFM – 5 Value for Money is Dependent Upon Suppliers Seeing Opportunity and Policy Development Supporting Innovation.

Innovation in product design and impact is key to improving health care system performance. Critical for advancement is (1) buyers working much more closely with suppliers to articulate the value they are seeking through purchasing and (2) payors and policymakers giving greater attention to development of policy to stimulate innovation in the supply market .

VFM – 5 Value for Money is Dependent Upon Suppliers Seeing Opportunity and Policy Development Supporting Innovation

The increased focus on evidence basis/CER as well as increased sensitivity to VFM is leading to recharacterization of the buyer-seller relationship. As detailed above, the buyer-seller relationship is evolving into one with a blended clinical, economic and policy-driven voice. New consideration for the buyer is to secure products that contribute to quality patient care, satisfy clinician acceptability and provide economic value. New consideration for the supplier is to engage in R&D to innovate new products to support this tripartite and to engage the buyer on the basis of product contribution to patient care (Figure 2). Additional considerations for the supplier are to compete on the basis of intangible product related benefits such as service and flexibility. Within the European Union (EU) public procurement policy provides guidance for achieving VFM. EU directives have strong provisions for inclusion of SMEs and contracting rules are designed to encourage and accommodate innovation. In nations where health care receives high levels of public funding, health care is an obvious target for spending reform. EU documents⁴ challenge suppliers to meet demands associated with the need for lower cost goods, achieving sustainability goals, improving clinical outcomes and advancing the role of SMEs and developing highly innovative products. In the U.S. there will be a need for increased attention by providers to achieving successful levels of accountability as the 65 proposed clinical quality measures for ACOs are finalized by the Medicare program.⁵

Suppliers who can demonstrate the contribution of their product to achieving the above goals will have a distinct strategic advantage. The Center for Medicare and Medicaid Innovation, established under the Affordable Care Act is designed to test care and payment models to achieve better health at lower costs.⁶ Innovative products contribute to improving the health and experience of care for individuals. The Center however has not yet recognized the materials environment as a target for improved care through product innovation.

⁴ Gabriella Racca, Collaborative Procurement and Contract Performance in the Italian Healthcare Sector:

Illustration of a Common Problem in European Procurement, Public Procurement Law Review, 3, 2010. 119-133.

⁵ U.S. Department of Health and Human Services, Improving Quality of Care for Medicare Patients: Accountable Care Organizations. ICN 906104, April 2011. P. 1

⁶ See: <http://innovations.cms.gov/>

VFM – 6 Value for Money is Best Managed Around Aligned Incentives.

Opportunities for alignment is achieved as physicians are employed by the hospital and incentivized to meet goals associated with high quality patient care and financial viability. Supply chain managers must recognize this as an important opportunity for engaging clinicians in collaboration, if not in co-management efforts.

VFM – 6 Value for Money is Best Managed Around Aligned Incentives

In progressive systems in the U.S. and abroad, supply chain professionals are being rewarded for orchestrating the alignment of the purchasing function with important business and clinical efforts as well as with the hospital mission.⁷ This has led to greater insight into the value that the supply chain can bring to the provider organization. Alignment of goals across the organization is facilitated by the performance rewards for supply chain leaders being linked to improvement in supply chain specific metrics and supply chain’s contribution to broader organizational mission and goals. Further internal alignment is achieved as physicians are employed by the hospital and incentivized to meet goals associated with high quality patient care and financial viability. This is an environment in which both supplier and buyer are challenged to improve their levels of efficiency, without compromising quality.

Discussion

Can VFM drive further efficiencies and innovation in the supply chain arena? Across many sectors of the economy, product and component design are driven by purchasers seeking products that meet goals for satisfying customer expectations. In demanding innovation and VFM they work with suppliers to meet their expectations. Purchasing innovation, however, has not been a touted feature of the U.S. health care industry. In most instances, save some surgical specialties, innovating supply design and configuration has been supplier rather than buyer (demand) driven. Although practitioners in a number of specialties have been instrumental in product development (especially in surgical specialties), for the most part supplier R&D activities and assessment of needs have been most associated with supplier driven innovation.

Saving and efficiency. The ability of collaborative efforts to drive savings in health care, through excellence in purchasing, is not a new idea. In the U.K., for example, collaborative procurement hubs, bringing together trusts (health care systems) and hubs (regional purchasing groups) were attributed as saving 275 million pounds while raising the procurement capability of the hubs. There have also been joint ventures between distributors and purchasers, as described by Harland in her review of the coming together of PASA (a group purchasing organization) and DHL (a logistics/distribution company). While such collaborative projects at the hub level were frequently successful in achieving impressive goals for commodity items and facilitated sharing purchasing competencies, additional savings were perceived as difficult to achieve due to fairly rigid pricing policies/up-front fees, the inability of the purchasing groups to expand services, and their risk adverse behaviors.⁸ Thus innovation in purchasing organization design and

⁷ Bushra Rahman, Eugene Schneller, Natalia Wilson and Howard Zuckerman, Repositioning Supply Chain in the Health Care System, September 24, 2010. Health Sector Supply Chain Research Consortium, W.P. Carey School of Business, Arizona State University. Accessed at: http://wpcarey.asu.edu/hsrc-asu/upload/Repositioning_Supply_Chain_in_the_Health_Care_System_Whitepaper.pdf

⁸Jonathan Wedgbury. HealthTrust Europe , HealthTrust Europe Supplier Launch Event

governance is a feature of the U.K.'s health reform. HPG's assessment of the efforts required to achieve additional efficiency include a balancing of purchasing fee costs between buyers and sellers, working with hospitals to achieve a high level of compliance and commitment (an 80% goal) and further expansion of purchasing into the corporate environment. In the U.S., a variety of analysts have estimated savings associated with collaborative purchasing.⁹ No recent study, however, has attempted to assess the value derived from the full range of purchasing restructuring.

Purchasing driving innovation. We have identified innovation through purchasing as an important expectation for buyers. Health care procurement experts outside of the U.S. have only recently recognized the opportunity of moving purchasing from supplier driven to demand based purchasing. Purchasing events represent an important opportunity to attain needed products and for suppliers to see "users" as an important source of information.¹⁰ Purchasing events signal an opportunity for buyers to influence the marketplace by challenging suppliers to provide products that better meet the needs of patients and the clinicians who work with the products. Purchasing events also present an opportunity to challenge suppliers to develop products and services that contribute to policy goals including lower cost, sustainability, infection reduction and reduced admissions.

Edler has pointed out that "When discussing the role of demand for innovation, we need to take into account the interface between supply and demand not only in terms of the purchasers, but also in terms of the supplier responding to the needs and early signals of customers. One prerequisite of demand based innovation therefore is that companies {suppliers} are open to customers, oriented towards their real needs and in fact help to anticipate and define future needs."¹¹ In this sense, it is important for suppliers to understand the extent to which their customers see them as "responsive." We are hopeful that the growing focus on evidence based medicine and comparative effectiveness will begin to shape supplier response to the demands of the new environment. This includes not only seeking breakthrough innovations but seeking products that meet, if not improve, current standards of care.

Collaboration. Collaboration for supply chain excellence takes many forms. Supporting the idea of mutualisation, the NHS is one of the largest buyers of IT in the U.K. In 2008, six purchasing hubs were brought together to engage in collaborative purchasing of computers achieving a savings of tens of thousands of pounds. GPOs frequently assist their members and non-member organizations in "spot buys" – taking advantage of opportunities in the marketplace. As demonstrated above, change is frequently driven from the outside by professionals in the field, such as professional distributors bringing new technologies to improve the distribution process and by consultants. In other instances innovation is driven by customers/competitors who come together to recognize the value of collaboration to further goals.

⁹ Eugene Schneller, *The Value of Group Purchasing 2009*. Health Care Sector Advances.

¹⁰ Jacob Edler, *Demand Policies for Innovation in EU CEE Countries*, paper presented at EU2009.Cz. p23.

¹¹ Jacob Edler, *Demand Policies for Innovation in EU CEE Countries*, paper presented at EU2009.Cz. p. 23

Our analysis identified a number of areas where collaborative practices, across the supply chain, are regarded as key to success. GHX, for example, is an organization that brings together large numbers of suppliers and buyers to assure an efficient and effective flow of information. This is an example of what Barratt¹² has described within the scope of vertical collaboration within the supply chain. What is missing, from a research perspective, is a comprehensive assessment of such collaboration, albeit vertical or horizontal, at the strategic, tactical and operational levels. There is a growing attention to building collaborative relationships between hospital, physician and suppliers. It has been pointed out that “future trends, including value based purchasing, bundled payments and outcomes of comparative effectiveness research, will be difficult to handle from clinical and cost standpoints unless hospitals and physicians are able to collaborate.”¹³ In addition, the idea of co-management where physician and hospital can come together to achieve VFM, facilitated by mutual incentives appears to hold great promise for future collaboration.

Conclusion

In the health sector, VFM has become a codeword pertaining to seeking benefit and quality for funds expended. With supply expenditures second only to human resources in the American hospital and the growing demand for accountability for outcomes and cost, the materials environment will become a near-future target for policy makers, payors and providers of care. Organizations can help to shape this recognition by (1) exposing inefficiencies across the supply chain, (2) demonstrating responsiveness to key national goals associated with both clinical and administrative performance, (3) engaging competitors in collaborative efforts and building trusting relationships that support mutual mission and, (4) challenging and incentivizing trading partners to work toward mutual goals.

¹² Mark Barratt, Understanding the Meaning of Trust in the Supply Chain, Supply Chain Management: An International Journal. Vol. 9: 1, pp.30 - 42

¹³ Natalia Wilson, Anand Joshi and Eugene S. Schneller, Engaging Physicians in Collaborative Supply Cost Management, Chapter 6, pg-75

APPENDIX 1

Agenda- 2011 Annual Research Dissemination Conference, May 5, 2011 “Global Innovation and Change in Supply Chain Practices: Lessons for the U.S. Health Care Sector”

8:15 – 8:30 Welcome and Introductions, Natalia Wilson (ASU)

8:30 – 9:00 Framing the Day: A Continued evolution of supply chain impact –
positioning – evolution, Natalia Wilson (ASU)

9:00-10:30 Module 1 Innovation through Purchasing: Going Beyond Price

9:00-9:20 The Changing European Landscape and opportunities for
innovation through purchasing, Eugene Schneller (ASU)

9:20-9:40 Innovation and the supplier environment, Scott McCallum
(Boston Scientific)

9:40- 10:00 Lessons from the EU, Manuela Consito (University of Turin)

10:00-10:30 Moderated Discussion, John Gould (CHI)

10:50- 12:20 Module 2 Strategic thinking and Strategic Actions

10:50-11:10 Strategy and global opportunities, Ed Jones (HPG)

11:10-11:30 Strategy and Information, Leigh Anderson (GHX)

11:30-11:50 Using data to drive strategy, Scott Pryde (ExoRoc Solutions)

11:50 -12:20 Moderated Discussion, Mike Wijas (Boston Scientific)

12:20-1:30 Lunch

1:30 -3:00 Module 3 Transformation through Alliances

1:30 –1:50 The new purchaser. Shifting funding/consequences for
purchasing, Christine Harland (Bath)

1:50 -2:10 Innovations in distribution, Paul Higday (Owens & Minor)

2:10-2:30 Horizontal collaboration, Eugene Schneller (ASU)

2:30 – 3:00 Moderated Discussion, Mohan Gopalakrishnan (ASU)

3:20 – 4:30 Learnings from the day led by moderators of the 3 modules

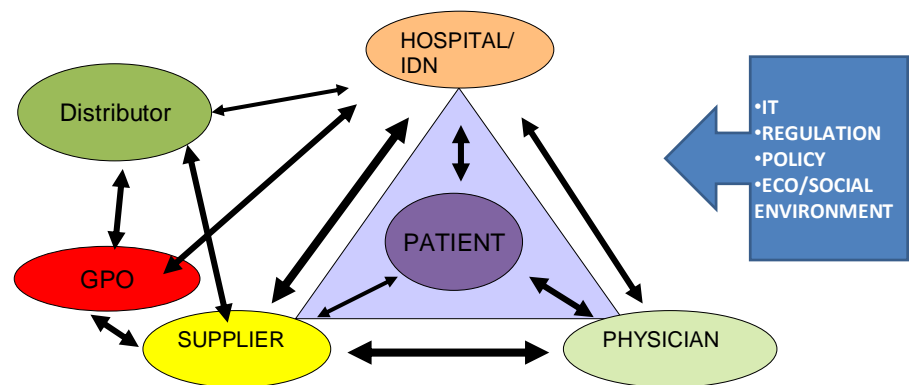
4:30-5:00 Next Steps for Research / White Paper and Publication

APPENDIX 2

International Study Guide

The goal of these initial visits is fact finding for the development of a comparative study of the health care supply chain functions and its positioning. The focus is on how and where purchasing takes place and its context within the hospital and larger health care system. The effort surrounds our ongoing assessment of the relationships among trading partners and influences on such trading partners as depicted in the following Figure 1. Some of the names of entities may be different in different countries (e.g., group purchasing/mutualisation/bundling or purchasing hub) and different ideas may be expressed somewhat differently (e.g., hospital system/integrated delivery network or trust). Yet many of the factors driving the supply chain function may well transcend the national nomenclature.

Health Care Supply Chain Relationships



HEALTH SECTOR SUPPLY CHAIN
RESEARCH CONSORTIUM
ASU W.P. CAREY
SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY



HEALTH SECTOR SUPPLY CHAIN INITIATIVES

Source: "Eugene Schneller", Co-director HSRC-ASU

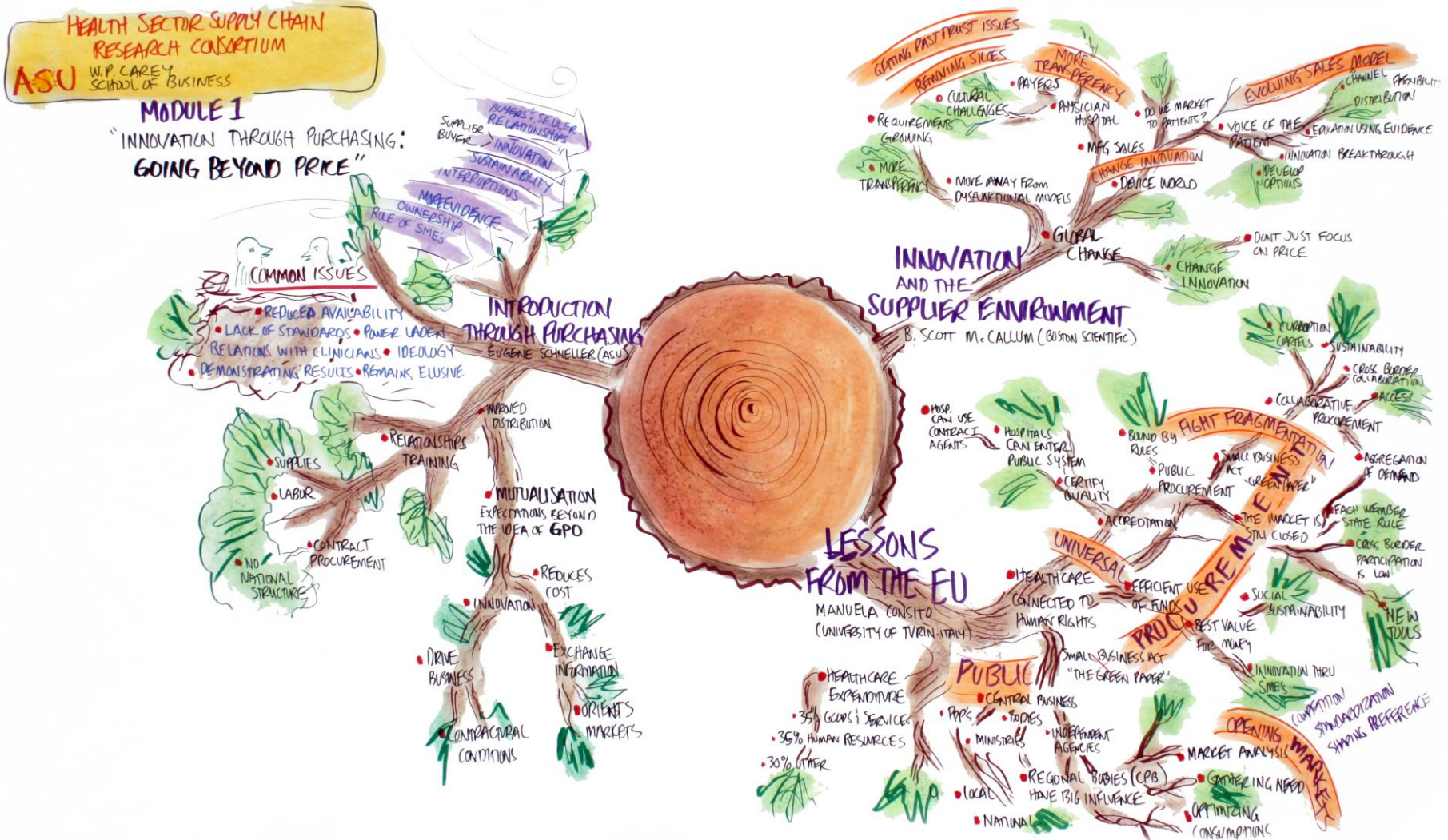
1. Purchasing in your context
 - a. At what level is purchasing carried out?
 - i. Hospital
 - ii. System/trust
 - iii. Group Purchasing Organization
 1. National
 2. Regional/hubs
 3. Local
 - b. Are there public private differentials? If “yes,” explain.
 - c. What is the positioning of supply chain management in your hospital/system?
 - i. Departmental level
 - ii. Middle Management
 - iii. High level strategic management
 - d. What is the role of the supply chain leader in the hospital and/or system
 - i. Transactional
 - ii. Tactical
 - iii. Strategic
2. How would senior management/hospital leadership in your organization depict the supply chain function?
 - a. Highly Strategic
 - b. Tactical
 - c. Functional – buyer
 - d. Combination of above
3. If there is group purchasing or other form of “mutualisation:”
 - a. What percent of purchasing is done through a GPO (note context of respondent answers)?
 - i. Overall
 - ii. Pharmaceuticals
 - iii. Devices – commodities
 - iv. Physician Preference Items (hips, knees, stents, etc.)
 - b. GPO management issues
 - i. Financing/administrative fees
 - ii. Ethical environment
 - iii. Agency – Relations with suppliers
 - iv. Relations with hospitals
 - c. Is GPO/mutualisation an issue of policy concern at this time?
 - d. What are the largest GPOs and their market penetration?
 - e. What are the key functions GPOs carry out?
 - i. Traditional – contracting, strategic sourcing
 - ii. Distribution
 - f. Estimates of levels of savings associated with GPO purchasing
 1. Prices (% savings)
 2. Pharmaceuticals
 3. Medical commodities
 4. Physician preference items
 5. Labor (additional FTEs needed)

4. Issues pertaining to supplier base reduction/standardization
 - a. What are the processes in place relating to product selection?
 - i. Value analysis teams
 - ii. Technology assessment teams
 - iii. Clinical councils
 - b. What is the role of clinicians in product selection?
 - i. Overall – how do you see physician autonomy in determining the selection of products?
 1. How highly involved?
 2. How understanding of need for standardization
 3. Strength of loyalty to brands
 4. Receptiveness to data demonstrating equivalency of products
 5. Relationships with suppliers and their representatives
5. What IT facilitates purchasing (Prevalence of the technologies)
 - i. Enterprise Resource Planning Systems (ERP)
 - ii. Electronic Data Interchange (EDI)
 - iii. Role of Exchanges (e.g., GHX)
 - iv. Other SC technology (cabinets, RFID, etc)
 - v. Linkage to electronic health records (EHR)
6. What is the level of concern for the costs associated with supplies?
 - a. How has this level of concern changed?
 - b. How are changes reflected?
7. How would you depict relationships with suppliers?
 - a. Have these relationships changed?
 - b. What are best practices in relationships with suppliers?
8. Special policy issues including:
 - a. Pricing transparency
 - b. Physician supplier relationships
 - c. Marketplace entry – small business
 - d. EU related issues
 - i. Cross border issues
 - ii. Tendering rules
 - e. Standards – GS1
 - f. Clinical data – comparative effectiveness

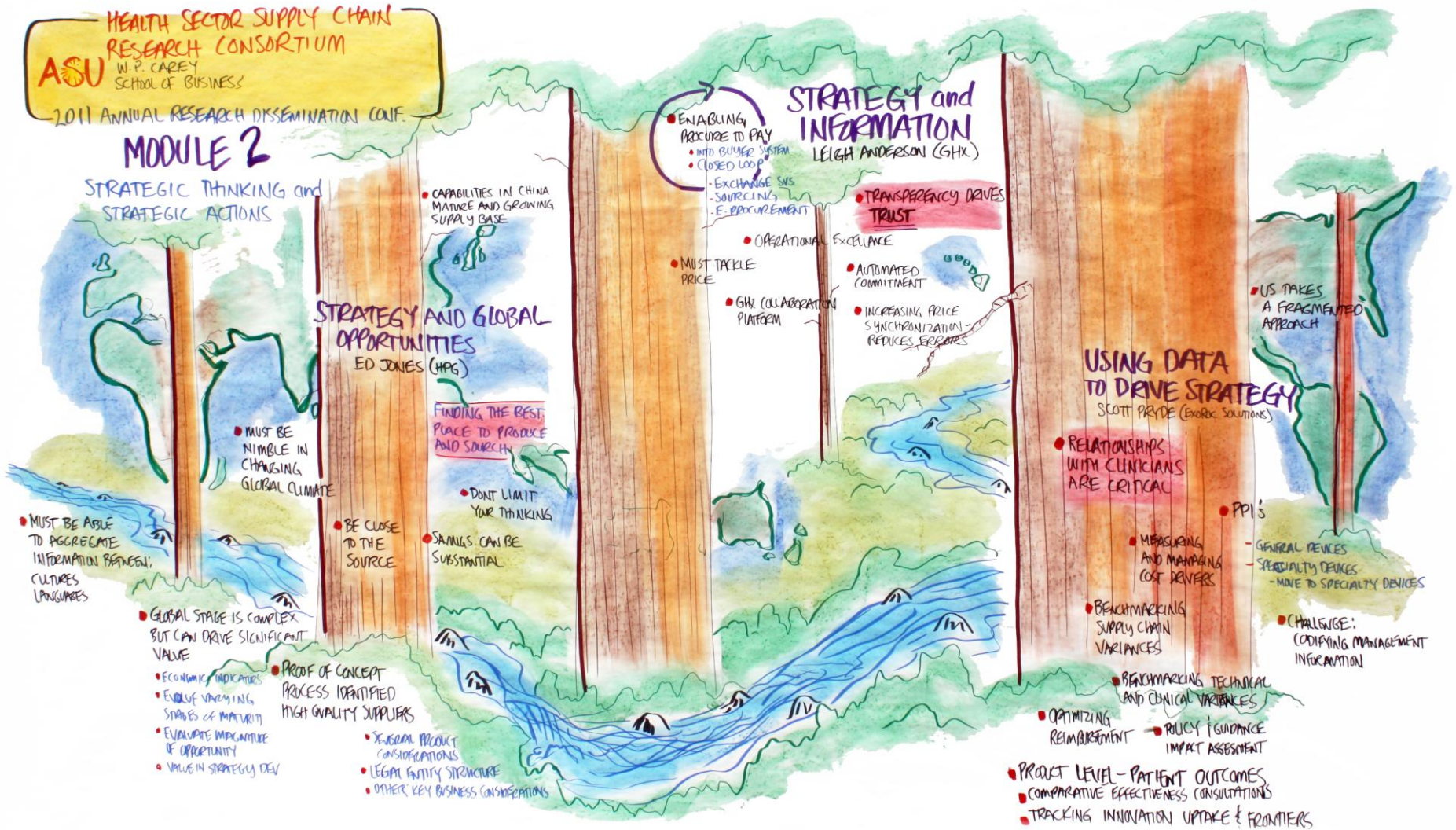
APPENDIX 3: Pictorial view of Collaboration

The following artworks echo the presentations and audience reflection on each of the modules in Appendix 1. They provide the reader with a guide for leading a discussion in their own organization regarding strategies to collaboratively meet the demand for VFM. We are grateful to Tim Corey, graphic illustrator, advanced Approach LLC, for his excellent graphic recording of the day.

Module 1: Provides a cross sectional view of the current state of supply chain practices and associated challenges



Module 2: Provides insight into the use of data and information necessary to take advantage of domestic and global opportunities to meet the challenges of healthcare reform and beyond.



Module 3: Provides a reflection on the challenges of the new day and the need to build horizontal and vertical collaborative models to meet the new reimbursement regulations and perspectives growing out of research development and innovation in policy.

