

PROGRESS REPORT

**Making and Enacting Strategic Decisions in Hospitals and Health Care
Delivery Systems: Orchestrating Standardization**

Eugene S. Schneller, Ph.D.

Kathleen Montgomery, Ph.D.

Amber Coan, Research Assistant

September 20, 2005

I. PROJECT SUMMARY PAGE

Title:

Making and Enacting Strategic Decisions in Hospitals and Health Care Delivery Systems: Orchestrating Standardization

Research Team:

Eugene S. Schneller, Kathleen Montgomery, and Amber Coan – Graduate Research Assistant

Contact Information:

Address all inquiries to Eugene S. Schneller, Ph.D. Professor, School of Health management and Policy, W. P. Carey School of Business, Arizona State University, Tempe, Arizona. (480-965-6334)

Project Period: July 1, 2004 -June 30, 2005.

Total Project Costs: \$39,000

Project Introduction:

The purpose of the project is to investigate success in hospital and system management of physician preference items. As the project has progressed, we have identified a variety of factors associated with the management of physician preference items including trust (our initial focus), the hospital materials marketplace, organizational culture and organizational structure factors, and mix of personnel associated with successfully working with physicians on issues pertaining to standardization. The idea of “orchestration” is employed to characterize efforts associated with successful standardization and “evidence based” supply chain management.

II. EXECUTIVE SUMMARY

The role of physician leadership and trust have been touted as central factors in achieving cost reduction as hospitals strive to better manage the utilization of clinical preference items. The purpose of this study was to assess the role of physician leadership and trust in this arena and to more clearly delineate the factors associated with successful materials standardization efforts. The specific focus was on implantable items in the specialties of cardiology and orthopedics.

- 1) Hospitals and systems differ in their ability and willingness to manage clinical preference item choice. Successful efforts are associated with careful “orchestration” of efforts that include: Making a deliberate choice to work with physicians on clinical preference item choice and cost reduction efforts.
- 2) Building and sustaining a culture where the outcomes of managing preference item choice and cost reduction efforts are valued.
- 3) Developing and articulating a strategy regarding standardization. Strategies include working toward reduction in the number of actual choices available to physicians and/or price standardization or “capitation.”
- 4) Generating a materials/outcomes data infrastructure and presenting information to clinicians and vendors in ways that support the value analysis/product choice process.
- 5) Understanding the range or continuum of incentives associated with physician participation in managing preference item choice and cost reduction.
- 6) Developing a commitment to value analysis processes and teams. These teams may be either committed to specific item categories (e.g., orthopedics) or to *ad hoc* teams that come together to consider products on an “as necessary” basis.
- 7) Identifying and empowering physician champions for the value analysis process.
- 8) Developing the role of “clinical resource specialist” to facilitate the value analysis process and working with physicians from a perspective of knowledge and trust.
- 9) Developing a “vendor management strategy” to assure that processes and procedures are clearly understood by all parties and rigorously enforcing the strategy.

As the supply costs associated with the typical discharge continue to grow, this is an especially important time for senior management to understand the issues associated with product selection and standardization. In addition, the favorable (spring 2005) OIG opinion regarding “gainsharing” (i.e., providing physicians with a distribution of funds saved in the process of care) challenges hospitals and systems to evaluate their alignment of incentives with medical staff and assess the extent to which gainsharing will support or detract from their ongoing strategies. The attached New York Times Article of Sept 22, 2005 (see attached) attests to the importance of this issue.

III. PROJECT BACKGROUND

As the costs associated with materials and the broader hospital and system supply chain continue to escalate, pressures to achieve savings in this area are intensified. Hospitals and systems organize value analysis teams (VATs) and more informal mechanisms to achieve standardization and cost savings.

Many hospitals have also utilized physician executives and developed physician leadership programs with the hope that those in executive and leadership roles will influence the behavior of their colleagues around clinical improvement and cost containment goals. It is not known how these individuals influence supply chain performance. Previous research has suggested that “trust” relationships and physician leadership enhance success in standardization, and the initial proposal was designed to examine this dynamic more closely (Schneller and Smeltzer 2006). Subsequent discussions with our CHMR advisory group led us to extend our investigation to a wider range of factors that facilitate standardization as well as to understand what strategic alternatives are available to support standardization efforts.

The alignment of incentives and behavior between physicians and health care organizations persists as one of the pressing challenges to achieving organizational success as measured by reduced cost, improved outcomes, and fewer errors (Shortell et al., 2001). It has been proposed that a determinant of the success of such goal alignment is the degree to which physicians and management understand one another’s interests and act in a way that enhances mutual trust. Further, studies have reported that the ability to align physician/organizational goals is significantly hampered by lack of trust and poor teamwork and communication (Rundall et al., 2004).

To shape physician behavior, many health care organizations are turning to physician executives. Previous studies have identified a range of roles that physician leaders undertake that can contribute to enhance quality, while restraining costs, including influencing resource utilization. One of the most important resource utilization issues involves the supply environment. This is because the supply environment represents a point in hospital management where major cost and expenditure are escalating and a point where decisions are made. It is also a point where gaining control represents very special challenges: 20 percent of materials represent 80 percent of an IDN’s materials costs – with the bulk of the most expensive items being related to physician decision making in the realm of clinical preference items. Standardization in clinical preference items has been recognized as an area with the potential for dramatic cost reduction in hospitals.

We initially proposed to focus on the role of physician leaders within the context of the materials and supply chain environment. Discussions with our CHMR advisory group suggested that, while physician leaders may well influence the behavior of the clinical staff in this context, a wider range of individuals, including service line managers

or what has been more recently described as “clinical resource specialists,” may also play an important role in achieving standardization goals. In addition, contextual and structural factors may affect standardization efforts within hospitals. A hospital with a rapidly changing medical staff composition, for example, may have greater difficulties in achieving standardization than a hospital where the group of physicians has been stable over a long period of time. Teasing out and prioritizing the variety of factors affecting standardization will help hospital management develop better strategies for success in this area.

The research draws on the combined literatures of trust, especially within the physician/hospital environment, and decision making to guide our research design. The growing literature about the role of physicians in leadership roles and physician/hospital alignment frequently mentions the concept of trust (e.g., Montgomery, 2001; Shortell, 1991). In our previous studies, supply chain managers, in organizations where there was a high level of standardization, identified trust as a pivotal factor in achieving their standardization goals (Schneller & Smeltzer, 2006). As Shortell reports in his study of effective hospital-physician relationships, “Everyone interviewed agreed that it was trust that made everything possible” (1991: 93). Yet, the respondents in this study, as in others, found it difficult to articulate a consistent definition of what trust actually meant. In order to provide organizations and their leaders with clear-cut guidance about how to achieve and maintain high levels of trust, it is crucial to be precise about the concept, how it is defined, how it is gained or lost, and the role that trust plays in affecting decision making and decision commitment, both at the individual and the group levels.

Trust is especially important under conditions of uncertainty, and complex health care delivery systems are fraught with uncertainty. We define trust as a *belief in and confidence about another’s potential behavior* that serves as a precursor to action. Or, as Mayer et al. (1995) elaborate: trust is “the willingness to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the truster, irrespective of the ability to monitor or control that other party.”

Many have pointed out that in order to measure trust, the focus actually should be on the person being trusted – that is, his or her trustworthiness (Hardin, 2002). Montgomery (2001) has synthesized much of the literature on trustworthiness into three categories, which can be measured as perceptions of the competence, integrity, and benevolence of the trusted person. Mayer & Davis (1999) have demonstrated that perceptions of trustworthiness combine to act as significant predictors of the level of trust. Understanding this mechanism for enhancing trust is important, as it provides organizations with clear-cut ways to reach for greater trust by increasing the perceptions of trustworthiness of its leaders.

A recent review of studies on trust (Dirks & Ferrin, 2001) indicates a variety of potential outcomes associated with high levels of trust. These particular outcomes are especially important in the context of our study, which will focus on strategic decision-making groups constituted with the ultimate objective of achieving greater alignment of interests among clinicians and management.

Trust also has been identified as an important moderator of the degree of conflict in relationships and in decision-making tasks (Simons & Peterson, 2000). This study suggests that conflict in personal relationships (such as personality clashes, power plays, and other tensions) is distinct from conflict about a particular task (such as determining clinical preference items). Further, although relationship conflict usually has negative consequences because it can escalate animosity and suspicion, conflict about a particular task usually has beneficial effects because it leads to better decision quality and greater acceptance of the decision when group members have had the chance to express varying opinions. High degrees of trust have been shown to reduce relationship conflict and simultaneously to enhance decision quality and commitment.

In the context of our study, we proposed that physicians who have a high degree of confidence in the advice from others (e.g., physician leaders and supply chain executives) with regard to clinical preference items will be more likely to agree to and adhere to standardization guidelines in their choice of clinical preference items than physicians who do not have such confidence. We also proposed that the decision making in the standardization process itself, in advance of physician decisions in the operating room, will be facilitated by higher degrees of trust among the decision making team. It is frequently reported that the inability to align financial incentives between surgeons and hospitals (i.e. gainsharing) has been a principal barrier to achieving cost savings through standardization. By studying both those hospitals that have been successful with such standardization and those that have not, we hope to identify factors in physician practice and hospital/physician relationships that transcend the purely financial incentives.

IV. SPECIFIC RESEARCH QUESTIONS

Our guiding research question asks in what ways do hospitals that have achieved a high level of standardization on product SKUs and/or price achieve such consensus and how such organizations differ from facilities that have had less success?

We are identifying and scrutinizing factors at the organizational and group level, as well as system and external factors. Our inquiry includes questions pertaining to relationships among physicians, physician leadership, supply chain executives, clinical resource specialists, other hospital leaders, and vendors themselves.

Key research questions and findings.

1. What are the processes through which decisions are made regarding standardization on clinical preference items in individual facilities?
 - Formal value analysis teams are the principal avenue through which hospitals and systems achieve standardization. Success is achieved through strategies that involve ongoing/formal VAT processes in systems and through ad hoc teams that are formed as issues arise.

2. What is the degree of conflict among clinicians and management surrounding standardization, and in what ways does trust in the decision makers moderate the conflict?
 - Hospitals and systems carry out value analysis to assess new technologies and to determine equivalencies among competing technologies.
 - The systems studied are striving to provide medical staff with the ability to maintain choice among products by managing cost for equivalent products.
 - These hospitals and systems carry out extensive scrutiny of products and report utilizing competing vendors to represent their products during the selection process.
 - Hospitals also involve clinical leadership extensively in the product evaluation process. These leaders are not necessarily medical directors and others in formal medical management roles.
 - Incentives for involvement includes stipends for attending meetings, promise of better facilities, and increased staffing to improve productivity.

3. What are the factors associated with greater degree of trust in individuals?
 - Success in the systems we have studied is frequently related to physicians recognizing that the institution brings value to their practice and that they can contribute to the organization by consistently working to serve their mutual interests. They appear to “trust” that their involvement in product evaluation will lead to good faith behavior on the part of management to carry out their wishes. Symptomatic of this level of trust is their segmenting their relationships of vendors to product service and other factors that are not related to the contracting process.
 - A number of hospitals with high levels of success in value analysis are characterized by a recognizable incident in the life of the institution that has helped to bind them to participation in the product selection process and appreciation for the contribution of product to the organization’s success as well as to their own clinical success. The potential failure or decline of a hospital or service, which would put a clinical service at risk, is a good example of an incident that is reported as a tipping point in hospital/physician relationships. A hospital’s commitment to be a leader in a clinical area can lead to recognition by clinicians that the institution was trustworthy.

4. What organization level factors are associated with higher levels of standardization and compliance on clinical preference items?

Organization level factors appear to include:

- Willingness to manage supply cost and risk
- Use of DRG and procedure level data to drive decisions.
- Establishment of “managerial epidemiology”
- Respect for bounded clinical autonomy within ?
- Build commitment
- Manage conflict of interest – involve physicians who request new products in the analysis – exclude them from the decision.
- Investment in staff, especially clinical resource specialists, capable of working with and gaining trust of physicians as “service line managers.”
- Investment in staff and consultation to carry out analysis for value analysis team performance.
- Commitment to carry out the wishes of medical staff
- Courage to manage non-compliance with consensus
- Traditional physician leadership roles, such as medical director or chief of medicine, do not appear to be highly involved in the more micro processes associated with clinical standardization.
- Willingness to entertain a full range of outcomes as a result of value analysis process including: Decisions regarding product comparability
 - Decision to accept
 - Decision to reject
 - Decisions to restrict products on the basis of comparability
 - Decisions to seek “caps” on product cost to allow many suppliers
 - Decision to restrict a product or supplier on “exception” basis.

5. How do factors related to vendor relationships affect standardization? Do hospitals that permit vendors access to the operating room experience greater standardization than facilities that do not allow direct vendor access? Do physicians’ long-standing relationships with vendors impede the standardization process? In what ways do factors related to supplier service and inventory affect standardization success?

- Physicians have strong preferences based on long-standing experience with brand-name products and service provided by manufacturer representatives and the broader sales force.
- Progressive systems recognize and manage these relationships through formal policies and procedures that specify what contracted and non-contracted materials are permissible in the hospital and the conditions for payment for non-contracted goods. Our recent visit to Sharp Health Care in San Diego revealed the success associated with careful management of vendors by individuals with a strong understanding of both the clinical and supply environment.

6. In what ways does the individual facility experience with clinical preference standardization mirror system level standardization efforts? (e.g., Do hospitals have greater success with standardization when the decisions are made at the individual facility than when system-wide decisions are made?)
- Success with standardization appears to be variable within systems. Significant differences were observed within the several of the systems visited. Success was frequently linked to the organization of the medical staff, within a hospital, around a “product line” such as orthopedics or cardiology.
 - Value analysis teams were most successful at the local hospital level.

7. How can we begin to understand the observations?

Organizations that are successful in standardization are characterized by features of “focused factories” as defined by Regina Herzlinger. This should not come as a surprise since much of the objection to focused factories from the general hospital community is their ability to gain efficiency as a result of their narrow focus and associated commitment of purpose.

In regard to the systems studied thus far we have observed successful standardization as the result of a “silo effect.” We define silos as homogeneous groups or units that demonstrate strong intra-group ties that are characterized by individuals with similar socialization, identification with organizational structures and boundaries, dependent on similar networks of vendors and support staff, and are able to respond to similar incentives. Individuals appear to gain trust as they perceive that the bounded organization provides value and that its preservation is dependent upon cooperation of all actors for mutual benefit.

Finally, successful standardization requires data available at the patient/procedure level. In addition, pricing comparisons need to be transparent – this seems to be the single most important issue we heard, both from the success stories, because they had at least some data (but still wanted more) and from the failures, because they had virtually no usable data. In general, current software packages are unwieldy and not-comparable across different units in the facility, so that the OR doesn’t speak to the supply chain or purchasing unit

V. STUDY POPULATION

Because of the variation in standardization among facilities in the same system, hospitals are, in general, the principal unit of analysis. We have considered hospitals that are successful in achieving standardization and those that are not considered to be successful in achieving standardization. The focus of the case discussions is on pacemakers and hip

implants. These two items have been selected with the advice from our CHMR advisory group as representative of items that are “big ticket” in terms of the costs, where there is a wide range of product equivalency (i.e., different manufacturers have different products to offer), but where there also is stability in terms of the technology and research reports on efficacy.

V. RESEARCH METHODOLOGY

We carried out over two dozen interviews with key members of five different systems, representing several hospital facilities and the corporate offices within the systems. All but a handful of interviews were conducted on-site; the others were completed by telephone conference call between the interviewee and the two researchers. Key respondents held a variety of titles and included representatives from the clinical and administrative staff: physician leaders (holding titles such as Medical Director, VP Clinical Integration, Chief of Cardiology, Medical Director – Orthopedics); other clinical professionals (e.g., Director of Surgical Services, Clinical Operations Manager, Senior Clinical Consultant); and representatives of corporate and supply chain management (e.g., Clinical Technologies Assessment Coordinator, VP Support Services, Director of Materials Management, Clinical Assets Manager, VP Purchasing and Materials Management, VP Supply Chain Management, Purchasing Agent, VP Clinical Effectiveness). We also conducted interviews with representatives of two major group purchasing organizations.

VII. VALUE OF FINDINGS FOR CHMR MEMBERS

Through case studies we have captured a good deal of the variability in circumstances and strategies surrounding the standardization process. CHMR members are faced, as are other hospitals across the nation, with the opportunities associated with the lift on the prohibition of the use of gainsharing to improve the alignment of physician and hospital incentives.

CHMR members will find value in the project findings in the following areas:

- A deeper understanding of the factors that facilitate or inhibit success in standardization of clinical preference items in cardiology and orthopedics. While a number of CHMR members are already actively engaged in the value analysis process, the research findings should help them to reflect on the factors that can enhance or inhibit their success and consider alternative strategies for the future.
- Clarification of the role of trust as a situationally bounded factor, built up in the course of orchestrated working relationships that facilitate or inhibit the standardization process. We have identified a series of key “linking pin roles,” especially the *clinical resource specialist*, and have identified the characteristics that lend credibility to successful incumbents in this new role.

The clinical resource specialist must have his or her vectors of influence extended to practicing clinicians as well as senior supply chain leadership.

- While those in general Medical Director roles were not frequently identified as key to the advancing value analysis and standardization, designated physician leaders, in what one system identified as a “directorate” role, do play a central role by linking between clinical staff, clinical resource specialists and VATs and by serving in leadership roles associated with their own specialties. Their scope of interest involves outcomes, cost reduction, and safety improvement.

VIII. Recommendation for Dissemination of Project results

- Project results will be disseminated through a published “white paper” detailing the findings.
- We propose an audio-conference with supply chain leadership to discuss the general findings and plans by each system to further develop the role of clinical resource specialist.
- Given the importance of finance and information technology to these efforts, inclusion of CFOs and CIOs in dissemination is recommended.
- Given the urgency associated with the management of physician preference items (again see the New York Times piece), we propose that each CHMR member carefully consider the findings with their physician leadership.