

Reforming Health Care Using Value Marketing and Selling: How Suppliers of Innovative Medical Technology Can Help Solve the Problem

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Health care reform has been on the U.S. national agenda for decades. The basic outline of the health care crisis is well known and largely inarguable. To wit, at more than 16% of GDP American health care is almost 50% more expensive than the next-highest country—Switzerland—while actual health outcomes are comparable to developing countries.

Most discussion of reform centers around how to pay for health care—private insurance, private insurance in competition with a public insurance scheme, or a single-payer system like that of Canada. This debate will be resolved politically. No matter the choice, the structural problems will remain: overuse of the health care system, failure to understand procedural and diagnostics processes across specialties and departments, and an inability to leverage technology to streamline care for lower costs and better patient outcomes.

Regardless of what approach proves politically tenable, providers and other participants in the health care industry will have to make reforms of their own. The cost-plus, every-specialty, every-department-for-itself approach that has led us to the current state of health care costs will have to change.

TAB Consulting believes that providers and suppliers of technology should join in an affirmative and concerted effort to break the boundary condition from suppliers and buyers maximizing their own self-interest, transaction by transaction. Instead they should commit to collaborating for process improvement geared to reducing the total cost of care, from patients' problem presentation to end state of the required intervention.

Focus on transaction costs at a point in time is easy and sometimes informative. The appropriate metric, however, should be the total cost of patient care over time. That "time" could be from presentation in an ER to discharge or from presentation for obesity and the end of patients life. The goal should always be the same – to provide effective and efficient care, no more and no less.

Reengineering at the Hospital

Hospitals in particular could do with the kind of reengineering that other industrial entities have become accustomed to over many years, and indeed there are many parallels between hospitals and clinics and other industrial facilities. They are local health care “factories,” occupying a prominence in communities comparable to factories and utilities, or, perhaps, public schools, prisons, and military bases. The nature of specialties and departmental budgets and rewards precludes any chance of the whole (hospital) being greater/more efficient/more effective than the sum of its parts.

Hospital and departmental accounting becomes tactical gaming of the reimbursement system and the deals cut with payers and physicians and their departments. If you pay a physician a bonus based on a metric related to how much was collected from payers as the result of his/her transaction work (CPT codes¹ are by definition related to the particular procedures and the attendant technology), the behavioral impact is not hard to predict: more transactions using more technology and services yielding more fees **at that particular point in the treatment process**. What happens upstream and/or downstream in the total process of treating the patient is somebody else’s problem. That “somebody else” is the all the rest of us who pay the bill, either as health insurance premiums or as taxes.

We propose to help suppliers of medical technology to align their interests with those of clinicians; patients and payers to produce highest quality care over time, while taking unnecessary clinical technology and transaction costs out.² In our experience, understanding processes and judicious use of the right technology at the appropriate location by the right people--the point of care whenever possible, administered by the caregivers--can take 10-15% out of the total cost. For example, by giving an urgently needed ultrasound in the ER rather than waiting for someone to move the patient to Radiology and moving her back, will result in a material cost saving by precluding the need for transport by an aide, a technician to take the picture, and a radiologist to read it. And, it shortens the time from presentation to the onset of treatment. That is the case with a point of care ultrasound company and a TAB Consulting client who is providing real quantifiable value to their ER customer. If that kind of thinking were to be embraced by suppliers of other medical equipment, by the hospitals who use it and by extension the payers who ultimately pay for it, the system could indeed,

¹ The Current Procedural Terminology (CPT) code set is maintained by the American Medical Association through the CPT Editorial Panel. The CPT code set describes medical, surgical, and diagnostic services and is designed to communicate uniform information about medical services and procedures among physicians, coders, patients, accreditation organizations, and payers for administrative, financial, and analytical purposes. Professional and technical fees are associated with each CPT code.

² And, at the same time these uses can provide metric based examples of best practice around process based thinking and organization to the entire institution.

over time, gain efficiencies that barely enter the political discussion, except as abstractions.

Value Analysis

We use a methodology called value analysis to show how the insertion of new technology into hospital practice can increase quality, reduce costs and often increase revenues. Paradoxically, at the same time value analysis allow suppliers to sell technology on measureable value and not cost-plus margin. We, at TAB call this value selling. Best-in-class new technology, when deployed at the right place in the medical processes, can help health care providers streamline operations, circumvent bottlenecks, and save patients' time, money, and lives. At the same time suppliers can use the value this new technology provides to increase both their margins and sales.

For this approach to work, the supplier and the care giving institutions must work closely together, seamlessly sharing information on requirements best practices and outcomes.

We find out approach is best visualized in terms of something called the Mobius Strip³, which consists of a strip of paper or other material, twisted once and attached at the ends, to create a three-dimensional figure 8—itsself the symbol for infinity. (They are very popular as mobiles hung over a baby's crib.) Every point on the strip is thus on the same side of the paper as every other point—there are no pages turned. To connect the dots, the pencil never has to leave the paper in organizational terms, there are no departments, or silos, or discrete profit centers, each out for itself. One improvement leads to another, to another, ad infinitum.

The most compelling thing about using this approach in health care is that it doesn't require top-down redesign, wholesale revamping of economic structures or government mandated changes to work. Instead, it requires established, data-driven business thinking and a commitment to better quality medical practice. Plug a process improvement device like the portable ultrasound at any point and the benefits can be felt everywhere else in the hospital—better outcomes, lower costs, better patient outcomes. The hospital that makes this normal practice will see perpetual improvements by all these measures.

³ The Mobius strip is embodied in TAB Consulting's logo as it represents our philosophy and approach to client relationships.

Value Selling

Farsighted suppliers can get ahead of the curve by working with customers to analyze the value their product or service provides over time. They can then use concrete and defensible value analyses they have developed with key customers to sell that value to their market. We call this concept value selling. At the same time they can enhance their reputation as thought leaders in the design and development of technology, and in advancing the nature of client collaboration

The matrix below summarizes our take on the evolution of selling, from selling undifferentiated commodities to true value selling. It takes into account the perspective on the customer, a pricing philosophy, and the competencies that should be embraced by both the suppliers' team and that of the customer. Several aspects are worth highlighting. Moving from selling "Stuff" to selling "Value" requires a different way of thinking at the top of the supplier organization, including a different perspective on the customer. That is the supplier must gear its organization to sell to an organizational level in the customer site(s) high enough to appreciate the benefit to the whole institution and has the necessary decision-making clout to ensure adoption. Lower in the organization than that and they encounter resistance from functional fiefdoms, the triumvirate of owners, evaluators and implementers, each of which will have an agenda. The value supplier must also transform its pricing philosophy from selling features to innovative ways to share risk and reward. And to do all of the above the supplier must understand, in detail, how their product adds value to their customers' processes. This requires a high degree of mutual trust, since they will be sharing what often is viewed as "proprietary information on both sides of the bargain.

Value Selling Transcends Traditional Approaches

	<i>"The Stuff"</i>	<i>"The Tie"</i>	<i>"The Deal"</i>	<i>"Value"</i>
Selling Focus	Product Features	The "Relationship"	Customer "Solutions" ["Bundles" of Products & Services]	Value Generation
Perspective on Customer	Single Decision-Maker	Functional Focus	Differentiated by Role [e.g., "Owners," "Evaluators," "Implementers"]	Top Team
Pricing Philosophy	"Premium Pricing" Based on Product Features	"Volume Pricing" Based on Product Features	Supplier Assumes "Risk-Reward" Position	Sharing the Incremental Income/Cost Savings Stream
Critical Competencies	Product/Technical Knowledge	+ Interpersonal Skills	+ Knowledge of Customer's Business	Full Access to and knowledge of Customer's Business Processes

To further describe the right hand column of the above diagram value selling can be based on three levels of analysis and comparison.

1. "Product to Product"
2. "System to System"
3. "Change the Game"

These depend on the product, where it is in its life cycle and how it does (or potentially can) improve processes at the customer site. They are described below:

1. *"Product to Product"*.

Suppliers must offer value analysis and caregivers must demand that the value analyses are defensible and appropriate. Very similar products with simple feature differences are the least conducive to value selling. But, expanding the analysis to usage and maintenance costs as well as service and support availability can do it.

Value is measured against competitive offerings based on specific product and service features as well as total cost. Performance metrics critical to the customer are evaluated for each product offering. Total cost includes both purchase price and operating costs over time. (How many of us have bought a cheap computer printer and then been eaten alive by the cost of toner?)

2. *"System to System"*.

The next level of value selling requires the supplier and caregiver institutions to understand the flow (process) of care giving throughout the clinic or hospital. Questions such as where in the process flow should the technology be located, where in the geography should it be placed, what kinds of staff will use it and how often?

The value equation is expanded to include the total process costs (labor, infrastructure and disposables etc) of employing a particular supplier's input within the customer's system compared to the present processes or a competitor's offerings.

3. *"Change the Game"*.

The third level of value selling requires the supplier to fully understand the current clinical processes in their area of expertise and carefully assess the thinking of those clinicians at the leading edge of their practice. Once fully understood, then development process begins to address a predicted future

state for the appropriate procedure or diagnostic, a future state that may not yet be envisioned by the practitioners.

Value is created by a disruptive technology, which changes the fundamental end-customer value proposition. Clayton Christensen asserts that because disruptive technologies typically do not address *current* market demands, but may squarely address customer needs *tomorrow*, the supplier cannot expect the customer to lead them toward innovations they do not need now.⁴ Therefore, the burden of finding "Change the Game" value generation opportunities falls on the supplier.

The real winners in value selling will have been through all three stages described above. Indeed, each stage can be addressed simultaneously with the mature, emerging and disruptive technology in a supplier's portfolio. What is needed is a clear understanding of the processes utilized to provide care, willingness and the tools to do the hard work of proving the case⁵ and a long term look at the supplier customer relationship.

Below are two simplified case studies of value analysis and value selling enabling medical device suppliers to increase their profitability and market share.

⁴ Christensen, Clayton M., *The Innovator's Dilemma*. Boston, MA: Harvard Business School Press, 1997. 208.

⁵ TAB Consulting has developed a set of proprietary tools, templates and techniques that allow for the collection, storage, and analysis of the data collected to clearly quantitatively present the value proposition over time.

Case Study:
Quantitative and Qualitative Value Created by a Portable Ultrasound Device

TAB Consulting worked with a medical device supplier and a large urban hospital to assess the value that would be created using a point of care ultrasound device. The analysis compared the economic value generated by the existing Ultrasound Imaging Center, and its installed equipment and established processes, to the value that could be created by adding two point of care ultrasound devices, one in the ER and one in the Interventional Suite. It also highlighted qualitative value creation through increased patient satisfaction.

The analysis at this hospital suggested a potential increase in operating income of \$200,000 per year, or an increase in the Net Present Value (NPV) of cash flow (from cost savings and reimbursement) of \$700,000 over a 5-year period. This benefit is, of course, net of the investment in the point of care ultrasound machines. The value increase is comprised of:

- Revenue generated from billable scans on the new portable ultrasound devices.
- Revenue generated from increased utilization of the existing 3 machines (current demand for the existing equipment was at over capacity; the new machines not only add capacity, but also eliminate downtime incurred by moving the machines from the Ultrasound Unit to the ER / Interventional Suite and so on).
- Lower amortization costs since the existing machines would be amortized over more billable scans.
- Better availability and utilization of technical labor since the machines would no longer be moved from the Imaging Center to the point of care.

In addition to the above, quantitative sources of value not captured by the analysis included:

- Fewer call-in payments for sonographers when ER doctors/nurses or on-site x-ray technicians could perform the scan on the portable device.
- Elimination or minimization of “on call payments” to sonographers for the same reason.
- Less coordination of the move time spent by nurses, clinicians and administrators.
- Less transaction time spent by the Physicians.

- Less possibility of machine breakage or “accidents” involved in moving them.

Finally, both the hospital and the patient are likely to perceive intangible value created through:

- Better and more predictable scheduling.
- Less waiting trauma for patients.
- Less time spent in ER thereby increasing patient service and ER crowding.
- Enhanced diagnostic ability in ER since the decision to use Ultrasound for “routine” OB/GYN cardiac or Abdominal trauma problems would be unconstrained by the requirement to wait for a machine (and technician) to be brought to the unit.
- More efficient process in the intervention unit since there would be no waiting and set up time for needed Ultrasound.

In sum, the overall Ultrasound system and processes in the large urban hospital will be improved from the perspectives of the patients, Clinicians, and Administrators. Moreover the financial results within the hospital will be enhanced over time. Value analysis and value priced point of care Ultrasound units clearly showed a big win-win situation for all stakeholders.

Case Study: Demonstrating Value Creation When Product-to-Product Comparison is Impossible

Process focus on total costs that is the mantra in successful organizations in industries ranging from steel to appliances to computer manufacturing has not been applied systematically in the delivery of healthcare⁶. Much of the system is highly resistant to change. Some of this resistance is intentional and arguably important, such as the lengthy FDA approval process for pharmaceuticals and medical devices. However, other aspects of the resistance are systematic and institutional. Many medical practitioners hesitate to abandon tried-and-true (“Standard of Care”) methods for unfamiliar new techniques that require capital purchases and (re)training. Established departments are reluctant to adopt new technologies if it means surrendering turf and resources. The bureaucratic imperatives are compounded by the fact that those who make the decisions to purchase new technology (hospitals) are not necessarily the end-users (clinicians/physicians) or more certainly, the beneficiaries (patients). The principal/agent problem present throughout healthcare has an additional dimension when technology decisions are made.

Another TAB client was the manufacturer of a new point-of-care blood-gas testing machine, which would likely upset an existing healthcare algorithm and transfer a procedure from the Pathologists in the lab to the point of care staff. Although well established in the blood testing business, the company would be entering a significant new market with the proposed testing device. Instead of supplying assays and equipment to the laboratories that received blood samples for testing, it would be supplying these capabilities at the point of care.

Telling a Compelling Story

TAB Consulting worked with the manufacturer to assess the impact of the point-of-care blood-gas testing device on patient management and system level cost-effectiveness. The task-specific device had the potential to replace testing that was typically performed in centralized lab facilities on expensive multipurpose machines. A product-to-product comparison of this machine to the centralized machine was irrelevant because the two alternatives were so different. They didn't compete broadly, but in one specific area they performed the same function. By doing that one function better and faster at patient bedside, the

⁶ Notable exceptions can be found in the healthcare value chain as certain health insurance companies, one of which we have worked with extensively using just these principles. However, trying to extend the principles into the provider community proved to be a hurdle that is yet to be overcome.

manufacturer felt the device could make a substantive contribution to patient health and to the hospital's bottom line.

Together with the client, TAB Consulting created a compelling value story for the new device based on a system-to-system comparison:

- Point of Care testing reduced the time to initiate a test and obtain results and also increased the number of billable tests. This had a positive impact on overall testing system's cost and profitability.
- Reduced patient risk and improved outcomes because of decreased cycle times from diagnosis to treatment, and
- Provided a number of additional benefits, including reduced patient wait time and associated stress and anxiety, and reduced "transaction" time for physicians, nurses and other healthcare professionals. (Improving their efficiency and effectiveness).

Based on a clear understanding of the product's impact on the healthcare system value chain through value analysis, our client was able to demonstrate that the value provided by the point of care testing device exceeded the cost of the device by a factor of five to ten times over time. This is effective value analysis and its outcome -value selling.
