

# “Hospital service-line positioning and brand image: influences on service quality, patient satisfaction, and desired performance”

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## Hospital service-line positioning and brand image: influences on service quality, patient satisfaction, and desired performance

### Abstract

The goals of this study are to provide a conceptual framework for developing service-line positioning and brand image strategies for healthcare organizations. Application of the framework within an actual hospital environment is examined exploring service quality, patient satisfaction, and subsequent outcomes. The work provides a comprehensive analysis of how the organization is designed, promoted, and a successful marketing plan is implemented using positioning and branding strategies to effectively penetrate a market and foster ongoing patient/healthcare provider relationships. A service-line strategy was employed combining the talent and resources of both a nonprofit community hospital and privately-held (independent) physician practice. Results indicate measurable differences in desired performance factors attributed to service-line initiatives specifically in the areas of patient satisfaction, clinical outcomes, and financial impact. Future recommendations including managerial implications are explored and suggestions for future marketing activities are discussed.

**Keywords:** healthcare marketing, service-lines, positioning, brand image.

**JEL Classification:** M3, I1.

### Introduction

In the highly competitive dynamic environment of the hospital industry strong patient relationships are the foundation for future sustainability. As hospitals, physicians, and other healthcare facilities vie for patients, competition in the healthcare industry is predicted to intensify further. This behavior has become even more obvious as healthcare organizations are pressured to increase revenue while further decreasing costs (Berry, Mirabito & Berwick, 2004). Although abundant research has explored the healthcare marketing field, work must continue particularly in the marketing management area as pressures are anticipated to heighten further due to an array of factors including technological advancements, regulatory measures, customer demands, needed cost containment, and revenue driven initiatives (Raheem, Nawaz, Fouzia, & Imamuddin, 2014; Lee Chen, Chen & Chen, 2010). This stress is evident as healthcare organizations are urgently searching for new opportunities for survival and expansion amid the signing of the Affordable Care Act in 2010. If they are to remain viable and nimble players in the industry, the organizations will need to jockey for position in the marketplace making it essentially mandatory for them to find their unique place amongst competitors. Service-lines, which in effect are niche strategies, provide hospitals and physicians with a mechanism to organize and market services based upon specific diseases, organ systems, and populations (Berenson, Bodenheimer &

Pham, 2006), and thus may provide viable options for maintaining a competitive advantage through distinct competencies and efficiencies not easily duplicated by other healthcare organizations.

It has been commonly accepted that relationships exist between brand image, service quality, customer satisfaction, and repeat patronage which serve as catalysts for promoting future service relationships (Sener, 2014; Bhaskar, Kumar Subhashini, Reddy & Satyanarayana, 2012; Boshoff & Gray, 2004; Woodside, Frey & Daly, 1989). However, there is a need for more precise studies measuring the manner by which healthcare organizations portray themselves to their constituents. An organization's success is dependent upon how well it can communicate its ability to satisfy the wants and needs of their target audience. As such emphasis will be placed upon more effective message strategies with each healthcare organization offering their own distinguishable marketing plan for reaching a desired patient pool (Nanda, Telang & Bhatt, 2012; Koch, Breland, Nash & Cropsey, 2011).

The objectives of this research are to propose a framework that examines the interrelatedness between healthcare service-line positioning strategies, brand image, service quality, patient satisfaction, and desired outcomes. The outcomes specifically include a four year period for inpatient satisfaction, quality measures based upon clinical outcomes – for major joint replacement complication rates and length of patient stay, and financial improvement in contribution margin. The framework will be applied using a case study research design to provide evidence of the proposed relationships. The model for this study is a collaborative effort between a community hospital located in Pennsylvania and a privately-held orthopedic specialty physician practice

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for a musculoskeletal service-line. Although healthcare organizations have many like characteristics with other service providers (Sundaram & Webster, 2000; Mittal & Lasser, 1996; Abernethy & Butler, 1993), they also have unique influences which greatly impact patient/service care provider relationships (Crie & Chebat, 2013; Berry & Bendapudi, 2007). The idiosyncrasies of a healthcare organization make it a unique domain within the service sector literature. The proposed framework will be a helpful guide for exploring a healthcare organization's marketing strategies and provide insight to develop better marketing communication messages.

## 1. Literature review

Unique positioning strategies have commonly been encouraged as a means for championing specific marketing agendas (Baek, Kim, Yu, 2010; Bhat & Reddy, 1998). Positioning analysis reveals what attributes are most relevant and desired by a target audience and serve as a guide for future marketing activities (Blankson & Kalafatis, 2007; Tractinsky & Lowengart, 2003; Gwin & Gwin, 2003). An organization's position is conveyed by exploring individuals' perceptions of that organization in comparison to other organizations with respect to specific attributes. These attributes then serve as cues for its image. It has been recognized that services when compared to products face more difficult challenges when it comes to effective positioning strategies (Kemp, Jillapalli & Becerra, 2014; Blankson & Kalafatis, 1999; Javalgi, Whipple, McManamon & Edick, 1992). A service's image may be more prominent due to the intangible nature of service offerings. Hospitals need to create and maintain a positive image and to do so patients' understanding of the links between image, quality, and satisfaction is imperative (Woodside, Frey and Daly, 1989).

Desired attributes for healthcare organizations may include quality of care, physician and staff competence, quality of facilities, services offered, and procedure costs. Elbeck (1988) determined that hospital image impacted resource funding, employee quality and morale, patient satisfaction, institutional prestige, and hospital accreditation. Likewise, Wu (2011) found evidence that brand image had both direct and indirect influences on patient loyalty. Brand image was reported to impact patient loyalty directly or it may demonstrate an indirect route via brand image, then service quality, patient satisfaction, and finally patient loyalty. Thus, a healthcare organization's ability to achieve its objectives may be dependent upon their success at directionally influencing a patient's perceptions regarding desired attributes which are ultimately driven by its message strategy.

Results of additional studies support the relationships between the concepts discussed above. Javalgi, Rao, and Thomas (1991) proposed a hierarchy approach which identified how consumers evaluated options and made healthcare decisions. Findings indicated that the most important criteria when choosing a provider included hospital type, located near home, convenience, doctor specialists, reputation, modern equipment, and courteous employees. Contributing to the positioning research area, Fischer (2014) conducted an extensive content analysis of hospital marketing communications and positioning literature. Hospital-driven messages aimed at patients were reported including organization, service, and public health related topics. The author also proposed hospital positioning strategies that were described as value performer, service provider, quality leader, and trusted public adviser.

Marketing efforts focused on particular service-lines may communicate that a healthcare organization has the distinct skills and superior service to deliver the requisite satisfaction. Activities such as advertisements, public relations, patient care, and employee performance may then reinforce a positive healthcare organization image (Sener, 2014). Hospitals which tap a limited patient pool due to various competitive constraints are realizing that they need to identify unique areas of opportunity and match these niches with their valued skill set (Lee, Chen, Chen & Chen, 2010; Malhotra, 1988). A service-line is such a niche centered strategy which may result in numerous worthwhile benefits, particularly for smaller regional hospitals, including enhanced value and quality of care, increased patient volume and market share, and system efficiencies. Also, if a hospital image is positively impacted it may become easier to promote teamwork and the programs offered, improve the development and alignment of service offerings, and place a more acute focus on cost containment and reduced service variability (Kim, Kim, Kim, Kim & Kange, 2008; Gwin & Gwin, 2003; Brady & Cronin, 2001).

Consumer perceptions of service quality have been measured using the popular SERVQUAL instrument (Parasuraman, Zeithaml & Berry, 1994; Parasuraman, Berry & Zeithaml, 1991; Parasuraman, Zeithaml & Berry, 1988). Five common attributes or dimensions of a service quality comprise the SERVQUAL model including reliability, responsiveness, empathy, assurance, and tangibles. Service quality is proposed to be determined by comparing customers' expectations for a service provider with the actual services provided. Subsequent research has adapted the SERVQUAL model to better accommodate a specific service sector (Pantouvakis, 2010; Clow, Kurtz, Ozment & Ong, 1997). Many

studies have applied the SERVQUAL model to healthcare settings (Butt & De Run, 2010; Choi, Cho, Lee, Lee & Kim, 2004; Lee, Delene, Bunda & Kim, 2000). Babakus & Mangold (1992) were among the first researchers to specifically adapt the SERVQUAL model for hospital services and empirically validated the scale within a multihospital corporation gathering data from both administrators and patients. Koerner (2000) proposed a service specific model for healthcare providers. The author identified five attributes that formed consumer perceptions of health service quality including compassion, uncertainty, reliability, close relationships, and individualized care. Authors have also addressed the distinction between technical (mechanistic) quality and perceived human (functional) quality of healthcare services provided (Padgett & Allen, 1997; Babakus & Mangold, 1992; Gronoos, 1984).

Post-purchase evaluation measures whether or not the service delivered, met, or exceeded expectations after the service was performed. Support of this anticipated versus realized expectations is evident in past customer satisfaction research (Naik, Gantasala & Prabhakar, 2010; Choi, Cho, Lee, Lee & Kim, 2004). The commonly held perspective is that consumers will be pleased or satisfied with a service encounter if it meets or surpasses their expectations. In healthcare marketing, this encounter may include before, during, or after consumption of a medical service. Woodside, Frey and Daly (1989) provided evidence that customer satisfaction influenced a patient's desire to engage in a service encounter. Similarly, a patient satisfaction study conducted by Sener (2014) revealed the highest patients' perception ratings for service quality were related to tangible characteristics and reliability. It was determined that perceived service quality and corporate image impacted patient satisfaction. In agreement, Taylor and Cronin (1994) encouraged healthcare marketers to develop skill sets to impact both immediate patient satisfaction judgments and future more enduring service quality. Further, Boshoff and Gray (2004) provided evidence of positive relationships between two service quality dimensions, empathy of nursing staff and assurance with loyalty and overall cumulative satisfaction. Satisfaction with nursing staff proficiencies and fees charged for services provided were positive influences on loyalty and cumulative satisfaction as well.

Much research has investigated the relationship between service quality, customer satisfaction, and subsequent behavioral intentions (Udo, Bagchi & Kris, 2010; Jones & Taylor, 2007; Swanson & Davis, 2003). Future behaviors are reflected in discernible behavior intentions. It is the desire to repeat and or continue an association. The assumption being that if behavioral intentions are supportive of consumption, then it is likely the behavior will occur.

An examination of service encounters across service industries empirically revealed that quality, value, and satisfaction may all inclusively influence behavior intentions (Cronin, Brady & Hult, 2000). When focusing particularly on the healthcare sector these potential relationships were further supported by subsequent research (Zarei, Daneshkohan, Pouragha, Marzban, Arab, 2015; Choi, Cho, Lee, Lee & Kim, 2004; Boshoff & Gray, 2004). A patient's re-visit intentions are considered to be a positive outcome and an indicator of loyalty in healthcare marketing (Dagger, Sweeney & Johnson, 2007; Zeithaml, Berry & Parasuraman, 1996; Taylor & Baker, 1994).

## 2. Research methodology

The proposed framework for this research will be applied using a case study approach. Prior healthcare marketing research has been conducted employing case study methodologies (Evans, Uhrig, Davis & McCormack, 2009; Maas & Martin, 2009; Liu & Chen, 2006; Wagner, Fleming, Mangold & LaForge, 1994; Reddy & Campbell, 1993; Elbeck, 1988). Due to peculiar distinctions and unique approaches for offering healthcare services, examining a healthcare organization on an individual basis lends itself to a case driven research design. Further, due to the difficulties in generalizability of the industry and its complexities, it makes a more compelling argument for a case study format. For example, Elbeck (1988) explored the attributes individuals identify as criteria for evaluating a hospital's image. Using a case study design the author generated attributes for a contrived ideal psychiatric hospital and then surveyed another group of participants asking them to rate the actual hospital under examination based upon these same attributes. The prior generated ideal attribute list ratings were taken for the psychiatric hospital to examine how well they were graded on these ideal desired attribute, areas where improvements were needed, and more importantly where they needed to educate the public about areas of expertise they offer which had gone unnoticed in prior service encounters. Since there is a concerted effort on the part of hospitals to dedicate themselves to a particular service line, this manner of case analysis offers healthcare organizations a methodology adapted to their specific needs and target audiences. As such, this a-priori information may be helpful in revealing what criteria were lacking and where marketing attention is needed.

The examined outcomes chosen for this study include patient satisfaction, clinical outcomes, and financial impact. It has been demonstrated that effective positioning strategies and customer satisfaction have a desired impact on service firm performance (Blankson & Crawford, 2012; Williams & Naumann, 2011; Hooley, Broderick & Moller,

1998). Healthcare provider performance and outcome measures are anticipated to garner more focused concentration and become an integrated activity within this service sector (Kennedy, Caselli & Berry, 2011; Koch, Breland, Nash & Cropsey, 2011; Draper, Cohen & Buchan, 2001; Wagner, Fleming, Mangold & LaForge, 1994). As stated earlier, patient satisfaction may be determined by whether or not a service experience met or exceeded expectations. Patient satisfaction will be evaluated herein using patient ratings with regards to satisfaction with their in-hospital experience and surgical outcomes. Prior research indicates quality may be determined by results of the service provided. Clinical outcomes are discernible by the actual reported results of the performed service procedures. In order to measure clinical outcomes evidence is gathered from two areas, surgical complications and length of stay for patients. The less time a patient incurs in a hospital and the fewer complications developed as a result of the procedure the better the clinical outcomes. Last, revenue has been a common indicator of financial viability in hospital settings (Berenson, Bodenheimer & Pham, 2006; Reddy & Campbell, 1993). Financial impact or profitability will be measured by the service-line's contribution margin (net revenue minus variable cost). In summary, these three measurements as they pertain to the proposed research framework including patient satisfaction, clinical outcomes, and financial impact are discussed below.

### 3. Application of research framework

Application of the research framework will be discussed in three stages. The first stage will discuss how the service-line evolved. The second stage identifies the approach the service-line implemented to accomplish its positioning strategy. Last, the third stage provides the outcomes as it relates to the framework presented. This study seeks to extend prior healthcare marketing literature by identifying important variables vis-à-vis positioning and brand image which influence an organization's service quality, patient satisfaction, and eventual outcomes. The model for this study is the collaboration between a community hospital located in Pennsylvania and a privately-held orthopedic physician practice for a musculoskeletal service-line.

**3.1. Stage one – service-line evolution.** Indiana Regional Medical Center (IRMC) is a 164 bed, non-profit, acute care hospital providing inpatients and outpatients with a comprehensive range of general and specialized care. IRMC is in Indiana, PA, which is approximately 60 miles northeast of Pittsburgh, PA. The facility is centrally located within Indiana County, Pennsylvania. The population of Indiana County is approximately 100,000 people. The Center for Medicare and Medicaid Services (U.S. Department of Health & Human Services) designates IRMC as a sole

community hospital and as such is the principal provider in its primary service area. In 2008, IRMC began to partner with the sole orthopedic physician practice in the community to develop a free-standing musculoskeletal medical facility for outpatient specialty care. Under a joint venture agreement between the hospital and the physician practice, a new 40,000 square foot facility was constructed to house the orthopedic physician practice along with other hospital-based providers and services. The new facility opened in late 2012 with offerings in Orthopedics, Sports Medicine, Podiatry, Physiatry/Rehabilitation, Spine/Pain Management, Neurosurgery, Rheumatology, Physical, Occupational, and Speech Therapy, and Diagnostic Imaging.

Concurrently, hospital administrators determined that musculoskeletal services represented an already significant revenue stream with even more potential for future growth and thus presenting all parties with an even greater opportunity in terms of revenue, sustained patient loyalty, and increased market share. In 2010, IRMC commissioned a market analysis with a consulting firm seasoned in service-line development to review demographics, patient volume, and existing marketing and branding campaigns in order to determine the success factors needed for a musculoskeletal service-line. The report reinforced the opportunity for growth of existing services, and pointed out the outmigration of cases to the competitive Pittsburgh market as rationale to implement a comprehensive service-line development plan. Based upon the unmet needs of the area and the medical skill set available it was determined that the musculoskeletal service-line be pursued. Pursuit of this strategy also meant deeper engagement and the need for a combined marketing and branding campaign to highlight services of the joint venture that would be available with the new facility. This marketing strategy would be crucial to the service-line's success, particularly because no "new" services were being launched initially. Rather the two organizations would need to establish a program name and brand, and follow with a very clear messaging campaign to referring physicians and the community.

Also supporting the rationale for a comprehensive service-line plan was feedback from an orthopedic care survey independently conducted by IRMC of primary care physicians (PCPs) and the hospital's patients from the local market. In 2010, primary data was gathered surrounding PCPs' perceptions as to why patients chose orthopedic care outside the area (outmigration) and previous patients' satisfaction regarding past care they had received from physician practices and IRMC. The survey methodology included 11 PCP interviews (in person) 15-30 minutes in length and 200 patients contacted with a resultant

100 completed interviews. In order to achieve this 50% patient response rate a pre-survey letter was mailed to each patient, then telephone interviews followed with 30 scaled questions and eight open ended questions, resulting in interviews lasting 10-20 minutes in length per patient. In summary, the timing of the joint venture to build a facility and pursue a service-line growth strategy beneficial to both entities for the long term would give the partners a fresh approach to aligning existing services which may be differentiated effectively through positioning and marketing.

### 3.2. Stage two – service-line positioning strategy.

In order to structure the service-line, IRMC chose to utilize the service-line consulting group that conducted the preliminary study discussed earlier because of their familiarity with the objectives of the joint venture and their ability to direct and support execution of the service-line. In 2010, the consultants added to the original study and completed a market assessment, conducted surveys of hospital staff including leadership and physicians, and subsequently formulated a service-line development plan that outlined an infrastructure and provided programmatic tools to structure the program. Consultants also sponsored workshops with internal teams to develop program positioning and messages for the community and referral sources which resulted in the development of a comprehensive marketing plan for the service-line.

A key strategic element was to adopt a brand name that would establish recognition in the market. This institute sought was accomplished through a service mark and program licensing agreement that IRMC entered into with the consulting firm, who possessed a “turn-key” program branding package that included a formal name and template marketing materials. The new service-line and facility were combined resulting in a unified brand name – Human Motion Institute<sup>SM</sup>. At the completion of the licensing contract, IRMC will own the rights to the name.

The service-line began to be organized in January, 2012. A service-line director was hired in May, 2012. Because the institutes ought to position them as having an array of premier musculoskeletal services in the region it was necessary to support these perceptions with improved care pathways and convenient service deliveries in order to reposition existing services in the consumer’s mind. The marketing strategy objectives were outlined as follows: establish program brand name and messages, create internal awareness, establish brand relationships between the hospital and the surgeons, develop patient education materials (print & web-based), identify target markets, and implement direct to consumer marketing and referral source integration. Specifically, the marketing

communication strategies for the service areas included website development, community talks with physicians, advertizing in local media outlets, printed promotional materials, billboards, transit bus advertisements, and website analytics.

### 3.3. Stage three – positioning strategy outcomes.

The new partnership provided a unique differentiation opportunity to offer superior patient care while increasing market share. What became apparent was that by a) aligning services, b) making services available in one building, i.e. a “one stop shop” and c) improving program quality, the more these underlying factors ably contributed to shaping a strong marketing message (themed around “comprehensive” services at “one/new” location that are “expert” in care). Initiatives undertaken to capitalize on service-line opportunities were addressed by multi-disciplinary teams which focused on patient care and volume, service delivery costs, care pathways, and marketing/branding campaigns. Due to the high potential for impact, most efforts were placed on achieving success with surgical procedures – namely inpatient cases. This approach served to align physicians and hospital personnel in a combined setting that fostered communication and process improvements.

While the list of examined outcomes is not exhaustive, for this work the researchers determined it was most efficient to measure differences with inpatient care that had been largely the focus of the service-line teams. The data are collected from a four year period between fiscal year 2011 (which was before the launch of the service-line) and fiscal year 2014 and provide results in three areas – patient satisfaction, clinical outcomes, and financial impact. See Table 1 below for a summary of service-line results generated from internally collected hospital data.

*3.3.1. Patient satisfaction.* Typically, the more pleasant the patient’s in-hospital experience and more positive their surgical outcomes, the higher was the satisfaction measurement. IRMC utilizes Press Ganey® Associates, Inc. to measure patient satisfaction across the hospital. Percentile ranking is a measure of how well the organization performs relative to a peer hospital group by reporting what portion of the peer group is the organization scoring higher or lower. For orthopedic inpatient cases, the percentile ranking improved by 4% over the period measured, reaching the 90<sup>th</sup> percentile. The inpatient survey asked patients to rate their level of satisfaction across 11 categories shown in Table 2. This improvement reflects the advancements made with patient care pertaining to both their in-hospital experience and surgical outcome.

*3.3.2. Clinical outcomes.* In the four year period reviewed, two areas – surgical complications and

length of stay for inpatients, major joint replacement cases improved. Complications may be conditions that arise after surgery that can range from infections or blood clots to life-threatening occurrences such as heart attack or stroke. Complications are minimized through good surgical technique and careful post-operative care. The rate of complications following surgery declined by 23% and is attributed to the focus on patient care pathways by the service-line teams both before and after surgery. The number of days that a patient spends in the hospital following surgery, i.e. length of stay, realized an 8% reduction during the period. A decline in patient length of stay conveys improved patient care and more rapid recovery. These factors contribute to

decreased costs for patients, hospitals, and insurance carriers. See Table 3 for complication rates.

3.3.3. *Financial impact.* The results for service-line contribution margin (*net revenue minus variable cost*) reported a 13% increase for inpatient orthopedic surgical cases which is attributed to efficiencies in staffing, cost containment, and improved clinical outcomes referenced previously. Conversely, total inpatient case net revenue declined by 24% and outpatient case net revenue decreased by 5%. The onset of the Affordable Care Act in making an unprecedented impact on patient out-of-pocket costs and insurance coverages is in part, a contributor to the reduction in surgical volumes during the period.

Table 1. Indiana regional medical center: service-line results\*

Metric	Data set	Percent change
Patient satisfaction		
Press ganey percentile ranking	Inpatient satisfaction	4% increase
Clinical outcomes		
Surgical complications	Complications after surgery	23% decrease
Length of stay	Days in hospital after surgery	8% decrease
Financial performance		
Contribution margin	Inpatient cases	13% increase
Net revenue	Inpatient cases	24% decrease
Net revenue	Outpatient cases	5% decrease

Notes: \*Data based upon internally generated hospital results for Reporting period.  
Source: fiscal year 2011 (beginning July 1, 2010) to fiscal year 2014 (ends June 30, 2014).

In July, 2014, IRMC achieved hospital-wide accreditation from the Center for Improvement Healthcare Quality (CIHQ), a CMS (Center for Medicare & Medicaid Services) approved deeming authority for acute care facilities. As a testament to the success in clinical outcomes, the service-line attained a disease-specific certification from CIHQ for hip and knee replacement surgery for meeting strict program quality and delivery measures. In addition further evidence of outcomes can be found on the *Hospital Compare* website ([www.medicare.gov/hospitalcompare](http://www.medicare.gov/hospitalcompare)). The Centers for Medicare & Medicaid Services (CMS), along with the Agency for Healthcare Research and Quality (AHRQ), developed the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey, also known as Hospital CAHPS®, to provide a standardized survey instrument and data collection methodology for measuring patients' perspectives on hospital care. This HCAHPS survey is administered to

a random sample of adult patients continuously throughout the year across medical conditions between 48 hours and six weeks after discharge; the survey is not restricted to Medicare beneficiaries. CMS cleans, adjusts, and analyzes the data, then publicly reports the results. Hospital Compare currently reports results for seven composite topics, two individual topics, and two global topics. Composite topics include nurse communication, doctor communication, responsiveness of hospital staff, pain management, communication about medicines, discharge information, and care transition. Individual topics examine cleanliness of hospital environment and quietness of hospital environment. Global topics measure an overall rating of hospital and willingness to recommend hospital. Results of HCAHPS survey of patients' experiences at IRMC compared to Pennsylvania and national data are shown below in Table 2 as referenced earlier.

Table 2. CMS hospital compare: survey of patients' experiences\*\*

Hospital compare quality site based upon "Survey of patients' experiences"	IRMC avg	Pennsylvania avg	National avg
Nurses "always" communicated well	80%	80%	79%
Doctors "always" communicated well	81%	80%	82%
"Always" received help as soon as they wanted	66%	68%	68%
Pain was "always" well controlled	70%	70%	71%
Staff "always" explained medicines before giving it to them	63%	63%	65%

Table 2 (cont.). CMS hospital compare: survey of patients' experiences \*\*

Hospital compare quality site based upon "Survey of patients' experiences"	IRMC avg	Pennsylvania avg	National avg
Room and bathroom were "always" clean	75%	74%	74%
Area around their room was "always" quiet at night	49%	55%	62%
Provided information about recovery later at home	89%	86%	86%
"Strongly agreed" understood their care when left the hospital	52%	51%	52%
Gave hospital a rating of 9 or 10 on a 10 point scale	69%	69%	71%
Yes, would definitely recommend the hospital	67%	70%	71%

Notes: \*\* Reporting period: 1/1/13-12/31/13 / IRMC data: 300 surveys; 39% response rate.

Source: <http://www.medicare.gov/hospitalcompare/search.html>.

Measures of 30-day unplanned readmission indicate when patients who have had a recent hospital stay and need to go back into a hospital again for unplanned care within 30 days of their initial discharge. Below, IRMC's performance on unplanned readmission measures were compared to the U.S. national observed rates for those measures as reported by CMS (see Table 3). The performance results take into account how sick patients were before they were admitted to the hospital. The hip/knee complication rate was an estimate of complications within a time period for patients electively admitted for primary total hip and/or knee replacement. CMS chose to measure these

complications within the specified time periods indicated because complications during a longer period may be impacted by factors outside the hospital's control. CMS measures the likelihood that at least one of eight complications occurs within a specified time period: Heart attack (acute myocardial infarction [AMI]), pneumonia, or sepsis/septicemia/shock during the index admission or within seven (7) days of admission; Surgical site bleeding, pulmonary embolism, or death during the index admission or within 30 days of admission; or Mechanical complications or periprosthetic joint infection/wound infection during the index admission or within 90 days of admission.

Table 3. Measures of complication rates and 30-day unplanned readmissions \*\*\*

Hospital compare quality site	IRMC rates	IRMC rates data period	U.S. rates	U.S rates data period
Rate of complications for hip/knee replacements	3.0%	4/1/10-3/31/13	3.3%	7/11-6/12
Rate of unplanned readmission after hip/knee surgery	5.4%	7/1/10-6/30/13	5.2%	7/11-6/12

Notes: \*\*\* Medicare hospital quality chartbook, 2013.

Note: CMS began public reporting complications and readmission measures as part of the Hospital Compare Inpatient Quality Reporting (IQR) Program in 2013.

### Discussion

Organizations that embark on service collaborations where strong brand identification already exists face the challenge of clearly defining these ventures to the consumer to portray new or different affiliations. As strategies involving niche-based healthcare services become more common, insight into organization level goals and objectives are needed for a sustainable program. Marketing efforts must support these goals in such a way to explain unique service differences (under one roof and against competitors), educate consumers, and ultimately position the services in their minds to prompt action. Based on the proposed framework service image and quality may impact patient satisfaction which may then ultimately drive behavioral intentions. Thus, this work provides justification such that patients who are highly satisfied with their healthcare organizations will continue these relationships and ultimately behave as advocates for that service provider.

Healthcare managers can optimize service-line development with proper marketing planning and execu-

tion. As exhibited in this study, a thorough analysis of internal and external factors is recommended so as to identify how services will be positioned, branded, and marketed. This is particularly important when combining services of several existing entities that already possess individual brand recognition in the market. The key is to support the new model with a clear and consistent marketing strategy that positions the services under a single brand (without compromising individual brand recognition) that conveys value.

Because service-lines are niche-based strategies, organization level goals such as market share growth, quality outcomes, and patient satisfaction translate seamlessly into desired marketing offerings – accessible care, convenience, good surgical outcomes and recovery, and expert and experienced physicians. What was previously available from a service perspective from each provider remains available but is repackaged and communicated as a combined entity in a unique way that provides far more value for the involved organization and healthcare consumer. This may occur even though service-lines take on different formats ranging from full-ownership of the

service-line components (physicians, diagnostics, surgery, and rehabilitation) to “virtual” service-lines that represent an alignment but may not change the delivery of services at the patient level. Done successfully, the marketing and promotional mix serves to introduce the service-line, educate consumers, and ultimately position the services in their minds to prompt action. A service-line may become a benchmark for success and ultimately influence the desired outcomes of healthcare organizations from both a marketing and financial perspective.

The authors note a lack of generalizability is evident due to only one hospital and one service-line being

employed to examine the proposed framework. However, the fact that the performance measures were gathered longitudinally enhances the integrity of the results. Nevertheless, such focus provides a very detailed, thorough perspective of a successful marketing effort. The proposed framework offers a unique insight into a healthcare organizations design, formation, and implementation of a marketing plan for designated service-lines. The work may assist managers in their efforts to foster a viable positioning strategy which most effectively satisfies their patients and the community they serve.

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